SCHOOL ENGAGEMENT, SELF-ESTEEM AND WELLBEING DURING TRANSFER FROM PRIMARY TO SECONDARY SCHOOL

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School engagement, self-esteem and wellbeing during transfer from primary to secondary school

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Abstract

For many years, educators, psychologists and parents have expressed concern about the apparent deterioration of pupil motivation and performance after children move to secondary school. This study used a longitudinal design to examine the transfer process from the perspective of a group of 393 children (195 boys, 198 girls) as they moved from 19 primary schools to four secondary schools in Fife. Children's self-perceptions of school commitment, school belonging, school participation, self-esteem and global wellbeing were evaluated four times over a 13 month period, twice before transfer in the final year of primary school and twice after transfer in the first year of secondary school. Information was also collected about family and home life, emotions, lifestyle and school on each occasion. The data was analysed using multilevel modelling in order to examine how each of the five outcome variables changed over the time of the study, and how they related to a series of independent variables.

It was anticipated that changes in these outcomes may have occurred immediately after the move to secondary school, perhaps followed by an improvement six months later after they had adapted to changes and settled in to their new schools. The results showed that, contrary to expectations, all outcomes except school participation recorded an improvement at wave 3, immediately after the transfer to secondary school. However, there was some evidence that after an initial 'honeymoon period', children perceived certain aspects of school in a less positive light and by wave 4 there was a decline in all outcomes except for the perception of self-esteem, which continued to improve. Since wave 4 was only a few months after transition, a significant change in children's views is seen quite quickly after transfer. It is not clear whether this represents a return to a more realistic level or if this signals the beginning of a more prolonged negative attitude towards school and education in general. The general conclusion is that the process of transfer to secondary schools is well managed, but it might be helpful for induction programmes to prepare children for the changes in teaching and learning methods that might be encountered, and perhaps other types of programme might be beneficial during the first year.

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CHAPTER ONE

TRANSFER FROM PRIMARY TO SECONDARY SCHOOL

> 'a critical turning point in teenagers' social and academic lives'
> (Schiller, 1999, p.216)

Introduction

Every summer, thousands of children in Scotland leave their primary schools to embark on the next stage of their education at secondary school. Most of these children approach transfer with excitement and look forward to new challenges and experiences. However, some are more nervous about the move and may find it daunting both academically and personally, experiencing feelings of inadequacy, insecurity and alienation.

The transfer to secondary school is marked by several changes in educational expectations and practices (Galton and Morrison, 2000; Makri-Botsari, 1999). In most primary schools, children are taught in self-contained classrooms, by one or two teachers, for an entire year. They also move through the school with the same set of peers from the age of five onwards. Once children reach secondary school they must interact with more peers and more teachers, while moving throughout the day to different classrooms and, often, to different buildings. Primary education is characterised by group-centred activities, while secondary school requires individual learning skills, with more testing and examinations, and there are greater demands in terms of performance and individual responsibility. There may be less teacher support and decreased contact between students and teachers and students and peers and the new school structure may make it more difficult to develop strong relationships with teachers. Thus, the transfer from primary to secondary school requires adjustment to new settings, structures and expectations. In addition to organisational differences, children also experience a change in their position in school. In their final year at primary school, children are the oldest, most responsible, most well-known and most demonstrably able pupils in their school. When they transfer to secondary school they become the youngest, and the least known members of the school community. Children also experience a host of changes associated with the transition from childhood to adolescence at this time (Conger and Petersen, 1984;

Paikoff and Brooks-Gunn, 1991; Rice, 1975). They begin to mature physically and to think of themselves as individuals outside their families and the local home community. Not all children will react unfavourably to these changes, but for some there may be negative effects relating to behaviour, confidence, academic performance and attitude towards school.

Recognising that the discontinuity between primary and secondary school may present problems of varying kinds as children move away from their familiar primary schools, most secondary schools now have transfer programmes to ease the initial stress that may accompany this move. The nature of these varies but they usually involve an opportunity to visit the new school for a day to be shown around the buildings and perhaps to meet some of the teachers. Some schools organise a day or so when activities can be shared with children from other primary schools who are transferring to the secondary school at the same time. However, other than this, there may be little advice or additional preparation to allay the apprehension and trepidation experienced by some children as they make this move.

The transfer away from primary school into the larger and perhaps more challenging environment of secondary school may have a number of consequences including implications for subsequent behaviour (Galton and Willcocks, 1983), motivation (Galton and Willcocks, 1983; Harter, Whitesell and Kowalski, 1992), attendance (Barone, Aguirre-Deandreis and Trickett, 1991) and performance (Alspaugh, 1998a; Blyth, Simmons and Carlton-Ford, 1983; Eccles, Lord and Midgley, 1991). School transfer may also be one of the factors that encourages some children to disengage from school.

Various suggestions have been put forward to explain the gradual disenchantment with education as children progress through the high school years (Demetriou, Goalen and Ruddock, 2000; Eccles et al., 1993b; Feldlaufer, Midgley and Eccles, 1988; Summerfield, 1986). These include those stemming from the family, such as less parental involvement with education after children have left primary school (Jenkins, 1997), school factors, such as larger schools with greater anonymity, poorer discipline, and lower levels of participation and attendance (Duke and Trautvetter, 2001; Haller, 1992; Lindsay, 1982), and personal factors, including feelings of

inadequacy, or not fitting in (Voekl, 1997). However, since the most severe manifestations of school disenchantment occur in secondary school, it possible that the actual event of transfer from primary to secondary school, together with factors associated with it, act as a trigger for disengagement, with some of the indicators becoming identifiable at this time. In other words, is the very process of transition itself a significant factor influencing children's success in secondary school?

Although it is common to think of the transition from primary to secondary education as a single event which occurs at a particular time in the child's life, it is in fact a process that each student experiences differently and one that engenders a collection of expectations and fears about the changes that will be encountered. It begins when the issue of moving school is raised in primary school, some time before the actual move takes place, and its implications may last well beyond the day or week in which it occurs once the child has moved to secondary school. Enmeshed with academic expectations is the anticipation of a new social regime with its resulting problems and opportunities. In fact, social issues tend to dominate the worries of young adolescents as they move from primary to secondary school, especially bullying (Brown and Armstrong, 1986; Franklin, 2000), getting lost (Graham and Hill, 2003) and losing friends (Brown and Armstrong, 1982; 1986), although there are also concerns that the work will be difficult with too much homework (Akos and Galassi, 2004; Bryan, 1980). Many children worry that they will be pressured to drink and smoke, but most look forward to having more freedom, independence, new subjects, and making new friends.

Measuring the Effects of School Transition

There have been relatively few studies on school transfer and measuring the effects of transfer is difficult. This is because it is a multi-faceted event associated with a whole host of changes such as in the general routine, learning styles and friendships. Thus there is no one factor which can summarise the experience of transition. For example, some children may find the work difficult to cope with but excel in new sporting activities, while others may be academically talented but struggle to make friends. There is no single test to measure the smoothness or success of school transfer and, bearing in mind the many issues and ramifications of the process, it is unlikely that one could be developed. Most early studies examined the change in academic

progress (Neal, 1975; Nisbet and Entwistle, 1969; Sumner and Bradley, 1977), but there is increasing acceptance that other areas of children's lives are also important and the improvement of many non-academic aspects of life is also a valuable educational aim. However, nearly all subsequent research has focused on assessing only one aspect of children's lives during the time of transition. Some classic studies include Nottelman (1987), who examined self-esteem, Anderman and Midgley (1997), who looked at motivation and Alspaugh (1998a), who investigated achievement change during transfer. While these types of studies are valuable, it is more realistic to take a number of elements into account since the transfer to secondary school is probably one of the key events for early adolescents and likely to impact on several aspects of children's lives.

Over the past few years there has been increasing support for using the concept of school *engagement* to describe children's participation in school, and their likelihood of staying in school and achieving academic success. Of course, 'engagement' itself is a multi-dimensional concept. Generally, engagement has been found to comprise both academic and social components that include student behaviours directly related to learning, as well as student interactions with teachers or with fellow students (Anderson et al., 2004; Gest, Welsh and Domitrovich, 2005). Most researchers agree that engagement comprises at least the three core components of school participation, feelings of school belonging and the belief that education is valuable for its own sake (e.g. Fredricks, Blumenfeld and Paris, 2004, Willms, 2003). This concept, and more specifically the three elements of participation, belonging and commitment, were therefore adopted for use in this study as this approach is helpful in providing a broad framework around which a more detailed understanding can be developed to help explain how schools influence pupils' attitudes towards education and how this ultimately affects their educational achievement.

Engagement has been linked with academic success (Finn, 1993; Fredricks, Blumenfeld and Paris, 2004; Skinner, Wellborn and Connell, 1990), reduced absenteeism (Hudley, 1995) and improved health and wellbeing (Putnam, 2000) while conversely, lack of engagement has been related to various outcomes such as absence, truancy and ultimately school dropout (Finn, 1989; Pellerin, 2000; Rumberger, 1995). Although the lack of engagement, with its possible attendant negative consequences,

may affect only a minority of students, it is an important issue and has been recognised for a number of years. The problem is not confined to Scotland, but also occurs in many developed countries. According to a report by the Organization for Economic Cooperation and Development, which draws on data from 42 mostly developed nations, student absenteeism and disaffection with school pose widespread challenges for teachers and policy makers (Willms, 2003). In addition, a significant proportion of children leave school early with very few, or even no, school qualifications. Teenagers who do not complete secondary school are more at risk of unemployment, underemployment, and ultimate dependency on social services (Christenson et al., 1995).

While the use of engagement as a measure includes a wide range of attitudes towards school, there are a number of other angles from which school transfer can be approached. As well as exploring children's response to school, it is also important to discover, if possible, how children actually feel during this time. Of all the personal characteristics that could be monitored, *self-esteem* may be particularly important as it is believed that good self-esteem helps adolescents to function effectively in a variety of situations (Sirin and Rogers-Sirin, 2004) and it may enhance the capacity to adapt well to changing circumstances (Kahle, Kulka and Klingel, 1980). However, the self-esteem of some children may be vulnerable at this time of early adolescence (Simmons et al., 1979). The concept is widely accepted in schools as being particularly important in developing and maintaining self-confidence (Jacobsen, Edelstein and Hofmann, 1994) and may be helpful in encouraging the resilience to cope in difficult circumstances (Zimmerman et al., 1997). As well as being vulnerable to change at the time of transfer, children's self-esteem is likely to influence all aspects of their lives, including their academic, social and emotional response to school. Children's self-esteem has been shown to be strongly related to educational attainment (Wilson and Portes, 1975) better coping skills (Alvarez-Icaza, Gomez-Maqueo and Patino, 2004) and confidence (Coopersmith, 1967).

Wellbeing, although used less frequently than self-esteem in relation to children, is another broad outcome which can be used to assess students' relative situations. Wellbeing is not the same as happiness, but can be described as the extent to which a student feels good about life as a whole (de Fraine et al., 2005). Since children spend

a great part of their day at school, how they feel about school and the school environment is an important element of their overall wellbeing. There seems to be increasing evidence that wellbeing and educational attainment are linked, and the concept is being used more widely to improve our understanding of schoolchildren's lives (de Fraine et al., 2005; Konu, Lintonen and Rimpelä, 2002; Opdenakker and Van Damme, 2000).

This study therefore adopts five main concepts to examine the progress of children through the process of school transfer from primary to secondary school: participation, belonging, commitment (these three comprising the broad concept of engagement), self-esteem and wellbeing. It is quite clear that they do not cover all areas of children's lives at this time, nor all factors impinging on them, but when combined they provide a reasonably broad picture of the impressions and feelings experienced by students. In particular, this study was designed to explore how these outcomes varied during the transition from primary to secondary school, controlling for other factors expected to be influential.

Longitudinal Study Design

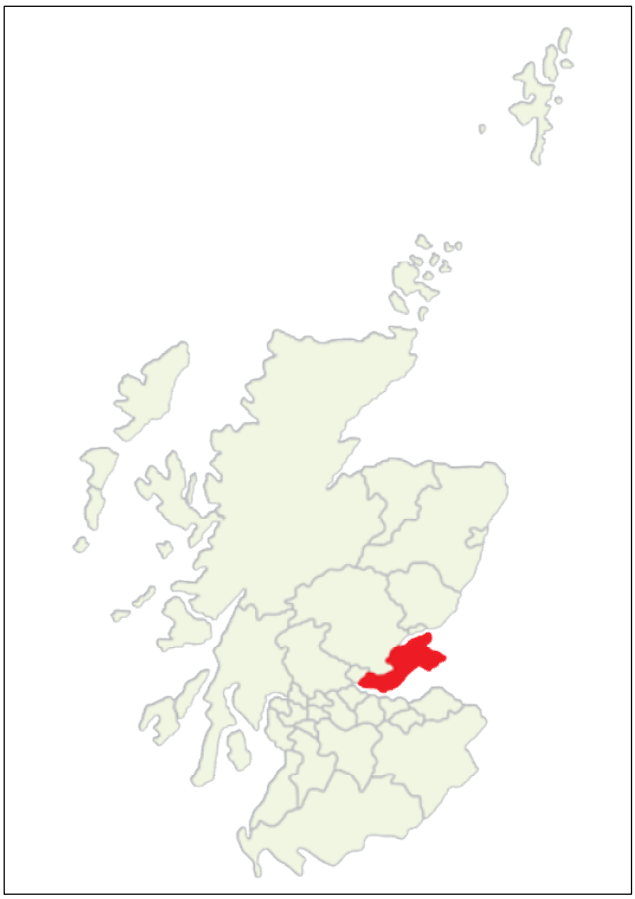
It is difficult to give an accurate definition of transition, and perhaps it is not necessary to do so. It is clear, however, that school transition is a process, rather than a single event in time. It begins in primary school as children are introduced to the imminent change of school environment and they prepare themselves for the transition. The issue of how long that process continues remains open to question. Most secondary schools seem to make extra allowances for new pupils during the initial few days and weeks of the first term but it is not clear how long and in what ways this stage continues – it is likely to vary across institutions. Many parents of pupils in the first year of secondary school note that once the initial excitement has worn off, it can take a year or longer for children to settle down properly in their new schools. A longitudinal approach was therefore adopted for this study. Longitudinal studies obtain information from the same group of respondents on two or more occasions and they are particularly appropriate when studying how individuals change over time. They contrast with cross-sectional studies which provide data from a single point in time. In this case data were collected from 393 children at four time points, two before transfer and two after. The first questionnaires were completed in

the spring term, about three months before pupils took part in any induction programme and the second was in the last month of primary school after pupils had attended induction courses. The third questionnaire session took place within a month of the move to secondary school and the final questionnaire was completed in the second term of secondary school, six months after transfer.

The study design involved the administration of a self-report questionnaire, requesting information on many areas of children's lives. It captured information both on the five outcomes described above, but also on a range of individual characteristics, family circumstances and school conditions. Thus, the outcome variables could be related to a range of independent variables and also considered over time, particularly in relation to the transition from primary to secondary school which occurred mid-way during the data collection.

The children were first identified in 19 primary schools scattered across Fife in eastern Scotland (Figure 1.1). These schools fed into four secondary schools. Both the 19 primary and the four secondary schools were selected to provide a range of school size and relative affluence, as described by the percentage of children eligible for free school meals. In the case of the primary schools, their location in terms of distance from their allocated secondary school was also taken into account in the sampling strategy.

Figure 1.1 Location of Fife, Scotland



Objectives

This study focuses on the transition from primary to secondary school and the influence it has on 5 measures which broadly describe child engagement, self-esteem and wellbeing. The specific objectives of the study are:

i) to summarise how school commitment, school belonging, school participation, self-esteem and wellbeing vary across children in the sample;

ii) to examine how school commitment, school belonging, school participation, self-esteem and wellbeing change over the time of transfer;

iii) to explore the main individual, family and school factors that influence school commitment, school belonging, school participation, self-esteem and wellbeing using multi-level, longitudinal models.

Structure of thesis

The process of school transfer has been studied for the last 50 years but the nature of education and the problems of children and their families have changed over that time. This study therefore continues with a review of the literature on school transfer, outlining the changes in the educational concerns and research that have taken place (Chapter 2). The background, characteristics and rationale for using the five outcome variables described above are then discussed in Chapter 3. A number of independent variables have been used to provide some explanation of the change observed in the five outcome variables and these are described in Chapter 4, where their possible effects are discussed together with some of the knowledge derived from previous research. Chapter 5 outlines the methodology, including the overall process of obtaining the data, the measures used, and the methods of analysis adopted. The results of the analyses are then presented and discussed for each of the dependent variables in Chapter 6. The final chapter revisits the objectives outlined above and assesses how far these aims have been met. Some suggestions are made about ways in which some aspects of the first year of secondary school might be changed to improve pupils' experience and, consequently, their attitudes toward education. The limitations and advantages of the method are also discussed and some possibilities for future research are provided.

Conclusion

The issue of transition, with its associated questions and problems, is not a new one (Cox, 1978; Dutch and McCall, 1974). However, it is an issue that is increasingly coming under scrutiny. At one time the main question asked about school transfer was how far the move to new schools interrupted the academic progress of the children involved. Since then, both education and society have moved on and schools are increasingly asked, not only to teach information and skills, but also to provide support and guidance to pupils in other areas of their lives. As children lead more complex and demanding lives, it is valid to examine how they fare as they move into and through secondary school, and to see what factors appear to be associated with a

successful move. This is a unique study which followed the lives of 393 children as they changed schools at the age of 12. It explores a number of different outcomes and assesses whether the transition itself has an influence on them, controlling for a range of other factors such as the home environment, the nature of the school, and other individual characteristics. Consequently, it provides an insight into some of the factors that could be altered to help improve the lives of children.

CHAPTER TWO
LITERATURE REVIEW

Introduction

The issue addressed in this research, and outlined in Chapter 1, is how far the move from primary to secondary school is responsible for any of the reported problems experienced by some secondary schoolchildren such as falling achievement, poor motivation, declining school attendance and increasing disenchantment and disengagement from school. These difficulties by no means affect all children, but sufficient numbers are involved to make it a matter of concern for parents, teachers, school administrators and policy makers.

School transfer is a relatively new phenomenon. Until the twentieth century schools were not divided by age, as children left school at the age of twelve. However, the Education Act of 1944 (England) recommended separate primary and secondary education with transfer occurring at around eleven years of age. Later, the Primary Memorandum (Scottish Education Department, 1965) in Scotland discussed whether age or stage of learning should be the basis for moving to secondary school, but there was no mention of any need to prepare for transfer.

The transfer of children from primary to secondary school received little attention from educational researchers before the 1960s, perhaps because it was not seen as a problem for either schools or students. The process of transfer was largely taken for granted and accepted as part of the normal course of children's lives. Even the early research focused largely on the practical issues surrounding transfer and there was little recognition of any difference, other than academic, between children and certainly no suggestion that school characteristics, apart from that of size, might have any part to play in influencing the progress of children at school. This state of affairs may have been partly the consequence of the practice of allocating children to secondary schools on the basis of a selective examination. However, with the introduction of comprehensive education, all children were thrown into the same melting pot and this may have been one of the factors highlighting pupil differences, such as school attitude, behaviour and achievement.

By the mid 1980s, some researchers began to move beyond thinking about practical issues and merely listening to children's views and experiences about transfer. From this time, much more thought was given to the implications of children's feelings, particularly of competence, motivation and self-esteem. The notions of pupil engagement and wellbeing, although not widely considered, were also introduced to describe student satisfaction with school. There was a gradual realisation that any problems might be partly attributable to the school environment itself and not solely the consequence of relatively unalterable factors such as socioeconomic background, parental support and academic ability. Thus, the importance of social relationships within school, especially with teachers and peers, was considered and the trend in research gradually moved from listening to children's views to analysis of their implications and consequences. The importance of school context emerged, together with the first suggestions that schools needed to take some responsibility for addressing the social and emotional problems of their students. Of course, although this is the general pattern in the way research developed and changed, the old issues of ability, curriculum continuity and general views about transfer, continued to thread their way through the literature right up to the present time.

When children transfer from primary to secondary school, they leave behind an environment that has been familiar for the previous seven years. The move usually involves longer journeys, to a different place with more demanding daily routines, strange people and new friends. It marks the end of childhood and the beginning of adolescence and development towards independence. While recognised for many decades as a significant event in the lives of children, the need for research has emerged more gradually and, over time, the emphases of studies have changed and developed.

Apart from early studies, there is relatively little research on school transfer in the United Kingdom. Much of the literature derives from America, Australia and New Zealand where, although children still transfer from primary to secondary school, there are various systems operating. In the literature schools may be described variously as elementary and high schools (Canada), primary and secondary schools (Australia and New Zealand), primary, middle and high schools (England), middle, junior high, and high schools (United States) and primary and secondary schools

(Scotland). Depending on the system, the age of transfer to secondary school also varies but is usually at the age of eleven or twelve. Thus, direct comparison of research with the British system may not always be possible, although, regardless of school types, only studies referring to transfer at the time of early adolescence are discussed here.

The two terms used in the literature to describe the process of moving from primary to secondary school are 'transfer' and 'transition'. Strictly, the term transfer refers only to the movement of children between schools, while transition describes the movement between different years of schooling. However, both terms are used interchangeably in the literature.

Early Studies

Forty or so years ago, much less consideration than now was given to the views of children in general, and very little to any concerns they might have about the educational process. In fact, the move from primary to secondary school was widely regarded as a rite of passage (Measor and Woods, 1984) rather than as a process that might engender any cause for concern. Most of the early studies on school transfer examined practical issues such as curriculum continuity (Croll, 1983; Galton and Willcocks, 1983; Ginnever, 1986; Neal, 1975; Stillman, 1986), organisational features (Dutch and McCall, 1974), the optimum age for transfer (Nisbet and Entwistle, 1969; Plowden, 1967) and ability (Nisbet and Entwistle, 1969; Spelman, 1979; Sumner and Bradley, 1977).

Most of these studies recognised that a change of school could be stressful and interrupt progress but, despite aiming for curriculum continuity and transfer of records, there was often poor liaison between primary and secondary schools (Neal, 1975) and teachers frequently did not look at transfer records (Ginnever, 1986; Gorwood, 1986). Despite these lapses, children were tested on their academic progress, which was thought to provide a guide to effectiveness of general school continuity, but there is little evidence that their feelings and perceptions were investigated, or that they were even considered to be part of the equation.

Three of these early studies were large-scale longitudinal studies (Neal, 1975; Nisbet and Entwistle, 1969; Spelman, 1979) examining ability and performance during the time of transfer. Each of these three studies followed thousands of children from their primary schools to their secondary schools, mainly collecting data to measure academic achievement before and after transfer. Neal's (1975) study included case studies of children showing positive or negative adjustment to secondary school; poorly adjusted pupils reported feelings of rejection while even those who adjusted well were described as apprehensive. No further detail was given of this part of the study but the value of good teacher/pupil interactions was noted. However, the difference in teacher interactions between primary and secondary school was not investigated.

Of particular interest is the study by Nisbet and Entwistle (1969), as it is one of the few large studies carried out in Scotland. Over 3000 children in Aberdeen were studied for five years as they progressed from Primary 5 (P5) to Secondary 2 (S2). The study started at a time when selection was important but by the end of the study selection had been abandoned. Although the main thrust of the study was to investigate how far age, ability and performance determined the success of transfer, Nisbet and Entwistle (1969) also made some attempt to assess the ease of social adjustment by taking a survey of teachers' and children's views, and examining various other factors such as socioeconomic background, parental involvement and social maturity. The results led them to suggest that children from poorer homes, with parents providing limited support and understanding, would have greater difficulty than others in adjusting during transition, and they provided some early evidence that social and motivational factors become more important when children move to secondary school (Nisbet and Entwistle, 1969). A follow-up study concentrating on academic performance after S2, found that the best prediction of final secondary school performance was given by attainment in the first two years of secondary school (Nisbet, Welsh and Entwistle, 1972), but this study did not explore any other factors which might impinge on, or affect, academic achievement, such as parental involvement with school, self-esteem or teacher influences. Academic progress seemed to be the main measure of the success of transfer at this time and there is little evidence that schools themselves, apart from the transfer of records and curriculum details, believed they bore any responsibility either for the smoothness of transfer or

their possible effect on students' ability – the main measure of transfer. It was as if ability was accepted as an unalterable given.

However, Nisbet and Entwistle (1969) did emphasize that children differ in many ways, such as intellectually, physically socially and emotionally, and that this made it impossible to specify any one age as the ideal time for school transfer. This was also the view taken by the Plowden Report (Plowden, 1967) as

> "wherever the age of transfer is fixed, there will be some children who would have been better left in the primary school, and some for whom the reverse would be true. There is, therefore, need to treat the years immediately before and after transfer as a transitional period" (Plowden, 1967, p.144).

For this reason some countries have introduced middle schools, as in England, and junior high schools in the United States with the intention of softening the impact of transfer by enabling it to occur at a later stage when pupils are more mature. This is not a system that has been introduced in Scotland, although in an experiment to discover if a transition year could ease the abruptness of transfer, Dutch and McCall (1974) used a cross-sectional approach to compare a group of children who had transferred directly from primary to a Scottish comprehensive secondary school with two groups who had spent the final year of primary school in a transition department before moving to secondary school. The results were inconclusive, partly because of the cross-sectional design of the study, but there was some evidence of a small improvement in the social relationships of children who experienced the transition department, compared with those moving directly to secondary school, but whether this was due to the smaller size of the unit, or simply the advantage of making friends from other schools a year earlier was not made clear (Dutch and McCall, 1974).

Some years later, Spelman (1979) examined the experiences of nearly 3000 children during transfer from primary to secondary school in Northern Ireland. At the time, the eleven plus examination was still in operation and the children moved to various different types of school depending on their results. Like Nisbet and Entwistle (1969), Spelman found that the most successful pupils were the academically able

who were self-confident and socially aware, and who tended to have strong parental support. This comprehensive longitudinal study took account of children's socio-cultural differences and also looked at some aspects of the secondary school context such as teachers' attitudes, discipline and motivational climate and, in fact, is one of the few studies to consider the changing disciplinary environment between primary and secondary school. The study was at a time when there were four different types of secondary school. These were grammar, secondary (intermediate), bilateral and junior high schools. Each had their own distinctive characteristics, and it is difficult to draw any general conclusions but, regardless of school type, it was found that the quality of teacher/pupil relationships was particularly important in pupil adjustment, confirming Neal's (1975) earlier results.

Finally, at the end of the 1970s two important studies broadened the scope of earlier research. Youngman (1978), while continuing to use measures of ability and achievement, introduced the additional dimensions of attitude towards school and personality. Using these factors, he tested children before and after the move to secondary school and identified six subgroups of children. While most of these groups gave no cause for concern, two sets of children were particularly worrying and these he labelled 'disinterested' and 'disenchanted'. Both these groups showed little interest in schooling but he believed the disenchanted group qualified as a particular problem as it consisted of children with moderately high ability but with some indication of inferior performance. This was one of the first studies to consider ways other than academic progress, in which children might react to school transfer. Not only that, but it was the first note of disenchanted pupils. Youngman's (1978) description of pupils with an identified negative attitude towards school was a lone voice at this time and the issue was not picked up until some time later when the concept of disengaged students was revisited in the 1980s. This concept will be discussed further in the context of engagement.

The second study taking a different approach at this time was the research by Blyth, Simmons and Bush (1978). Although still essentially focusing on the best age for transfer, they used the concept of self-esteem rather than academic progress to measure how well children adjusted to the move from primary to secondary school. They found some evidence that younger children moving to secondary school suffered

greater loss of self-esteem and participated less in school activities than older children making the same move. They were not certain why this was the case but suggested that older pupils might be able to cope better with a larger school, more children and all the other changes involved. This study showed how criteria other than ability and achievement could be used to assess the impact of school transfer.

All these early studies recognised that school transfer is a significant, and possibly disruptive, milestone in children's lives but the main emphasis at this time was to ensure that there was as little interruption as possible to academic achievement and progress. The success of school transfer was measured in terms of sustained academic progress. Consequently, they focused on the practical arrangements that could be implemented to help ensure a seamless continuation of study between primary and secondary school. Although recognising differences between children academically, scant attention was paid to any differences in personality or background or even to school factors which might influence academic progress at this time. There were one or two exceptions, however. As already noted, Nisbet and Entwistle (1969) recognised the importance of a supportive family background, and linked this, rightly or wrongly with the child's socioeconomic background. They also emphasized, without giving specific examples, that children would vary in their ability to cope with transfer depending on their individual personalities. The study by Spelman (1979) was an interesting one as it one of the earliest to introduce the concept of school context, albeit in a limited fashion, by including measures of class discipline and teacher support. The issue of school context is important, and will be discussed later in this chapter, but it seems largely to have been ignored in these early studies.

Children's Perception of Transfer and the School Environment

Before the 1980s, the main thrust of research on school transfer concentrated on academic progress and problems with administrative procedures connected with the move from primary to secondary schools. With one or two exceptions (Blyth, Simmons and Bush, 1978; Spelman, 1979; Youngman, 1978) there was surprisingly little research that either investigated children's views about transferring schools, or looked at any problems other than academic, that might occur on first adjusting to secondary school. However, during the 1980s, some research, while continuing to focus on academic progress, began to investigate how factors other than prior

achievement might influence the school performance after transfer to secondary school (Dowling, 1980; Summerfield, 1986; Youngman, 1980). These studies provide limited detail of the measures used but they do go beyond academic testing to include school behaviour and attitudes to school, the general consensus being that "it is rarely satisfactory to isolate single determinants of success or failure during this period" (Youngman, 1980, p.51).

Although Youngman (1978) showed that many children had worries of some kind during the process of transfer, there was little attempt to define the kinds of concerns they had. However, since then, recognising that pupils themselves could make a valuable contribution to the discussion, some researchers began to examine more precisely the feelings and worries that children experienced both before and after school transfer (Akos, 2002; Brown and Armstrong, 1982; 1986; Bryan, 1980; Cotterell, 1982; Jennings and Hargreaves, 1981; Mitman and Packer, 1982; Murdoch, 1986). These studies confirmed that most children have concerns of some sort or another, even if transitory. Brown and Armstrong (1982) analysed essays written during the first two terms of secondary school, noting that they produced a varied range of worries with an average of 2.2 per child. Worries generally included bullying by older children (Brown and Armstrong, 1986; Bryan 1980, Cotterell, 1982; Franklin, 2000; Sweetser, 2003), homework (Brown and Armstrong, 1982; 1986; Bryan, 1980), school routine (Cotterell, 1982; Jennings and Hargreaves, 1981), losing friends (Brown and Armstrong, 1982; 1986; Bryan, 1980), getting lost (Brown and Armstrong, 1986; Cotterell, 1982; Graham and Hill, 2003), getting on the right bus to go home (Schumacher, 1998), the size of the school (Letrello and Miles; 2003; Lucey and Reay, 2000) and being the smallest (Bryan, 1980; Brown and Armstrong, 1982; 1986).

It would be wrong to think that children only have worries and anxieties about the move to secondary school. Many experience a combination of excitement and anxiety (Galton and Morrison, 2000; Hawk and Hill, 2004), but most look forward to secondary school (Kirkpatrick, 1992; Zeedyk et al., 2003), especially to the opportunity of making new friends (Smith, Feldwisch and Abell, 2006; Sweetser, 2003), and they are often eager to leave behind the close attention of primary school (Yates, 1999).

Despite their apprehension, nearly all children adjust well, and a study by Suffolk County Council (2002) found that by the end of the first term, most worries had vanished, and only a few hankered for the old situation. A longitudinal study, interviewing pupils a few weeks after transfer, found that nearly 70% of pupils preferred secondary school to primary school, although they frequently complained about bullying, homework and some lessons (Franklin, 2000). The things they missed most from primary school were their teachers and friends (Franklin, 2000). Advice given by first year secondary students to primary children just about to transfer focused mainly on the need for organisational skills followed by advice to work hard and keep up with homework, perhaps indicating the main concerns for these pupils (Akos, 2005).

Emotional and Behavioural Response to Transfer

Researchers have identified declines in academic performance (Alspaugh, 1998a; Blyth, Simmons and Carlton-Ford, 1983), motivation (Galton and Willcocks, 1983), self-esteem (Blyth, Simmons and Carlton-Ford, 1983), extracurricular participation (Seidman et al., 1994), enjoyment (Galton and Willcocks, 1983) and perceived support from school staff (Seidman et al., 1994) as well as an increase in daily hassles (Seidman et al., 1994) after transfer. However, there appear to be large individual differences between children in their response to transfer. Some adolescents negotiate the move to secondary school without difficulty (Nottelman, 1987) while others experience a loss of self-esteem (Wigfield et al., 1991), difficulty in maintaining friendships (Demetriou, Goalen and Ruddock, 2000), and a decline in academic performance (Eccles, Lord and Midgley, 1991), although these losses may be temporary. The true response may not emerge until some time after the move to secondary school.

At the beginning of secondary school there is often a 'honeymoon' period during which children express considerable excitement about new friends, new classes, lockers, and new activities (Galton, Gray and Ruddock, 2003; Harter, Whitesell and Kowalski, 1992). It is possible that teachers strengthen this honeymoon effect by initially avoiding confrontation over poor behaviour (Gordon et al., 1999). However, in time, the reality of success or failure, both academic and social, sets in and, for better or worse, this is likely to affect students' school behaviour and attitudes.

Transfer programmes typically aim to reduce pupils' anxiety about new routines, rather than helping them to learn new ways of teaching and studying. While the practical difficulties associated with transfer tend to resolve themselves and are mostly short lived (Galton, Gray and Ruddock, 1999), there is a general consensus that students find the disjunction between learning styles at primary and secondary school difficult to manage (Galton and Morrison, 2000). Galton, Edwards, Hargreaves and Pell (2003) found that school enjoyment remained at about the same level before and immediately after transfer and then dipped, with the result that by the end of the first year, pupils found school less enjoyable than before. Among the most common and noticeable responses to transfer is a sequence of reactions moving from declining self-perceptions of competence to lowered motivation, boredom, increased absence and declining school engagement.

Competence

Adolescents' self-perceptions are important predictors of their changing self-evaluation and adjustment (Lord, Eccles and McCarthy, 1994). There is some evidence that children suffer a dramatic decline in perceived competence when they move to secondary school (Alspaugh, 1998a; Anderman and Midgley, 1997; Harter, Whitesell and Kowalski, 1992). This does not seem to be because the work is harder as it is generally believed to be less challenging than primary school (Anderman and Midgley, 1997; Fouracre, 1993; Kirkpatrick, 1992). The problem may be that for many children, the nature of the learning environment at secondary school changes in a negative way during early adolescence (Eccles et al., 1993b; Feldlaufer, Midgley and Eccles, 1988; Harter, Whitesell and Kowalski, 1992; Seidman et al., 1994). However, Nottelman (1987), measuring competence three times over the course of school transfer, found that overall, children's perceived competence increased and was stable across the period of transition. Whatever effect transfer has on competence, responsibility must not be laid solely at the door of secondary schools as research indicates that pre-transition academic self-perception and ability contribute to achievement during the first year of secondary school (Silverthorn, DuBois and Crombie, 2005; Trent et al., 1994). Similarly, stress or other pre-existing problems prior to transfer can be exacerbated by the move (Chung, Elias and Schneider, 1998; Rudolph et al., 2001; McDougall, 1998). These vulnerable students tend to feel helpless in the face of challenge and consequently they may make less effort which

results in lower achievement (Rudolph et al., 2001). Whatever the cause, any decline in self-perceived competence tends to have direct consequences on student motivation.

Motivation

Among the many changes associated with the move to secondary school is that of a different classroom environment where there is more whole class organisation and public evaluation of work, while for some subjects pupils may be streamed, or grouped according to ability. This change in approach means that children measure their ability in relation to other children, so ability has to be re-evaluated (Anderman and Midgley, 1997). In addition, it is quite likely that teachers will use higher standards than primary teachers in assessing performance which results in lower marks for many students (Eccles and Midgley, 1989). Some children may well take this an indication of a drop in their ability, even though this may not be the case. The effect of decreasing perception of competence encourages children to lower the value they attach to these subjects with an accompanying decline in motivation (Harter, Whitesell and Kowalski, 1992; Midgley, Feldlaufer and Eccles, 1989a and b). Motivation may also drop when pupils experience a more impersonal teacher approach (Makri-Botsari, 1999), with possibly a change from a child-centred approach to subject-centred teaching (Galton and Willcocks, 1983). The declining motivation of adolescents is a critical issue and must be solved (Anderman and Maehr, 1994) and, in fact, could be influenced for the better if schools altered the way in which they evaluate, reward, and recognise achievement and select learning tasks for children (Anderman, Maehr and Midgley, 1999).

Boredom

There is broad agreement that many children do have problems at transfer (Summerfield, 1986) and teachers may take this account during the early days at secondary school. Some students note a decreasing incidence of interesting learning experiences, even over the first few weeks in secondary school (Cotterell, 1982). This is supported by Green (1987) who tracked a small group of primary pupils into their secondary school and noted less opportunity for meaningful writing with more emphasis on mundane activities such as mindless note copying, fill-in-the-gap exercises, listing and labelling. One reason for this may be that teachers are

concerned to provide a gentle start, making few real demands on pupils, especially the more able, and so fail to establish an immediate momentum (Suffolk County Council, 1999). Although it is clearly essential to allow new pupils time to settle in and adjust to secondary school, it is equally important to provide stimulation and challenge, especially where children are motivated and able. Apparently, some 57% of children look forward to academic subjects in secondary school and when they first arrive, they are expectant and excited about new learning challenges (Zeedyk et al., 2003). The issue of homework was one of the top student concerns before transfer (Akos and Galassi, 2004), yet a study of secondary school pupils in Aberdeen found that after transfer most pupils agreed they had less homework than in primary school (Fouracre, 1993). They also said that the work was harder in primary school and that much of the work at secondary school was like revision (Fouracre, 1993). This lack of challenge is disappointing for many children and can quickly lead to boredom and loss of interest. The result is that many children lose enthusiasm and only make as much effort as they have to (Willcocks, 1983).

The slow introduction of new work may also partly be a consequence of the 'fresh start', often advocated by teachers to be an advantage (Galton, 1983; Suffolk County Council, 1999; Sumner and Bradley, 1977). Thus secondary teachers often did not wish to have evidence of children's earlier performance, (Stillman, 1986) and over 80% of primary children interviewed valued the idea that the move to secondary school would allow them a fresh start (Chedzoy and Burden, 2005). Primary teachers may also be reluctant to pass on information which they think could lead to prejudice about a child (Dowling, 1986).

Boredom was also an issue in a couple of studies which identified small groups of children who failed to adapt well to secondary school or became less interested over time (Murdoch, 1986; Summerfield, 1986). Like Youngman (1978), Summerfield (1986) described various groups of children according to attitude towards school. She described three groups particularly at risk after transfer as 'hostile', unsuccessful' and 'detached', with attainment and adjustment deteriorating for all three groups after transfer; some of these children also considered lessons as 'boring'. There is clearly a link between disenchantment, or lack of interest, and boredom and it is an ongoing issue which has dangerous consequences for students. Barber (1999, p.3) noted,

> "too many pupils become disaffected too fast during the middle years of schooling and many of the rest are bored most of the time".

Performance

There is evidence that immediately following transfer, there is a decline in marks (Alspaugh, 1998a; Barone, Aguirre-Deandreis and Trickett, 1991) and it appears that the attitude towards school work changes. Kirkpatrick (1995) found that before transfer 50% attributed success to effort but after transfer only 38% thought effort was necessary. This is important as, generally, those who believe that effort improves results do better (Kirkpatrick, 1995). However, the decline in achievement is not uniform across all students. Girls' achievement declines less than that of boys (Barone, Aguirre-Deandreis and Trickett, 1991) perhaps because they tend to make more effort or because they have a different attitude towards education.

Absence

It may not be reasonable to draw conclusions from a comparison of absence figures before and after transfer. Children usually attend primary school near home and are often accompanied to and from school by an adult. Once children go to secondary school, they are more independent. They often travel by bus and there is more opportunity to miss school without parental knowledge. Figures show that attendance rates initially improve when children move to secondary school but they then drop to significantly lower levels than at the beginning of secondary school (Isakson and Jarvis, 1999). Barone, Aguirre-Deandreis and Trickett (1991), also noted a drop in attendance in the first year of secondary school which continued to decline over the year. However, absence may not be so high that schools feel the need to intervene (Isakson and Jarvis, 1999) and if poor attendance rates persist this is likely to be reflected in poor school performance (Blyth, Simmons and Carlton-Ford, 1983; Crockett et al., 1989; Seidman et al., 1994).

Engagement

Engagement involves positive school behaviours such as attendance, paying attention, and participation in class, as well as feeling cared for and an important member of the school. 'Disenchantment' (Youngman, 1978) and 'disaffection' (Summerfield, 1986)

were noted in earlier studies and these themes overlap strongly with the concept of engagement. At the time, the causes and possible implications of disenchantment and disaffection were not investigated in any detail. No longitudinal studies have been found that investigate children's changing levels of engagement as they move from primary to secondary school; indeed, there appears to be no one satisfactory measure of engagement. However, Isakson and Jarvis (1991) found that, contrary to expectations, feelings of school belonging did not decline immediately after transfer. Various studies make deductions about engagement based on pupil comments (Barber, 1999; Hargreaves and Galton, 2002; Reyes et al., 2000; Roderick and Camburn, 1999). For example, interviews with children in the first few weeks of secondary school revealed a growing disenchantment with school, with few pupils saying they were excited or stimulated by their learning experiences (Hargreaves and Galton, 2002). This lack of stimulation particularly affects the more able pupils, especially boys, as these children showed the greatest decline in positive attitude and motivation (Hargreaves and Galton, 2002). For students who continue to have problems after transfer, the new school can "offer proof that school is too trying or alien, and that they cannot succeed" (Ascher, 1987, p.1) and they may be the children who go on to be disenchanted or disengaged.

The recent interest in the concept of engagement has been sparked by a growing recognition that lack of engagement may be the starting point for a downward spiral in school progress and achievement. Transfer may be the trigger for the emergence of problems related to adjustment which include lower self-esteem, declining motivation and achievement, poor peer relations, disciplinary problems and eventual withdrawal from school, either by truancy or by dropping out altogether (Garrison, 2004). Reyes et al., (2000, p.541) expressed concern about the

> "particular vulnerability of students who show evidence of disengagement during this important milestone in their educational life".

It is contended that this concept of engagement, and the way it changes over time, could be particularly useful in two ways. It could provide an indication of the ease with which children move and adapt to secondary school and, secondly, it could

measure the level of risk attached to any individual or group of children. It is therefore one of the main themes of this thesis and the concept of engagement is discussed more fully in Chapter 3.

Individual Factors influencing Pupil Response to Transfer

It is quite clear that some children adjust very well as they move to secondary school while others take many months to find their feet and even then sometimes fail to thrive. Why do some children cope better than others with the transfer to secondary school? Some children may be inherently more resilient than others for a number of reasons such as high academic ability, a strong supportive family, and good relationships with friends. It is also possible that self-esteem and perceptions of wellbeing act as buffers to some of the stresses of transfer. Effective emotional intelligence could help ease transfer trauma (Adeyemo, 2004) especially for girls (Richardson, 2002). This could well be the case since there is a significant relationship between emotional intelligence and adjustment, perhaps because those high in emotional intelligence tend to have good social relationships and feel good about themselves (Goleman, 1995). Of course, there are many individual characteristics that may predispose children to adjust well to secondary school but research has focused on only some of these such as resilience, family support, self-esteem and wellbeing and this next section will consider some of the findings.

Resilience

Resilience can be thought of as the ability to cope with day-to-day problems and stress. It has only recently been considered as a possible reason explaining why some children manage better than others during transfer. Examining resilience during school transfer, Catterall (1998) found that supportive family behaviours, student engagement in activities and school responsiveness to the needs of its students were significant factors. When he divided resilience into two types, academic and commitment resilience, Catterall (1998) found that the same basic factors already noted were influential in both cases. However, some additional interesting detail noted that student socioeconomic status, academic performance and family conditions such as books at home and a place to study promoted commitment resilience, while academic resilience was greater where families had rules governing the amount of television watched, and students were involved in school activities. Gender did not

matter in either case. This study is interesting as it highlights some of the more detailed, and possibly overlooked, aspects of students' lives that can be influential in their progress. It is also the only study to suggest that resilience has more than one element; one of these was labelled commitment resilience which is a rarely addressed issue, but one that I examine as part of the concept of engagement in this study.

Howard and Johnson (2002) interviewed children at both primary and secondary school about experiences during transition. Resilient students explained failure in others by pointing to individual causes such as 'poor home', 'they don't have friends' or 'they are not very bright'. Perhaps not surprisingly, they have adopted the messages of school culture – if you're not doing well, it's your fault, not that of the school (Howard and Johnson, 2002). However, Zeedyk et al., (2003) noted the other side of the coin when they asked teachers what action could be taken to make transfer easier. A large proportion of teachers, especially primary teachers, thought only in terms of action that could be taken by school rather than empowering children with skills to cope with stresses themselves (Zeedyk et al., 2003). Some children are fortunate to have what Koizumi (2000) described as 'anchor points' which bolster confidence when exploring a new environment and help reduce disruption in any transition. These anchor points can include a range of things such as information, skills, family, friends and organisations. Barone, Aguirre-Deandreis and Trickett, (1991) agreed that positive relationships with family, friends and school personnel could provide varying degrees of support during transfer but they found no evidence that problem-solving skills had any particular benefit in developing social support. Since some children are less fortunate than others in the support they receive, schools could help students develop strategies to cope with transfer and other aspects of school (Wampler, Munsch and Adams, 2002; Zeedyk et al., 2003).

Family Support

Other qualities that are believed to help children cope as they adjust to secondary school include parental support (Barone, Aguirre-Deandreis and Trickett, 1991; Gutman and Midgley, 2000), and socioeconomic status, generally believed to be related to family background (Brooks-Gunn et al., 1993; Nisbet and Entwistle, 1969), which may or may not be linked to parental support. Studies that investigate parental influence during transfer are rare but Gutman and Midgley (2000) studied 62 African

American families living in poverty to examine the effects of family, school and psychological factors on achievement during transition. In particular, they wanted to see which factors might protect students at risk from academic problems likely to occur during transition. Using information from interviews with parents and students during the final year of primary school and again in the first year of secondary school, they found that students who had a positive view of their own ability had higher grade point averages than their peers but that taken individually, parental support, perceived teacher support, and feelings of school belonging, were not significant factors (Gutman and Midgley, 2000). However, they did find significant interactions between family and school variables which suggested that a combination of both family and school factors provided the most benefit to students (Guttman and Midgley, 2000).

Although children become more peer oriented as they grow older, parents still remain one of the main sources of social support during early adolescence (Furman and Buhrmester, 1992; Ryan and Lynch, 1989). However, parent-child relationships undergo important changes as adolescents acquire greater independence and this tends to coincide with the move to secondary school. No longitudinal research has been found monitoring changes in attitudes towards parents during transition although Furman and Buhrmester (1992) took a cross-sectional approach to demonstrate, perhaps unsurprisingly, that relationships with parents were perceived as less supportive during adolescence than late childhood. It is quite possible that for a number of reasons, transfer itself marks the beginning of a decline in parental support and, indeed, parents may feel it is the natural time to loosen the apron strings. It may also be beneficial, as Lord, Eccles and McCarthy (1994) concluded that for adolescents whose parents were less restrictive and allowed their children some independence, the experience of school transfer was actually less disruptive. On the other hand, children of restrictive parents turned more to peers for advice (Fuligni and Eccles, 1993).

Siblings

A handful of studies specifically mention the support of siblings at the time of transfer (Harrison, 2005; Johnstone, 2002; Ward, 2000). Usually siblings are a source of support and companionship in general (Furman and Buhrmester, 1985) although there

can be conflict and competition (Branje et al., 2004; Furman and Buhrmester, 1985). As far as school transfer is concerned, those who had older brothers and sisters at the same school displayed greater confidence and had fewer qualms about transfer (Ward, 2000). Once in secondary school, they confirmed that they would go to their older sibling, perhaps at lunchtime, if they were having any problem (Harrison, 2005; Johnstone, 2002).

Feelings of self-esteem and wellbeing may also influence the ease with which children approach and cope with the demands of school transfer. However, while these two characteristics can be seen as helping to explain differing responses to events, they can also themselves be influenced by events, especially where the event is stressful and prolonged. Therefore, as well as investigating the contribution that self-esteem and wellbeing make to the success of transfer, they are also adopted in this research as outcome variables. Studies examining self-esteem during transition are discussed here and self-esteem and wellbeing will also be considered more fully in their role as dependent variables in this research in the next chapter.

Self-esteem

School transfer clearly coincides with a time when self-esteem might be either low or, at least, vulnerable as a result of new challenges and change. Some research studying change in self-esteem during transfer from primary to secondary school has found an overall drop in self-esteem (Blyth, Simmons and Bush, 1978; Eccles, Lord and Midgley, 1991; Hirsch, DuBois and Brownell, 1993; Seidman et al., 1994; Simmons et al., 1979; Wigfield et al., 1991). A longitudinal study by Cantin and Boivin, (2004) found that the decrease in self-esteem continued for two years after transition. There is some evidence that girls are more likely to suffer a decline in self-esteem at this time than boys (Blyth, Simmons and Carlton-Ford, 1983; Crockett et al., 1989; Lord, Eccles and McCarthy, 1994). Other studies did not find this decline in self-esteem (Chung, Elias and Schneider, 1998; Hirsh and Rapkin, 1987; Nottelman, 1987) while Eccles et al., (1989) noted that self-esteem was lowest immediately after transfer but later recovered. Fenzel (2000) found that self-esteem was less likely to suffer during school transfer when children had close peer relationships, especially for boys (Fenzel and Blyth, 1986). It is possible that the move to secondary school could be helpful for

those with negative self-perception as they might find a specialised school activity, or close friendship, where they fitted in and felt more accepted (Kinney, 1993).

Wellbeing

As well as self-esteem, the longitudinal study by Hirsch and Rapkin (1987) measured the quality of school life which, although not quite the same as wellbeing, is probably the most similar concept used by earlier studies. While they found no change in self-esteem during school transfer, they did discover a clear and sharp decline after transfer in the perceived quality of school life, measured by school satisfaction, commitment and reaction to teachers, which occurred regardless of academic competence. This is consistent with later research where falls in the quality of school life were recorded after transfer (Eccles et al., 1993a; Roeser, Midgley and Urdan, 1996).

Two relatively recent studies, both in Scotland, specifically examined the concept of wellbeing during school transfer. The first of these, in the Highland area, explored the impact of school transfer on the wellbeing of young adolescents (Stradling and MacNeil, 2000). However, they described wellbeing more in terms of "absence of anxiety, stress, worry, emotional distress and depression" (Stradling and MacNeil, 2000, p.2) rather than life satisfaction. They noted that, after a few weeks in secondary school, some 65% of the children reported positive feelings in respect of self-image, schoolwork and friendships. The second study examined emotional wellbeing in two cohorts of children as they moved from two primary schools in Aberdeen into the same secondary school (Love et al., 2005). Here emotional wellbeing was taken to indicate good mental health, confidence and the ability to manage emotions. Most children maintained a positive outlook, thinking well of themselves and believing others thought well of them. Transfer itself was considered to have gone smoothly but, once in secondary school, children started to worry about personal safety, bullying and drugs (Love et al., 2005). These two studies are particularly interesting as they are relatively recent, relate to Scottish schools and examine some of the issues addressed in this study. However, it should be noted that the concept of wellbeing in both cases was more specific than I adopted in this thesis.

Ethnicity

Ethnicity was not an issue in the schools in this research and, in fact, problems relating to ethnic minorities are rare throughout Fife and do not occur at a level requiring an organisational response. However, there are a handful of studies based on schools in Glasgow investigating how children from ethnic minorities adjust to secondary school (Caulfield, Hill and Shelton, 2005; Graham and Hill, 2003; Ross, Hill and Shelton, 2006; Twidell, 1989). The key points to emerge from these studies were that most children reported mainly positive experiences, and generally bullying became less frequent than before (Graham and Hill, 2003). However, for some children the changes were negative or disappointing and these children were disproportionately from minority ethnic backgrounds (Graham and Hill, 2003). Hardly any students reported racism by secondary school teachers although peer racism increased in secondary schools (Caulfield, Hill and Shelton, 2005; Ross, Hill and Shelton, 2006).

Aspects of school context affecting school transfer

As well as individual characteristics, the ease with which children adjust following school transfer depends, in addition, on the qualities of the school (Alvidrez and Weinstein, 1993). School context can be described as the overall school environment in terms of the people and their relationships as well as physical characteristics such as size and the nature of school buildings. All aspects of the school context combine to determine the quality of school experience for each individual pupil.

There are obvious contextual differences between primary and secondary schools. Secondary schools are typically much larger than primary schools which means children not only have to move and find their way around a larger environment, very often carrying everything with them as they go, but also have to find their own niche within a larger social network. In addition, after spending a year at a time in one classroom, usually with a single teacher, children must adapt to many different subject teachers, moving to different classrooms throughout the day. If there are no lockers, and no classroom base, this may require new organisational skills and may also result in feelings of rootlessness not experienced in primary school. The following discussion of school context will first address the physical school context, then school relationships and finally some aspects of the whole school context.

Physical School Context

In nearly every case, transfer to secondary school involves a move from a relatively small to a much larger school. Quite apart from the initial problems of a physically larger environment with more buildings and people, there may be other issues related to size which make adjustment more difficult to begin with. This may be particularly true for children moving from small, rural primary schools as the cultural homogeneity of the rural setting means the children are well known in a small community with the result that both academic and interpersonal discontinuities between rural primary schools and secondary schools could, for some children, be particularly stressful in the first instance (Walsh, 1995). This view was supported by research comparing smaller and larger Norwegian rural schools which suggested that, although not academically inferior, children from smaller schools felt more inadequate socially than those from larger schools (Kvalsund, 2000). However, Cocklin (1999) found that children moving from small primary schools in Australia easily overcame the challenge of a larger environment, and quickly made new friends.

Another issue for children from small primary schools is that they may initially know few, if any, children in their class (Shanks and Welsh, 1986), This problem was also noted by Johnstone (2002) who accepted that social adjustment was easier for those with peers from their primary schools but she suggested that older students already known to new first years usually provided some support. This may be the case as, investigating the effects of transfer from small rural schools in Scotland, Shanks and Welsh (1986) found that the reactions of children from small and larger primary schools was similar and that pupils from small schools appeared to have a positive disposition towards both primary and secondary school and also a favourable view of themselves. Schiller (1999) also suggested that some students might be pleased to be free of the "norms, labels and low expectations" (Schiller, 1999, p.228) of primary school when they transfer with few of their classmates.

School Social Context

The social environment of educational settings may have a profound and pervasive impact on the academic and social adaptation of their students. Of all the school contextual factors, the quality of school social relationships may be especially important (Goodenow, 1993b). Of course, nearly all children are happier if they have

supportive friends but, quite apart from this, the school social context is strongly associated with both their academic adaptation and achievement and their socio-emotional and behavioural adjustment (Brand and Felner, 1996; Fraser and Fisher, 1982).

It is certainly true that when collecting data for my research, discussions with children before transfer revealed that they were most concerned with their social relationships in secondary school. This is also the case after transfer when most concern continues to focus on relations with others, including teachers and pupils (Ward, 2000). The main questions in children's minds as they transfer to secondary school are about relationships. Will I make new friends? Will people like me? What will the teachers be like? Many children said they saw school principally as a social centre rather than a learning centre (Howard and Johnson, 2002). However, although pupils are probably most concerned about peers and friendships, the effects of teachers permeate throughout the school system. It is probably true to say that where a school has good relationships between its staff and pupils, then other aspects of school context, such as discipline, bullying, school safety, and thus probably peer relationships, and academic achievement are likely to be positive. Relationships with teachers are discussed in the next section followed by consideration of the classroom environments in which teachers operate, and the various ways in which pupils can respond to them. The appropriateness of the classroom environment for young adolescents is also be discussed. The discussion of peer relationships concludes the consideration of school relationships.

Teachers

Early adolescence is a time when children start to develop strong relationships with adults outside the home (Eccles, Lord and Midgley, 1991) and yet transfer is often associated with decreased contact between teachers and students and less emotional support from teachers (Feldlaufer, Midgley and Eccles, 1988). Children transferring from primary school usually come from a self-contained classroom where there is a strong relationship between the student and the teacher. In secondary school, the time spent in an individual classroom is much less, therefore there is less opportunity to build or expand a relationship. Beynon (1985) found that children's initial judgments

about teachers had more to do with their personalities than with the quality of their teaching. They respected teachers who treated them like real people.

The move to secondary school can have considerable effects on both pupil behaviour and achievement, and, in general, student/teacher relationships deteriorate after transfer (Ferguson and Fraser, 1999; Midgley, Feldlaufer and Eccles, 1989a and b). Some of the responsibility for this may well rest with the change in teachers and teacher style (Galton, 1983; Nash, 1973). After transfer, the number of teachers dealing with pupils increases and teaching is divided into several short periods. Children have to adjust to new teachers who they perceive as more demanding and less supportive than those in primary school (Cantin and Boivin, 2004). In other words, the organisation of the school day with changes of teachers, classrooms and subjects may contribute to the decline in motivation and performance as children move from primary to secondary school (Eccles and Midgley, 1989). The fact that teachers are not perceived as being as helpful as they were in primary school and do not seem to monitor work as closely, also leads some students to believe that teachers do not care about them (Newman et al., 2000a). In addition, secondary teachers generally have many more students than primary teachers making it less likely they will get to know their students so well (Midgley, Feldlaufer and Eccles, 1989a).

Classroom Environment

There is also likely to be a significant change in the whole classroom environment. In primary school, children may have been used to working in pairs or small groups, they may have moved freely around the classroom and probably have their own storage space within the room. In order to discover the differences that pupils consider important as they move from primary to secondary school, Pointon (2000) interviewed 13 first year secondary children in East Anglia to ask about their preferred learning environments. She found that students liked to have some ownership of the classroom, such as in classroom displays, and they liked orderly classes. However, while they missed having their own space, they did enjoy moving into different areas.

Ferguson and Fraser (1999) took a longitudinal approach to examine the changes in learning environments during transfer from primary to secondary school in Tasmania.

Children identified both positive and negative changes in the learning environment but secondary classrooms were generally perceived more favourably than primary classrooms in terms of less strict teachers, easier work and more satisfaction. However, there was a clear difference between the interests of boys and girls. Girls felt that their relationships with secondary school teachers were less satisfactory and they missed their primary teachers. Boys, in contrast, were more concerned with access to facilities and equipment and the nature of activities experienced, and were generally pleased to leave behind their predominantly female primary teachers (Ferguson and Fraser, 1999).

Effects of adolescence

There is some evidence that, while part of the decline in self-perception and self-esteem over transfer may be due to the contextual shift from primary to secondary school, it is likely that it is also due to changes associated with early adolescence. While earlier studies discussed the correct 'age' for transfer, some researchers started to question whether the timing of transition was appropriate in terms of the individual's life course (Blyth, Simmons and Carlton-Ford, 1983; Crockett et al., 1989; Eccles et al., 1993a; Feldlaufer, Midgley and Eccles, 1988; Simmons et al., 1987; Ward, Mergendoller and Tikunoff, 1982). In particular, it was suggested that the timing of transfer put girls at more risk than boys as they were more likely to suffer multiple stresses resulting from the onset of puberty (Simmons et al., 1979; 1987).

For all adolescents, it is likely that after the move to secondary school, they will have fewer choices, participate less in decision-making and feel they have less control over their time in class (Feldlaufer, Midgley and Eccles, 1988). A longitudinal study by Ward, Mergendoller and Tikunoff, (1982) concluded that the organization of teaching was "significantly less challenging in content and structure" (Ward, Mergendoller and Tikunoff, 1982, p.360) than in the feeder primary schools. Consequently, students may find themselves in less exciting, less competitive classrooms where lower level, routine tasks are the norm (Mergendoller et al., 1988). As children enter puberty, they want more control over their own lives (Lee, Statuto and Kedar-Viovodas, 1983) and, yet, just when students want more decision-making power in the classroom, after transfer they receive less (Eccles et al., 1993a; Ward, Mergendoller, and Tikunoff,

1982). This phenomenon is generally described as 'developmental mismatch' (de Bruyn, 2005; Feldlaufer, Midgley and Eccles, 1988) but it can more simply be thought of as an aspect of classroom environment.

Ward (2000) examined the timing of transfer by tracking the movement of a class of 18 pupils who chose to remain at middle school for years 9 and 10, until they were 14, rather than transfer at age 12 to secondary school. He followed them into four different secondary schools. Semi-structured interviews and picture-interpretation surveys suggested there was little excitement about the move to secondary school but that older and more mature students generally coped better (Ward, 2000).

Friends

When they move to secondary school, children must integrate into a new, larger and more complex social environment, and form satisfying social relationships with new friends while possibly coping with the loss of some of their primary school friends (Eccles and Midgley, 1989; Eccles et al., 1993a). The potential loss of existing friendships was, in fact, a major preoccupation for children about to transfer (Cantin and Boivin, 2004). This disruption of relationships with teachers and peers occurs at a time when teenagers are becoming more independent from their families.

Peer social support is known to have a positive impact on wellbeing, helping to protect against feelings of anxiety and alienation (Hirsch and DuBois, 1992). The support of peers as children cope with new challenges can buffer the effects of any stress associated with transfer (Newman et al., 2000a) and may therefore be influential in helping adjustment during the time of transfer (Barone, Aguirre-Deandreis and Trickett, 1991). Peers often play an especially significant role in adolescents' attitudes, including their orientation towards school (Felner, Ginter and Primavera, 1982) and they can be a source of challenge as well as support at the time of transfer (Newman et al., 2000a). Peer group influence can push students towards academic achievement or further away (Alvidrez and Weinstein, 1993) and most students realise that friends can distract them from achieving academic goals (Newman et al., 2000b).

Cross-sectional studies indicate that the perceived level of peer support and intimacy increased significantly between late childhood and early adolescence (Berndt and Perry, 1986; Buhrmester and Furman, 1987; Furman and Buhrmester, 1992). Cantin and Boivin (2004) found relatively modest changes in school friend networks, with the number of peer ties declining temporarily but then becoming an increasingly important source of support in early adolescence. However, Hirsch and Rapkin (1987) noted no decline in peer friendships over transfer and found that those who entered secondary school with a close friend or a stable cohort of peers experienced considerably less stress in their adjustment to secondary school than more socially isolated peers. Loneliness may well be an issue both during transfer and in the following months but no studies were found specifically addressing this issue over transfer. However, because I considered this might be a problem for some children, especially those moving from small primary schools, I included loneliness as an explanatory variable to investigate this issue.

The following aspects of the school social context refer to the whole school, not just to the class, peer or year group of the individual child. The three linked characteristics of discipline, bullying and school safety affect everyone in the school, pupils and staff, and influence the whole school environment. The discussion will then move on to consider two further whole school effects – the feeling of school belonging and the sense of school community.

Discipline

Parents consider discipline and the general school atmosphere to be particularly valuable assets (Martinez, Thomas and Kemerer, 1994). Constructive discipline is important, not only in responding to misbehaviour in a helpful way but also in creating a more supportive classroom environment with better organisation of teaching (Psunder, 2005) and, in fact, academic achievement is higher in schools with orderly environments (Lee and Bryk, 1989). However, the issue of discipline appears to be approached in different ways by primary and secondary schools. Primary students report very frequent use of rewards, hints, discussion and student involvement, with frequent use of punishment but very little aggression, while secondary students record infrequent use of techniques such as rewards, hints and pupil involvement (Lewis, 2001). Apart from Spelman's (1979) study, no mention

has been found of how discipline changes over transfer, perhaps because it is difficult to measure and also because, regardless of whether it is primary or secondary, each school (and teacher) varies in its disciplinary code.

Bullying

As already noted, children frequently worry about bullying at the time of transfer (Galton and Willcocks, 1983; Lucey and Reay, 2000; Measor and Woods, 1984) and Lucey and Reay, (2000) found that children still had the same anxieties as 20 years earlier. Despite the fact that many children worry that they will be bullied at secondary school, it is interesting that research showed a small but significant number of children hoped that the new start at secondary school would allow them to escape chronic bullying at primary school (Lucey and Reay, 2000). However, much of the aggression in schools during this time involves pupils bullying their peers (Perry, Willard and Perry, 1990) as this is adopted as a deliberate strategy to achieve dominance in new social groups (Pellegrini and Long, 2002). In a rare longitudinal study of bullying before and after transfer, Pellegrini and Long (2002) found that bullying increased initially after the move to middle school and then gradually decreased, presumably as new social networks settled down.

School Safety

The sense of safety may impact on academic, behavioural, social, emotional and physical wellbeing. One of the responsibilities of schools is to provide an environment where children both feel and are safe everywhere on school property (Tableman, 2004). The benefits of good relationships with school staff may be outweighed if children do not, at the same time, feel safe in the school environment. Children who perceive teachers as supportive and, in addition, enjoy and feel safe in school are better adjusted, both socially and emotionally, than those who have negative perceptions of school and teachers (Murray and Greenberg, 2000). Like discipline, school safety is difficult to measure across transfer because of the problems of standardisation and comparison.

Sense of School Belonging

The concept of school ‘connectedness’ or school belonging is a relatively recent one. When children move to secondary school, they move from a relatively small

community, where they know everyone and are known, probably by all teachers and most other children. By the time they come to leave their primary school, they may have been there for seven years, participate in a number of activities, have various responsibilities and be a valued member of the community. After transfer to the much larger secondary school, children find that, not only do they know no one, but also they themselves are unknown. In addition, they suddenly have no special responsibilities, and they may feel they do not 'belong' in the way they did at primary school.

There are few studies on school belonging but Isakson and Jarvis (1999) found that feelings of school belonging did not decline immediately after transfer to secondary school and tended to be related to the amount of stress experienced. Akos and Galassi (2004) developed a school transition questionnaire to make a retrospective measurement of students' perceptions over the course of transition, including their sense of belonging to the new school. Their results indicated that students found that adjustment to new routines was quicker and easier than adapting socially and feeling a member of the new school community (Akos and Galassi, 2004).

This feeling of 'connectedness' or 'belonging' may be particularly important in determining the success of transfer. Transition is associated with decreased participation in extracurricular activities and a perception of decreasing support from teachers, but more hassles (Seidman et al., 1994). This concept of school belonging has been argued to constitute an inherent part of the concept of engagement (Finn, 1989; Fredricks, Blumenfeld and Paris 2004; Voekl, 1997). It is therefore one of the main outcome variables adopted in this study and will consequently be discussed in more detail in the next chapter.

Sense of School Community

School community is a broader concept than that of school belonging alone, involving in addition, trust in others, and safety (Osterman, 2000), the concept of caring (Ferreira, Smith and Bosworth, 2002; Roberts, Hom and Battistich, 1995) and feeling an accepted (Battistich et al., 1995; Goodenow, 1993b) and valued (Battistich et al., 1995) member of the school. The need for a strong school community may become more important over time and, perhaps, as pupils get older. It has long been

recognised that parental support and school involvement are vital for children's progress. However, home-school links tend to decline with age. In addition, with increasing family breakdown, there has been a call for the community, particularly schools, to provide more support and help for children. The sense of community within society at large has been dramatically weakened over the past 50 years, partly as a result of developments in communication and transportation which have increased geographical mobility (Kennedy, 2006), and schools are increasingly viewed as places to provide care (Ferreira, Smith and Bosworth, 2002) and are more and more expected to play a role in helping to solve a variety of social problems among young people (Battistich, 2006). Today's schools are expected to do more than they have ever done. There are many changes in society that make children more vulnerable. As well as increased economic and social pressure on families, there has also been a weakening of community institutions that nurture children's social, emotional and moral development and easier access by children to media that encourage health-damaging behaviour (Greenberg et al., 2003).

There may be different considerations involved in developing a sense of community in primary and secondary schools. It may be easier to create a positive sense of community in primary schools where teachers work with the same group of children and can build close relationships (Schaps, 2002a). An elementary school pupil's sense of community appears to be related to a range of positive outcomes including liking for school, motivation, a sense of efficacy and altruistic behaviour (Battistich et al, 1995). Although the structure and organisation of secondary schools may make it harder to develop a sense of community, there are various opportunities for developing support, such as buddy systems, and for encouraging involvement in school activities such as extracurricular groups where people share ideas and interests, and school-wide events (Schaps, 2002b).

These studies on school context are useful as they start to focus on aspects of the school 'environment' that may be inappropriate for the needs of the children who inhabit them. Until this point, the general view had been that the schools exist as they are and that children and procedures must adapt for the best outcomes to be achieved, although an earlier study by Fenzel (1989) noted that school context was likely to influence the ease with which children adjusted during the process of school transfer.

Academic Context

Another concern is the possibility that some or many children may experience a drop in levels of achievement and progress after transfer to secondary school. This was of particular interest in early studies (Neal, 1975; Nisbet and Entwistle, 1969; Spelman, 1979; Sumner and Bradley, 1977), which focused on age, ability and curriculum continuity. However, more recently, researchers have investigated other possible influences on declining academic performance, particularly those deriving from the school context, such as classroom environment and teaching styles. Differences in classroom environment and teaching approaches have already been discussed and, certainly initially, these seem to lead to a decline in competence and motivation as described earlier. Classroom changes such as less supportive ties with teachers, less emphasis on mastery of subjects and few opportunities for decision-making may be particular hazardous for pupils at the time of transfer (Felner et al., 1993; Seidman et al., 1994).

The study by Newman et al., (2000a) specifically examined the factors seeming to support successful academic transfer to secondary school and found that the negotiation of peer relationships was central, rather than peripheral to the process. Children of all abilities turned to friends to help them through difficulties (Newman et al., 2000a) and they may provide guidance on how to tackle academic challenges and responsibilities (Newman et al., 2000b). In addition, students work harder, achieve more and attribute more importance to their schoolwork in classes where they feel liked, accepted and respected (Evans, 1996; Kohn, 1996; Lewis, Schaps and Watson, 1996).

Conclusion

Most of the early research on school transition focused mainly on ability and achievement and, sometimes, socioeconomic background of children. With one or two exceptions, there was little investigation, or perhaps even recognition, of school factors that might affect how students responded to the challenges and demands of the secondary school environment. Much has been written of the differences between the primary and secondary school systems and expectations but, beyond noting that

children have to adapt to these, there seems to have been minimal analysis of how specific elements of the secondary school may hinder or promote success.

Although these early studies did collect general information on children's feelings during transfer, little attention seems to have been paid to how these feelings translated into behaviour or longer term attitudes towards school and study. However, there were a couple of early studies that noted various reactions after transfer (Summerfield, 1986; Youngman, 1978). Both Youngman's 'disenchanted' pupils and Summerfield's 'detached' children were clearly at risk of failure or underachievement, and are probably the early forerunners of the students later described as 'disengaged' (Finn, 1989). However, at the time, no one seems to have picked up on this theme and developed it. Even at the end of the twentieth century, little more than lip service was paid to children's views and concerns over transfer. Noting this rather cavalier attitude, Galton Gray and Ruddock (1999) stated that schools must "give greater attention to pupils' accounts of why they lose ground or lose interest" (Galton, Gray and Ruddock, 1999).

The research presented here aims to address some of the issues raised in previous research and also attempts to move further by introducing new considerations and methods. To counter the criticism made by Galton, Gray and Ruddock (1999), the research focuses almost entirely on children's views of transfer, and aims to relate these impressions to various characteristics in the school and home environments in order to build an understanding of how these affect children's perceptions. Many studies examine transfer from either the primary or the secondary perspective, but relatively few follow a group of children while they make this move. This research therefore adopted a longitudinal approach to study a cohort of children as they prepared for transfer in primary school, revisiting them during their first year in secondary school to obtain their initial and subsequent reactions.

As the literature demonstrates, the whole issue of school context has only recently been explored, despite its undoubted effect on children's reactions to school. In fact, it may be more influential as children get older and less dependent on their parents and family and more responsive to the influences of others. Thus, while continuing to examine the influence of parents and family, this research included a large number of

explanatory variables describing characteristics of the school context. Some of these, such as academic performance have received attention over many decades but others, such as discipline, school safety, loneliness, boredom, and the sense of school community have received little attention. A number of explanatory variables relating to activities outside school were also included as well as a few personal characteristics such as happiness and aspiration, any or all of which could help to indicate feelings about school transfer. This research therefore addresses a whole range of independent variables in the same study and at the same time. The advantage of this is that it is possible to evaluate not only the most significant influences on each of the dependent variables but also to identify the relative importance of each explanatory variable in each case. Thus, it should be possible to identify any explanatory variables which appear to be especially important in explaining changes detected during transfer and allow some conclusions to be drawn about which aspects of school, for example, may need to be changed.

Many children move to their secondary schools quite happily, enjoying the increased opportunities and blossoming socially and academically (Schiller, 1999). However, others are devastated by the relatively competitive and impersonal environment of secondary schools which leads them to become disaffected, maybe even truanting (Roderick, 1997). This has clearly been a longstanding problem (Youngman, 1978; Summerfield, 1986) and one that continues to the present time (The Independent 26 February, and 21 October, 2008). Despite acknowledging that growing disaffection in secondary schools is of great concern, there does not appear to be any study examining whether or how the process of school transfer might either exacerbate or improve the situation. My research therefore concentrates on this issue, using the elements comprising the concept of engagement to measure changing attitudes to school during transfer. I also used the concept of self-esteem as a measure because, although not a new one in this context, previous results have varied and by using additional explanatory variables, I hoped to add some understanding of how it changes during transfer. Finally, I took wellbeing, a relatively new concept, as a measure, and applied it as an outcome variable to investigate how this changed over transfer. These three concepts, engagement, self-esteem and wellbeing, will be discussed in greater detail in the next chapter.

CHAPTER THREE
DISCUSSION OF OUTCOME VARIABLES

Introduction

The literature review in Chapter 2 reveals that the experience of school transfer is one which continues to cause various problems for some children. Until now, most studies have concentrated mainly on recording the changes noted in children's performance and attitudes as they move to secondary school. With the exception of those attributing problems to developmental mismatch (Blyth, Simmons and Carlton-Ford, 1983; Crockett et al., 1989; Eccles et al., 1993a; Feldlaufer, Midgley and Eccles, 1988; Simmons et al., 1987; Ward Mergendoller and Tikunoff, 1982), very few researchers have examined the possible underlying causes of these problems and attitude changes.

However, several scholars have described the school transfer in early adolescence as one that precipitates increasing disengagement from school (Eccles and Midgley, 1989; Garrison, 2004; Reyes et al., 2000). Seidman et al., (1994) explained that the move from primary to secondary school was associated not only with a decline in extra-curricular participation but also with a belief that school staff were less supportive than in primary school. As well as changing attitudes towards school, transfer may also result in some adjustment in the way students feel about themselves and their lives in general.

In this study three broad concepts (rather than a single concept as in most previous studies) have therefore been adopted as outcome variables. First, the concept of school engagement was chosen as this specifically relates to attitudes and feelings towards school, and describes the child's overall involvement with school. The other two concepts, self-esteem and wellbeing, were chosen to reflect any change in the way children viewed themselves and their general quality of life. Self-esteem is a relatively familiar concept providing some insight into children's emotional lives at this time and wellbeing is a reasonably broad concept, taking account of perceptions of life as a whole, both at home and at school. All three concepts are described below in some detail. However, the discussion of engagement is longer than those for self-esteem and wellbeing for three reasons. First, it is a less well-known concept than

self-esteem and wellbeing and secondly, unlike self-esteem and wellbeing, it has not so far been used to measure change over transfer. Finally, and perhaps most importantly, there is no single test to measure engagement and consequently the various components believed to constitute the overall concept need to be clarified and discussed, each one constituting a separate outcome variable in this study.

Engagement

Over the past few years, there has been general agreement that engagement is a significant concept determining children's participation in school, the likelihood of staying at school and achieving academic success. It has come to be seen as an antidote to low achievement, high levels of boredom and disaffection, truancy and, ultimately, dropout (Fredricks et al., 2003). In spite of the probable importance of engagement, there have been few attempts to define or study engagement formally and certainly none linking this concept directly to school transition.

There is no single definition of engagement and those that do exist vary, each definition encompassing different components. The following discussion will consider various suggestions of the nature of engagement and its value in relation to monitoring children's progress at school. The particular concept of engagement used in this study will then be given, together with the reasons for its selection.

Definitions and components

While earlier studies on school transfer identified 'disenchanted' (Youngman, 1978) and 'disaffected' (Summerfield, 1986) pupils, the term engagement seems to have developed from studies on school dropout. This was an issue of particular concern in the United States in the 1980s and, at the time, Rumberger (1987) suggested that dropout might be better viewed as a process of disengagement from school. Consequently, early discussions on engagement were related to the problems of disengagement, such as truancy and early dropout rather than other preceding problems including boredom, apathy and poor motivation.

As there is general agreement that engagement is a multi-faceted concept (Fredricks, Blumenfeld and Paris, 2004; O'Farrell and Morrison, 2003), definitions of the whole concept are rare. Relatively few researchers have examined the influence of

‘engagement’ as a whole, but tend to concentrate on one, or perhaps two, of the possible components. In addition, there are various terms for describing the same component, which contributes to the complications of definition. This lack of consistency creates difficulty in interpreting and building upon the existing research on school engagement and its related constructs (O’Farrell and Morrison, 2003).

So what is school engagement? One of the earliest researchers into the broad concept of engagement was Jeremy Finn who described engagement as having both a behavioural component, which he termed ‘participation in school activities’ and an emotional component, which he called ‘identification with school’ (Finn, 1989). Finn (1989) believed that participation in school was a fundamental and essential element in school engagement. At its lowest level it might simply be attendance and acquiescence in the classroom but greater participation could extend to involvement in extracurricular activities and active involvement in work. The other dimension, identification, refers to emotional aspects of school engagement such as the student’s feelings of belonging in the school setting and identification with others in school. Finn (1989) contended that students who identified with school had:

> “an internalized conception of belongingness – that they are discernibly part of the school environment and that school constitutes an important part of their school experience. And second, these individuals value success in school-relevant goals” (Finn, 1989, p.123).

Thus, although Finn (1989) ostensibly appeared to suggest that engagement had only the two dimensions of participation and identification, in reality he split the identification dimension into two components – a sense of belongingness and valuing school. It is these three suggested components – participation, a sense of belonging and valuing school – that remain accepted as the three core elements of engagement in later research (Finn and Voekl, 1993; Fredricks, Blumenfeld and Paris, 2004; Norris, Pignal and Lipps, 2003; Voekl, 1997), with the idea of valuing school sometimes described as commitment to school. Some literature refers to these three components as behavioural (participation), emotional (sense of belonging) and cognitive (school commitment) engagement, but in this research the three terms participation, sense of belonging and commitment are used.

Elaborating Finn's definitions of belonging and valuing, Voekl (1997) expanded the concept of belonging to include feeling a significant member in the school community, being accepted and respected in school, having a sense of inclusion in school, and feeling a proud member of the school (Voekl, 1997). The concept of valuing was also expanded to include the recognition of school as a valuable social institution and a means of facilitating personal development (Voekl, 1997). However, these ideas added detail to the basic concepts rather than developing new components. Hagborg (1998) agreed that the notion of community was most important, suggesting that a sense of school belonging incorporated feeling included and supported in school (Hagborg, 1998).

Linnenbrink and Pintrich (2003) used the terms behavioural and cognitive engagement to describe school participation, with behavioural engagement relating to observable behaviour such as effort, persistence, and asking for help, and cognitive engagement reserved for a higher level of participation such as the adoption of various strategies for learning. They also introduced the term motivational engagement to describe involvement and interest in the material studied but all these variations are really just elaborations of the original concept of school participation (Finn, 1989). Marks (2000) conceptualised engagement as a psychological process, specifically, the attention, interest, investment, and effort students expend in the work of learning. Defined in this way, engagement implies both participation and perhaps commitment to the learning experience (Marks, 2000). Morse, Christenson and Lehr (2004) expanded the idea of identification by including the concept of safety. However, this does not appear to be an additional component but suggests that having a sense of belonging and feeling accepted in the school must, by implication, include feeling safe in the school environment.

In a more limited way, Hudley et al., (2002) used the construct engagement to define the persistence and quality of students' involvement in learning activities, which relates mainly to the idea of participation but may also include elements of commitment. Norris, Pignal and Lipps (2003) noted that school engagement involved children's behaviour at school and their emotional attachment to school, both academic and social. Their definition of school engagement therefore encompassed all three components of participation, school belonging and valuing school.

So far, then, while these definitions may vary in detail, most researchers adopt one or more of the three components originally suggested by Finn (1989). However, Jenkins (1995), who described school engagement as school bonding, suggested four components. These are *school attachment*, resulting from good social relationships, *commitment*, or valuing educational goals, *school involvement* with participation in school-related activities, and *school belief*, defined as "accepting school rules as fair and consistently enforced" (Jenkins, 1997, p.2). The first three components, attachment, commitment and involvement, essentially describe the sense of school belonging, school commitment, and participation respectively. Thus the additional component is school belief, which seems to represent the idea of justice and school discipline.

A more developmentally based perspective is given by Fredricks, Blumenfeld and Paris (2004) who perceived engagement as a *meta* construct that contained behavioural, emotional and cognitive levels of engagement. Each of these three components was thought to range on a continuum of investment from the simple to the complex. Fredricks, Blumenfeld and Paris (2004), argued that classroom and school peer characteristics were antecedents of school engagement but acknowledged that more research was necessary to examine the interplay between individual characteristics and school contexts. Possible links between the components have been suggested by the Participation, Attachments, Commitment and Membership (PACM) model (Furlong et al., 2003). *Participation* (behavioural involvement) contributes to the formation of interpersonal *Attachments* (social bonding), which in turn results in a student developing a sense of personal *Commitment* (valuing of education), and ultimately to incorporating school *Membership* (identification as a school community citizen). The P>A>C>M model was believed to be appropriate for all students and useful in the implementation of overall school improvement (Furlong et al., 2003). However, this final component of identification as a school community citizen seems really to be one of the strands of school belonging.

For this research, the three dimensions of school commitment, school belonging and school participation were taken to represent the overall concept of engagement. Most researchers agree that these three components constitute the core aspects of engagement and there is general agreement on their definition. Some additional

elements, such as school belief (Jenkins, 1997) are more nebulous, and perhaps overlap with the concept of school commitment. Some of the other suggested strands of engagement, such as school safety and school discipline, have been measured in this study but they have been included as explanatory variables rather than as elements of the core components of engagement.

School commitment

School commitment is one part of the concept of school identification suggested by Finn (1989) and is generally considered to be the extent to which students value education and is therefore likely to be reflected in attitudes towards school. It has at its core some degree of evaluation in relation to schooling (Newmann, Wehlage and Lamborn, 1992; Roeser, Midgley and Urdan, 1996). It indicates the importance that students place on getting an education and their perception that education will bring benefit to their lives, economically or otherwise, drawing on the idea of investment (Fredricks, Blumenfeld and Paris, 2004). Arguably, children's commitment to school derives largely from family influences, but Ensminger and Slusarcick (1992) also underlined the importance of feedback at school noting that children who perform well in school initially receive positive feedback that, in turn, facilitates their commitment to school (Ensminger and Slusarcick, 1992). This notion of shared responsibility between the family and the school is supported in a study examining school commitment and delinquency (Jenkins, 1995).

Firestone and Rosenblum (1988) identified two separate dimensions of school commitment. Like Finn (1989) and Fredricks, Blumenfeld and Paris, (2004) they considered that commitment concerned valuing learning itself but, in addition, they suggested that students become committed to the place, because it is where they meet their friends and where there are opportunities for activities other than educational ones to keep them occupied (Firestone and Rosenblum, 1988). The concept of place as described by Firestone and Rosenblum (1988) can reasonably be considered as valid elements of school belonging and school participation since relationships with friends and involvement in extracurricular activities are key aspects of school belonging and participation.

School belonging

The sense of belonging represents the other part of the emotional component described as identification (Finn, 1989) and appears to have generated more interest among researchers. There is no single definition of belonging but Goodenow (1993a) considered belonging to be the sense of being an important, accepted and valued member of the class, encouraged by others, particularly teachers and peers. Voekl (1997) echoed this idea but added the concept of identification, described as the extent to which the student has incorporated school as a significant part of his or her self-concept and lifestyle. In this sense, a sense of belonging starts to merge with the idea of commitment as it implies taking on the aims and values of the school. Voekl's research showed that the sense of belonging in school was directly related to academic success and that students' failure to identify with school was largely related to the feeling that no one in school cared for them (Voekl, 1996). She also found girls tended to have stronger school identification than boys (Voekl, 1996).

A sense of belonging to school may be particularly important during adolescence (Furrer and Skinner, 2003) operating as a protective factor during transfer from smaller to larger schools (Gutman and Midgley, 2000). Furrer and Skinner (2003) believed school belonging would trigger positive behaviour such as effort, persistence and participation and found that, not only did children with strong school relationships engage better with school in general than those with poor relationships, but they also improved more over time encouraging greater achievement (Roeser, Midgley and Urdan, 1996). School belonging is also thought to encourage better relationships with teachers (Roeser, Midgley and Urdan, 1996).

Baumeister and Leary (1995) suggested, "human beings are fundamentally and pervasively motivated by a need to belong" (Baumeister and Leary, 1995, p.522). However, within the school context, belonging may be particularly important, providing support and security as children develop and mature. McBride et al., (1995) also suggested that belonging might help reduce children's participation in risk-taking activities as positive interactions with others in the relatively protective school environment helps to enhance social integration, decreasing adolescents' risk-taking behaviour. This view was supported by Guo et al., (2001) who found that

childhood and adolescent bonding and commitment to school consistently protected against later alcohol abuse and dependence.

As well as social benefits, belonging provides academic advantages. Furrer and Skinner (2003) suggested that children with a strong sense of belonging were more likely to participate enthusiastically in school activities and experience fewer negative emotions, allowing a greater potential for academic success. A sense of belonging may also instil a greater sense of personal worth, Roeser, Midgley and Urdan (1996) finding that students experiencing a feeling of belonging felt more academically efficacious and less self-conscious.

There are probably many factors determining the extent to which children feel a sense of belonging in school. These may originate from the home, peers, school, teachers, or from the child itself. Xin (2003) believed self-esteem was the single most important predictor of the sense of belonging and suggested that low self-esteem could discourage participation in school activities producing feelings of alienation and consequent lack of sense of belonging to school. In a study that measured sense of school belonging retrospectively after school transfer, Akos and Galassi (2004) compared the perceptions of boys with those of girls, and found that girls felt a stronger sense of school belonging than boys after transfer, but there is no information on how this compares with primary school. However, a longitudinal study by Seidman et al., (1994, p.518) found that after transfer, there was a "decline in the perception of support from school personnel and an increase in the daily hassles experienced in school". This suggests that the feeling of belonging drops after transfer to secondary school. The sense of belonging may be particularly valuable at school during times of transition (Berliner, 1993) but as yet,

> "little is known about variables that influence students' sense of belonging and the ways in which belonging may change over time" (Anderman, 2003, p.6).

School participation

Participation in school activities is the behavioural component of engagement as proposed by Finn (1989). He saw participation as the extent to which pupils are

involved in classroom and school activities. He envisaged that participation would become more complex as children grew older and matured, so that eventually it might include asking questions and initiating discussions with teachers and taking on more responsibility for study.

The most basic form of participation is often considered to be attendance at school (Epstein and Sheldon, 2002; Finlay, 2006; Jennings, 2003) and, of course, those who are repeatedly absent lose opportunities to participate fully (Newman, Davies and Marder, 2003). There is some evidence that absence is related more to school effects than to family effects (Eaton, 1979). In addition to reducing school participation, absence is also a precursor to early dropout (Epstein and Sheldon, 2002; Goldstein, Little and Akin-Little, 2003; Rumberger, 1995). For those that do attend school, involvement in class is a good indicator of engagement (Byer, 2001) but this needs to be encouraged by classwork that is interesting and challenging (Yair, 2000) and by the use of interactive teaching (Hawkins, Doueck and Lishner, 1988).

Involvement in extracurricular activities may be helpful at the time of transfer as it may promote friendships by providing opportunities to share interests which may be particularly valuable at secondary school (Kinney, 1993). Letrello and Miles (2003) supported this view as they found that students agreed that they found extracurricular activities helpful after transition. It is therefore, unfortunate that involvement in extracurricular activities appears to decline, sometimes dramatically, after transfer (Blyth, Simmons and Carlton-Ford, 1983; Seidman et al., 1994). Nearly all research on school participation has focused on extracurricular activities, but a study of primary school children noted that participation in the classroom tends to lead to stronger feelings of school belonging (Finn and Cox, 1992).

Value of engagement as concept

If these three components are accepted as capturing the essential nature of engagement, then one of the simplest descriptions of engagement itself is given by Willms, (2003, p.52):

> "Student engagement refers to whether students feel they belong at school, accept the broader societal values associated with schooling and participate in school activities".

This definition merely describes the three dimensions but it does distinguish clearly between them. There is, however, no detailed explanation or examples of how each component might be either observed or demonstrated. In that sense, this definition may be over simplistic but one of the main aims in this research has been to make very clear distinctions between the dimensions, to avoid overlap if at all possible, and to promote distinct measurement. Although some researchers have measured engagement as a single dimension (e.g. Connell et al., 1995; Lee and Smith, 1993; Marks, 2000), when the different dimensions of engagement are combined in one measure it is difficult to discern which aspects of engagement are the most important for improving different school outcomes (Glanville and Wildhagen, 2007), and which aspects of school context are most influential in each case.

The concept of engagement is a useful construct for a number of reasons. Research indicates that engaged students get more from school at all levels than their disengaged peers (Fredricks, Blumenfeld and Paris, 2004; Goodenow, 1993b; Norris, Pignal and Lipps, 2003). Engaged students are likely to work hard, accept school values and take part in various school activities that may help them to develop skills and knowledge. They are also likely to remain in school, at least until the legal leaving age (Connell, Spencer and Aber, 1994), thus maximising the opportunity to acquire qualifications and skills (Finn, 1989; Finn and Voekl, 1993; Fredricks, Blumenfeld and Paris, 2004; Hudley et al, 2002; Willms, 2003). This is linked to other benefits as children who leave school early experience higher levels of unemployment, receive lower earnings, are more likely to have health problems, engage in criminal activities and become dependent on state welfare (Rumberger, 1995). As already noted, engagement can be separated into different dimensions which means there are a number of avenues through which school personnel can attempt to improve student engagement (O'Farrell and Morrison, 2003). Since engagement is considered to be malleable (Finn and Rock, 1997), it should be possible for schools to modify specific aspects of school context believed to influence one or more of the components of engagement.

Self-Esteem

Transfer from primary to secondary school represents a move from a protective familiar environment to a larger, more impersonal situation with associated social and

emotional changes. It is also a time of significant physiological changes for boys and girls. It has been argued that self-esteem is crucial in sustaining pupils through the transfer process (Suffolk County Council, 2002). Indeed, Diener (1984) suggested that self-esteem is the strongest predictor of life satisfaction in the United States, more influential than all other factors such as age, income, education, health and all psychological variables. Of all the psychological variables that could be examined, it was therefore considered particularly appropriate to concentrate on self-esteem.

Self-esteem is a particularly important psychological construct which appears to influence many aspects of adolescents' lives (Chubb, Fertman and Ross, 1997). Research examining change in self-esteem during transfer has been described in Chapter 2, where it is generally seen as an outcome variable. However, while self-esteem may be a key outcome in its own right, it may also be an important predictor of engagement (Sirin and Rogers-Sirin, 2004). Some research examining self-esteem as an outcome variable is discussed towards the end of this section. Any studies examining self-esteem as an explanatory variable are considered in the next chapter.

To explain self-esteem, it is helpful first to clarify what is meant by self-concept. At its simplest, self-concept is the sum total of all that an individual perceives him or herself to be. It is an abstraction that all humans develop to describe themselves and includes among many things, the attitudes, competencies, personality traits, physical appearance and activities they possess and pursue. A person's self-concept may well be different from the view that others have of him or her. Self-esteem is associated with how individuals feel, how they think, and how they behave and is generally considered to be the evaluative aspect of self-concept, and can be thought of as an evaluation of one's self-worth (Huebner, Gilman and Laughlin, 1999).

Global self-esteem is an evaluation of the entire self and can be described as an individual's general self-acceptance or their general positive or negative attitudes towards themselves. However, Crocker and Wolfe (2001, p.594) pointed out that there are also domain-specific self-evaluations:

> "A contingency of self-worth is a domain or category of outcomes on which a person has staked his or her self-esteem, so that person's view

> of his or her value or worth depends on perceived successes or failures or adherence to self-standards in that domain"

and some of these contribute to the judgment of one's overall self-worth or global self-esteem. People vary in the values they attach to specific domains but they need to satisfy their contingencies if they are to believe that they are people of worth and enjoy good self-esteem; self-evaluations may, of course, be either positive or negative. Thus, high self-esteem implies that individuals see themselves as people of worth, although low self-esteem is more an absence of positive rather than the presence of negative attitudes, as people do not generally hold unfavourable beliefs about themselves (Crocker and Wolfe, 2001).

Traditionally it has been assumed that self-esteem is vital for success not only in the classroom but also for life in general. Adolescents with good self-esteem may adopt better strategies to cope with stress (Mullis and Chapman, 2000), and a positive view of the self has been accepted as an essential component of mental health. Longitudinal studies, assessing self-esteem before and after various stressful life events have found that good self-esteem can act as a protective coping resource or buffer (DeLongis, Folkman, and Lazarus, 1988; Egan and Perry, 1998). High self-esteem has been correlated with academic success in high school (O'Malley and Bachman, 1979), although low self-esteem is far more influential in causing poor results in school than high self-esteem is in giving good results, with low self-esteem being blamed for poor school achievement, adverse health outcomes and risk behaviour (Crocker and Wolfe, 2001). People with high self-esteem tend to be more confident and happier than others (Martin, 2005) and better able to cope with stress (Zimmerman et al., 1997). However, high self-esteem is not believed to be positive in all cases. It can also be associated with being conceited, arrogant and self-centred (Baumeister, 2004). It may also involve overestimating one's ability, resulting in overconfidence and failure (Baumeister, Heatherton and Tice, 1993) and some suggest it may also be a cause of poor social skills (Colvin, Block and Funder, 1995).

There is no agreement about the trajectory of self-esteem from childhood to old age (Robins et al., 2002). Self-esteem might be expected to change as teenagers cope with change and challenge during adolescence but views on how it changes vary. Some

research has shown self-esteem rises during adolescence (Demo and Savin-Williams, 1983; McCarthy and Hoge, 1982; O'Malley and Bachman, 1983), while a cross-sectional study by Simmons, Rosenberg and Rosenberg (1973) found that self-esteem dropped during early adolescence, rising gradually after the age of twelve. Rhodes et al., (2004) also noted declining self-esteem during adolescence while Block and Robins (1993) found that the self-esteem of boys increased and that of girls declined during adolescence. In a large study examining global self-esteem across the life span, Robins et al., (2002) found that self-esteem was high in childhood, dropped during adolescence, rose gradually throughout adulthood and declined sharply in old age. Once established, self-esteem can be quite stable over time (Hoge, Smit and Hanson, 1990).

There is a tendency for boys to have higher self-esteem than girls (Simmons et al., 1979; Block and Robins, 1993; Kling et al., 1999). Differences in self-esteem between males and females may be the result of continuing culturally accepted gender norms (Josephs, Markus and Tararodi, 1992) and derive from different sources (Kling et al., 1999). A study of gender differences in self-esteem in adolescents suggested that a crude explanation of higher self-esteem for boys than girls was the result of girls being socialized to get along in society while boys were socialized to get ahead (Block and Robins, 1993). Even where males and females have similar levels of self-esteem, it may derive from very different sources (Kling et al., 1999).

Many researchers believe that self-esteem is shaped by our experiences during childhood. Development is a complex process involving a person's innate characteristics, family, culture, peers and other social experiences (Block and Robins, 1993). In attempting to assess the origins of self-esteem in children, Coopersmith (1967) found that the most important factors were, first, that the child received unconditional love and was loved no matter what; second, that parents provided clear and well-enforced standards; and, finally, that parents respected their children's actions within well-defined limits. Adolescents with a difficult home life tend to experience lower self-esteem (Kobak and Sceery, 1988). The bedrock for self-esteem thus appears to be laid down early in life (Coopersmith, 1967) and it affects how we see others and how others see us for the rest of our lives.

Socio-economic status is another factor which some researchers believe might influence self-esteem. Mosley (1995) found that poverty alone did not appear to encourage lower self-esteem although the receipt of welfare payments did. The reason for this was not clear, but Mosley believed this result warranted further investigation to see if it is the stigma of public assistance *per se* that influences self-esteem or if welfare receipt merely serves as a surrogate for other unmeasured family characteristics (Mosley, 1995). A study by Demo and Savin-Williams (1983) supported the view that social class was a determinant of self-esteem, but this effect was relatively weak in young adolescents, becoming more important with age.

School transfer clearly coincides with a time when self-esteem might be either low or, at least, vulnerable as a result of new challenges and change. Some research studying change in self-esteem during transfer from primary to secondary school has found an overall drop in self-esteem (Blyth, Simmons and Bush, 1978; Eccles, Lord and Midgley 1991; Seidman et al., 1994; Simmons et al., 1979; Wigfield et al., 1991). A longitudinal study by Cantin and Boivin, (2004) found that the decrease in self-esteem continued for two years after transition and there is some evidence that girls are more likely to suffer a decline in self-esteem at this time than boys (Blyth, Simmons and Carlton-Ford, 1983; Crockett et al., 1989). However, Hirsh and Rapkin (1987) and Fenzel and Blyth (1986) found no change in self-esteem over the course of transition, despite a perceived drop in the quality of school life, while Eccles et al., (1989) noted that self-esteem was lowest immediately after transfer but later recovered.

Sometimes it is not possible to tell whether self-esteem is the cause or the result of other changes. For example, transition has been associated with a fall in self-esteem, reduced participation in extracurricular activities and feelings of anonymity in school (Blyth, Simmons and Bush, 1978; Blyth, Simmons and Carlton-Ford, 1983; Simmons et al., 1987), but it is not clear if these factors are related or independent of one another. Seidman et al., (1994) also noted a concurrent decline in self-esteem, extracurricular participation, class preparation and interest in school after transfer. They found that this was accompanied by a perceived drop in support from school personnel but, again, any sequence of cause and effect was not clarified. However, there are some studies examining self-esteem as a dependent variable (Ascher, 1987; Gottfredson, 1986; Lord, Eccles and McCarthy, 1994; Wigfield et al., 1991) and these

suggest that confidence in the ability to develop friendships and a sense of school belonging is particularly important in maintaining self-esteem. This may be especially relevant for girls who put more emphasis on relationships (Nottelman, 1987) while boys may derive their self-esteem more from academic performance (Lord, Eccles and McCarthy, 1994). These studies suggest that students can be bolstered by a system of both peer affiliation and acceptance.

For a number of reasons, self-esteem is considered to be a key outcome in this study. The role played by self-esteem during school transfer is not clear since, as already noted, the results of studies investigating self-esteem during the transfer to secondary school yield varying results. Some studies showed no change in self-esteem during transfer (Fenzel and Blyth, 1986; Hirsch and Rapkin, 1987; Nottelman, 1987) while others noted that self-esteem declined at this time (Blyth, Simmons and Bush, 1978; Seidman et al., 1994; Wigfield et al., 1991). Since a number of researchers have suggested that self-esteem plays an important role in school success (Bankston and Zhou, 2002; Hawkins, Catalano and Miller, 1992; Zimmerman et al., 1997), it seems crucial to understand more accurately how self-esteem changes during school transfer. However self-esteem changes during the move from primary to secondary school, it seems vital to identify some of the main factors, possibly including one or more of the dimensions of engagement, that influence any change in self-esteem. The significance of self-esteem in relation to education has long been of interest and its inclusion as an outcome variable enables the results from this study to be compared with those of some previous studies.

Wellbeing

About 50 years ago psychologists started to believe that self-reports on how well life is going, based on positive emotions and feelings of wellbeing, could provide important information on an individual's underlying emotional states. Wellbeing is not the same as happiness, but can be thought of as a broad phenomenon that includes people's emotional responses, domain satisfactions and global judgments of life satisfaction (Diener et al., 1999). Life satisfaction is a person's evaluation of life as a whole, which may be over and above judgments about family, friends, work or school (Huebner, 1991). Ryff (1989) suggested that wellbeing comprises six dimensions –

self-acceptance, positive relationships with others, autonomy, environmental mastery, purpose in life and personal growth.

It is important to recognise that the concept of wellbeing may not be the same for children as for adults and, in fact, may vary throughout the lifespan. From where children stand, Fattore, Mason and Watson, (2007) found wellbeing to include a positive sense of self, autonomy, the capacity to act in ways consistent with being oneself, feeling safe, secure and valued, and an adequate home environment with a decent, but not necessarily luxurious, standard of living.

A number of factors are responsible for differences in wellbeing scores and, perhaps to be expected, the domains that are closest to people's personal lives are those that have most influence (Andrews and Withey, 1976). Psychologists have found personality to be the strongest and most dependable factor underlying differences in wellbeing between people (van Hoorn, 2007), though some demographic variables such as health and socioeconomic status appear to be important (DeNeve and Cooper, 1998). However, the variance accounted for by demographic factors, such as age and income, is not large (Diener, 1984). Gender appears to have some effect, with young women generally reporting higher wellbeing scores than men, although this situation tends to be reversed when women reach the age of 45 (Diener, 1984). External locus of control, ascribing control over one's life to an external source, can be quite detrimental to wellbeing (DeNeve and Cooper, 1998). On the other hand, internal locus of control appears to mediate life stressors with the result that those with high internal locus of control may have a good sense of wellbeing regardless of the level of their stressors (Zika and Chamberlain, 1987). As well as internal locus of control, high self-esteem is a strong predictor of wellbeing (Diener, 1984) but in the final analysis wellbeing is determined more by how life is perceived than by objective circumstances (DeNeve and Cooper, 1998).

External factors such as urban poverty, environmental pollutants and violence may also affect wellbeing (Ewart and Suchday, 2002). Although they may not be apparent to children, other factors such as inflation and unemployment, may also be influential, even if indirectly. However, external factors that may directly influence children's

wellbeing are the atmosphere and quality of school, as well as the availability and quality of neighbourhood and leisure resources.

Child health and wellbeing is not static, but is the result of interplay between constantly changing factors concerning the child, the child's family, friends, school and wider society and which children mediate to create their wellbeing (Bradshaw, Hoelscher and Richardson, 2007). Global wellbeing appears to be unrelated to gender in children and adolescents, and may be affected by stressful experiences relating to school, friends and family (Huebner, 1991),

Wellbeing is a useful indicator of the quality of children's lives and, if monitored accurately, could be used to ensure that children maximise their potential and mature into happy and well-adjusted adults. Buchanan and Hudson (2000) pointed out that those experiencing problems and disadvantages early in life often do not maximise their potential. In addition, there are often links between antisocial behaviour, including disruptive behaviour in school, and poor achievement resulting in a loss to the individual and to society in general. Unfortunately, not all children receive the same support, care and love, but regular measurement of wellbeing may be useful in helping to improve children's lives (Ben-Arieh and Frønes, 2007) and in raising public awareness and achieving political support for ensuring children's rights (Hood, 2007). Despite the large interest in student wellbeing and the detrimental effects of adolescent ill-being, the evolution of wellbeing and the impact of school upon these changes have seldom been studied (de Fraine et al., 2005).

The concept of wellbeing is not one that has been much considered in relation to children and it is only during the last few years that attention has been given to the development of measures specifically for children (Ben-Arieh et al., 2007; Bradshaw, Hoelscher and Richardson, 2007; Fabiansson, 2007; Fattore, Mason and Watson, 2007; Hanafin et al., 2007; Taimalu et al., 2007). Many studies do not ask children to comment on their own perceptions of wellbeing, tending to rely on objective measures such as achievement. However, this technique is invalid in relation to self-perceptions (Cummins, 2001; Marriage and Cummins, 2004) and appropriate instruments for children are required (Marriage and Cummins, 2004).

Children spend a great part of their day at school. How they feel about school is therefore important to their wellbeing. A positive school environment that is characterised by a socially inclusive climate, supportive peers and good academic achievements with a low level of stress can increase young people's sense of success and competence. This self-confidence in turn increases children's health and wellbeing which again strengthens the likelihood that they will continue to manage well at school (Currie et al., 2004). A healthy school environment occurs when school personnel work together to create a safe, productive, nurturing and supportive environment (Schultz, Glass and Kamholtz, 1987). Peer relationships may be particularly important as children move from primary to secondary school, close peer relationships being critical for companionship and emotional support, while peer alienation and delinquency are central to several aspects of life satisfaction (Nickerson and Nagle, 2004). However, research by Huebner (1991) found that for schoolchildren, satisfaction with family life was more strongly associated with overall wellbeing than satisfaction with friends. Children who are lonely or alienated are more likely to drop out of school so any intervention efforts should target these children (Nickerson and Nagle, 2004). Not all children have the same advantages and support and school offers children the best chance for redressing early life handicaps (Buchanan and Hudson, 2000).

Descriptive Statistics

Tables describing the descriptive characteristics of the outcome variables are presented here, with the modelling, statistical analysis and discussion to be addressed separately in Chapter 6. Table 3.1 shows the minimum, maximum and mean values of all outcome variables and Table 3.2 shows mean values of all outcomes for children at each measurement time, and pre- and post-school transfer. The minimum, maximum and means for all outcome variables for children before and after transfer by their primary schools are summarised in Tables 3.3 and 3.4 while Table 3.5 shows the best and worst primary school for each outcome. Table 3.6 shows the minimum, maximum and mean values of all outcome variables for children before and after transfer by secondary school and Table 3.7 shows the best and worst secondary school for each outcome.

For all the tables describing outcome variables, high values indicate 'good' scores, or more positive attitudes and feelings. Scores for primary schools need to be examined with caution as many schools are very small, with only a handful of pupils completing the questionnaires in each case. Table 3.1 indicates that within the sample there are children recording the best and worst values possible but as all the mean values are relatively high, most children have positive attitudes towards school and rate their self-esteem and wellbeing favourably over the time of the study.

Table 3.1: Minimum, maximum and mean values of all outcome variables

Variable	Minimum	Maximum	Mean
School commitment	3.00	20.00	14.46
School belonging	4.00	20.00	16.27
School participation	5.00	25.00	20.04
Self-esteem	4.00	30.00	23.54
Wellbeing	7.00	28.00	22.41

Table 3.2 shows the means for all outcomes at each measurement time and before and after transfer. There is an overall improvement in all outcomes except school participation after transfer to secondary school, but the highest values did not generally occur at time 4, which might be anticipated. The maximum values for school commitment, school belonging and wellbeing, were all recorded at time 3, immediately after transfer, indicating that the actual move to secondary school does not appear to have a detrimental effect on these outcomes. However, the values for these three outcomes fell after time 3, although not to levels as low as in primary school. This suggests that there may be aspects of secondary school, rather than the actual transfer itself, which have an influence on these outcomes. School participation declined steadily from time 1 to time 4 which may have something to do with children's changing attitudes and feelings as they enter adolescence or it could reflect some change either in the provision of activities or in the school environment. Self-esteem continued to improve between time 1 and time 4. This may be a consequence of a general improvement in self-esteem with age but it also suggests that the move to secondary school does not at this stage have a negative impact. The general pattern is for the values to be better overall post-transfer compared with pre-transfer, but this seems to be due to particularly high values at time 3 as, apart from self-esteem, all values decline between time 3 and time 4.

Table 3.2 Mean values of outcome variables for children at each measurement time, and pre- and post-school transfer

Variable	Time 1	Time 2	Pre-transfer	Time 3	Time 4	Post-transfer
School commitment	13.65	13.65	13.65	15.97	14.63	15.30
School belonging	15.71	16.36	16.04	16.54	16.46	16.50
School participation	20.41	20.39	20.40	20.03	19.31	19.67
Self-esteem	22.82	23.27	23.05	23.79	24.32	24.05
Wellbeing	21.65	22.19	21.92	23.01	22.82	22.91

Tables 3.3 and 3.4 show the minimum, maximum and mean values of the outcome variables for children clustered in their primary schools, both before transfer when they are at their primary schools and after transfer when they have moved to their secondary schools. The primary phase values were derived from two measurements taken before transfer in primary schools and the secondary phase values were derived from two measurements taken after the move to secondary school. In each case the two measurements have been averaged to give a mean primary phase value and a mean secondary phase value.

Table 3.3: Minimum, maximum and mean values of school commitment, school belonging and school participation for children by primary school

Variable	Primary School	Primary Phase			Secondary Phase		
		Minimum value	Maximum value	Mean value	Minimum value	Maximum value	Mean value
School commitment	1	6.00	20.00	13.29	5.00	20.00	13.83
	2	4.00	20.00	13.50	4.00	20.00	15.38
	3	6.00	20.00	13.47	7.00	20.00	15.95
	4	7.00	20.00	14.54	6.00	20.00	15.24
	5	7.00	20.00	14.06	6.00	20.00	15.82
	6	6.00	17.00	12.63	9.00	18.00	14.86
	7	11.00	19.00	16.00	10.00	20.00	17.00
	8	11.00	14.00	12.50	14.00	16.00	15.00
	9	9.00	18.00	15.00	9.00	19.00	14.67
	10	6.00	19.00	11.62	10.00	20.00	16.73
	11	6.00	18.00	14.03	11.00	20.00	16.72
	12	11.00	17.00	13.33	8.00	17.00	15.00
	13	9.00	19.00	15.17	16.00	19.00	17.33
	14	9.00	19.00	15.66	12.00	20.00	16.44
	15	4.00	20.00	12.05	3.00	20.00	14.04
	16	6.00	20.00	12.79	4.00	20.00	15.06
	17	4.00	20.00	15.09	5.00	20.00	15.68
	18	11.00	20.00	14.50	13.00	16.00	14.83
	19	7.00	19.00	14.08	10.00	19.00	16.14
School Belonging	1	8.00	20.00	15.06	7.00	20.00	15.64
	2	4.00	20.00	15.37	7.00	20.00	16.13
	3	8.00	20.00	16.67	12.00	20.00	17.05
	4	8.00	20.00	16.72	8.00	20.00	16.04
	5	8.00	20.00	16.45	6.00	20.00	16.80
	6	12.00	20.00	16.50	14.00	20.00	18.29
	7	12.00	20.00	18.11	12.00	20.00	17.88
	8	14.00	15.00	14.50	12.00	13.00	12.50
	9	12.00	18.00	14.45	8.00	20.00	14.33
	10	4.00	20.00	16.10	10.00	20.00	16.87
	11	4.00	20.00	15.45	7.00	20.00	16.72
	12	16.00	20.00	17.50	14.00	20.00	16.80
	13	8.00	20.00	14.83	16.00	20.00	18.83
	14	8.00	20.00	16.44	11.00	20.00	16.75
	15	9.00	20.00	16.53	5.00	20.00	15.92
	16	10.00	20.00	15.78	9.00	20.00	17.00
	17	7.00	20.00	16.54	13.00	20.00	17.55
	18	7.00	20.00	14.00	11.00	20.00	15.17
	19	10.00	20.00	16.00	12.00	20.00	17.14
School Participation	1	9.00	25.00	20.06	12.00	25.00	19.30
	2	8.00	25.00	20.42	6.00	25.00	19.34
	3	10.00	25.00	21.56	15.00	25.00	21.26
	4	12.00	25.00	20.30	5.00	25.00	19.10
	5	10.00	25.00	19.46	9.00	25.00	19.20
	6	16.00	25.00	22.14	18.00	24.00	21.57
	7	17.00	25.00	20.94	15.00	25.00	21.40
	8	19.00	19.00	19.00	15.00	18.00	16.50
	9	9.00	25.00	18.18	14.00	25.00	18.00
	10	13.00	25.00	20.34	13.00	25.00	21.40
	11	12.00	25.00	19.47	13.00	25.00	19.50
	12	17.00	23.00	20.83	16.00	25.00	20.50
	13	16.00	25.00	21.00	17.00	25.00	22.00
	14	15.00	25.00	21.31	14.00	25.00	19.47
	15	13.00	25.00	21.01	7.00	25.00	18.91
	16	15.00	25.00	20.18	9.00	25.00	19.92
	17	9.00	25.00	20.51	11.00	25.00	20.29
	18	15.00	25.00	19.83	17.00	25.00	21.50
	19	13.00	24.00	19.77	12.00	24.00	18.86

Table 3.4 Minimum, maximum and mean values of self-esteem and wellbeing for children by primary school

Variable	Primary School	Primary Phase			Secondary Phase		
		Minimum Value	Maximum value	Mean value	Minimum value	Maximum value	Mean value
Self-esteem	1	5.00	30.00	21.72	8.00	30.00	22.89
	2	9.00	30.00	23.15	4.00	30.00	23.40
	3	13.00	30.00	24.00	16.00	30.00	24.34
	4	9.00	30.00	22.96	12.00	30.00	23.77
	5	14.00	30.00	23.00	10.00	30.00	24.96
	6	17.00	30.00	23.63	20.00	30.00	25.71
	7	18.00	30.00	25.00	21.00	30.00	26.31
	8	20.00	20.00	20.00	21.00	23.00	22.00
	9	16.00	27.00	21.73	13.00	30.00	20.25
	10	13.00	30.00	22.93	16.00	30.00	24.50
	11	18.00	30.00	24.29	6.00	30.00	24.88
	12	23.00	30.00	26.00	18.00	28.00	24.40
	13	15.00	30.00	24.33	23.00	30.00	27.17
	14	17.00	29.00	23.13	17.00	30.00	24.59
	15	12.00	30.00	22.88	9.00	30.00	22.85
	16	16.00	30.00	23.91	17.00	30.00	25.85
	17	14.00	30.00	23.04	19.00	30.00	25.15
	18	13.00	23.00	18.83	19.00	21.00	19.83
	19	19.00	27.00	22.69	18.00	29.00	22.71
Wellbeing	1	13.00	28.00	21.69	10.00	28.00	22.28
	2	7.00	28.00	21.96	13.00	28.00	22.12
	3	13.00	28.00	23.37	16.00	28.00	24.27
	4	13.00	28.00	22.80	9.00	28.00	23.49
	5	11.00	28.00	21.67	12.00	28.00	22.80
	6	15.00	28.00	23.13	17.00	27.00	23.00
	7	18.00	28.00	23.78	19.00	28.00	25.44
	8	18.00	19.00	18.50	20.00	22.00	21.00
	9	17.00	27.00	21.09	9.00	28.00	21.00
	10	14.00	27.00	21.59	9.00	28.00	23.07
	11	16.00	28.00	21.81	17.00	28.00	24.00
	12	18.00	25.00	21.83	11.00	25.00	20.60
	13	13.00	26.00	20.67	18.00	27.00	22.83
	14	14.00	27.00	21.94	18.00	28.00	22.56
	15	8.00	28.00	21.67	13.00	28.00	22.18
	16	7.00	28.00	22.09	16.00	28.00	24.07
	17	7.00	28.00	21.22	16.00	28.00	23.04
	18	11.00	24.00	18.50	20.00	27.00	24.17
	19	19.00	27.00	22.77	18.00	28.00	23.71

Many schools have at least some children who recorded the maximum possible values for each outcome, at both the primary and the secondary phase. There are also some, but far fewer, schools with children recording the lowest values possible for each outcome. With the exception of school participation, the general pattern is an upward movement in values between the primary and secondary phase for most primary schools. Only one primary school recorded a decline in school commitment after transfer, and this is school 9 where the mean value dropped 0.39 points in the secondary phase. All the remaining 18 schools showed an improvement in school commitment. The greatest improvement is seen for school 10, which has a post-transfer mean 5.11 points higher than the pre-transfer mean. Most increases in school

commitment are much smaller than this, the smallest improvement being 0.33 points for school 18.

More primary schools recorded a fall in mean values for a sense of school belonging and these include school 9, the only school to show reduced school commitment in the secondary phase. School 8 showed the largest drop in the mean value for school belonging to record the lowest mean value of 12.50 in the secondary phase. The pattern is reversed for school participation, with only three primary schools recording an improvement in participation. One of these schools, school 13, had the highest mean value of 22.00 in the secondary phase. Again, school 8 recorded the largest fall, with the mean value for school participation falling by 2.50 points from the primary to the secondary phase.

Self-esteem improved for all but three primary schools between the primary and secondary phase. The greatest improvement is seen for school 13, which had the highest mean value of 27.17 points for the secondary phase. Although it does not show the largest decline, school 9 again is one of the primary schools with a falling mean value between the primary and secondary phase resulting in the second lowest mean value of 20.25 for self-esteem for the secondary phase. Nearly all primary schools recorded an improvement in wellbeing after transfer to secondary school, with the mean value of school 18 having the biggest increase of 5.67 points. Three primary schools, including school 9, showed a decrease in wellbeing after the move to secondary school. School 12, where the mean value fell by 1.23 points after the primary phase, indicates the largest decline.

Table 3.5 summarises the results of the outcome variables by primary school diagrammatically, where an average value for each outcome was derived from the four measurement times. It should be noted that these results are presented mainly for interest as, apart from school 15, all schools in the table are very small and only a few children completed the questionnaires each time. Since there are small schools with both the highest and lowest values, no particular conclusions can be made in relation to school size. School 7 seems to have especially good results while school 8 has poor results, but school 8 is the smallest of all the primary schools. It is interesting to

note that the results for school belonging and wellbeing are similar, perhaps indicating a link between the two concepts.

Table 3.5 Highest and lowest values overall of each outcome variable by primary school

	Commitment	Belonging	Participation
Highest	7	7	6
Lowest	15	8	8
	Self-esteem	**Wellbeing**	
Highest	13	7	
Lowest	18	8	

Table 3.6 shows the minimum, maximum and mean values of the outcome variables for children clustered in their secondary schools, both before transfer when they are at their primary schools and after transfer when they have moved to their secondary schools. As for Tables 3.3 and 3.4, the primary phase values were derived from the two measurements taken in primary schools before transfer and the secondary phase values were derived from the two measurements taken once children had moved to secondary school. In each case the two measurements have been averaged to give a mean primary phase value and a mean secondary phase value.

Table 3.6: Minimum, maximum and mean values of all outcome variables for children before and after transfer by secondary school

Variable	Secondary School	Primary Phase			Secondary Phase		
		Minimum Value	Maximum value	Mean value	Minimum value	Maximum value	Mean value
School Commitment	A	6.00	20.00	13.66	4.00	20.00	15.87
	B	4.00	20.00	13.51	3.00	20.00	15.11
	C	4.00	20.00	12.77	4.00	20.00	13.71
	D	4.00	20.00	14.42	4.00	20.00	15.79
School Belonging	A	4.00	20.00	16.25	6.00	20.00	16.76
	B	7.00	20.00	16.39	5.00	20.00	16.84
	C	8.00	20.00	15.41	7.00	20.00	15.70
	D	4.00	20.00	15.89	7.00	20.00	16.44
School Participation	A	10.00	25.00	20.09	5.00	25.00	19.73
	B	9.00	25.00	20.87	7.00	25.00	19.95
	C	9.00	25.00	20.27	12.00	25.00	19.25
	D	8.00	25.00	20.53	6.00	25.00	19.68
Self-esteem	A	9.00	30.00	23.50	6.00	30.00	24.75
	B	12.00	30.00	23.04	9.00	30.00	24.18
	C	5.00	30.00	21.94	8.00	30.00	22.79
	D	9.00	30.00	23.24	4.00	30.00	23.85
Wellbeing	A	7.00	28.00	22.10	9.00	28.00	23.46
	B	7.00	28.00	21.69	13.00	28.00	22.80
	C	10.00	28.00	21.81	10.00	28.00	22.27
	D	7.00	28.00	21.96	9.00	28.00	22.66

As before, the mean values generally increased, apart from those for school participation. This is consistent for all the secondary schools, indicating a more uniform pattern than is the case with primary schools. For all outcomes, school C recorded the lowest mean values for the secondary phase, and these were particularly low for school commitment, and self-esteem. School A had the highest mean values for school commitment and self-esteem in the secondary phase with mean values of 15.87 points and 24.7 points respectively while school C had only 13.71 points, and 22.79 points in each case. School C was selected to represent a secondary school with a high free school meal percentage and thus a relatively deprived local community. These results suggest that the consequences of socioeconomic disadvantage affect many aspects of the school environment.

The final table, Table 3.7 shows the results of the outcome variables by secondary school diagrammatically. The results were derived by calculating the average value for each outcome from the four measurement times. The table shows quite clearly the poor position of school C for each outcome. There is more variation between schools with the highest values for each outcome. The schools scoring highest on aspects of

school engagement are not the same as the school with the highest scores for self-esteem and wellbeing suggesting that different factors may be responsible for the two different groups of outcomes. In addition, unlike the primary schools, the school with the highest value for school belonging is not the same as the school with the highest value for wellbeing.

Table 3.7 Highest and lowest values overall of each outcome variable by secondary school

	Commitment	**Belonging**	**Participation**
Highest	D	B	B
Lowest	C	C	C
	Self-esteem	**Wellbeing**	
Highest	A	A	
Lowest	C	C	

Conclusion

The study of school transfer could focus on a number of relevant outcomes. However, there are strong arguments for examining the three concepts of engagement, as well as self-esteem and wellbeing, both as individual outcomes and in relation to each other. There do not appear to be any studies measuring how engagement changes during transfer to secondary school and very few examining any of the three components separately. If the arguments concerning the importance of engagement are accepted, especially its significance in relation to motivation and achievement, this is an oversight that needs to be remedied. If it can be shown that engagement responds to elements in the school environment, then this might offer an accessible point for administrative intervention and change, resulting in improved student attitudes towards school.

While there have been some studies investigating change in self-esteem during school transfer, these studies yield varying results, perhaps partly as a consequence of using different measures. Wigfield et al., (1991) found that, after transfer, some adolescents

experienced a negative shift in self-esteem in relation to study, especially regarding mathematics. They believed this was the beginning of a change in self-perception that put these adolescents "at risk for later failure" (Wigfield et al., 1991, p.564). Since there seems no doubt that self-esteem affects self-perception and subsequent behaviour (Alvarez-Icaza, Gomez-Maqueo and Patino, 2004; Skaalvik and Hagtvet, 1990; Wigfield et al., 1991), it seems essential that future research should address the ways in which school context influences these changes. Previous studies on self-esteem have focused mainly on how it changes during the process of transfer, but few explanations have been given to account for declining self-esteem, apart from the suggestion that it may be due to inappropriate classroom environments. No other aspects of school context have been examined in relation to self-esteem.

Interest in the role that teachers and schools play in the development of emotional wellbeing has grown since the late 1970s (e.g. Battistich, 2001; Battistich and Hom, 1997; Felner, Ginter and Primavera, 1982; Rutter et al., 1979). Two quite recent studies, both in Scotland, have used the concept of wellbeing to assess how well children make the move and adjust to life in secondary school (Love et al., 2005; Stradling and MacNeil, 2000). However, both of these studies used the concept to focus on emotional wellbeing, including the absence of stress, confidence and good mental health in relation to the school environment, a much narrower approach than the broader idea of global wellbeing. In addition, although reporting on levels of adjustment to secondary school, differences between children were not related to specific aspects of school. However, this notion of emotional wellbeing largely mirrors the component of engagement described as a sense of belonging to school, already included as an outcome variable. In addition to the use of engagement to examine changes relating to school attitudes, and self-esteem to investigate changes in individual feelings, I wanted to include a measure that would reflect feelings about life in general. Although self-esteem may well be one factor that influences the perception of wellbeing, it is not the only one concerned, as feelings of wellbeing may well depend on inputs from other aspects of life such as family life, school experiences, peer relations and personal characteristics (Huebner, Gilman and Laughlin, 1999). In this sense wellbeing may be thought to summarise overall satisfaction with life at the time. This could be doubly valuable as in one sense it provides a synopsis of general wellbeing at the time of measurement but it can also be

used to provide a backcloth against which to compare change in self-esteem and the engagement outcomes and this may suggest areas of most positive or negative change.

CHAPTER FOUR
DISCUSSION OF EXPLANATORY VARIABLES

Introduction

School transfer interrupts the continuity of life for all children, introducing changes in friendships, relationships with teachers, learning environments and daily routine and it would not be surprising to find that children experience a change in their attitudes towards school. Indeed, it was precisely because secondary schools are different from primary schools in so many ways that the concept of engagement was considered useful in providing a picture of the relative smoothness of transfer during the course of a year. The changes experienced at this time may be sufficiently fundamental to impinge on perceptions of self-esteem and wellbeing, and possibly other areas of life.

However, as well as recording how changes in engagement, self-esteem and well-being are related to the process of transfer between schools, it is also important to identify and control for some of the other factors that might influence such changes. Some studies have pointed out the educational consequences of poverty, ethnic minorities, poor parental support and so on, but, as mentioned in Chapter 3, these factors tend to be immutable and either impossible or at least very difficult to change. Accepting that some children do not thrive as one would hope after the move to secondary school, it seems vital to search for factors which influence these outcomes, particularly those that are more malleable, or open to change. Therefore, a major thrust of this research is to tease out possible underlying factors which might influence children's school performance, feelings and attitudes in addition to school transfer.

Many previous studies have suggested reasons for negative student reactions after transfer, particularly to explain a drop in academic performance. These explanations have focused mainly on issues such as ability, family background, socioeconomic status and, more recently, classroom environment. However, very few of these studies have taken a longitudinal approach in measuring change. In addition, although noting problems emerging after transfer, there is little research actually investigating specific causes of these changes, especially those deriving from the school context. When developing a group of independent variables to explore and explain some of the changes observed during transfer, these earlier suggestions were taken on board but a whole range of additional factors were also included in the data collection. It was

considered particularly useful to identify any influential characteristics which might be relatively open to intervention, especially by school administrators and teachers, and which could help smooth the impact of transition. Factors of this type are most likely to be related to school context. Since the paucity of research has provided few clues to the possible factors responsible for some of the changes in attitude during transfer, the main aim has been to cast a wide net in an attempt to provide a preliminary understanding of some of the most important issues that are involved.

The plan of this chapter is first to describe the ways in which the outcome variables may also play a part as explanatory variables. This is followed by an explanation of the roles of time and gender in this study. The discussion then moves on to consider the remaining independent variables using the same main headings as included in the questionnaire – family and home, lifestyle, emotions, and school. Within these sections, the possible implications of each proposed independent variable are considered together with discussion of any previous studies that have examined these variables in relation to transfer. A summary of all the independent variables included in this research is provided in Table 4.1.

Table 4.1: Explanatory Variables

Variable sets	Variables	
Outcome variables (as independent variables)	School commitment School belonging School participation	Self-esteem Wellbeing
Time and gender	Time Gender	
Family and home	Family structure Siblings Parental involvement in school Parental knowledge/control Hobbies	Organised non-school activities Activities with parents Religion Peer relationships
Home neighbourhood environment	Crime deprivation Education and skills deprivation Employment deprivation Health deprivation Housing deprivation Income deprivation Pupil/home Scottish Index of Multiple Deprivation	
Individual/ lifestyle	Health Risk behaviour	
Emotions	Self-concept Locus-of-control Resilience	Happiness Trust
School factors	School size Primary 7 (P7) average SIMD Secondary 1 (S1) average SIMD Secondary school Mixed age groups in primary school Gender P7 teacher Distance travelled home to secondary school Attends designated secondary school Older sibling at secondary school School discipline Bullying School safety Physical school environment Teacher support/classroom environment Sense of school community School acceptance/inclusion Loneliness at school Extra-curricular activities Boredom at school Classroom involvement School attachment Motivation Aspiration Ability Absence from secondary school	

Explanatory Variables

Outcome Variables as Explanatory Variables

It was earlier suggested that some outcome variables could quite possibly act as explanatory variables for other outcomes. The components of school engagement will be considered first. It is not clear how school commitment could have a strong influence on self-esteem and wellbeing, although it could be part of a chain of experience such that school commitment leads to more positive feedback from teachers which, in turn, improves wellbeing and self-esteem. However, because understanding of the influence of school commitment is limited, it has been included as an explanatory variable. A possible link between school belonging and school participation and wellbeing and self-esteem is much easier to envisage. Both of these variables describe social activities and integration with school and either or both could improve self-esteem and perception of wellbeing.

If the picture is reversed, it is quite possible to see how self-esteem and wellbeing might influence how well children integrate into their new schools and feel they belong there. This might further influence how much children want to participate in school activities. Participation itself is likely to encourage a sense of school belonging but, alternatively, good self-esteem and positive wellbeing alone might promote stronger feelings of school belonging. Wellbeing as an independent variable has hardly been investigated in the context of school transfer or in relation to school in general. There has been more interest in self-esteem, and Xin (2003) believed self-esteem was the single most important predictor of sense of school belonging, suggesting that low self-esteem could discourage participation in school activities, producing feelings of alienation and a consequent lack of sense of belonging to school. Viewing self-esteem both as a dependent and an independent variable, Chung, Elias and Schneider (1998), suggested that if self-esteem declined across transfer, this might lead to difficulties in peer relationships. This results in problems of its own but also aggravates concerns about joining in with activities in a new environment. In more general terms, Isakson and Jarvis (1999) found that the more stressors a student reported, the less the sense of belonging. In that sense, lowered self-esteem or perceived wellbeing could perhaps be considered stressors.

Again, because the derivation of school commitment is not clear in the literature, there is greater uncertainty about any possible role played by self-esteem and wellbeing as explanatory variables for commitment. Nevertheless, wellbeing and self-esteem have been included as explanatory variables for all three components of engagement, including school commitment. Accepting Diener's (1984) view that high self-esteem is a strong predictor of wellbeing, self-esteem is also included as an explanatory variable in the analysis of wellbeing as a dependent variable.

Time and Gender

Time

The key aim of this research was to measure how pupils' circumstances change during the process of transition from primary to secondary school. A longitudinal approach was therefore essential and arguably the key explanatory variable was time, since this allowed a test of whether the outcome variables changed during this critical period. The students were interviewed four times, twice before and twice after the primary / secondary transition. The expectation, if the transition period was indeed crucial, would be that the outcome variable of interest would change significantly between time two and time three. Thus, it was expected that the three measures of engagement, self-esteem and wellbeing would be significantly worse in period three compared to period two if the transition did indeed have a negative effect.

A handful of studies have adopted a similar timetable, with two measurements in the final year of primary school and two in the first year of secondary school (Cantin and Boivin, 2005; Hirsch, DuBois and Brownell, 1993; Lord, Eccles and McCarthy, 1994; Wigfield et al., 1991). While Cantin and Boivin (2005) and Wigfield et al., (1991) predicted a general decline in self-esteem at time 3, soon after the move to secondary school, Hirsch, DuBois and Brownell (1993) and Lord, Eccles and McCarthy (1994) believed that some children might be more at risk than others in experiencing a loss of self-esteem during school transfer. Hirsch and Rapkin (1987) and Nottelmann (1987) took a similar approach but they both took measurements on three occasions only – once towards the final year of primary school and twice in the first year of secondary school. Both these studies suggested that self-esteem might change as children entered secondary school. Only one study was found using this structure to measure any aspect of school engagement (Isakson and Jarvis, 1999). Like Hirsch and Rapkin

(1987) and Nottelmann (1987), Isakson and Jarvis (1999) also took measurements on three occasions, believing that any change in children's sense of school belonging as they moved to secondary school was likely to reflect the number of stressors they experienced at the same time. Despite the differences in expectations and findings, these studies all accepted that the measurement taken soon after school transfer was critical in indicating the immediate effects of school transfer.

Gender

Although this study did not specifically set out to measure differences between boys and girls, gender was also included as an explanatory variable. Gender differences have not been much explored in primary to secondary transfer, although Anderson et al., (2000) considered gender to be one of the most important factors in making a successful transition. Girls may be particularly vulnerable to the negative impact that systemic transitions can have on self-esteem (Blyth, Simmons and Bush, 1978; Crockett et al., 1989) and also more vulnerable to the environmental and biological transitions of adolescence (Simmons et al., 1979). Nevertheless, exploring continuity in history studies, Huggins and Knight (1997) found that boys reported less general enjoyment than girls in their first year at secondary school. There are many reasons why girls and boys might report different perceptions of school transfer. These reasons include changes associated with adolescence, the nature of friendships, changing relationships with teachers and parents and different perceptions of school subjects.

Family and Home

A number of variables were derived to provide information about children's families and about some aspects of their lives outside school. While it may be disingenuous to divide up aspects of parent/children relationships into separate entities, a few key areas of family characteristics and relationships have been distinguished here as it seems quite possible that different qualities of the parent/child relationships could influence how well children cope with significant life changes. Some of the family variables are factual, such as the family structure, while others describe characteristics of parenting style.

Family structure

Family structure is often cited as one of the most important influences on children's lives. The traditional family is often thought of as one which has experienced little change in structure over time and usually consists of two original parents. However, non-traditional families are becoming increasingly common and, although they may most often be single-parent families, with the mother usually as the single parent, other structures exist including extended families with step-parents and step-children, foster families, children's homes and various other possibilities such as children living with their grandparents or other relatives. While many non-traditional families cope as well as any other in raising children, they may experience more difficulties than other families. Non-traditional families may find it difficult to be involved in school as much as they would like. One common problem is that the single parent often has a job as well as running the home so there is considerable pressure on one person. This can affect the way that the family is able to be involved in the student's education, largely because there is likely to be a shortage of time (LaBahn, 1995). In addition, if there has been a divorce or death in the family, there may have been a change in the family finances sometimes resulting in a more insecure financial standing. There may be a number of risk factors for children of single parents, including reduced parental involvement, both at home and with school (Epstein, 1995). Therefore,

> "single-parent status is a marker of multiple risks that may influence a parent's likelihood of being involved in school or with the child directly" (Kohl, Lengua and McMahon, 2000, p.503).

Three categories of family were examined here; two parents, single parent and all other care arrangements, including step-parents.

Siblings

Those who achieve well after transfer tend to receive support from siblings as well as parents (Newman et al., 2000a). Relationships between siblings may be characterised by conflict and competition (Furman and Buhrmester, 1985) but good sibling relationships lead to psychosocial competence which is especially important at the time of school transfer, as those who feel supported adjust more readily and cope better with change (Branje et al., 2004).

Parental Involvement in School

There seem to be many advantages for children if their parents demonstrate interest and concern in their schooling. Parental involvement appears to provide a protective effect, students themselves reporting that with support from home they have more self-confidence and feel school is more important (Henderson and Mapp, 2002). A longitudinal study over four years by Hong and Ho (2005), examining direct and indirect effects of parental involvement on achievement, found that parental communication, hopes and expectations were key in improving educational aspiration and achievement for their children (Hong and Ho, 2005). A much shorter longitudinal study of 6th graders in the United States showed engagement declined over the time but that parental involvement may protect against this (Simmons-Morton and Crump, 2003). There are various ways in which parents can become involved in education but Sui-Chu and Willms (1996) found that, as far as achievement was concerned, discussion of school-related activities at home had the most effect. Keith et al., (1998) believed parental involvement to be equally important for boys and girls but Stevenson and Baker (1987) found involvement had a much stronger impact on the performance of girls than boys. It may be especially important where children are at risk of disengaging from school (Gonzalez-DeHass, Willems and Holbein, 2005). Despite its importance, it seems possible that parental involvement declines as children grow older, perhaps as children mature.

Quality of parental relationships

While in reality it may be impossible to divide up aspects of child/parent relationships into separate boxes, some attempt was made to gain some understanding of the quality of relationships children experienced with their parents in general. The likelihood is that parents who are approachable and involved in their children's lives, are also those who are concerned about their children's schooling. It has also been noted that adolescents who have good parental relationships benefit from a buffering effect in times of stress and this is positively related to wellbeing (Greenberg, Siegal and Leitch, 1983; Van Wel, Bogt and Raaijmakers, 2002). Zellman and Waterman (1998) also suggested that how parents interacted with their children was more important in predicting academic outcomes than the extent to which they are involved at school. Parental support and attachment may be especially beneficial in providing a secure

emotional foundation as children make the transition from elementary to junior high school (Wong, Wiest and Cusick, 2002) and may influence school engagement (de Bruyn, 2005). Cantin and Boivin (2004) found that parental support remained constant and strong during school transfer although the perception of support declined at that time (Reyes, Gillock and Kobus, 1994).

Parental control/knowledge of children's activities

There is agreement that the style of parenting influences adolescent school performance (Dornbusch et al., 1987; Lamborn et al., 1991) and a longitudinal study by Lord, Eccles and McCarthy (1994) noted that parents who allowed adolescents some autonomy were more likely to facilitate positive adjustment during transition. It was not possible to investigate the various types of parenting. However, one of the criticisms of today's parents is that often they have little knowledge of what their children are doing and that they have given up in the attempt to provide guidance. Consequently, some attempt was made to determine how much knowledge parents had of their children's activities, especially during this time of school transfer.

The following group of family variables examines the way children use their time out of school. On the assumption that students spend more time outside than inside school over a typical week, Jordan and Nettles (1999) believed that the way in which students used non-school time, especially involvement in religious and other meaningful, structured activities was likely to have significant effects on various educational outcomes, including engagement. It is possible that uptake of some activities is related to socioeconomic background as lack of financial resources may limit the choices available. In a longitudinal study of secondary school children Jordan and Nettles (1999) found that spending time with parents and involvement in structured and religious activities had a positive effect on school engagement and achievement and they concluded that adolescents who engaged in positive structured activities and experiences were more likely to make personal investments in their education compared with peers who were less involved in constructive activities out of school. Therefore additional data was collected about children's participation in hobbies, organised non-school activities, the time children spent with parents, and any religious activities.

Hobbies

No research has been found describing how involvement in hobbies changes over time and it may depend on the hobby selected. It could be that as children get older they have less time for hobbies. On the other hand, as they become more independent and make new friends, they may develop interests in new areas. As people get older they are often encouraged to take up hobbies as it is thought they help promote a healthy and more satisfying life. There is no reason to think it is any different for young people. Benefits deriving from hobbies depend on the type of activity. For example, if a child takes up stamp collecting he or she will learn how to classify, organise and present a collection, will learn something about different countries and may develop some basic research skills as they search for special items. An interest in sport could well result in a healthier lifestyle, perhaps teach team skills and promote greater social interaction. Hobbies may also provide opportunities for children to share time with their parents or other adults. Whatever the consequences, hobbies seem to be largely beneficial so it was considered worthwhile to examine any change in their uptake and possible influence.

Organised non-school activities

Any group or organised activity out of school is likely to act in the same way as a hobby. The main difference is that at least one adult and other peers are more likely to be involved and there is perhaps more chance to make new friends. Activities of this sort include sport teams, youth orchestra and ballet dancing and all of these require commitment and discipline, thus providing opportunities to develop skills and expertise. Structured activities can provide rewards and challenges for adolescents that encourage social, moral and intellectual development (Nettles, 1991). Spending time sharing interests with others is likely to be beneficial in buffering against any stress in other areas of life as it may be possible to draw on other friendship groups for support.

Activities with parents

The main purpose in collecting data on time spent with parents was not to analyse the type of activities but to see if there was any benefit for children who spent leisure time with their parents. The general assumption was that those who spent time doing things

with their parents were probably those with more positive parental relationships, but this might not always be the case.

Religion

The role of religion in school engagement is not clear. There seems little research on this topic and much of this is based in America where the attitude towards religion may be different from the United Kingdom. Studying secondary school students in America, Regnerus (2000) found that participation in church activities was related to higher educational expectations and stronger family and community socialisation. Perhaps the beneficial effects of religion are developed through trusting interaction with adults, friends, and parents who share similar views of the world (King and Furrow, 2004). Thus the friendship, interaction with others and support derived from religious activities, may provide a beneficial influence. Religion is associated with positive youth outcomes, and congregations have been acknowledged as an important source of social capital (Coleman, 1988; Hart and Fegley, 1995; Stolle and Rochon, 1998).

Peer relationships

Parents and family are probably the most significant people in the lives of children as they start school, but over time friendships will develop and become increasingly important. Children tend to value highly parental support throughout their school-aged years, but peer-related support appears to play a more significant role in children's lives only as they reach adolescence (Wentzel, 1998). At this time they spend more unsupervised time with peers than before. Early adolescence represents a time of significant changes in children's relationships with both their peers and their parents (Fuligni and Eccles, 1993). This is a time when they begin to distance themselves more from parents and place more importance on their peers, but it is not a permanent change. Peers may provide appropriate emotional support at this stage. As they reach adolescence, children tend to want fewer but more particular, close friends with whom they can share personal thoughts and feelings (Berndt and Hoyle, 1985).

Parents and peer support have been shown to be important predictors of how children adjust to transfer but it is not clear how they contribute separately (Barone, Aguirre-Deandreis and Trickett, 1991; Lord, Eccles and McCarthy, 1994). It seems that peers

are more important after than before school transfer (Feldlaufer, Midgley and Eccles, 1988) and it may be that there is more opportunity to meet others with similar interests in secondary schools and develop friendships (Kinney, 1993). Letrello and Miles (2003) found social interaction with peers helped children to adjust during the transfer process. Although observing a decrease in the provision of companionship over transition, Cantin and Boivin (2004) found that, after transfer, children were as happy with their new social relationships as at the end of primary school. It was unrealistic to attempt to measure the strength of friendships within and outside school separately, as friends at school are likely to be similar to the group of friends they have outside school, particularly when children are at primary school. Therefore, although the measure for friends was included in the questionnaire under the heading of Family and Friends, it is really a measure of friendships in general, regardless of their origin.

Local Neighbourhood Environment

It seems clear that neighbourhoods influence adolescent and student achievement (Garner and Raudenbush, 1991) with research demonstrating that adolescents who live in affluent neighbourhoods and attend schools with higher average income levels have higher educational expectations, perform better academically, and complete more years of school (Brooks-Gunn et al., 1993; Marsh, 1991). Conversely, children from lower socioeconomic families who attend schools in less affluent areas tend to perform less well than those from more affluent families, neighbourhoods and schools (Brooks-Gunn et al., 1993). While agreeing that deprivation and neighbourhood effects have an important association with educational outcomes (Duncan, 1994), it is also accepted that the overlap between neighbourhood, family and school may be difficult to disentangle (Garner and Raudenbush, 1991). However, after controlling for pupil ability, family background and schooling, Garner and Raudenbush (1991) found a significant negative association between educational attainment and the level of deprivation of the home neighbourhood. Children from lower socioeconomic backgrounds are more likely to drop out early from both middle school (Rumberger, 1995) and high school (Rumberger, 1983) although a study by Alspaugh (1998b) suggested that increased dropout after transfer was not attributable solely to socioeconomic status, but was also related to increased school size.

There is no single generally agreed definition of deprivation but it is a concept that overlaps, but is not synonymous with, poverty. As parents were not interviewed for this research, it was only possible to collect limited data on the socioeconomic backgrounds of the families involved. Deprivation scores were therefore used to provide further information on family characteristics. There are a number of deprivation indices which attempt to measure the proportion of households in a specified geographical area with certain characteristics indicating low living standards or need for services. Measures of deprivation must be interpreted with caution as the geographical area may not be appropriately or clearly defined and, in addition, not all people living in a defined area may conform to its ascribed characteristics. Nevertheless, deprivation indices provide a starting point for the understanding of differences between local communities.

There are various indices providing information about local neighbourhoods and these include the Townsend Index, the Carstairs and Morris Index, the Jarman Scale, and the Scottish Area Deprivation Index. The first three were devised specifically for use by the health services in trying to explain area variations in health. Another deprivation index, developed in 1998 for use in Scotland, is the Scottish Area Deprivation Index, initially with analysis of over 15 health, social and material factors and later revised to take account of fewer combined indicators. This index was based on the postcode sectors of Scotland and one criticism was that, since the average population size of a postcode sector in Scotland is just over 5,700, this could include a wide range of circumstances and some pockets of major deprivation could be hidden. Other postcode sectors have very small populations, especially in rural areas, so the size of units is not comparable. This was followed in 2004 by the Scottish Index of Multiple Deprivation (SIMD). Improvements in the availability of data for small areas and in the methodologies used to calculate area based deprivation indices mean that it is more comprehensive than the earlier Scottish Area Deprivation Index and, while it may not be perfect, it was considered to be the most appropriate measure available providing information on relative neighbourhood deprivation on both specific aspects of deprivation and on multiple deprivation. Relative poverty or affluence can be assessed in a number of ways and in this study neighbourhood characteristics were measured by the SIMD as described above, but the additional measure of free school meal entitlement has been used to describe the general socioeconomic background of the

schools, discussed later in this chapter. The deprivation indices selected as explanatory variables to describe pupil socioeconomic background were crime deprivation, education and skills deprivation, employment deprivation, health deprivation, housing deprivation, income deprivation and the Scottish Index of Multiple Deprivation.

Lifestyle

Health

It is possible that health could influence a number of the outcome variables, as poor health could reduce attendance, prevent participation in sport and some group activities, limit the ability to make friends, with all or any of these factors having an effect on school achievement, self-esteem, wellbeing and engagement. It was not appropriate to request any specific information on health issues so a limited indication of self-perceived health was requested. Little is known of self-perceived health in adolescents (Tremblay, Dahinten and Kohen, 2003) but self-perceived health has been shown to be a reliable and valid indicator of physical and mental functioning (Piko, 2000). It was also thought there might be a gender difference in health as boys' self-evaluations of health tend to be more positive than those of girls, especially as they get older (Tremblay, Dahinten and Kohen, 2003). For any children with pre-existing emotional problems, transition may lead to depression not found in similar pupils who do not transfer (Rudolph et al., 2001). Information on the effect of school transfer on participation in physical activities is sparse, although both males and females reported decreased social support from family and friends to be physically active at this time (Garcia et al., 1998). Health problems may be easier to cope with in a small primary school closer to home and with a shorter school day than at secondary school. Adolescent health could be promoted by encouraging a school environment that meets the need to belong and feel cared for at school (McNeely, Nonnemaker and Blum, 2002).

Risk behaviour

Adolescents are vulnerable to a number of influences, including peer influence, or feeling rejected by the family or school, that may encourage risk behaviour (Kaplan, Martin and Robbins, 1984). The more limited supervision, both by parents and by school staff, that generally occurs after school transfer allows more opportunity for

pupils to engage in risk behaviour such as smoking, missing school and drinking alcohol. This is likely to have a negative effect on school commitment and, possibly wellbeing. A sense of school belonging inhibits violent crime and sexual activity (Goff and Goddard, 1999), but is unlikely to reduce such behaviour once started (McNeely and Falci, 2004). There is little information on changes in risk behaviour during school transition, although more risk behaviour would be expected after school transfer simply because older children have more opportunity and are more likely to experiment in this way. This is confirmed by Bergman and Scott (2001), who also noted large gender differences in some behaviours. In the present study, partly because they were relatively young, children were only asked about smoking and the use of alcohol, but involvement in other risk behaviours, such as drug-taking and early sexual activity, are likely to increase with age. Efforts to reduce risk behaviour may encourage a sense of school belonging with its associated benefits for students (Hoppe et al., 1998), emphasising the need for secondary schools in particular to concentrate on the development of social and community ties within school. As with health problems, risk behaviour is associated with school absence and all its attendant disadvantages.

Emotions

A handful of additional personal characteristics were examined to see if they had any effect on the school engagement components or on the other outcome variables. Factors of this sort are difficult both to define and to measure, perhaps especially where adolescents are concerned, and any results should be interpreted with caution and seen more as guidance than as concrete fact. The five concepts considered are self-concept, locus of control, resilience, happiness and trust.

Self-concept

At its simplest, self-concept is the sum total of all that an individual perceives him or herself to be. It is the belief we have about ourselves of who we are, although this may well be different from the view that others have of us. It is an abstraction that all humans develop to describe themselves and includes among many things, the attitudes, competencies, personality traits, physical appearance and activities they possess and pursue. Byrne (1996) described self-concept as the beliefs, feelings and memories a person has of him or herself. Self-concept tends to be quite resistant to

change (Swann and Ely, 1984; Swann and Predmore, 1985; Swann and Read, 1981; McFarlin and Blascovich, 1981). However, adolescence may be a time when there is some alteration in self-concept, as this is a transitional phase between childhood and adulthood. At this time there are changes in body, mind and social relationships. There is some evidence that adolescent girls have a lower self-concept than adolescent boys (Chubb, Fertman and Ross, 1997; Nottelmann, 1987; Wigfield et al., 1991). In addition, while the self-concept of adolescent boys tends to improve as they get older, it does not do so for girls. This may because boys perceive their pubertal physical changes as positive while girls may have a negative perception of some of their body changes (Polce-Lynch et al., 2001).

Self-concept can be seen as a guidance system enabling a person to take a consistent stance on life and a robust self-concept was found to be protective against stress (Pearlin and Schooler, 1978), and may help individuals meet the everyday challenges of the teenage years. It has been argued that people with a strong self-concept may have better coping strategies than those with weaker self-concept (Mullis and Chapman, 2000). The transition from primary to secondary school presents new challenges, particularly social changes, and it also coincides with adolescence. In a study of two girls' schools, Tonkin and Watt (2003) found self-concept was adversely affected by school transfer. It was considered possible that self-concept would dip over the time of transfer for both boys and girls. It was also thought that girls and boys might record different levels of self-concept and might show different rates of change. Self-concept is also likely to influence self-esteem and may also partly determine how well students engage with school.

Locus of control

Although self-esteem has for many years been the most common way of examining children's feelings in school, locus of control may provide a further useful insight into how well children manage the change from primary to secondary school. Locus of control is a general term in social psychology used to refer to the perceived source of control over one's behaviour. It can be thought of as a dimension running from high external to high internal locus of control. A person who has external locus of control believes that he/she has little control over their own destiny and attributes success or failure to outside forces. Someone with internal locus of control takes responsibility

for his/her own actions assuming that any consequences result from their own decisions and behaviour. It is not a question, therefore, of whether or not an individual has locus of control, but more a question of whereabouts along the continuum between high internal and high external a person's locus of control is located. Actual reality is not measured, as a person's type of control is entirely how the individual perceives it to be. Since it is not based on reality, it is an aspect of personality that is not easily changed (Savin-Williams and Demo, 1984), although it appears to become more internal over time.

Locus of control has an effect on the behaviour adopted. Those with internal locus of control, who believe that results are the consequence of personal effort, ability, characteristics and actions, are much more likely to be proactive and take responsibility. As far as school is concerned, a child is likely to work hard in order to improve and achieve good results. Those with external locus of control feel there is nothing they can do influence events and that whatever happens is the result of chance, luck or powerful others. Children who believe that success is the result of luck or chance will feel there is no point making any effort as, however hard they work, it will be a matter of luck whether or not they succeed. Examining perceived control in the classroom, Skinner et al., (1998) found that when children believed teachers were warm and caring, they were more likely to develop feelings of control, resulting in more active engagement and greater achievement. Research with elementary children found that those who saw their own effort determining their success also tended to perceive themselves as more competent and were also seen by their teachers as more competent (Connell, 1985).

Perceived control can be seen as a variable related to motivation that appears to affect children's academic achievement (Stipek and Weisz, 1981). Huebner, Ash and Laughlin (2001) argued that internal locus of control would encourage school satisfaction which, in turn, helps protect against poor achievement (Ainley, Foreman and Sheret, 1991). Kirkpatrick (1995) interviewed children before and after transfer to see what they believed contributed to success. She found that after transfer, fewer children thought effort was important, with factors such as luck assuming greater importance. Various elements in the secondary school reduce the opportunity for decision making such as the curriculum (Demetriou, Goalen and Ruddock, 2000),

while the more controlled classrooms limit the opportunities for making decisions and choices at the time when adolescents want more control over their lives (Eccles, Lord and Midgley, 1991), and decrease opportunities for self-management (Feldlaufer, Midgley and Eccles, 1988). This may reduce rather than improve school effectiveness, as a study by Richter and Tjosvold, (1980) found that those making decisions developed more positive attitudes and worked well without supervision, generally achieving higher marks. Although not a new concept, locus of control does not appear to have been measured across transfer.

Resilience

Resilience can be thought of as the ability to cope with and adapt to life's challenges. Masten and Coatsworth, (1998) suggested that resilient children do not have any mysterious or unique qualities but develop competence through experience. Various positive aspects of school life, such as good peer relationships (National Children's Home, 2007), association with competent and caring adults in the family and community (Luthar, Cichetti and Becker, 2000; Masten and Coatsworth, 1998), autonomy and a sense of purpose (Benard, 1995) and social competence (Cann, 2002), together with problem-solving skills (Dubow and Tisak, 1989) help promote resilience in children. However, many researchers agree that of particular importance are feelings of connectedness and belonging (Cann, 2002; Hawkins, Catalano and Miller, 1992; Howard and Johnson, 2000), with resilient students generally relating positively to other pupils and staff and taking a pride in their academic performance (Howard and Johnson, 2000). Pupils practised at using coping skills tend to be more successful in making systemic transitions (Anderson et al., 2000). Since transfer from primary to secondary school represents a period of uncertainty and stress, it was thought important to explore the effectiveness of resilience as a protective factor at this time.

Happiness

It is difficult to arrive at a satisfactory definition of happiness, especially where children are concerned. Most researchers consider happiness to be akin to psychological wellbeing or life satisfaction (Diener, 2000). For children, this seems to be too complex a construct, especially where no additional explanation is supplied when asking how 'happy' children felt. There is a difference between being content with life in general (possibly what is meant by life satisfaction) and feeling happy

because the weather is fine. In retrospect, had the complexities associated with defining and measuring happiness been fully appreciated, this concept might have been addressed in a different way. As it is, children were asked simply to indicate how happy they were in general on a scale of 0 to 10, suggested by Veenhoven (2005). It was thought that any change in happiness during school transfer would provide a useful indicator of adjustment at this time. The concept is a useful one, but results had to be approached with caution as it was not possible to determine how far the score related to life as a whole or whether it was a response to more transient factors.

Trust

Little is known about how trust develops. It is difficult to give a specific definition because it is based on many factors and varies with the expectations held in different kinds of relationships, and changes over the course of a relationship (Tschannen-Moran and Hoy, 1997). Trust is a quality that develops gradually as knowledge of an individual is built up over time. An element of vulnerability is involved as it concerns placing something one cares about in the care or control of another, with some level of assurance (Tschannen-Moran and Hoy, 1997). Trust is absolutely critical to social relationships, and individuals who are generally inclined to assume the best of other people, and therefore to trust them, tend to be happier than those whose inclination is to be suspicious and distrustful (Martin, 2005). Parents who know about their children's daily activities develop some idea of their children's judgment and learn to trust them (Kerr, Stattin and Trost, 1999) and children who trust their parents are likely to communicate with them more freely and openly. Trust promotes co-operation which results in benefits to everyone. It has been suggested that the perceived availability of trusted others acts as a buffer encouraging more self-reliance and tenacity in difficult times (Furrer and Skinner, 2003). As well as trust in individual people, it is also possible to have trust in an institution, including schools. In schools, trust can be viewed in relation to individuals, such as teachers, peers and administrators, and also to the organisation, with the assumption that action will be in the best interests of its pupils (Tschannen-Moran and Hoy, 1997). Transition from primary to secondary school might be reflected in a change in general trust simply because children move from a known to an unknown situation.

School Factors

The largest group of variables was derived from the section of the questionnaire on school-related issues. For the ease of discussion, this group has been subdivided into three, slightly arbitrary, groups – factual aspects of school context, pupil-perceived aspects of school context and pupil characteristics and response to school context.

School size

Schools for the study were selected to represent a range of sizes and contrasting areas of affluence as it was considered that both these characteristics could influence the school experience. Over time, arguments have been made for and against large schools. Disadvantages of large schools are given as greater dropout (Fetler, 1989; Fowler and Walberg, 1991; Pittman and Haughwout, 1987) and more behavioural problems (Haller, 1992; Lindsay, 1982). There may also be an inverse relationship between school size and achievement, particularly among primary schools (Caldas, 1993). However, it is argued that larger schools offer a broader and deeper curriculum (Haller et al., 1990; McMillan, 2004). Smaller schools are often associated with less anonymity for students, and more personal attention, both of which are suggested to result in more positive student outcomes (Finn, 1989; Holland and Andre, 1987), and may be particularly advantageous for students from impoverished backgrounds (Howley, 2002). Various researchers have also noted greater involvement in extracurricular activities in smaller schools (Baird, 1969; Lindsay, 1982; Morgan and Alwin, 1980). A Norwegian study noted that it may be particularly difficult for children from small rural schools to adjust to secondary school (Kvalsund, 2000). In addition to a contrast in school size there may be other issues such as a long distance to secondary school or moving with few or no peers. This study also investigated whether the size of primary school made any difference to how difficult children found the move to secondary school.

School socioeconomic background

Some of the implications of socioeconomic background have already been discussed in relation to pupils' home neighbourhood. It was noted then that it is difficult to separate the characteristics of the home environment from those of schools since schools generally serve their local communities. Research has shown that the composition of students attending a school, including socioeconomic background, has

a marked impact on the average achievement level of the school above and beyond the effects that such factors have on the achievement levels of individual students (Lee and Bryk, 1989; Lee and Smith, 1993; Maggi et al., 2004; Raudenbush and Bryk, 1986). For example, looking at a specific area of the curriculum, Sutton and Soderstrom (1999) found that reading and mathematics achievement was more a function of a school's demographic and socioeconomic status than its effectiveness, poverty being the common factor responsible for low achievement levels. It is quite possible that socioeconomic characteristics also affect engagement and other outcomes.

Since neighbourhoods appear to impart considerable advantages and disadvantages to the children growing up in them, they would appear to be a potent source of unequal opportunity (Brooks-Gunn et al., 1993). It has also been argued that schools in impoverished communities are less likely to promote parental involvement than schools in wealthier communities (Hill and Taylor, 2004). It was clearly important to include a measure for each school describing, as far as possible, the overall general neighbourhood from which its pupils were derived. It was also thought that the relative socioeconomic background of each year group in the study might influence how children responded to the change in school environments. This may be different from the general socioeconomic characteristics of the school attended and may have a more potent effect on attitudes and feelings than that of the school itself.

Primary 7 average SIMD

Data was only available on the children in the study but in many cases, nearly all the primary 7 (P7) children in the school took part. The average P7 SIMD is therefore likely to represent very accurately the socioeconomic character of the year group as a whole. In addition, since primary schools generally serve a small local area, the P7 average SIMD is also likely to reflect the overall socioeconomic character of the primary school quite well.

Secondary 1 average SIMD

The secondary 1 (S1) SIMD is not as likely as the P7 average SIMD to be such a good representation of either the S1 year group or the general secondary school SIMD. Once in their secondary schools, the primary children in the study comprised a relatively small proportion of the overall year group. They were also a tiny proportion

of the total secondary school population, which may be drawn from a number of different and distant areas.

Secondary school

The four secondary schools in the study were selected on the basis of size and free school meal percentage (FSM%). Two large and two small secondary schools were selected to include one large and one small secondary school with a low FSM% and one large and one small secondary school with a high FSM%. Each of the four secondary schools in the study therefore had a different combination of size and FSM% and they were represented by a separate explanatory variable.

Mixed age groups in primary school

In this study, mixed age classes were confined to eight primary schools. They occur when the schools are very small and, usually, rural. Depending on the size of the school, there are two or three teaching groups in the school. Mixed age groups may present advantages and disadvantages for both pupils and staff. While teaching mixed age classes may be more difficult, a study by Veenman (1996) found no significant difference in either cognitive or non-cognitive learning outcomes between multi-age or single age groups. Mason and Burns (1996) agreed that research consistently showed no achievement differences between multi-age and single age groups, but they considered that, although multi-age groups could provide instructional potential for some, they were potentially onerous for most. In addition, these classes increase teachers' stress, possibly jeopardizing teachers' motivation and commitment to teaching (Mason and Burns, 1996) and require more preparation (Bennett, O'Hare and Lee, 1983). However, it is also true that some single-age classes encompass a wide range of ability creating similar difficulties.

It is often suggested that advantages of mixed age groups are that older children benefit from the opportunity to provide support and help to younger children. Often, there is also a good sense of co-operation. Friendship groupings can also cross boundaries and this may be helpful when children move to secondary school. From the child's perspective, there may be drawbacks, such as limited opportunities for sport. There may also be difficulties in forming friendships if there are insufficient children of similar age and interests. Since mixed age classes are only found in small,

rural schools, any conclusions drawn from examination of this variable may be erroneous as they may relate to the small size of the school, or even the location of the school in a rural area. Nevertheless, despite possible ambiguity in interpretation of results, the idea of mixed age classes has been included as a variable in addition to the variable on primary school size.

Gender of primary teacher

Nationally, and in this study, there are many more female primary teachers than male. Researchers have found that teachers interact differently with students of similar gender than they do with students of the opposite gender. Some of these differences include disciplinary interactions, perceptions of student characteristics, and the amount of attention devoted to students (Krieg, 2005). There is evidence that both male and female teachers reprimand boys more than girls (Stake and Katz, 1982) and some suggestion that female teachers respond more positively to their pupils than male teachers (Stake and Katz, 1982). This may affect academic and other outcomes. An argument often made is that boys would behave better and maybe achieve better academically if there were more male teachers as role models in primary schools and boys themselves often prefer male teachers (Bawden, 2007). As well as the different styles of male and female teachers, it may be that both male and female teachers treat boys and girls differently, but this has not been examined.

Distance travelled from home to secondary school

Nearly all children go to a primary school nearby but when they move to secondary school, many children have to travel several miles to school. This usually entails using the school bus. In retrospect, perhaps this variable should have been split into two, to reflect both these issues. Although it is likely that most children living further than two or three miles from school travel on the school bus, this information has not been recorded or explored. It was considered that a long school journey might affect children in a number of ways, such as making the school day longer, and maybe more tiring, and possibly causing some loss of identity as children leave their home areas to mix with others from many different places. Alternatively, travel to school might be interpreted as an indication of maturity and independence. Walsh (1995) suggested that students from the cultural homogeneity of rural primary schools have a distinctive

experience of transition when moving from small communities to urban secondary schools.

Attends designated secondary school

Note was also taken on whether pupils attended the secondary school ascribed for their primary school. For various reasons, some parents request placements in other schools in Fife. Where children are granted a placement in an alternative secondary school, this usually means that they are the only pupil, or one of a small group of pupils moving from their primary school to the new secondary school. Lack of known peers could therefore make the transfer to secondary school more difficult. On the other hand, placement in a non-designated secondary school is usually requested because parents believe it to be beneficial in some way, so it may ease the transfer from primary school. Examining primary school feeder patterns to secondary schools, Schiller (1999) found that children moving with friends might not explore the possibility of new friendships while those moving to schools with few friends might be forced to establish new relationships. What might be positive for one child might be liberating for another (Schiller, 1999).

Older sibling at secondary school

Children generally believe that the transfer from primary to secondary school will be easier if one of their siblings is already at the school. Often they have some knowledge of the location and layout of the school and may have visited it more than once to attend events there, and they are also able to obtain information from their older siblings (Anderson et al., 2000). Children with older siblings already at secondary school may have general worries allayed (Johnstone, 2002) and they are generally more relaxed about the move (Harrison, 2005). In addition, they may feel safer, and more confident that if they are threatened or bullied, their older sibling will stand up for them. Another possible advantage is that parents who have already supported one or more siblings through the transfer process, and into secondary school, have developed experience and possibly friendships which may ease transfer for subsequent children.

The next group of school factors describes some school characteristics which have a direct effect on children's perception of the overall school context which may be

particularly important in determining how well children feel they belong to and engage with school and the whole educational process. Many aspects of school context affect children's perceptions of school but the elements examined in this study include school discipline, bullying, school safety, the classroom environment, feelings of school community, and the physical environment.

School discipline

The main goal of school discipline is to ensure that students and staff have a safe environment which is conducive to learning (Gaustad, 1992). However, it is incumbent upon the school management to ensure that all pupils know the conduct that is expected, that the expectations are fair, and that consistent and predictable consequences result from failure to comply with these expectations (Klem and Connell, 2004). In reality, the discipline code is largely implemented by teachers in the classroom, so they need to have a clear knowledge of the behaviour expected and know that they will receive support if they need to tackle discipline issues and impose sanctions. However, if teachers can use effective student socialisation strategies to develop genuine solutions to students' chronic bad behaviour, this is much better than just applying sanctions (Brophy, 1996). There is a difference in the way discipline is enforced in primary and secondary schools. While primary children report that teachers frequently use rewards, hints, discussion and punishment but very little aggression, secondary students note that these techniques are rarely used in secondary schools (Lewis, 2001). Both primary and secondary pupils agree that learning is disrupted each time the teacher has to deal with discipline issues (Lewis, 2001). Discipline is important, not only to respond to misbehaviour in a helpful way for the child, but also to allow a more supportive classroom environment providing good relationships with pupils, and effective teaching and learning (Psunder, 2005). Certainly discipline and the general atmosphere are highly rated by parents as valuable factors in schools (Martinez, Thomas and Kemerer, 1994). The issue of school discipline is key to learning and a positive school experience. Noting that a small proportion of children were worried about discipline in their first term at secondary school, Brown and Armstrong (1982) stressed the need for information and reassurance about what was expected.

Bullying

Bullying is intrinsically linked to school discipline and is one of the most commonly cited worries of primary children before they move to secondary school (Lord, Eccles and McCarthy, 1994). This is a valid concern as when they first move to secondary school, these children are the youngest and, nearly always, the smallest and they may be easily intimidated. In addition, primary schools are typically small settings, with well-established social networks compared with larger, and possibly less supportive secondary schools (Pellegrini and Bartini, 2000). This all takes place during early adolescence which is a time when physical aggression increases in intensity and frequency (Pellegrini and Bartini, 2000). Clearly, victimised children will tend to like school less and avoid it more (Ladd, Kochenderfer and Coleman, 1997), potentially leading to less engagement with school and withdrawal from learning.

School safety

There is no clear distinction between bullying and school safety. However, many primary school pupils believe they will be less safe in secondary school (Brand et al., 2003; Bryk and Thum, 1989) and are concerned about issues such as drugs, smoking and violence. Thus the concept of school safety relates more to the school environment than to individual bullying. These issues may be challenging for schools to deal with but when the school climate is supportive, with clearly defined norms and rules, and if students find that schoolwork is relevant to their goals, then violence and behavioural problems are less likely to occur (Horowitz and Tobaly, 2003).

Physical school environment

There is little research on the impact of the general school environment on students, but it may have an influence on a number of issues including behaviour, health and learning (Berry, 2002). The physical environment is defined by both material attributes and the perception of those attributes by learners (Fulton, 1991). The characteristics of school buildings and facilities were not specifically measured but it is accepted that these may affect student behaviour and learning outcomes. Aspects of the environment that children were asked to consider included environmental problems in the school area they considered detrimental to their health or wellbeing, such as smoke and fumes, litter and traffic. There is not necessarily a difference between the environments of primary and secondary schools but, since in many cases

transfer involves moving to a secondary school many miles from the primary school, it was thought there might be a noticeable environmental difference which possibly influences pupils' perception of their new schools.

Classroom environment/teacher support

The final two variables measured relating to school context were teacher support, and sense of school community. These two factors were considered likely to be particularly important in influencing pupils' perceptions of school, ultimately determining levels of engagement. Arguably, the main factor influencing classroom environment is the teacher, although contributory factors such as the physical nature of the room, class size, class mix and interaction, and school ethos also play a part. Nevertheless, in measuring classroom environment, the view was taken that this was largely a measure of teacher efficacy and style. The variable therefore incorporates the concepts of both teacher support and classroom environment. It is the teacher who largely determines pupil enjoyment and interest in learning and also is often the first port of call when students need advice on problems if they do not want to involve their family. The relationship a child has with a teacher is likely to change over time. The first year of primary school may be the first time a child has moved outside the home for any length of time. The primary teacher, therefore, may offer support in a number of ways, emotional, physical care, reassurance and comfort, as the child moves from home to school. Looking at kindergarten children, Birch and Ladd (1997) found that teacher-child closeness was positively linked with academic performance. Conversely, they noted that teacher-child conflict correlated positively with school avoidance and negatively with school liking. Research indicates that child-teacher relationships are particularly important, especially as the child grows older and begins to make more adult relationships outside the family (Hamre and Pianta, 2001). From a child's perspective, positive relationships with teachers may protect against the poor school performance associated with an unsupportive home environment (Hamre and Pianta, 2001). The teacher may be the single most powerful factor encouraging school engagement.

A child's relationship with teachers is likely to be very different in secondary school, but not necessarily less positive and rewarding, after school transfer. Students who perceive teachers as creating a caring, well-structured learning environment in which

expectations are high, clear and fair are more likely to report engagement in school (Klem and Connell, 2004). While influencing levels of engagement at all ages, teacher support was particularly important after primary school (Klem and Connell, 2004). However, several longitudinal studies reported more negative perceptions of teachers after transfer (Eccles, Lord and Midgley, 1991; Eccles et al., 1993b; Feldlaufer, Midgley and Eccles, 1988; Reyes, Gillock and Kobus, 1994).

Sense of school community

The final variable, measuring the sense of school community, is possibly the most important factor determining how far children become engaged with school. While empirical research on schools as communities is still quite limited, findings are consistent in suggesting that there are a wide range of benefits for students and teachers who experience their schools as communities (Roberts, Hom and Battistich, 1995). Explaining why this sense of community seems to be so important, Battistich, Solomon and Watson (1998) believed that in schools where a good sense of school community is established, students tend to bond with, and become committed to the school, and are therefore inclined to identify with school, accepting its goals and values (Battistich, Solomon and Watson, 1998). This means that they are less likely to drop out early and more likely to achieve well academically.

Support from the school community may be particularly important when children come from disadvantaged backgrounds. Kim, Solomon and Roberts (1995) suggested that a sense of community in the classroom might increase feelings of security and belonging and help mitigate some of the negative effects associated with poverty. It has been argued that one way to combat disaffection in adolescent pupils is to create school communities in which all students feel accepted and valued and to which they feel they are making important contributions (Battistich et al., 1995). Some of the possible advantages of school community may include improved attendance, decreased risk behaviour, less delinquency, more enjoyment of learning and school in general and increased confidence and self-esteem.

It may be that there is a different feel to the sense of community experienced in primary and secondary schools; this could be due to size, location, a different relationship with teachers, more teachers, a different mix of children, distance from

home, less parental contact with school, or possibly even a new sense of freedom and choice. Where schools work positively towards developing a sense of community, they typically focus on individual classrooms rather than the school as a whole (Kennedy, 2006). However, opportunities for activities across the age range, such as choir and drama may encourage interaction across age levels, which might be particularly helpful, as one of the things commented on before transfer is the fear of older children.

These are just some of the characteristics describing school context. Students' perceptions of school context appear to contribute to their global sense of the school as positive or negative (Kuperminc, Leadbeater and Blatt, 2001). If positive, the school context can provide an enriching environment for personal growth and academic success. A good school atmosphere may help prevent behavioural and emotional problems and provide a supportive learning environment for high-risk students (Haynes, Emmons and Ben-Avie, 1997). At the time of school transfer, when levels of apprehension may be high, perception of school context may be particularly important in providing reassurance and support as children move to their new schools. School context may influence various areas of school life for individual pupils but only some of them have been examined in this study. These include the social elements of school inclusion, loneliness, involvement in extracurricular activities, boredom, classroom involvement and school attachment, all of which are arguably related and interlinked. School context may also influence motivation, aspiration and school attendance, which are likely to affect learning outcomes. Finally, ability, though partly a quality deriving directly from the individual, may depend on school context to be fully developed and realised.

School acceptance/inclusion

Inclusion involves being accepted, valued and encouraged by others (teachers and peers) in the academic classroom setting, and feeling oneself to be an important part of the life and activity of the class (Goodenow, 1993b). Children who are socially well integrated in school experience fewer negative emotions and tend to participate enthusiastically in school activities, leading to greater opportunities for actual learning and school success (Furrer and Skinner, 2003). The more students are involved in school life, the greater the likelihood that they will persevere, since both social and

academic involvement encourage persistence (Tinto, 1997). A sense of inclusion may also instil a greater sense of personal worth as those who are accepted in social groups tend to feel valued and liked. Schools with a programme of appropriate extra-curricular activities may encourage more involvement and acceptance.

For younger children the classroom provides the best opportunity for group activity and the teacher must take the responsibility for this. A study by Gillies (2003) investigated the effects of working in small co-operative groups compared with working alone or competitively. His results showed that when children worked together in co-operative learning groups, this helped children to be more involved with each other, and actively promoted learning (Gillies, 2003). Skilled teachers can often instigate group work and investigations which not only enhance learning but can also encourage social skills such as sharing, mutual support and friendship. There are a number of reasons why inclusion may be better in primary than in secondary schools. Children spend the whole of every day with the same group of children in primary school and usually stay in the same group for several years. Thus, they know each other well. In addition, most are likely to live in the same neighbourhood and may therefore play together outside school time. Group work is also common in primary schools, several children often sitting together round a table. Many of the activities in primary classrooms are of a practical nature such as drawing, craftwork, and drama. There is also usually freedom to move around the room so increased interaction between many pupils is possible. Finally, primary schoolteachers usually accept responsibility for ensuring that children mix well and that no one is left out, and will help children to work and play together. The situation in secondary school is different in nearly all respects. Pupils often have different class groups for each subject and may well come some distance from quite different areas, making out-of-school friendships harder. Work in classrooms is more often individual and less focused on practical activities with less need to move around the room, which most teachers usually discourage anyway. Since teachers usually only spend one, or perhaps two, lessons at a time with class groups, they may not easily notice when a child is isolated, and they are less likely to consider it their responsibility to intervene.

Loneliness

Loneliness is quite different from feeling accepted and included. Children without friends, or who find it difficult to make friends, may feel rejected which can damage emotional and social development (Lawhon and Lawhon, 2000). Lonely children may easily be overlooked in the classroom as they are often quiet and cause no problem while teachers tend to be preoccupied with disruptive behaviour (Sletta, Valas and Skaalvik, 1996). However, lonely children often have negative perceptions of themselves and may achieve poorly; this could be a consequence of unhappiness or, perhaps, less attention from teachers. In addition, a child who is perceived to be alone by other children may become the target of bullying, which only serves to intensify feelings of loneliness and isolation (Berguno et al., 2004).

When children transfer to secondary school, they interact with larger numbers of peers on a daily basis. The new school, with the relative uncertainty and ambiguity of multiple classroom environments, new instructional styles and more complex timetables, contrasts with the greater predictability of self-contained classroom environments in elementary school, and often results in students turning to each other for information, social support and ways to cope, and those who have many friends are likely to adapt to more easily than those who have few or no friends (Wentzel and Watkins, 2002).

Extracurricular activities

There is an assumption that participation in extracurricular activities can benefit adolescents by enhancing their feelings of connectedness to school, ultimately leading to greater academic success as school in general is more valued. Children spending more time doing extracurricular activities, generally spend less time watching television which is also associated with improved academic achievement (Cooper et al., 1999). As well as increasing overall interest and commitment to school, extracurricular activities encourage greater teacher-student contact and, often, opportunities for teacher-parent contact (Jordan, 1999). Extracurricular activities often result in improved wellbeing and self-esteem (John, Morris and Halpern, 2003).

Educationally, participation in extracurricular activities may well improve academic success, homework completion, school grades, and course enrolment (Chaput, Little

and Weiss, 2004) while reducing absenteeism and school dropout rates (McNeal, 1995; Mahoney, 2000; Mahoney and Cairns, 1997). Extracurricular activities may be particularly valuable for high risk students, reducing antisocial behaviour and providing an opportunity to share enjoyable activities with others, thus forming positive connections with school and its values that may otherwise be unavailable (Mahoney, 2000). A study of extracurricular activities for primary schoolchildren also showed that when children participated more in extracurricular activities, their academic achievement improved, especially for boys from low-income families (Powell, Peet and Peet, 2002). However, it is not clear whether participation in extracurricular activities enhances children's competence and skill when functioning in groups, thereby facilitating good academic performance in school, or whether positive school experiences encourage engagement in extracurricular activities (Mahoney and Cairns, 1997; Powell, Peet and Peet, 2002).

It was thought there might be a distinct difference between the uptake of extracurricular activities in primary and secondary schools. First, research has found that the smaller the school, the more the involvement in extracurricular activity (Holland and Andre, 1987; Marsh, 1992). Secondly, children at primary school, nearly always live close to the school and it is probably relatively easy to go home later after school on some days. However, after transfer to secondary school, many children depend on the school bus to travel to and from school, some living several miles away. These buses leave the school shortly after the end of the school teaching day and there may be no other transport if children remain late at school for activities. Involvement in extracurricular activities can help adjustment during transfer (Letrello and Miles, 2003) by promoting friendship (Kinney, 1993). However, research has shown that extracurricular activity generally declines after school transfer (Blyth Simmons and Carlton-Ford, 1983; Seidman et al., 1994).

Boredom

Boredom is a complex phenomenon related to multiple personal and situational factors and occurs frequently across all domains of young adolescent lives (Larson and Richards, 1991). However, for schoolchildren, boring means more than tedious and dull. Students use the term to denote something missing in their education, a sense of disappointment, and an unengaged relationship with the teacher (Fallis and Opotow,

2003). Boredom lowers the quality of pupils' lives in school (Larson and Richards, 1991) and is a frequent reason for dropping out of secondary school (Farrell et al., 1988). Children at primary school have less opportunity to vote with their feet, but it is possible that they, too, are bored in school. Discussion with primary school children during the pilot study revealed that they were generally excited about studying new subjects and, although some were a little anxious about homework, most looked forward to the challenge of harder work. Primary schools work very hard to prepare children well for harder work, but one of the points made by the Secondary 1 focus group was that the work was much easier than expected, sometimes boring, often repeating work already covered at primary school. A longitudinal study over transition in Australia confirmed that boredom was a problem (Yates, 1999), and a secondary teacher in Scotland also noted that children found the work after transition much easier than expected (Fouracre, 1993). Consequently, children may feel disappointed when they find themselves in less exciting and less competitive classrooms where lower level tasks, such as the completion of worksheets, are the norm (Feldlaufer, Midgley and Eccles, 1988). This may make some children feel underrated, rapidly leading to disengagement. It was therefore considered relevant to obtain some idea of relative boredom levels before and after school transfer.

Classroom Involvement

After moving to secondary school children are likely to find that the classroom environment is more formal than in primary school. This is a strategy designed partly to maintain good behaviour (Baines, Blatchford and Kutnick, 2003), but pupils may find the structure more intimidating and they may be more reluctant to join in or just find it harder to contribute than in the more relaxed primary school classroom. Pupil involvement in academic learning activities has been shown to be significantly related to achievement (Arlin and Roth, 1978; Byer, 2001; Lahaderne, 1968). If it is accepted that pupil involvement in classroom activity enhances learning, then involved time can be viewed as an indicator of pupil learning (Cornbleth and Korth, 1980). Individual differences may affect involvement in classroom activities (Cornbleth and Korth, 1980) and it could therefore be a useful measure of pupils' likely engagement and, perhaps, achievement. In addition, it seems that the greater pupils' perception of their involvement in class the higher their academic self-concept, and this acts to improve motivation (Byer, 2001). Involvement in class activities thus appears to be a vital

component of academic success but no research has been found comparing class involvement before and after transfer.

School Attachment

The concept of school attachment has been defined in this study as a more limited concept than school engagement or school bonding. It is used here to denote simple liking for school, regardless of reasons, and taking schoolwork seriously. It does not take account of relationships with teachers or peers, nor does it measure whole school participation or feelings of school belonging. This variable can perhaps be best thought of as school enjoyment and is an important factor in mitigating problems of dropout, delinquency (Battin-Pearson et al., 2000), smoking and drinking (Hoppe et al., 1998). There was no prior knowledge of whether students would enjoy school more before or after school transfer. Nevertheless, it was considered relevant to investigate how this concept of school attachment would change over time, since the move to a larger school, possibly some distance from home, with more transient links with teachers, at least initially, might well influence levels of school enjoyment. In a unique approach, Mouton et al., (1996) looked at school attachment through the eyes of students who scored poorly on attachment. These students perceived themselves as unattached to school, feeling alienated from the school community, peers and school personnel, and they generally had negative attitudes toward school. Empirical studies indicate that students who do not like school are more likely than those who like school to engage in school misbehaviour (Jenkins, 1995) which is an indicator of negative development throughout adolescence, including school problems and multiple health risks (Bryant et al., 2000).

Motivation

Motivation is often divided into two types. Intrinsic motivation concerns doing something for its own sake because it is inherently enjoyable, while extrinsic motivation is when an activity is performed not simply for enjoyment, but because it is instrumental in achieving a separate goal (Ryan and Deci, 2000). While intrinsic motivation may be more secure and important, in reality, much of what we do is extrinsically motivated. To many people, including teachers, students are motivated when they become involved in schoolwork and believe it is worthwhile and important

(Linnenbrink and Pintrich, 2003). The importance of engendering motivation is that it is likely to result in more deeply engaged students (Pintrich, 1999).

Various studies indicate that motivation declines with age (Cordova and Lepper, 1996). It has been suggested that the change in classroom practices, including more emphasis on marks, peer competition, and less involvement in decision-making, the different school structure, and the possible weakening of relationships between students and teachers are fundamental elements in explaining declining interest and performance in school (Anderman and Maehr, 1994; Eccles et al., 1993b; Midgley, Feldlaufer and Eccles, 1989b). As noted by Skinner and Belmont (1993), it is easy to identify highly motivated children as they are enthusiastic, interested, involved, curious and persistent but they are increasingly more difficult to find in older age groups. It was thought particularly interesting to measure motivation before and after transfer to secondary school to identify the direction and magnitude of any motivational change that occurred.

Aspiration

Aspiration is one dimension of educational achievement and must translate into behaviour (Duran and Weffer, 1992). Such behaviour may include completing homework and complying with school rules and discipline (Matute-Bianchi, 1986). Working towards goals is an important element in the educational achievement (Ames, 1992; Austin and Vancouver, 1996; Butler and Neuman, 1995; Elliott and Dweck, 1988). A study by Hanson and Ginsburg, (1988) discovered that certain values were more influential in determining achievement than social economic variables and these included parental expectation of their child going to college, the student's own expectation of going to college and the value placed on hard work. Since aspiration is clearly related to positive school behaviours, it seemed important to measure any change occurring over transition.

Ability

Ability might well influence how smoothly children adjust to the demands of a new school, as high performers perceive fewer challenges in the transition process (Newman et al., 2000b). There is usually less opportunity for co-operative group work after transfer, making it more likely that pupils will become more aware of their

individual performance (Feldlaufer, Midgley and Eccles, 1988). In addition, teachers may use higher standards to judge competence and there is evidence that students receive lower marks after transfer (Blyth, Simmons and Carlton-Ford, 1983; Eccles, Lord and Midgley, 1991; Simmons et al., 1979). Failure or low marks early in secondary school may encourage disengagement and early dropout (Roderick and Camburn, 1999).

Absence

Increasing absence may be the first sign that a student is becoming disaffected. While the home background may be important, student absenteeism may be motivated to a considerable extent by elements under the control of schools such as improved teacher relationships, and attempts to reduce bullying (Leonard, Bourke and Schofield, 2000) and opportunities for good student/teacher interactions (Bryk and Thum, 1989). Southworth (1992) noted different categories of absence, with reasons deriving from family, school or the individual. Poor attendees in general have low self-concept (Southworth, 1992) and are often anxious, with difficulty relating to teachers and peers (Eaton, 1979; Southworth, 1992). One of the consequences of transfer appears to be poorer attendance (Barone, Aguirre-Deandreis and Trickett, 1991) with peer and teacher relationships implicated as significant factors in persistent absenteeism in the early secondary years (Eaton, 1979). Caldas (1993) found that attendance is important at elementary level, but twice as important at secondary level in relation to achievement. Student absenteeism and truancy is an issue for all schools and they are reliable indicators of disengagement and precursors to school dropout (Epstein and Sheldon, 2002).

Attendance for Fife primary schools overall in 2005/06 was between 94.9% and 95.5% whereas for secondary schools it was between 89.4% and 90.5% (Scottish Executive, 2006a). It is no surprise that attendance drops when children are at secondary school, as children have more freedom and independence to behave as they choose. Nevertheless, this does not mean that the same negative factors that cause absence are not present in primary schools.

Descriptive statistics

Table 4.2 shows the overall minimum, maximum and mean values derived from all four measurement times, for the independent variables for all children, regardless of school. As for the outcome variables, high values generally indicate 'good' scores, or higher/better levels of the variable concerned unless otherwise noted. The minimum and maximum figures show that, for just about every variable, there are some children recording the lowest value possible and others recording the highest possible value. Where the minimum value is lower than the theoretical lowest value possible, this is because one or several items in the test have been omitted by one or more respondents. Many of the explanatory variables denote factors that are relatively unalterable such as family structure, school size and local neighbourhood characteristics. However, those variables that describe elements more open to modification, such as parental relationships, happiness and school discipline are generally evaluated in a positive rather than negative direction.

Table 4.2: Minimum, maximum and mean values of all explanatory variables

Variable	Minimum	Maximum	Mean
Time and Gender			
Time	1.00	4.00	2.50
Pupil gender (1=girl; 2=boy)	1.00	2.00	1.50
Family and Home			
Family structure	1.00	3.00	1.96
Siblings (1=no siblings; 2=has siblings)	1.00	2.00	1.88
Parental involvement with school	9.00	36.00	28.25
Parental relationships	30.00	60.00	51.95
Parental knowledge of children's activities	1.00	16.00	10.65
Organized non-school activities	3.00	16.00	8.56
Hobbies	4.00	16.00	12.00
Activities with parents	1.00	4.00	3.15
Religion	1.00	15.00	5.60
Peer relationships	12.00	52.00	40.74
Local neighbourhood			
Crime deprivation (higher scores, least deprivation)	97.00	6344.00	2817.78
Educational skills deprivation (higher scores, least deprivation)	97.00	6427.00	3388.75
Employment deprivation (higher scores, least deprivation)	147.00	6223.00	2990.15
Health deprivation (higher scores, least deprivation)	546.00	6398.00	3632.98
Housing deprivation (higher scores, least deprivation)	1801.00	6449.00	4048.05
Income deprivation (higher scores, least deprivation)	133.00	6212.00	3146.02
Pupil SIMD (higher scores, least deprivation)	296.00	5903.00	3161.48
Emotions			
Self-concept	10.00	68.00	52.86
Locus of control	3.00	28.00	20.02
Resilience	6.00	60.00	48.05
Happiness	0.00	10.00	8.08
Trust	1.00	14.00	9.99
Lifestyle			
Health	1.00	3.00	2.31
Risk behaviour (high value, more risky behaviour)	2.00	8.00	3.05
School factors			
School size (1=small; 2=medium; 3=large)	1.00	3.00	2.51
Free school meal % (FSM%)	0.00	50.00	19.09
P7 average SIMD	878.29	4923.23	3168.37
S1 average SIMD 06	1343.23	4401.66	3174.24
Secondary school (1=A; 2=B; 3=C; 4=D)	1.00	4.00	2.33
Mixed age classes in primary school (1=single; 2=mixed)	1.00	2.00	1.09
Gender P7 teacher (1=female; 2=male)	1.00	2.00	1.79
Distance from home to secondary school (miles)	0.10	16.30	4.46
Attends designated secondary school (1=yes; 2=no)	1.00	2.00	1.07
Older sibling in sec school (1=no; 2=yes)	1.00	2.00	1.42
School discipline	5.00	25.00	21.39
Bullying at school* (higher score, more bullied)	1.00	20.00	6.93
School safety	1.00	9.00	7.82
School physical environment* (higher score, more problems)	1.00	7.00	3.09
Teacher support/classroom environment	15.00	80.00	63.01
Sense of school community	4.00	90.00	70.92
School inclusion/acceptance	8.00	40.00	31.24
Loneliness (higher score, less lonely)	1.00	5.00	4.24
Extra-curricular activities	0.00	8.00	2.48
Boredom (higher score, more bored)	1.00	5.00	2.77
Class involvement	18.00	100.00	79.44
School attachment	5.00	25.00	16.57
Motivation	4.00	20.00	16.84
Aspiration	7.00	35.00	29.54
Attendance at secondary school %	52.63	100.00	93.67
Ability (self-assessed)	1.00	13.00	10.16

The means for all independent variables at each measurement time and before and after transfer are shown in Table 4.3. With some exceptions, the post-transfer means are generally a little lower than the pre-transfer means. For some variables, such as

those relating to family and home, this is understandable. For example, as children grow older their parents are likely to have less involvement in school and also have less knowledge of their children's activities. Many aspects of school context are also perceived to decline after transfer to secondary school. However, this decline is not always immediate. A common pattern seems to be for the mean to increase immediately after the move to secondary school at time 3, followed by a decline at time 4. A good example of this is class involvement which increases steadily to time 3, when the mean is 81.05 points, and then decreases at time 4 where the mean is 77.48 points. The one group of variables which does not follow this pattern is the one describing emotions. For all the variables in this group, all the post-transfer means are higher than the pre-transfer means. However, while the means for locus of control and self-concept improved steadily from time 1 to time 4, the means for happiness, trust and resilience declined slightly after time 3.

Table 4.3: Means for explanatory variables at each measurement time and before and after transfer

Variables	Time 1	Time 2	Pre-transfer	Time 3	Time 4	Post-transfer
Time and Gender						
Time	1.00	2.00	1.50	3.00	4.00	3.50
Gender	1.50	1.50	1.50	1.50	1.50	1.50
Family and Home						
Family structure	1.95	1.95	1.95	1.98	1.98	1.98
Siblings	1.89	1.89	1.89	1.87	1.87	1.87
Parental relationships	51.22	52.04	51.64	52.53	51.99	52.26
Parental involvement in school	28.31	28.35	28.33	28.74	27.58	28.16
Parental knowledge	10.86	10.60	10.73	10.83	10.32	10.58
Activities with parents	3.08	3.20	3.14	3.23	3.11	3.17
Organised non-school activities	9.01	8.60	8.80	8.49	8.12	8.31
Hobbies	11.93	12.26	12.10	12.05	11.73	11.89
Religion	5.90	5.66	5.78	5.53	5.31	5.42
Peer relationships	40.37	40.70	40.54	40.92	41.00	40.96
Neighbourhood Environment						
Crime deprivation	2818.06	2818.06	2818.06	2818.06	2818.92	2817.49
Education/skills deprivation	3388.88	3388.88	3388.88	3388.88	3388.34	3388.61
Employment deprivation	2990.69	2990.69	2990.69	2990.69	2988.53	2989.61
Health deprivation	3633.91	3633.91	3633.91	3633.91	3630.19	3632.05
Housing deprivation	4048.36	4048.36	4048.36	4048.36	4047.13	4047.75
Income deprivation	3146.85	3146.85	3146.85	3146.85	3143.50	3145.18
Pupil home SIMD	3161.88	3161.88	3161.88	3161.88	3160.29	3161.08
Emotions						
Self-concept	51.53	52.79	52.17	53.53	53.60	53.56
Locus of control	18.93	19.88	19.42	20.43	20.86	20.64
Resilience	46.90	48.22	47.57	48.86	48.21	48.54
Happiness	7.81	8.05	7.93	8.23	8.22	8.22
Trust	9.88	9.95	9.91	10.16	9.98	10.07
Lifestyle						
Health	2.31	2.35	2.33	2.30	2.28	2.29
Risk behaviour	2.69	3.10	2.90	3.14	3.29	3.21
School factors						
School size	2.50	2.51	2.51	2.50	2.50	2.50
FSM%	22.04	22.04	22.04	16.15	16.15	16.15
P7 average SIMD	3168.37	3168.37	3168.37	3168.37	3168.37	3168.37
S1 average SIMD	3171.35	3171.35	3171.35	3177.14	3177.14	3177.14
Secondary school	2.32	2.32	2.32	2.33	2.33	2.33
Mixed age group in PS	1.09	1.09	1.09	1.09	1.09	1.09
Gender P7 teacher	1.79	1.79	1.79	1.79	1.79	1.79
Distance home to secondary school	4.46	4.46	4.46	4.46	4.46	4.46
Attends designated secondary school	1.07	1.07	1.07	1.07	1.07	1.07
Older sib in secondary school	1.43	1.42	1.42	1.42	1.42	1.42
School discipline	21.79	21.82	21.80	21.30	20.64	20.97
Bullying	7.61	6.94	7.27	6.34	6.81	6.57
School safety	8.60	8.08	8.34	7.38	7.19	7.29
School physical environment	3.39	3.02	3.20	3.06	2.88	2.97
Teacher support/classroom environment	62.98	63.39	63.19	63.43	62.21	62.82
Sense of school community	69.49	71.78	70.66	71.40	70.98	71.19
School inclusion/acceptance	30.33	31.05	30.70	31.97	31.61	31.79
Loneliness	4.15	4.19	4.17	4.29	4.33	4.31
Extra-curricular activities	3.23	3.24	3.24	1.69	1.69	1.69
Boredom	2.86	2.78	2.81	2.60	2.85	2.72
Class involvement	79.48	79.69	79.59	81.05	77.48	79.28
School attachment	16.74	16.68	16.71	16.89	15.96	16.43
Motivation	16.96	16.93	16.94	16.92	16.55	16.73
Aspiration	29.77	29.81	29.79	29.72	28.83	29.28
Attendance %	93.66	93.66	93.66	93.68	93.68	93.68
Ability (self-assessed)	9.94	10.37	10.16	10.28	10.03	10.15

Conclusion

It is quite clear that children do experience changes in feelings and attitudes during the move from primary to secondary school. There have been some suggestions to explain why some children do better than others, such as those relating to socioeconomic background and family circumstances, but relatively few studies have addressed possible causes deriving from the school context. While accepting the impossibility of examining all areas of children's lives, and the factors impinging on them, a major aim of this research was to explore a whole range of factors which might provide some explanation of the changes occurring at this time.

Another advantage of including many factors in one study is that it is also possible to assess the relative importance of each factor. If variables are considered singly or in small groups, their possible influence may be overemphasized. When many factors are incorporated into the same model, this allows the relative importance of all the variables to be evaluated at the same time. As a result, it is possible to determine the most significant explanatory variables, while taking all the other factors into account at the same time. This means that intervention can be targeted where it is considered to be most effective.

CHAPTER FIVE

METHODOLOGY

Introduction

The overall aim of the study was to measure changes in engagement, self-esteem and wellbeing as children made the transition from primary to secondary school and to discover the factors that appear to influence a positive or adverse reaction. The study was almost entirely child-centred and, as the views and feelings of the children themselves were required, the only way to collect the information was by direct questioning. Since the study focused on changing attitudes and views over time, a longitudinal approach was essential. As has already been indicated, the nature of engagement, to some extent undefined but encompassing a wide range of elements, required information on a number of issues, necessitating an extensive set of questions. It was also important to have a reasonably large number of respondents who represented, as far as possible, the full range of pupils within Fife.

A longitudinal study design involves data collection on more than one occasion from a single sample, in this case both before and after transfer to secondary school. Such a longitudinal method is particularly useful when the sample experiences some identifiable alteration in circumstances. Research into the development of school-based attitudes is often based on cross-sectional data (Marsh, 1989) which cannot be used to make interpretations about change over time (Singer and Willett, 2003). In addition, cross-sectional designs are generally inadequate in identifying causal effects (Raudenbush, 2001); longitudinal studies provide the potential for grappling with causality. Another advantage of a longitudinal study over a cross-sectional study is that it allows cohort and age effects to be separated. Age effect is the change over time within individuals while cohort effects relate to differences between different groups, or cohorts. There was agreement between all interested parties – Fife Education, Fife School Psychology Service and head teachers, that a longitudinal questionnaire design was the most appropriate method of collecting the data for this study.

Ethical Implications

Ethical concerns encountered in educational research "can be extremely complex and subtle" (Cohen, Manion and Morrison, 2000, p.49). In earlier times, children may not have been accorded the rights that they now correctly have in relation to privacy and consent, particularly in the field of education. At the planning stage it was important to bear in mind the basic principles of ethical research which are to do no harm and to treat all individuals according to what is fair, due or owed. If there is any question of causing harm, then it may be valid to weigh up the benefits against the harm. In this case, the wellbeing of the children was a main priority at all times in designing the research plan, in the format of the questionnaire and in the implementation of the survey.

The research questions addressed in this study were considered to be highly relevant to the current and possibly future wellbeing of children. The project and the research method were explained fully to parents/guardians and children before obtaining written permission from all parents and informed consent from the children themselves. Head teachers saw the questionnaire in advance and their comments were taken into account. The final questionnaire was also seen and approved by the Depute Principal Educational Psychologist for Fife. Although it was considered unlikely that the questionnaire would cause distress or concern, nevertheless, all teachers agreed to be available to talk to children, with the School Psychology Service as back up if necessary. It was further agreed with the Depute Principal Educational Psychologist that if there were any cause for real concern for a child, then the school would be notified to take whatever action they considered appropriate. Assurance was given that both the children and schools in the study would remain anonymous. Children were made aware that they could drop out of the study if they wished and they knew that they did not have to answer any question they preferred not to answer. Details of the ethics application are provided in Appendix 5.1.

Study Design

The study was a longitudinal study using measures in a self-report questionnaire which was administered four times as shown in Table 5.1. The primary schools

completed questionnaires at times 1 and 2 while the secondary schools completed questionnaires at times 3 and 4.

Table 5.1: Timetable of questionnaire visits

Times	Date	School Group	Reason
1	February 2006	Primary 7	Baseline: before secondary school transition programme
2	June 2006	Primary 7	Preparation for transfer: after secondary transition programme
3	September 2006	Secondary 1	Transition period: one month after school transfer
4	February 2007	Secondary 1	Settling in period: six months after transfer

Sample

Schools

When selecting schools for the study sample, the aim was to represent, as far as possible, the range of schools in Fife. Since various researchers have suggested that school size (Fowler and Walberg, 1991; Friedkin and Necochea, 1988; Haller, 1992; Lee and Loeb, 2000; McMillan, 2004; Mok and Flynn, 1997; Morgan and Alwin, 1980) and relative affluence (Fowler and Walberg, 1991; Hallinger and Murphy, 1986; Howley and Howley, 2004; Willms, 1986) are likely to affect student outcomes, these two relatively static attributes played a key part in determining the schools chosen for the sample. As the study had a longitudinal design, it was vital to ensure that children selected at the outset could participate at all four questionnaire sessions. Therefore, before the primary schools could be chosen, four consenting secondary schools with the desired characteristics had to be found. Once these four secondary schools had been identified, a number of their feeder primary schools with a range of characteristics could be approached to see if they would agree to join in the study.

The study sample consisted of four secondary schools and a selection of their associated primary schools. The secondary schools were selected to represent large and small schools drawn from contrasting areas of affluence in Fife. Affluence was determined by using the percentage of pupils receiving free school meals (FSM%).

At the time the sample was selected, the range of FSM% for all schools in Fife was 4.3% - 30.2% (secondary schools) and 0.0% - 60.2% (primary schools). Information summarising FSM% figures for schools in Fife is shown in Table 5.2. Bearing in mind the need to have one large and one small secondary school at each end of the FSM% scale it was, fortunately, possible to include the two secondary schools with the highest FSM% (one small and one large). At the lower end of the scale, one small and one large school agreed to participate and these had the second and third lowest FSM% figures in Fife. This provided considerable contrast in the affluence of the sampled schools. There is little diversity in the urban/rural nature of the locations of secondary schools as within Fife there are no really large urban areas and all the secondary schools are located in towns.

Table 5.2: Free school meal percentage figures for schools in Fife and in sample*

	Primary Schools	**Secondary Schools**	**All schools**
Fife average FSM	20.0%	15.8%	18.2%
Sample average FSM	21.5%	17.2%	19.1%
Fife range FSM	0.0% - 60.2%	4.3% - 30.2%	0.0% - 60.2%
Sample range FSM	0.0% - 50.0%	7.0% - 30.2%	0.0% - 50.0%

- Figures for special schools not included

Table 5.3 summarises the characteristics of the four secondary schools in terms of the size and relative affluence of their pupil populations.

Table 5.3: Size and free school meal percentage of secondary schools

Free School Meal%	Large Schools	Small Schools
Low	School A (Roll: 1740) FSM% 8.4	School D (Roll: 827) FSM% 7.0
High	School B (Roll: 1134) FSM% 30.0	School C (Roll: 716) FSM% 30.2

The study was developed with the support of Fife Council. In order to gain access to schools, a preliminary meeting was arranged with Fife Education and Fife School Psychology Service. The research plan was discussed and schools fitting the desired criteria noted. Fife Education wished to make the initial approach to all the schools in the study and so sent letters to the secondary schools explaining the research project and inviting each school's participation (Appendix 5.2). I followed up this letter with a telephone call to discuss briefly what the research would involve and to confirm their agreement to take part. Once four suitable secondary schools had been recruited, some of their feeder primary schools needed to be recruited and a similar procedure adopted, initial letters again being sent by Fife Education (Appendix 5.3).

Primary schools were selected on the same basis as secondary schools, but included the further dimension of distance from their allocated secondary school. In general, the secondary schools were fed from a mix of large, medium-sized and small schools but primary schools representing a complete range of all characteristics were not available in all cases. Thus, while the primary schools selected for each secondary school covered nearly the full range of size possible for each cluster of primary schools, it was not possible to include a medium sized school for secondary school B. The basis for delimiting primary school size was that the primary 7 (P7) class had ten pupils or fewer (small), 11 – 30 pupils (medium) or more than 30 pupils (large). The primary school sample included 5 large, 6 medium and 8 small schools.

Using the same method as employed for secondary schools, the FSM% was used to determine the relative affluence of primary schools. Although the FSM% range for all primary schools feeding into the selected secondary schools was 0.0% – 60.0%, in the chosen sample the primary school FSM% range was 0.0% – 50.0%. The primary schools were also classified according to their distance from the secondary school, distinguishing those that were two or less miles away (close) and those that were further than two miles away (far). Three of the secondary schools each had one large primary school nearby and all of these were included in the sample. Secondary school B had four large, close primary schools and two of these were included. Thus, five large, close primary schools were included in the sample altogether. There were no large, distant primary schools and no close, small schools. The furthest distance of any primary school to its secondary school is 16.3 miles (to school A) and, in fact, school A serves many primary schools from more than six miles away. The most distant primary school for school B is 6.0 miles, for school C it is 2.1 miles and for school D it is 11.9 miles. Table 5.4 shows the general characteristics of all the primary schools in the sample.

Table 5.4: Primary school sample and characteristics

Secondary Schools	**Primaries**	**Primaries**	**Primaries**	**Primaries**
SCHOOL A	School 5 (close – large) P7 = 95 FSM = 12.1% School 4 (far – medium) P7 = 27 FSM = 4.2% School 16 (far – medium) P7 = 28 FSM = 8.9%	School 10 (far – medium) P7 = 22 FSM = 12.5% School 11 (far – medium) P7 = 21 FSM = 8.2%	School 8 (far – small) P7 = 2 FSM = 0.0% School 12 (far – small) P7 = 2 FSM = 0.0%	School 18 (far – small) P7 = 3 FSM = 46.7% School 19 (far – small) P7 = 6 FSM = 10.0%
SCHOOL B	**Primary** School 15 (close – large) P7 = 74 FSM = 48.7%	**Primary** School 17 (close – large) P7 = 47 FSM = 17.2%	**Primary** School 6 (far – small) P7 = 6 FSM = 20.6%	**Primary** School 13 (far – small) P7 = 4 FSM 5.7%
SCHOOL C	**Primary** School 1 (close – large) P7 = 61 FSM = 50%	**Primary** School 3 (far – medium) P7 = 26 FSM = 9.5%	**No small schools**	
SCHOOL D	**Primary** School 2 (close - large) P7 = 48 FSM = 16.4%	**Primary** School 14 (far - medium) P7 = 27 FSM = 5.1%	**Primary** School 9 (far – small) P7 = 8 FSM = 4.3%	**Primary** School 7 (far – small) P7 = 7 FSM = 15.9%

close/far refers to general distance of primary to secondary school
large/medium/small refers to size of primary school

NB
P7 class size of ≤ 10 = small; P7 11 – 30 = medium; P7 31+ = large
School D has no **close small** schools
School C **has no small** primary schools
School A has **no close, small** primary schools
School B has **no close, small** primary schools
The whole sample has no close small schools

Participants

All P7 children in the 19 selected primary schools were invited to take part in the study. A total of 405 children, with parental consent, agreed to take part. There were 196 boys contributing 48.4% of the sample with 209 girls making up the remaining 51.6% (Table 5.5). Most children in the study were born in 1994/95 with a handful born in 1993. Of the original 405 children there were:

236 children from large primary schools;
129 children from medium-sized primary schools;
40 children from small primary schools.

After the transfer to secondary school, the sample consisted of 393 participants as 12 children had transferred to secondary schools not included in the study sample.

Table 5.5: Composition of sample by gender and primary school

Primary School	**Boys**	**Girls**	**Total**
1	29	29	58
2	29	24	53
3	11	11	22
4	11	15	26
5	16	20	36
6	3	3	6
7	5	4	9
8	0	2	2
9	4	2	6
10	7	8	15
11	8	8	16
12	1	2	3
13	2	2	4
14	4	18	22
15	25	23	48
16	15	13	28
17	23	18	41
18	0	3	3
19	3	4	7
Total	196	209	405

Pilot Studies

There were several issues that needed to be resolved to derive the clearest possible questionnaire format and also to determine the best arrangements for the smooth delivery of the questionnaire. In order to develop an appropriate questionnaire format, it was considered important to gain the views of primary children who were just about to move to secondary school and those of secondary pupils who had just entered secondary school. It was also thought beneficial to examine different questions sets for their clarity and reliability in providing the required information, and also to test various response formats for questionnaire items.

Thus, before finalisation of the precise detail of the questionnaire, three small pilot studies were carried out, both to gather the preliminary information for designing the questionnaire, and to get a general feel of the children's interest in the topic and assess their attitude towards an outsider coming in to administer questionnaires. Each pilot study targeted a different aspect of the pre-questionnaire knowledge required. The first investigated questionnaire formats. The second involved discussions with primary and secondary school children already involved in transfer to hear their views about the process. This allowed the development of a draft questionnaire. In the third study, one primary school was visited twice with the draft questionnaire to test the finer detail of the content and the reliability of the measures used. None of the schools or children in the pilot studies was involved in the sample for the main research project.

<u>Pilot Study 1: questionnaire response formats</u>

One afternoon was spent with a class of P7 children examining various different formats of data collection and question type. Question types that were considered included smiley faces, Likert scales of different lengths, some with numbers and others with words, and simple answers such as yes/no, true/false, or like me/not like me. The Cantril ladder was also tested. Useful feedback included comments on the ease of understanding, fun of completion, time taken and whether there was sufficient provision for respondents to record the answers they wanted to give.

Pilot Study 2: Primary 7 class discussion and Secondary 1 focus group

a) *Primary 7 Discussion*

It was considered vital to discover the views of children who were just about to move to secondary school. Consequently a visit was made to a P7 class during the last month of the summer term. Nearly all the children had been involved in a school-organised transfer programme of some sort. Once the general nature of the research project had been explained, discussion was organised into four sections:

i) what children looked forward to, and the perceived advantages of secondary school;

ii) issues that worried children about moving to secondary school;
(Summaries of the comments made under sections i) and ii) can be seen in Appendix 5.4).

iii) how to deal with some of the problems they might encounter immediately after moving to secondary school;

iv) examination of various question sets – this involved comments on formats, words, and phrases used.

The children then agreed to complete various short questionnaires with different formats. They did this individually and in pairs and wrote on the questionnaire sheets any words and phrases that they found difficult. The sessions ended with a general discussion of various questionnaire formats and their ease of completion.

b) *Secondary 1 Focus Group*

Arrangements were also made to visit a group of children in S1 who had just moved to secondary school. This group consisted of eleven children who had only been in their new school for three weeks. They were selected by the Rector to cover a wide range of abilities and needs. The meeting started with a full explanation of the research project and reassurance that anything they said would be entirely confidential. There was no member of staff present.

Concerns before and after transfer were discussed, together with the characteristics and benefits of the transfer programme. Recalling feelings in primary school, many said that it had become increasingly boring. The main area of discontent was that

their teacher did not like them, but it must be remembered that in primary schools it is usual to have a single class teacher for the whole year. Appendix 5.5 gives a full list of their views on school before and after transfer.

All the children had enjoyed the transfer programmes, although not all the children had experienced the same programme. All transfer programmes involved at least one visit to the proposed secondary school. Some P7 children met children from other primary schools while some did not. The prime aim of the transfer programmes was to familiarise children with their new school environment, to provide an opportunity for questions and to try and allay any worries and fears. The children in the focus group said they felt quite confident when they arrived at secondary school at the beginning of term. While at primary school, nobody had ever missed school unless they were ill. However, they did perceive secondary school as more challenging and said they were more likely to miss a day at secondary school for various reasons such as tests, not doing homework, disliking teachers or lessons where teachers shouted at pupils. Comments made by the focus group are summarised in Appendix 5.5.

Moving on to consider the use of questionnaires, they considered the likelihood of giving honest and accurate responses, the issue of anonymity, and the difficulty of remembering such details as food eaten the previous day. One child felt that no questionnaire would be taken seriously; she thought that the respondents would just 'muck about' and give silly answers. When asked for a solution to this, she suggested that the teacher should only choose children who would do it properly. However, other suggestions for alleviating boredom and maintaining a serious approach were to include a game and to have a prize draw. All the children thought that the answers provided were more likely to be honest if the questionnaires were unnamed. They also looked at the possible structure and wording of the questionnaire and commented on words and phrases that might be ambiguous or difficult to understand. They were keen to try out some small question sets with various formats and were happy with the proposed Likert scales and the more specific questions about lifestyle.

Pilot Study 3: questionnaire reliability

A local primary school agreed to act as a testing ground for the final questionnaire. It was planned to have two visits with an interval of four weeks between so that the

items in the questionnaire could be tested for reliability. The system for coding questionnaires to ensure anonymity of participants was also tested.

Thirty-three children completed the first questionnaire and thirty-two of these completed the second. Before they started the questionnaire, the children were thanked for their co-operation and their role in the research was explained. Simple instructions were given to help with accurate completion. Assurance was given that all questionnaires would be confidential. At the end of the session, children were again thanked and asked if they had any questions. The children found it easier to complete the questionnaire the second time, but they still needed to ask questions about some words and phrases. Experience during the first visit had suggested an activity should be introduced to occupy early finishers. This proved useful during the second visit.

Findings for Pilot Study 3

i) the reliability of the pilot study tests was calculated for both occasions and found to be acceptable (Appendix 5.6);
ii) the system to ensure anonymity was satisfactory and simple to administer;
iii) some activity was necessary for the children who completed the questionnaires quickly to keep the atmosphere quieter, as children who finished quickly tended to be restless or bored, and could disturb others who were still working on the questionnaire;
iv) the presence of the class teacher was helpful as this promoted better discipline and provided additional support in answering queries.

Consequent to the pilot study, a few minor alterations were made to the questionnaire:

i) the statement ‘there are lots of gangs and drugs at school’ was separated into two separate statements;
ii) minor alterations were made to the wording of a few statements (since most measures were of American origin, this usually involved the change of a single word to one more often used in English);
iii) the few occasions when response boxes were yes/no/don’t know were changed to 4-point Likert scales;

iv) at the request of some head teachers during preliminary discussions, two additional tests were included, one on bullying and the other on classroom discipline.

The order of the sections was also altered. This was because during the pilot stage, the children asked many questions on how to complete the sections on family structure and parental employment. It was considered that if this section came at the beginning, then everyone would be at the same stage, and general advice and help could be given to everyone at the same time.

The first two pilot studies provided vital information which allowed fine tuning of the wording, format and content of the questionnaire. The final pilot study highlighted common difficulties and rubric errors and provided the basis for an appropriate set of instructions to be developed. It also indicated the time taken to complete the questionnaire. This varied somewhat, from just under an hour to about one hour and fifteen minutes. Since the children at the pilot school were generally well motivated and good readers, it was clear that a minimum time of one and a half hours should be allowed for primary school visits in general. With the information gathered from these pilot studies, the final questionnaire was collated

Variable and Questionnaire Development

The choice of variables, both outcome and explanatory, was informed by the literature review on school transfer (Chapter 2). Two of the outcome variables, self-esteem and wellbeing, have been used in other transfer studies. However, the general concept of engagement has not been studied in this way before. This is a useful measure which relates to the 'disenchantment' and 'disaffection' that some children might be expected to experience after moving to secondary school. Self-esteem has been studied as an outcome variable in a few studies on school transfer, but the varying results suggested that this required further exploration, especially in relation to a wider range of explanatory variables than used in most previous studies. The concept of wellbeing has been used relatively recently in two instances (Love et al., 2005; Stradling and MacNeil, 2000) to assess ease of transfer but the narrow definition in both those cases may have limited its value as an outcome.

Only a handful of different explanatory variables have been included in previous studies and these typically relate to pupil characteristics such as ability, achievement, motivation, competence and self-esteem. One or two studies have examined the role of family background and parental involvement in school, but apart from looking at the impact of school size, there have been virtually no studies examining the effects of school context, especially across transfer to secondary school. This study therefore selected some of the many characteristics of school context that could be investigated, together with some previously unexplored aspects of children's out of school activities to extend the understanding of children's response to school transfer.

The questionnaire consisted mainly of a number of tests derived from the literature. These tests were devised, validated and tested by researchers working in education, psychology, family relationships and other relevant fields. In order to maintain the validity of the tests, they were used in exactly the same format, although just one or two words were changed occasionally to ensure clarity. The aim was to preserve the meaning of the questions. The questionnaire consisted of four main sections:

i) family and friends
ii) lifestyle
iii) emotions/feelings
iv) school factors

The questionnaire was essentially the same for both primary and secondary schools since the main aim was to repeat questions allowing for longitudinal analysis. However, the data on family structure and parental occupations were collected only at time 1 and time 4. This was because, despite being short in length, this section proved to be very time-consuming for children to complete. Because of the nature of this particular data, it was considered unlikely that there would be many changes between each questionnaire administration, and that to obtain this information at the beginning and end of the study would be sufficient.

Definition and measurement of variables

Many of the variables used in the questionnaire were derived from specific, validated tests. A number of additional derived variables were also created. The measures used in this study were selected taking into account their clarity for the age of the children involved. Table 5.6 summarizes all the variables developed for the analysis.

Table 5.6: Summary of variable characteristics

Variable	Variable Type	Likert Scale	Number of Categories	Number of Items	Range of possible responses
Outcome variables					
School commitment	Interval	5 points		4	4 – 20
School belonging	Interval	5 points		4	4 – 20
School participation	Interval	5 points		5	5 – 25
Self-esteem	Interval	5 points		6	6 – 30
Wellbeing	Interval	4 points		7	7 – 28
Time and gender					
Time	Categorical		4		
1. time 1					
2. time 2					
3. time 3					
4. time 4					
Pupil gender (1=male; 2=female)	Binary		2		
Family and home					
Family structure	Categorical		3		
1. lone parent					
2. both original parents					
3. in care/other care arrangements					
Siblings (1= no siblings; 2 = has siblings)	Binary				
Parental relationships	Interval	4 points		15	15 – 60
Parental involvement with school	Interval	4 points		9	9 – 36
Parental knowledge of children's activities*	Interval	4 points		5	5 – 20
Activities with parents	Interval	4 points		1	1 – 4
Hobbies	Interval	4 points		4	4 - 16
Organised non-school activities	Interval	4 points		4	4 – 16
Religion	Interval	3 and 4 pts		4	4 – 15
Peer relationships	Interval	4 points		13	13 - 52
Local neighbourhood					
Crime deprivation	Rank				
Educational skills deprivation	Rank				
Employment deprivation	Rank				
Health deprivation	Rank				
Housing deprivation	Rank				
Income deprivation	Rank				
Pupil SIMD	Rank				
Emotions					
Self-concept	Interval	4 points		17	17 – 68
Locus of control	Interval	4 points		7	7 – 28
Resilience	Interval	4 points		15	15 – 60
Happiness	Cantril's ladder			1	0 – 10
Trust (higher score, more trust)	Interval	4 points		4	4 – 16
Lifestyle					
Health (high score indicates better self-rated health)	Interval	3 points		1	1 – 3
Risk behaviour	Interval	4 points		2	2 – 8
School factors					
Primary school size	Categorical		3		
1. small					
2. medium					
3. large					
School socioeconomic background (FSM%)	%				
Average P7 SIMD	Rank				
Average S1 SIMD	Rank				
Secondary school	Categorical		4		
1. secondary school A					
2. secondary school B					
3. secondary school C					
4. secondary school D					
Mixed age groups in primary school (1=no; 2=yes)	Binary				
Gender P7 teacher (1=female; 2=male)	Binary				
Distance from home to secondary school	Miles				0.1 – 16.3
Attend designated secondary school (1=yes; 2=no)	Binary				
Older sibling in secondary school (1=no; 2=yes)	Binary				
School discipline	Interval	5 points		5	5 - 25
Bullying at school* (higher score, more bullied)	Interval	4 points		5	5 – 20
School safety (higher score, more safe at school)	Interval	3 points		4	4 – 12
School physical environment	Interval	7 tick boxes		7	1 – 7
Teacher support/classroom environment	Interval	5 points		16	16 – 80

Sense of school community	Interval	5 points		18	18 – 90
School inclusion/acceptance	Interval	5 points		8	8 – 40
Loneliness	Interval	5 points		1	1 – 5
Extra-curricular activities	Interval	8 tick boxes		8	0 – 8
Boredom* (higher score, more bored)	Interval	5 points		1	1 – 5
Involvement in class	Interval	5 points		20	20 – 100
School attachment	Interval	5 points		5	5 - 25
Motivation	Interval	5 points		4	4 – 20
Aspiration	Interval	5 points		7	7 – 35
Absence at secondary school (% attendance)	%				
Ability	Interval	5 points		4	4 – 20

* Most interval variables were derived so that the higher the value, the better the outcome. However, in a very few instances there is a lack of clarity. Variables where the reverse situation applies, or where there is any possibility of ambiguity, are marked with an asterisk, and clarification given in the text where the variables are discussed.

Since most of the variables in the study were derived in a similar manner from validated tests in the literature, the general method adopted is described here. Selected tests varied in length from four to 28 statements. Shorter measures were formed of single items taken from existing tests. With very few exceptions, statements were measured on either a four- or five-point Likert scale. Students were asked to indicate how they felt about each item. Most four-point scale responses were 'strongly agree', 'agree', 'disagree' and 'strongly disagree', while the five-point scale responses were usually 'always', 'mostly', 'sometimes', 'occasionally' and 'never'. The negative items were simply scored 1 – 4 or 1 – 5, but the positive items were reverse scored 4 – 1 or 5 – 1. The scores for all statements in the test were then totalled to give a single value for each test. Thus, the resulting value for each test fell within a range where in general, the higher the total value the more positive the result. The measures for each variable are now described.

Outcome Variables

It is quite clear that the success of transfer cannot be determined by reference to one concept alone as no one measure of school transfer has been developed. While it might be helpful to have a single measure of the success of transfer from primary to secondary school, this is probably an elusive goal since each individual may have his or her criteria by which to judge the process. The outcomes explored in this research are the three components of engagement, self-esteem and wellbeing.

The measurement of engagement is complex for a number of reasons. First, there is a lack of any one definition and some of the factors are quite abstract and difficult to access and measure (see Chapter 3). Not only are there different views on the exact nature of the components involved, but also each of the component parts may function

as an independent as well as a dependent variable. Of the existing measures for engagement and its components, none has been developed in relation to British pupils studying in the British educational system, but mostly for children in American schools (e.g. Finn, 1993; Furrer and Skinner, 2003; Lee and Smith, 1993; Patrick, Skinner and Connell, 1993; Ryan and Patrick, 2001; Voekl, 1997). In addition, some require teachers to rate student behaviour (Finn, Panozzo and Voekl, 1995), and others depend on researchers to make observations of behaviour (Lee and Anderson, 1993; Newmann, 1992). Both these methods are subjective and may produce inaccurate deductions about the quality of effort, participation or thinking that students make (Peterson et al., 1984).

While it is clear that that the components of engagement are complex and possibly intertwined, in this study three dimensions of engagement have been treated as single constructs. This approach recognises that a single measure of engagement is not practicable, nor desirable (Glanville and Wildhagen, 2007). Not only that, but the three dimensions have been very narrowly defined and measured expressly to ascertain, as far as is feasible, how each one is affected by the many aspects of school context included in this study. The aim was to assess the relative value of each component and a major concern in selecting the tests to measure these concepts was to avoid any overlap between the measures if at all possible. However defined, engagement should be viewed on a continuum, not as two distinct states of either engaged or unengaged (Newmann, Wehlage, and Lamborn, 1992). Three separate dimensions of engagement were included – 'commitment', 'sense of belonging' and 'school participation'.

School commitment

Relatively little attention has been paid to school commitment and its nebulous quality makes it difficult to measure. The concept becomes increasingly abstract as children age and might be trickier to assess in older pupils when commitment to school may be reflected in more intangible behaviour such as concentration and hard work. Other possible indicators of school commitment might include school behaviour, motivation and the level of school attendance. However, as already indicated, a limited definition was adopted in this research as a major concern was to keep the three components of engagement as separate as possible, with minimal overlap.

Because the children in the study were relatively young, it was thought most appropriate and realistic to collect data about concrete behaviour that appeared to signify that children valued their education, for example, by completing homework, and taking the books they need to lessons. No suitable self-report test measuring commitment was found and the test used in this study was taken from part of a larger measure to assess the effect of school restructuring on engagement (Lee and Smith, 1993). Lee and Smith (1993) did not specifically define commitment but noted that if students became decreasingly committed to the rules governing their behaviour at school, they would become increasingly alienated and distanced from the school's goals. The four items taken from Lee and Smith (1993) related to practical behaviour likely to indicate levels of commitment to school for early adolescents. This test satisfied a broad definition of commitment believed to be appropriate for the age of the children in this study as "valuing educational goals" (Jenkins, 1995, p.221) and was measured using the 5-point Likert scale, 'always', 'mostly', 'sometimes', 'occasionally' and 'never'. The higher the resulting value, the more the school commitment. This measure would be less appropriate with older children who might be expected to have a more complex internalisation of this abstract factor.
The four items for school commitment were:

How often do you come to class without pencil or paper?
How often do you come to class without books?
How often do you come to class without homework?
How often do you feel bored in school?

School belonging

A number of researchers have developed tests to measure school belonging including Brew, Beatty and Watt, (2004), McNeely, Nonnemaker and Blum (2002), Mouton et al., (1996), Roeser, Midgley and Urdan (1996), Voekl (1996), Willms (2003) and Xin (2003). Some of these included ideas in addition to belonging such as school safety (Anderman, 2002; McNeely, Nonnemaker and Blum, 2002), and boredom (Willms, 2003), or were unsuitable because they were based on interviews rather questionnaires (Mouton et al., 1996), or were too long (Brew, Beatty and Watt, 2004). The test used in this study was that proposed by Roeser, Midgley and Urdan, (1996) who developed the measure as one of a whole suite of tests to see how far achievement was related to

school belonging in early adolescence. The test was short and simple, using four statements to assess the extent to which pupils felt they belonged to and were important in the school. The concept of school belonging is not defined by Roeser, Midgley and Urdan, (1996) but at its simplest can be described as the extent to which students "feel personally accepted, respected, included and supported by others in the school social environment" (Goodenow, 1993b, p.80). Responses to the measure for school belonging were measured on the same 5-point Likert scale as school commitment, with high values indicating better school belonging. The four items for school belonging were:

I feel I belong in this school
I feel I am successful in this school
I feel that I matter in this school
I do not feel I am important in this school

School participation

No suitable test was found to measure school participation. It was therefore decided to construct a measure specifically for this study to obtain data which complied with Finn and Voekl's (1993) definition of school participation as the extent to which a student "regularly participates in classroom and school activities" (Finn and Voekl, 1993, p.249). Four class participation items were taken from Sinclair and Fraser's (2002) Inventory of Classroom Environments, representing a subsection labelled involvement:

I make friends with children in class
I discuss ideas in class
I answer questions in class
I ask the teacher questions

In addition, a single item from Goodenow's (1993b) Psychological Sense of School Membership Scale was also included:

I am included in lots of activities in this school

This final statement is a little vague but was selected to signify involvement in school activities generally, and it was interpreted by the children as they thought appropriate. The test therefore indicated general school participation, or at least reflected how much pupils felt they participated in class and in school generally. Information specifically relating to extracurricular activities was collected separately and analysed as a separate explanatory variable rather than as a contributory element of school participation. Again, the five statements were measured on the same 5-point Likert scale as commitment, with higher values indicating more school participation.

Self-esteem

Views on the influence of self-esteem vary but it is generally believed that adolescents with high self-esteem function effectively in a variety of situations (Sirin and Rogers-Sirin, 2004). Good self-esteem may offer significant benefits in facilitating enhanced personal relationships (Kahle et al., 1980) and reducing susceptibility to peer pressure (Zimmerman et al., 1997). There is some evidence that high self-esteem promotes better school performance (Bankston and Zhou, 2002; Zimmerman et al., 1997), with poorer academic outcomes being related to lower self-esteem (Hawkins, Catalano and Miller, 1992). It may be that a certain level of self-esteem is necessary for students to believe they are capable of achieving academically (Pajares and Schunk, 2001). However, there is little agreement about how to measure self-esteem. Part of the difficulty is the lack of a single definition and a further problem is that, given its subjective nature, self-esteem can only really be measured using self-report measures. The requirement for this study was for a simple measure of global self-esteem. Global self-esteem refers to an individual's overall feelings of self-worth compared with any specific domain related self-esteem, which describes how an individual values himself or herself in relation to a particular aspect of life, such as sport or mathematics. A shortened version of the Rosenberg (1965) self-esteem scale was ideal for this purpose. This uni-dimensional scale was devised to measure global self-esteem and consists of three negative and three positive statements (Rosenberg, 1982) to give a value of self-worth on a continuum ranging from low to high self-esteem. The six-item scale adopted for this study is short, uses simple language suitable for junior school children and adolescents, and is a long established and recognised test. Responses were given on a 5-point Likert scale 'never true', 'hardly ever true',

‘sometimes true’, ‘often true’ and ‘always true’ and the higher the resulting value, the more the self-esteem. The six items used were:

I feel that I am a person of worth, at least as good as others
I feel I have a number of good qualities
I am able to do things as well as most other people
I feel I do not have much to be proud of
I take a positive attitude towards myself
At times I think I am no good at all

Wellbeing

While there are a number of tests measuring wellbeing, it is only very recently that attention has been given to devising suitable measures for children. Huebner, Gilman and Laughlin, (1999) developed the Student Life Satisfaction Scale in response to the argument that school and health personnel should aim at fostering wellness rather than simply treating existing psychological disorders. The Student Life Satisfaction Scale is designed for children aged eight to eighteen and is based on the hypothesis that children’s global life satisfaction is best assessed through items that require evaluation of life as a whole without any reference to specific domains. All seven items in this measure relate to life in general with no reference to school or any other specific aspect of life and were measured on a 4-point Likert scale ‘strongly agree’, ‘agree’, ‘disagree’, and ‘strongly disagree’. Higher values denote greater feelings of wellbeing. The seven items in the wellbeing measure were:

My life is just right
I have what I want in life
My life is going well
I have a good life
I would like to change many things in my life
I wish I had a different kind of life
In general, my life is better than most children’s

Explanatory variables

In developing explanatory variables, the main intention was to focus on factors that might influence one or more of the components of engagement and to explore some of the issues in a schoolchild's life that might have an effect on self-esteem and wellbeing during transfer. Some of the variables have been suggested or explored in previous research on school transfer. Others have been discussed in literature on education in general but not applied to transfer, while a final few were of an informed but speculative nature.

Time

Time was denoted as a categorical variable with four categories to correspond with the four occasions when the questionnaire was administered. These were:

time 1: February 2006 – baseline (primary school)
time 2: May 2006 – preparation for transfer (primary school)
time 3: September 2006 – transition period (secondary school)
time 4: February 2007 – settling in period (secondary school)

Both time 3 and time 4 are important variables. It might be claimed that any difference in outcomes between time 2 and time 3 are directly attributable to the transfer from primary to secondary school. However, although the results at time 3, both positive and negative, undoubtedly represent pupils' views at that time, they do signify their first impressions of secondary school and it may be unrealistic to read too much into the results at this time. Any change in outcomes at time 4 might be argued to represent a more accurate appraisal of secondary school experiences. Time 4 is a particularly important variable as it assesses attitudes and feelings some six months after the move to secondary school. It therefore measures outcomes after the initial excitement or anxiety of transfer itself has worn off. However, the data gathered at time 3 is also valuable, as any change noted between time 3 and time 4 gives an indication of a possible trend which, even at this early stage, could hint at potential problems which require monitoring.

Gender

The gender of pupils was recorded as a binary variable with boys denoted as 1 and girls as 2.

Family and Home

One section of the questionnaire obtained information about the family and other relationships and activities outside school. It also asked about parental involvement with schooling while other statements attempted to determine how much control or knowledge parents had about their children's lives. Apart from the information on family structure and siblings, all items in this section were measured with a 4-item Likert scale.

Family structure

The first short section asked for factual information about the family structure. This information was obtained by asking children to tick boxes to indicate who lived in their house. Using this data, a categorical variable called family structure was constructed. This variable had three categories describing possible parental units. These were single parent (1), both original parents (2), and any other care arrangements including foster parents, stepparents and children's home (3).

The format for obtaining data on family structure is shown below.

Please tick each box to describe who lives in your house:

Mother	☐			Stepmother	☐	Guardian/carer	☐
Father	☐			Stepfather	☐	Partner	☐
Brother/s	☐	How many?	☐	Grandmother	☐	Other adult	☐
Sister/s	☐	How many?	☐	Grandfather	☐	Other child	☐

Siblings

Pupils were asked to record whether they did, or did not, have any siblings. This provided a simple binary explanatory variable, 1 indicating no siblings, 2 indicating siblings.

Parental relationships

Information on relationships with parents was collected using 15 items of a self-report measure called People in My Life (Gifford-Smith, 2000). This test was designed to measure attachment to parents and peers in middle childhood. The first fifteen items indicated the strength of parental relationships and these were measured on a 4-point, Likert scale – 'strongly agree', 'agree', 'disagree', and 'strongly disagree'. High values denote the most positive parental relationships. The items for parental relationships were:

My parents/guardian listen to me
My parents/guardian accept me
My parents/guardian care about me
My parents/guardian help me with my problems
My parents/guardian can tell when I'm upset
I talk to my parents/guardian about my problems
My parents/guardian ask if something is bothering me
I share thoughts and feelings with my parents/guardian
My parents/guardian pay attention to me
My parents/guardian don't understand what I'm going through
I get upset easily with my parents/guardian
I feel angry with my parents/guardian
It is hard for me to talk to my parents/guardian
I feel scared at home
My parents/guardian are proud of me

Parental involvement with school

Fan (2001) examined various aspects of parental involvement such as parental aspirations for their children's achievement, parents' communication with children and teachers about school, and parental supervision at home. Using these ideas, and intending to measure the longitudinal effect of parental involvement, Fan (2001) devised a questionnaire of 14 items. Four of these items were omitted in this study. Two were inappropriate for the age of the children as far as Scottish education is concerned:

I talk to my father about planning high school programme
I talk to my mother about planning high school programme,

while the other two did not relate to parental involvement in education:

My parents/guardian limit the time I watch TV
My parents/guardian limit how much I go out with friends.

These last two items were included in the measure for parental knowledge/control. A further two items were amalgamated into one statement as the original items were considered to be too vague for a self-report questionnaire. Consequently the two statements:

How far in school does your father want you to go?
How far in school does your mother want you to go?

were replaced by the statement:

My parents/guardian want me to take Standard Grade exams.

The test for parental involvement in school was therefore measured on a 4-point Likert scale ‘strongly agree’, ‘agree’, ‘disagree’, and ‘strongly disagree’, with higher values indicating more parental involvement. It consisted of nine items:

I discuss school work with my parents/guardian
I discuss school activities with my parents/guardian
I discuss things studied in class with my parents/guardian
My parents/guardian attend school meetings
My parents/guardian speak to teachers
My parents/guardian visit my class
My parents/guardian attend school events
My parents/guardian check my homework
My parents/guardian want me to take Standard Grade exams

Parental knowledge/control of children's activities

No specific instrument was found to measure the level of knowledge parents had of their children's activities so five statements were grouped to give the information required. The first three items were taken from Fan's (2001) measure on parental involvement with school. The final two items were constructed to provide additional information. The first four statements were measured on a 4-point, Likert scale 'strongly agree', 'agree', 'disagree', and 'strongly disagree'. The fifth statement was also measured on a 4-point scale but the wording was 'never', 'sometimes', 'usually' and 'always'.

My parents/guardian check my homework
My parents/guardian limit the time I watch TV
My parents/guardian limit how much I go out with friends
I eat meals with my parents/guardian
Do you go home after school to an empty house?

The items were scored and summed as explained, with high values indicating parents with the most knowledge of their children's activities.

The next three tests gathered information on the activities children engaged in outside school under the three separate headings of activities with parents, hobbies and organised activities. They were developed by Jordan and Nettles (1999), who explored the ways in which students used their out-of-school time to see if the type of activities they did influenced school engagement. In each case the question asked was 'how often do you do the following activities outside school? The Likert scale for all three measures was a 4-point scale 'rarely/never', 'less than once a week', 'once or twice a week', and 'nearly every day'.

Activities with parents

Just one statement was taken from Time Spent with Adults (Jordan and Nettles, 1999):

How often do you spend time talking or doing things with your mother or father?

Since there was only one item, the result was scored between 1 and 4, with higher values indicating more time spent doing activities with parents.

Hobbies

Time spent doing hobbies was measured with the three items from Time Spent Alone developed by Jordan and Nettles (1999). This asked about reading, computers and hobbies. An additional item was inserted with the same format asking about time spent doing any sport. Information was collected, on the 4-point Likert scale described, in response to the question

How often do you spend time on the following activities outside school?

using computers
working on hobbies, arts, crafts
reading for pleasure
doing any sport.

High values indicate the most involvement with hobbies.

Organized non-school activities

The instrument for organized activities out-of-school was called Structured Activities (Jordan and Nettles, 1999). Time spent doing organised activities outside school was measured with the same 4-point, Likert scale. Information was collected in response to the question:

How often do you spend time on the following activities outside school?

attend a youth group or sports club
do some voluntary work
have lessons in music, art, dance, sport, other
go to any other organised activity such as scouts/guides

Higher values denote the most time spent on organised activities out-of-school.

Religion

Interest in religion was found using the test Religious Activities (Jordan and Nettles, 1999). This consisted of four items, three measured on a four-point and one on a three-point Likert scale. The first three items were measured on a 4-point Likert scale, but the wording was different in each case. The fourth item was measured on a 3-point scale. Thus the four items were:

how often do you spend time attending religious activities?
'rarely/never', 'less than once a week', 'once or twice a week', and 'nearly every day'.

In the last year, about how often have you attended religious services?
'never', 'several times a year or less', '2-3 times a month', 'about once a week'.

Do you think of yourself as a religious person?
'no, not at all', 'a little', 'quite a bit', 'yes, very'.

How important is it for you that your friends participate in religious activities?
'not important', 'quite important', 'very important'.

After the items were scored and summed, high values indicated the most involvement in religious activities.

Peer relationships

Information on peer relationships was collected in this section, although it is accepted that friendships may also be made at school. Thirteen items were taken from People in My Life (Gifford-Smith, 2000), and measured on the same 4-point, Likert scale as for parental relationships - 'strongly agree', 'agree', 'disagree', and 'strongly disagree', with high values denoting good peer relationships. This test consisted of the following 13 items:

My friends listen to me
My friends accept me
My friends care about me
My friends help me with my problems
My friends can tell when I'm upset

I talk to my friends about my problems

My friends ask if something is bothering me

I share thought and feelings with my friends

My friends pay attention to me

My friends don't understand what I'm going through

I get upset easily with my friends

I feel angry with my friends

My friends are proud of me

Local Neighbourhood Environment

A second batch of questions related to the local neighbourhood environment. The 2006 Scottish Index of Multiple Deprivation (SIMD), discussed in Chapter 4, is based on the postcode sectors of Scotland and provides information on specific domains as well as an overall index of deprivation (Scottish Executive, 2006b and 2006c). Information is given at data zone level which allows small pockets of deprivation to be identified. The data zones, which have a median population size of 769, are ranked from 1 (the most deprived) to 6505 (the least deprived) on both the overall SIMD and on each of the individual domains. Data were collected for each pupil's home postcode for the following areas of deprivation – crime, educational skills, employment, health, housing, income and multiple deprivation. Thus there were a total of seven variables of this type. In each case, high values signify the least deprivation.

Crime domain

This measures the rate of recorded crime at small area level.

Education skills and training domain

This indicates the key educational characteristics of the local area that might contribute to the overall level of deprivation and disadvantage. It includes information on the adult population's educational qualifications as well as data on school children's performance.

Employment domain

This domain identifies the proportion of the working age population who are unemployed, or not working due to ill health or disability.

Health domain

This measure uses seven indicators related to factors such as mortality, illness, and hospital admissions to identify areas with relatively high proportions of people experiencing premature death or whose life is impaired by poor health.

Housing domain

This is measured by the percentage of households which are overcrowded and the percentage without central heating.

Current income domain

This domain is indicated by the proportion of adults and children receiving low income benefits.

Scottish Index of Multiple Deprivation 2006

This measure contains 37 different indicators in seven domains which cover specific aspects of deprivation: current income, employment, health, education, housing, access to services and crime. These are combined to create the overall SIMD 2006.

Lifestyle

The section on lifestyle consisted of a group of questions about self-perception of health, diet, and involvement in risk behaviour such as drinking alcohol and smoking. Little is known of self-perceived health in adolescents (Tremblay, Dahinton and Kohen, 2003) but self-perceived health has been shown to be a reliable and valid indicator of physical and mental functioning (Piko, 2000). It was also thought there might be a gender difference in health as boys self-evaluations of health tend to be more positive than those of girls, especially as they get older (Tremblay, Dahinton and Kohen, 2003).

Health

No absolute measure of health was possible nor was it thought appropriate to request any information on specific health issues. The chosen variable for health was therefore developed from one question taken from a World Health Organisation (WHO) study of health behaviour in school-aged children (WHO, 1989/90), measured on a 3-point Likert scale, 'very healthy', 'quite healthy', 'not very healthy'.

How healthy do you think you are?

This gave a value ranging between 1 and 3, with the higher end of the scale indicating perception of the best health.

Risk behaviour

Risk behaviour is related to health but a separate variable was developed to describe the two aspects of risk behaviour most commonly found in teenagers, smoking and drinking alcohol, the format of the items following that adopted by the World Health Organisation (1989/90). Each item was measured on a different 4-point Likert scale:

Have you drunk any alcohol?

'never', 'once or twice', 'several times' and 'often'.

Have you ever smoked a cigarette?

'no', 'just once', 'several times' and 'every day'.

When combined, these two items produced a value between 2 and 8, with higher values indicating more risky behaviour.

<u>Emotions</u>

A third group of questions related to the emotions of the children. These were mainly questions drawn from the psychology literature. There are a whole host of emotions that might be investigated. However, it was only possible to include a handful of these and the choice was determined by the literature review on school transfer, as well as feasibility of measurement. There were five variables of this nature and, apart from happiness, all were measured with the same 4-point Likert scale 'strongly agree', 'agree', 'disagree', and 'strongly disagree'.

Self-concept

Self-concept is the belief we have about ourselves of who we are. Harter's (1985) Self-perception Profile for Children (SPPC) is a self-reporting inventory for ascertaining children's perception of themselves in various specific domains of their life as well as their sense of global self-worth. A short form of this instrument was used (Van den Bergh and de Rycke, 2003), particularly appropriate for younger children, consisting of 17 items. High values indicate good self-concept. The 17 items were:

I am good at schoolwork
I find it easy to make friends
I do well at sports
I am happy with the way I look
I behave badly at school
I am happy with my weight
I forget what I learn
I have a lot of friends
I am good enough at sports
I am happy with my height
I think I act in a sensible way
I would like to change my hair
I cannot work out problems
I am popular with peers
I can easily do a new sport
I would like to change my face
I don't get into trouble

Locus of control

Locus of control can be described as the extent to which an individual believes life to be under his or her own control. The measure used in this study is a short test developed by Pearlin and Schooler (1978). The score for locus of control ranges from low values indicating more external locus of control to high values indicating more internal locus of control. The test consists of seven items, measured on a 4-point

scale and indicates how far respondents feel they have control over what happens to them. The seven items were:

I have little control over things that happen to me
There is no way I can solve some of the problems I have
There is little I can do to change many of the important things in my life
I often feel helpless in dealing with problems in life
Sometimes I feel I am being pushed around in life
What happens in the future mostly depends on me
I can do just about anything I set my mind to

Resilience

Resilience describes a psychological quality that allows a person to cope with, and respond effectively to, life stresses. Wagnild and Young (1993) developed a 25-item test to measure resilience in older adults. This measure was adapted by Neill and Dias (2001) to provide a shorter, 15-item test suitable for young adults and was adopted for use in this study. The 15 items were:

When I make plans I follow through with them
I usually manage one way or another
I feel proud that I have accomplished things in my life
I usually take things in my stride
I like myself
I feel I can handle many things at a time
I am determined
I have self-discipline
I keep interested in things
I can usually find something to laugh about
My belief in myself gets me through hard times
I can usually look at a situation in a number of ways
My life has meaning
When I am in a difficult situation, I can usually find my way out of it
I usually have enough energy to do what I have to do

Happiness

It is difficult to arrive at a satisfactory definition of happiness, especially where children are concerned. For this study, children were asked simply to indicate how happy they were in general on a scale of 0 to 10, in response to the question, "In general, how happy would you say you are – 'very happy', 'fairly happy', or 'not happy' (Veenhoven, 2005). They indicated their response on a ladder with values from 0 to 10. The top of the ladder with a value of 10 represented the happiest level and the bottom of the value at zero was the least happy level. It is not possible to determine how far the score related to life as a whole or whether it was a response to more transient factors.

Trust

To measure trust a short test was used taken from Dika (2003). She took a number of variables, such as sense of school membership, self-concept, social capital, family background and trust to develop a four-item instrument for school children, measured on a 4-point Likert scale. The four test items were:

Other people understand me
The world and the people in it are basically good
In need, I know people who care enough to help
On the whole, I am satisfied with my social life

School Factors

The longest and final section of the questionnaire focused on perception of school and school-related issues. The measures used are detailed in the same order as discussed in Chapter 4 – factual aspects of school context, pupil-perceived aspects of school context, and pupil characteristics and response to school context. The first group, factual aspects of school context, includes specific school characteristics such as school size. I also included some variables which describe characteristics specific to individuals such as the distance travelled from home to secondary school and whether or not they have an older sibling at their secondary school.

School size

As far as school size is concerned, the main issue in this study was to determine whether the size of primary school made any difference to how difficult children found the move to secondary school. Since P7 class size is a reflection of total school size, the primary schools were divided into three groups, small, medium or large, depending on the size of the P7 class. The groups were:

small primary school – fewer than 11 pupils in P7 (1)
medium sized primary school – between 11 and 30 pupils in P7 (2)
large primary school – more than 30 pupils in P7 (3)

providing a variable with three categories.

Free school meal percentage (FSM%)

It is quite possible that the overall socioeconomic status of the pupils in the school affects engagement and other outcomes. The FSM% is calculated directly from the percentage of pupils claiming free school meals in any one academic year and it therefore relates to the whole school. The FSM% is a figure between 0 and 100 and the lower the figure, the greater the affluence of the school population. The FSM% is, therefore, a percentage with a value lying between 0.0% and 100.0%.

In addition to the school FSM%, it was thought that the actual socioeconomic characteristics of the year group for each student might be influential. It was not possible to obtain the Scottish Index of Multiple Deprivation (SIMD) figures for every child in all the schools in the study but two variables were constructed reflecting the average SIMD for the participating children in all the class groups in the sample, one for primary, and the other for secondary schools. This was more accurate for primary schools than for secondary schools as most children in the P7 groups participated in the study. After the move to secondary schools the children in the study constituted a smaller proportion of their year group, and so the average SIMD for secondary 1 was less accurate. All variables based on the SIMD are rank variables.

P7 average SIMD

Average rank for multiple deprivation for each P7 class group, using the 2006 Scottish Index of Multiple Deprivation.

S1 average SIMD

Average rank for multiple deprivation for each S1 class group, using the 2006 Scottish Index of Multiple Deprivation.

Secondary school

Secondary schools were selected as summarized in Table 5.3. Each secondary school thus had distinctive characteristics so they formed a categorical variable, with four categories – school A (1), school B (2), school C (3), school D (4).

Mixed age classes in primary school

A binary variable indicated whether or not the primary school had mixed age classes. No mixed age classes (1), mixed age classes (2).

Gender primary 7 teacher

A binary variable denoted whether the P7 class teacher was female (1) or male (2).

Distance from home to secondary school.

Using the postcodes of each pupil's home and the school attended, the distance from home to school was calculated in miles.

Attends designated secondary school

A binary variable indicated whether the pupil attended the secondary school designated for their primary school (1) or did not attend the designated secondary school (2).

Older sibling in secondary school

A binary variable denoted the absence (1) or presence (2) of an older sibling in the secondary school attended.

The next group of school factors describes some school characteristics which have a direct effect on children's perception of the overall school context which may be particularly important in determining how well children feel they belong to and engage with school and the whole educational process. Many aspects of school context affect children's perceptions of school but the elements examined in this study included school discipline, bullying, school safety, the classroom environment, the school physical environment and feelings of school community.

School discipline

An indication of school discipline was gained from the use of a small set of five questions (Brand et al., 2003) giving pupils' impressions of the clarity of school rules, together with their views on the effectiveness and consistency of their application. This test was derived from a large study of over 100,000 students in the USA to assess various aspects of school climate on students' academic and social adaptation (Brand et al., 2003). The test was measured on a 5-point Likert scale, 'always', 'mostly', 'sometimes', 'occasionally' and 'never', with high scores indicating better school discipline. The five items for school discipline were:

> If some children are acting up in class, the teacher will do something about it
> When teachers make a rule, they mean it
> Children are given clear instructions about how to do their work in class
> Children understand what will happen to them if they break a rule
> Teachers make a point of sticking to the rules in classes

Bullying at school

In order to conduct a cross-national study of health behaviour in school-aged children, the World Health Organisation (1989/90) developed a questionnaire of 75 items to examine smoking, diet, health, injuries and school. Just one item was taken from this questionnaire to measure the frequency and type of bullying experienced in school. It did not include the more recently reported 'cyber' bullying. It was measured on a 4-point Likert scale, 'never', 'once or twice', 'about once a week' and 'more than once a week'. The higher the score, the more the individual feels he/she is bullied.

The five items to indicate the extent of bullying were all in response to the same question:

Has anyone bullied you in school this term in the ways listed below?

Made fun of you because of your religion or race

Made fun of you because of the way you look or talk

Threatened you

Spread rumours or mean lies about you

School safety

As the World Health Organisation (1989/90) questionnaire focused on bullying by individuals, another group of questions was used to assess the overall perception of school as a dangerous environment (Murray and Greenberg, 2000) where children might feel scared. In a study exploring children's social and contextual experiences in school, Murray and Greenberg (2000) developed a scale of 22 items divided into four categories. One of these categories was labelled 'school dangerousness'. The original test consisted of a small group of three questions with one of the questions asking about gangs and drugs in the same statement. This was amended after the pilot study into two separate statements so the final test consisted of four items, each measured on a three-point Likert scale, 'no', 'sometimes', and 'yes'. The higher the value, the safer the individual feels at school. The four items were:

There are lots of drugs at school

There are lots of gangs at school

School is a dangerous place

I feel scared at school

School physical environment

Since the schools were selected to represent contrasting socioeconomic areas, it was considered possible that the physical environments of the schools might vary. One item was taken from the Social Capital Question Bank (Ruston and Akinrodoye, 2002), which was collated from fifteen surveys and intended to be a reference tool for those with an interest in measuring social capital. The survey providing this measure was the Northern Ireland Health and Social Wellbeing Survey, 2001 (Northern Ireland Statistics and Research, 2002), and there was one single question asking pupils to indicate any items listed they thought were a risk to their health or wellbeing. Problems suggested included litter, smoke and fumes as well as social problems such

as crime, vandalism and violence. There was also the opportunity to write down any additional perceived hazards. The score for the total school physical environment was determined by totalling the number of hazards identified in each case, so the higher the score, the more environmental problems were perceived.
The format for this variable was:

> Think about the area of this school. Please tick any of the items below that you think are a risk to your own health or well-being:
>
> crime and vandalism ☐ litter and rubbish ☐ the level of noise ☐
>
> smoke and fumes from chimneys ☐ the amount of road traffic ☐
>
> abuse and violence ☐ none of these ☐ other risk ☐

Teacher support/classroom environment

Sinclair and Fraser (2002) developed a 20-item inventory to assess students' perceived classroom environment which they suggested could be used to investigate changes in classroom environment during the transfer from primary to secondary school. A subsection of four items measured classroom participation and these four items were used as part of the measure for school participation, described above. The remaining sixteen items focused largely on teacher empathy and skill in generating class co-operation and these were used as a measure of classroom environment using a 5-point Likert scale, 'always', 'mostly', 'sometimes', 'occasionally' and 'never'. High values denote better teacher support and classroom environment. The 16 items were:

> I understand how to do my work in class
> I feel that teachers like me
> The teachers care about my feelings
> I do group work in class
> I pay attention during class
> My teacher helps me when I have problems with my work
> Teachers want me to do well in class
> I work alone instead of in groups

I am ready to start class on time

Teachers treat me the same as other children in class

Teachers are as friendly to me as to other children

I work well with other children in class

I understand my classwork

In class, I help others with their work

I think teachers like all the children in class

Teachers are fair to all the children in class

Sense of school community

In an attempt to obtain some indication of the extent to which children experienced a sense of school community the Psychological Sense of School Membership Scale (Goodenow, 1993b) was used. This comprises 18 statements and includes items on belonging, rejection and acceptance in school. Goodenow (1993b) argued that school engagement, and subsequent success or failure, were determined by more than individual skills and ability. She suggested that school contextual factors were also influential, and that school social relationships were particularly important. The Psychological Sense of School Membership Scale was developed to measure social acceptance and friendliness with peers and staff, a sense of being valued, and involvement in school activities. Goodenow (1993b) believed that this measure could prove a valuable tool helping to identify adolescents at risk of declining engagement in school and school activities. The measure used a 5-point Likert scale, 'always', 'mostly', 'sometimes', 'occasionally' and 'never'. High scores indicate a good sense of school community. The 18 items were:

I really feel a part of this school

People here notice when I'm good at something

It's hard for people like me to be accepted here

Other children in this school take my opinions seriously

Most teachers here are interested in me

Sometimes I feel as if I don't belong here

There is at least one teacher or adult in my school I can talk to if I have a problem

People in this school are friendly to me

Teachers here are not interested in people like me
I am included in lots of activities in my school
I am treated with as much respect as other pupils
I feel very different from most other children here
I can really be myself at school
The teachers here respect me
People here know I can do good work
I wish I were in a different school
I feel proud to belong to this school
Other children here like me the way I am

School context may influence pupil feelings and reactions to school in various ways but only some of them have been examined in this study. These include the social elements of school inclusion, loneliness, involvement in extracurricular activities, boredom, classroom involvement and school attachment, all of which are arguably related and interlinked. School context may also influence the factors of motivation, aspiration, ability and school attendance, which are all likely to affect learning outcomes. All the variables in this final group, except extracurricular activities and secondary school absence were measured with a 5-point Likert scale, 'always', 'mostly', 'sometimes', 'occasionally' and 'never'.

School inclusion/acceptance

The concept of school inclusion was measured using a short test of eight items by Willms (2003), used by the Organisation for Economic Co-operation and Development (OECD) as part of a large study to compare school effects internationally. It focuses on friendships, feeling isolated or liked, and inclusion in activities. Higher values indicate greater feelings of school acceptance. The eight items were:

I feel like an outsider (or left out of things)
I make friends easily
I feel like I belong
I feel awkward and out of place
Other children seem to like me

I feel lonely

I do not want to go to school

I feel bored

Loneliness

No satisfactory test was found to measure loneliness so one item was taken from the OECD measure developed by Willms (2003):

I feel lonely

The higher the value, the less lonely the individual feels.

Extracurricular activities

Extra-curricular activities are seen as an indication of school involvement and the scale developed by Jordan and Nettles (1999), Participation in Clubs and School Groups, was used. This consisted of nine groups of possible school activities with students asked to indicate the frequency of their participation, if any. For this study, three of the items were removed as they were not appropriate to schools in Scotland. These were:

National Honor Society

Service clubs (American Field Service, Key Club)

Future Teachers of America.

However, the additional category of 'games team' was inserted and the option to note participation in an additional activity not mentioned in the test was provided. This resulted in an interval variable with values ranging from 0 to 8 and the higher the value, the more participation in extracurricular activities. Students were asked to tick any activity in which they had participated during the school term. The items for this variable were:

Band, orchestra, chorus, choir or other music group

Drama club, school play or musical

School council

School year book, newspaper, or school magazine

After school clubs – art, computer, languages, debating, science, etc.

Hobby clubs – photography, chess, etc.

Games team, sports, e.g. football, netball

Other

Boredom

Boredom was a factor mentioned by many children and staff during preparatory meetings as a possible problem for some children. There was no obvious simple test for boredom so one item was taken from Willms (2003), with high values again indicating the most boredom:

I feel bored

Class involvement

The most appropriate measure for this study was considered to be the student course engagement questionnaire, developed by Handelsmann et al., (2005). This 23-item test was devised for college students but three of the statements were omitted as they were not pertinent to young schoolchildren. The omitted items were:

I stay up on the readings

I take good notes in class

I go to the professor's office to review assignments or tests or to ask questions.

The final test thus consisted of 20 items, with high scores indicating most class involvement:

I make sure I study on a regular basis

I make a good effort

I do my homework

I look over work between classes

I am organised

I work hard in class

I listen carefully in class

I only miss school if I am ill

I see school work as being important to my life

I find ways to make school work interesting

I think about school work at other times

I really want to learn my work

I take an active part in lessons

I ask questions when I don't understand

I have fun in class

I join in actively in discussions

I help other students

I get good marks

I do well in tests

I am confident I can learn and do well in the class

School attachment

The test used to measure school attachment was developed by Battin-Pearson et al., (2000). They believed that poor school attachment was a key predictor of school dropout. The test, called School Bonding, consisted of two items on school commitment and three on school attachment, loosely defined as simple liking for school and classes. The higher the score, the greater the attachment to school. The five items were:

When I have an assignment to do, I keep working on it until it is finished

I do extra work on my own in class

I like school

Most mornings I look forward to going to school

I like my classes this year

Motivation

Dika (2003) developed a short instrument to measure a variable which she called academic effort, which was suitable to measure intrinsic motivation. It consisted of four items focusing on effort and the need to take responsibility for learning. High values indicate good intrinsic motivation. The four items were:

I feel I am responsible for my learning

I try hard, no matter how difficult the work

When I fail, it makes me try harder

I try to do my best in school

Aspiration

The test used was that proposed by Carroll et al., (1997) who examined the responses of 230 high school students to various types of adolescent goals, including educational goals. This measure consists of seven items measured on a 5-point Likert scale, to elicit how competitive students were, how important it was to pass exams and get high marks, and expectations for higher education. High values denote high levels of aspiration. The seven items were:

I like to get things done on time

I like to be a good student

I like to learn new things at school

I like to pass my tests

I like to get high marks in every subject

I would like to get high marks to do a course at university

I like to get better marks than my friends

Absence at secondary school

Annual absence data were available, given as percentage attendance for each child, for both primary and secondary schools. The secondary school data were used as a variable since it was believed this was more likely to reflect pupil dissatisfaction with school, as students of this age are probably more able to skip school without parental knowledge. High percentage values indicate good school attendance.

Ability

No precise measurement of grades or marks was available to indicate the general ability of the students in the study. Nevertheless, it was considered that ability might well influence how smoothly children adjusted to the demands of a new school. Accordingly, participants were asked to give an assessment of their own ability. There was no particular measure to provide this information so four items were taken

from two separate tests to provide an indication of self-rated ability, with high values indicating high self-rated ability. The four items chosen were:

(Sinclair and Fraser, 2002)

I understand how to do my work in class

I understand my classwork

(Handelsman et al., 2005)

I get good marks

I do well in tests

Preparation for Questionnaire Visits

Each primary school was visited before the first questionnaire visit. At this time, the nature of the research was discussed more fully and any questions answered. A copy of the proposed questionnaire was shown to head teachers. All head teachers were happy with the questionnaire; some suggested minor alterations to wording or additional items they would like investigated. They also preferred to explain the project to the children shortly before the first questionnaire visit, inviting the children to ask any questions they wished.

Letters for parents, including a consent form, were given to head teachers at this time (Appendix 5.7). The letter to obtain parental consent was designed to give a clear explanation of the nature of the research and what it would involve for the children. The importance of academic research on transfer issues was highlighted. Confidentiality for the children was stressed together with assurance that any child could withdraw from the study at any time. A contact telephone number was supplied for anyone who wished to discuss the research. The parental letters were distributed, and signed consent forms collected, by each primary school prior to the first questionnaire visit. In some cases, all the P7 children in a school returned signed consent forms while in others only a few did so. The sample was therefore determined by the number of parents willing to allow their children to participate and by the vigour and determination with which the primary schools pursued children for return slips. In general, small schools found it simpler to collect consent slips. Appendix 5.8 shows the P7 participation rates for primary schools.

No particular problems were envisaged with the questionnaire delivery, but the possibility of it causing distress was discussed with all primary school head teachers and/or P7 class teachers. Staff involved in the project looked at the proposed questionnaire and agreed to talk to the children before the questionnaire visits, explain what was involved and stress their availability to answer any questions or talk about issues if necessary. The Depute Principal Educational Psychologist for Fife was fully aware of the nature and timing of the project and was available to give support if needed. All schools knew of his involvement and interest in the project.

During the preliminary primary school visits some instances were identified, either because the P7 group was particularly large, or where there were a number of weak readers, where additional help would be useful. This was discussed with the schools concerned and all welcomed the idea of additional support from appropriate undergraduates. Details of the research project were circulated among some third year Geography undergraduates at the University of St. Andrews. A handful of interested students responded, all with considerable experience of working with children in activities such as breakfast clubs, sports groups and reading support. Four of these students agreed to help as necessary; they all obtained enhanced disclosure and their details were included in the ethics application.

Although in some primary schools the whole P7 group participated in the study, there were others where a few or a considerable number of children were not involved. In the four secondary schools concerned it was inevitable that only a proportion of the first year pupils would take part in the study. All primary schools were able and prepared to make other arrangements for non-participating children. The logistics were more complicated in the secondary schools, but despite the inconvenience, all schools agreed to remove the participating children from their classes. Each secondary school also provided additional staff to help with supervision of the large group of children completing the questionnaire.

In order to maintain the anonymity of each participant, a coding system was used. Before the first primary school visit, an index card was attached to each questionnaire. The questionnaire and the attached index card each had a matching code number representing the primary school, and the proposed secondary school, with an

individual number for each child (E.g. Ta/Hu01). On the first visit, each child wrote his or her name, date of birth and gender on the index card, which was immediately detached from the questionnaire and collected. The cards thus provided the only link between the name and the questionnaire. In subsequent school visits, the questionnaires were coded beforehand and then handed out according to a list, but no name was ever written on the questionnaire itself.

Child consent forms were also prepared, to be signed by children at the first questionnaire visit (Appendix 5.9). This was short and simple and intended to emphasize that there was no compulsion to answer any specific question and to remind children of the most accessible and familiar people (their teachers) they could ask for help if necessary.

Activities and Games

During the pilot study it was noted that some children worked steadily through the questionnaire with no difficulty and finished it in less than an hour while others were still working, up to half an hour later. Children who completed the questionnaire early usually remained in the classroom and there was a great temptation for them to talk to each other, interrupt those who were still working, leap about or just become bored. It was clear that some sort of activity was necessary to keep these children occupied until the whole group had finished.

For all primary school visits, therefore, a variety of individual, paper-based activities and games were prepared beforehand. These were different for each visit and examples can be seen in Appendix 5.10. Completed puzzles were checked and marked and prizes sent later to the children, care being taken to spread the prizes across as many schools as possible. All children were given the choice of whether or not they entered these competitions and, allowed extra time if they had taken longer to complete the questionnaire.

The same problem did not arise in the secondary school visits as senior staff supervised the session and the questionnaire was read aloud at a constant pace, so the children tended to finish at the same time. In addition, the children were either sent back to their classes, which were continuing in their absence, or expected to wait

quietly. However, at the first secondary school visit, details of an art competition were given, asking for posters based on the theme of primary to secondary transfer (Appendix 5.11). After the final school visit, there was a prize draw from all the children who completed all four questionnaires.

Questionnaire Visits

At the beginning of the first questionnaire visit, the paperwork collected by the primary schools was checked to ensure that all parental consent forms had been signed and received. In nearly all cases the head teacher or class teacher was present and introduced me and, in some cases, explained the project. When I took over, the children were thanked for agreeing to take part in the study. The purpose of the project was explained and children were told that there would be four visits. The nature and purpose of the research was explained to all children at the outset. It was stressed that they could withdraw from the project at any time. In addition, there was no compulsion to answer any particular question. It was also made clear that the questionnaire would be completely anonymous, identified only by a code number, and that no school teacher, parent, or other person would have access to the questionnaires, or be given any individual information from them. Only the researcher and her supervisors would ever see an individual questionnaire. This information was repeated at each questionnaire visit. The child consent forms were given out, explained, signed by all participants and then collected.

The pre-coded questionnaires, with matching coded index cards attached, were then distributed and children asked to complete the index cards by adding their name, date of birth and gender. The cards were then removed from the questionnaires, which were now identified by code only. The children were asked to open the questionnaires and the general format was explained, using one or two of the statements as examples. As far as possible, the same set of standard instructions was used at the beginning of each questionnaire session (Appendix 5.12).

For primary school visits, as the groups were small, the children worked at their own pace, asking for help or explanation as necessary. Where children needed extra help, this was available from teachers. All primary children in Fife are quite used to Likert format questionnaires as they regularly complete Performance Indicators in Primary

Schools (PIPS) assessments, recording responses on a five-point scale (Appendix 5.13). For larger classes, school staff, and sometimes undergraduates were available to help, in addition to myself.

Once the children had moved to secondary school, the groups were much larger, the smallest being 77 and the largest 139. In order to complete the questionnaires in one visit, with the minimum of disruption, the children were gathered together in the school hall, sitting at single desks. In this situation I read the questionnaire aloud, usually with a microphone, and the children completed the questionnaire as I read the statements. Again, staff and undergraduates were available to answer questions while I continued reading. In one case, a small group of children with learning difficulties was taken separately by a learning support teacher.

Response Rates

At the start of the study there were 405 children drawn from nineteen primary schools. Attendance on the day was generally excellent but a return visit was made to one primary school where a substantial number of children were engaged in another activity on the first visit. Most of the children transferred to the four secondary schools in the study but altogether twelve children were lost at this stage, one moving away from the area altogether and the other eleven moving to other schools in Fife. Thus, after transfer there were 393 children in the study. Table 5.7 shows the participation rates for the two primary measurement times. The slight increase in participation at time 2 was largely due to the fact that some children still had not returned consent forms by the first visit. However, as might be expected, participation decreased over time after primary school, the lowest rate being noted at time 4. Table 5.8 shows the participation rates for the secondary school visits while Table 5.9 gives the details of participation rates for each measurement time. As far as gender is concerned, absence rates were very similar at primary school. However, after school transfer, not only did absence increase progressively for both boys and girls, but it is quite noticeable that there were more girls absent than boys. Table 5.10 shows these trends.

Table 5.7: Pre-transfer participation rates

		Time 1		**Time 2**	
Primary School	Number in Group	Number Absent	% Attendance	Number Absent	% Attendance
1	58	9	84.48	7	87.93
2	53	3	94.34	0	100.00
3	22	1	95.45	0	100.00
4	26	0	100.00	0	100.00
5	36	3	91.67	0	100.00
6	6	0	100.00	0	100.00
7	9	0	100.00	0	100.00
8	2	0	100.00	0	100.00
9	6	0	100.00	1	83.33
10	15	1	93.33	0	100.00
11	16	1	93.75	0	100.00
12	3	0	100.00	0	100.00
13	4	0	100.00	0	100.00
14	22	0	100.00	3	86.36
15	48	1	97.92	0	100.00
16	28	0	100.00	0	100.00
17	41	3	92.68	1	97.56
18	3	0	100.00	0	100.00
19	7	1	85.71	0	100.00
Total	405	23	94.32	12	97.04

Table 5.8: Post-transfer participation rates

		Time 3		**Time 4**	
Secondary School	Number in Group	Number Absent	% Attendance	Number Absent	% Attendance
A	138	3	97.83	3	97.83
B	83	7	91.57	12	85.54
C	77	8	89.61	11	85.71
D	95	6	93.68	7	92.63
Total	393	24	93.89	33	91.60

Table 5.9: Overall percentage participation rates

Time 1	**Time 2**	**Time 3**	**Time 4**
94.32	97.04	93.89	91.60

Table 5.10: Percentage participation rates by gender

Gender	**Time 1**	**Time 2**	**Time 3**	**Time 4**
Boys	93.4	96.9	94.4	91.3
Girls	95.2	96.7	89.0	87.6

Data Entry and Preparation

Most of the questionnaire statements required responses on a Likert scale, generally four or five points. The first section, on family and friends, was short and four-point Likert scales were used for all measures, except for the section collecting data on family structure. To obtain this information on family structure, children were asked to tick relevant boxes and the responses were recorded as one or zero, depending on whether or not the family member was present. There was greater variety in the type of response for the lifestyle section. This included completion of Likert scales, and ticking boxes to indicate concerns about transfer and environmental problems near school. There was also a happiness ladder with a scale of zero to ten and a section asking children to write a sentence or two about transfer. The statements in the sections on emotions and school were mostly answered on four- or five-point Likert scales. The complete structure of the questionnaire can be seen in Appendix 5.14 and Cronbach alpha tests for reliability of the questionnaire items for each phase are shown in Appendix 5.15.

In order to keep data handling simple and to minimise errors, the response boxes for Likert scales were coded from the left from one to four or five, depending on the size of the scale. Where a gradual increase in quantity was implied, as for a few items in the lifestyle section, the lowest value was coded as one. Wherever boxes were provided, if they were ticked this was recorded as one and if left blank, zero. When an absolute figure was requested, as for happiness, this figure was recorded as given. In calculating a total value for each test, the positive responses on the Likert scales, always receiving the lowest values when coded, were reversed and the values of all responses for each measure were then totalled. This resulted in each measure having a possible range of values with, generally but not in every single case, the highest values for each scale being the most positive. The few variables where high values did not indicate positive outcomes have been noted on Table 5.6, and also in the text describing the measures used.

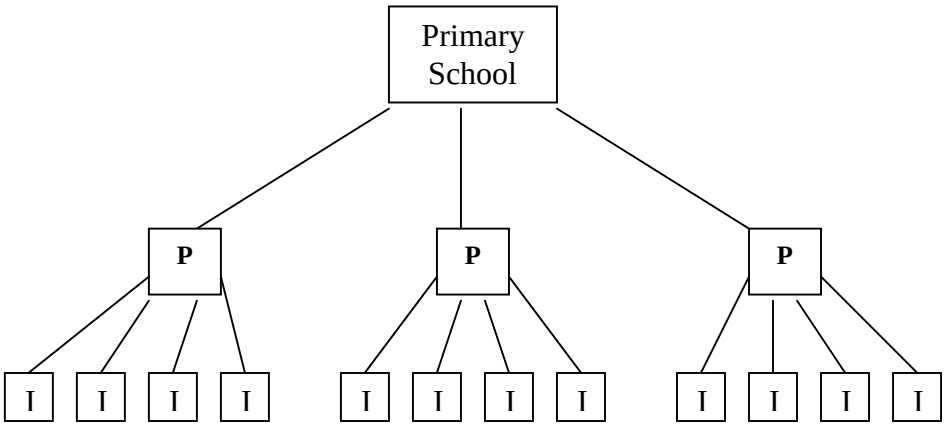
Using the codes created, data were entered directly into a SPSS V.12 (Statistical Package for the Social Sciences) file. Sample checks were made to ensure that the correct data had been entered for each child. Checks were also made as each wave of

data was entered. Frequencies were then run on all nominal and ordinal variables to ensure that only valid responses were entered. Once the variables were made, the whole data set was transferred to Stata SE10 for appropriate statistical analysis.

Statistical Analysis

This study involves repeated measures on each of many participants in order to see how far the selected independent variables influence certain outcomes over the period of transition from primary to secondary school. The population consists of schools and pupils and the sampling procedure proceeded in two stages. First a sample of schools was taken and then a sample of children from within each school, although in reality sampling was not as random as might be desired. Nevertheless, the result is one of samples from different levels, and the individual observations are not completely independent. This is because pupils in the same school tend to be similar to each other, perhaps because they are drawn from a similar residential area or as a consequence of some other selection procedure, and because of the common history shared by going to the same school. As a result, the average correlation between variables measured by pupils from the same school is likely to be higher than the average correlation between variables measured by pupils from different schools. In addition to the nesting of children in their primary schools the questionnaires, representing repeated observations over time, can be grouped within each pupil. Each pupil completed a maximum of four questionnaires and it is reasonable to expect that the questionnaires from the same individual would be more alike than the questionnaires taken from individuals at random. Figure 5.1 illustrates the three-level model in this analysis.

Figure 5.1: Structure of three level model



P = pupil; I = questionnaire interview

Since pupils are nested within their primary schools and the questionnaires within pupils, it is important not to ignore the context in which processes occur. Multilevel models have been developed to allow analysis at several levels simultaneously, allowing the relationship between the explanatory variables and the dependent variables to be estimated, having taken into account the hierarchical population structure. If the nesting of the pupils within schools is ignored, and the data is analysed as though all the pupils were independent, then the standard errors of the regression coefficients may be underestimated. This means that there would be a tendency to find too many relationships to be statistically significant.

Multilevel models recognise the existence of data hierarchies by allowing for residual components at each level in the hierarchy. It permits characteristics of the group to be incorporated into models of individual behaviour, determining the extent of grouping in individual outcomes, while also producing correct estimates of standard errors.

In this study a three level model was used where the four occasions of questionnaire measurement define level one, the pupils define level two and the primary schools within which the pupils are nested define level three. Clustering within secondary schools could not be assessed as a random effect because there were only four secondary schools. Hence, when secondary schools were incorporated into the models, they were included as a categorical variable and analysed as a fixed effect. Conceptually, the analyses can be considered to consist of two phases – an individual (within subject) phase and a group (between subject) phase – although both phases are carried out simultaneously.

This three-level model, allowing for grouping of child outcomes within schools, includes residuals at the child and school level. Thus the residual variance is partitioned into a between-school component (the variance of the school level residuals) and a within-school component (the variance of the child-level residuals). The school residuals, often called 'school effects', represent unobserved school characteristics which affect child outcomes. It is these unobserved variables that lead to correlation between outcomes for children from the same school.

The data were modelled using mixed models in Stata SE10. Mixed models are characterised as containing both fixed effects and random effects. The fixed effects are specified as the dependent variable followed by a set of regressors, or independent variables. Random effects refer to the grouping structure of the data. In these data, the random effects vary according to the primary school variable and the individual children and provide information about the variability between the pupils and variability between the primary schools. The outcome variables were continuous variables while the explanatory variables were a mixture of continuous, categorical, binary and rank variables.

The models calculate the significance of the relationships between the dependent variable and all the independent variables selected to go into the model. The same sequence of four models was followed for each of the dependent, or outcome, variables. The first model examined how the outcome variable changed over time and the second model added two more explanatory variables – gender and secondary school. The third model was a complex model, incorporating all the explanatory variables which it was thought might influence the outcome variable. The significance of the relationship between each explanatory variable and the outcome variable was then calculated. In this study each complex model contained about 50 explanatory variables, many of which were found to have no significant relationship with the outcome variable. The simplest plausible parsimonious model, comprising only significant explanatory variables, was then derived from the complex model using an iterative process. This required the gradual sequential removal of explanatory variables which did not meet the significance criterion of $p<0.05$, starting with the least significant variables. After each insignificant variable was removed from the model, all remaining variables were re-calculated and the process of removal repeated.

For this study the significance level of 0.05 was selected, indicating that there is a 5% probability that the relation found between the variables is not true. In other words, if this study were repeated with other similar samples, one in twenty results would appear to be significant when this was not actually the case. The higher the level of the p value, the less it can be accepted that the observed relation between variables in

the sample is a reliable indicator of the relation between the respective variables in the population.

In multilevel models, it is not a problem if the number of available measurements is not the same for all individuals (Singer and Willett, 2003). The model can readily incorporate all children that completed the questionnaire at least once. This is an important benefit of multilevel models compared to other techniques for modelling longitudinal data. Results can be interpreted as if there were no missing data on the assumption that the data are missing at random. In this study, some data were missing because students were unwell at the time of measurement, filled in only a few items or were absent for an unspecified reason (overall, though, the amount of missing data was surprisingly small).

Conclusion

The use of questionnaires for this study was most appropriate as it allowed the views of many children to be collected several times with minimum disruption to the schools involved. Since the questionnaire visits took place in schools at pre-arranged times, maximum response rates were obtained. Although the format of questionnaires may obscure underlying detail, the main intention was to obtain initial information from the pupils themselves on hitherto unknown issues during the time of school transfer. Repeated questionnaires were ideal in achieving this goal. While maintaining the confidentiality of all questionnaire data, the children were not totally unsupported when completing the questionnaires as additional support was supplied by school staff and undergraduates at all visits who answered queries, and provided clarification whenever necessary.

On the premise that school transfer may be more of a process than a single event in time, a longitudinal study was considered to be vital to provide an accurate picture of change in pupils' perceptions and outcomes during the time of transfer. The implementation of a longitudinal study was ambitious as it involved four data collection times over a period of 13 months. This permitted two interviews, rather than one, on both sides of the actual point of transfer. As already suggested, the results at time 3, just after arrival at secondary school may be a response to the novelty, excitement or possibly stress of moving to a new school but the results at

time 4 should represent a more considered evaluation of the secondary school context. Nevertheless, the data collected at time 3 provides a reference point for comparison with later information, in describing and revealing changing pupil perceptions and trends in outcomes.

Apart from variables constructed from factual information, the questionnaire was developed using existing, verified measures wherever possible. In the few cases where this was not possible, then one or more items from verified tests were grouped to collect the data required. The use of these tests had the advantage of providing validity and reliability. However, even though the tests were already verified, pilot study 3 was designed specifically to test the reliability of the whole questionnaire (Appendix 5.6).

Finally, the data were analysed using advanced, modern statistical methods. Multilevel modelling was used to analyse the data collected at the four measurement times. This is an extension of more traditional techniques by explicitly modelling social context (Plewis, 1999). It is a technique designed to explore and analyse data that come from populations that have a complex structure, such as hierarchical data. Multilevel models make some important contributions to the analysis of nested data (Garner and Raudenbush, 1991). They recognise the clustering of individuals within higher level units and so avoid violating the assumption of independent observations that is normally required. They are also able to estimate the effects of group characteristics on the average level of outcomes within the group and on structural relationships within the group, such as pupils' social class. In addition, multilevel models can separate the variance between the levels which allows the appropriate interpretation of the significance of the results. Analysis was expected to yield some insight into the relationships among various contextual and individual factors and their effects on the outcomes selected. The factors influencing the outcome variables, and the trajectories resulting from analysis are discussed in the next chapter.

CHAPTER SIX
RESULTS AND DISCUSSION

Introduction

Simple descriptive results have been presented for each outcome (Chapter 3) and explanatory (Chapter 4) variable. Here each of the five outcome variables is examined in more detail, using the same sequence of analysis. First, each outcome variable is considered descriptively, using graphs of average scores by time (the four interviews). This provides a simple depiction of the change in outcome variables which can be related to the transition period which occurred half way through the data collection. The second stage of the analysis involved relating these outcome variables to a series of explanatory variables to determine what factors explained the observed changes through time. It was of particular interest to test whether the time variable remained significant once these various other variables were included in the model – does the transition itself have an effect, or is it changes in other variables which explain the variations in each of the outcome variables? As described in Chapter 5, multi-level modelling was used which allowed the four interviews to be clustered within children and the children to be clustered within primary schools as random effects. Four models were developed in each case to examine the effects of:

i) time,
ii) time, gender and secondary schools,
iii) all hypothesised pertinent variables and,
iv) the resulting parsimonious model.

Thus, a number of independent variables are examined in relation to each of the dependent variables in turn, and any significant relationships are discussed.

School Commitment

School commitment describes how far an individual believes the values and purpose of school are valid and indicates the importance that students place on getting an education and their perception that education will benefit their lives, economically or otherwise. A child may see school as an important institution in society and feel that

what is learned is important in its own right and that school is instrumental in achieving personal goals. If school is valued as a means to future success, it is probable that this will be associated with persistence in schoolwork and improved academic performance.

No particular pattern of school commitment over time was predicted and, for different reasons, either a drop or an increase at time 3 might be considered reasonable immediately after the move to secondary school. On the assumption that the transition period might be difficult for children, then it is quite possible that commitment to school work might fall, at least temporarily while children cope with the more pressing difficulties of making friends and coping with new subjects and teachers. On the other hand, bearing in mind the specific nature of this particular component, another possibility was that commitment in primary school might fall off in the final weeks and months as children begin to feel that they have outgrown their present environment and start looking forward to the greater challenge of secondary school. They are then likely to start their new school with a positive attitude and may try quite hard to be prepared for lessons and comply with requests and demands. Realistically, this early effort might be expected to fall off a little as children become less anxious and more familiar with their surroundings and with the expectations of secondary school.

Figure 6.1 shows that commitment peaks at time 3, just after transfer to secondary school. This accords with the view that most children feel that secondary school is a new beginning with new challenges. They want to make a good start, and perhaps also hope to make a good impression when they first move to their new schools. However, this initial effort fell off by time 4, but not to the low level recorded during the last few months at primary school at time 2.

Figure 6.1: Average school commitment over time for all children

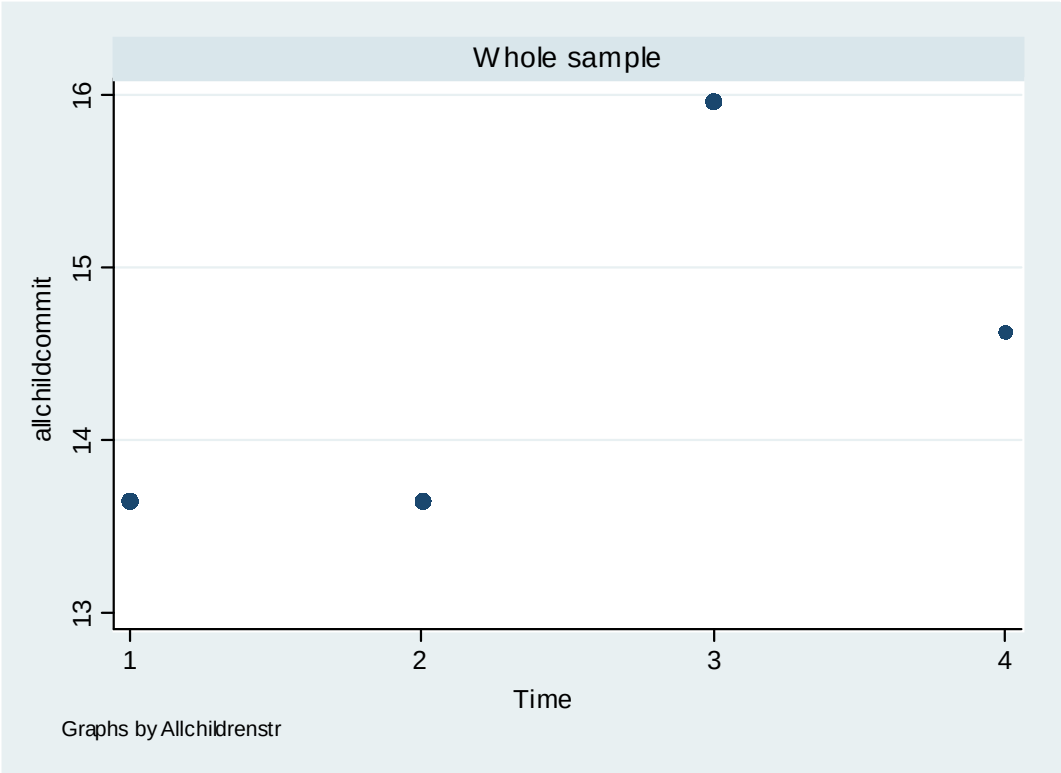


Figure 6.2 shows how boys and girls differ in their commitment to school over time. Overall girls displayed considerably more commitment to school than boys, with the lowest levels of girls' commitment equalling the highest level of commitment shown by boys. Boys recorded their highest levels of commitment at time 2, shortly before leaving primary school, after which it declined not just at time 3 but also continuing the decline to time 4. Girls, however, experienced steadily increasing commitment from time 1 until time 3, which dropped off slightly by time 4. Both boys and girls were similar in showing decreasing school commitment between time 3 and time 4. Since boys' school commitment falls after time 2 (Figure 6.2) it seems that the high levels of commitment recorded at time 3 (Figure 6.1) were mostly the consequence of a particularly positive attitude by girls.

Figure 6.2: School commitment over time by gender

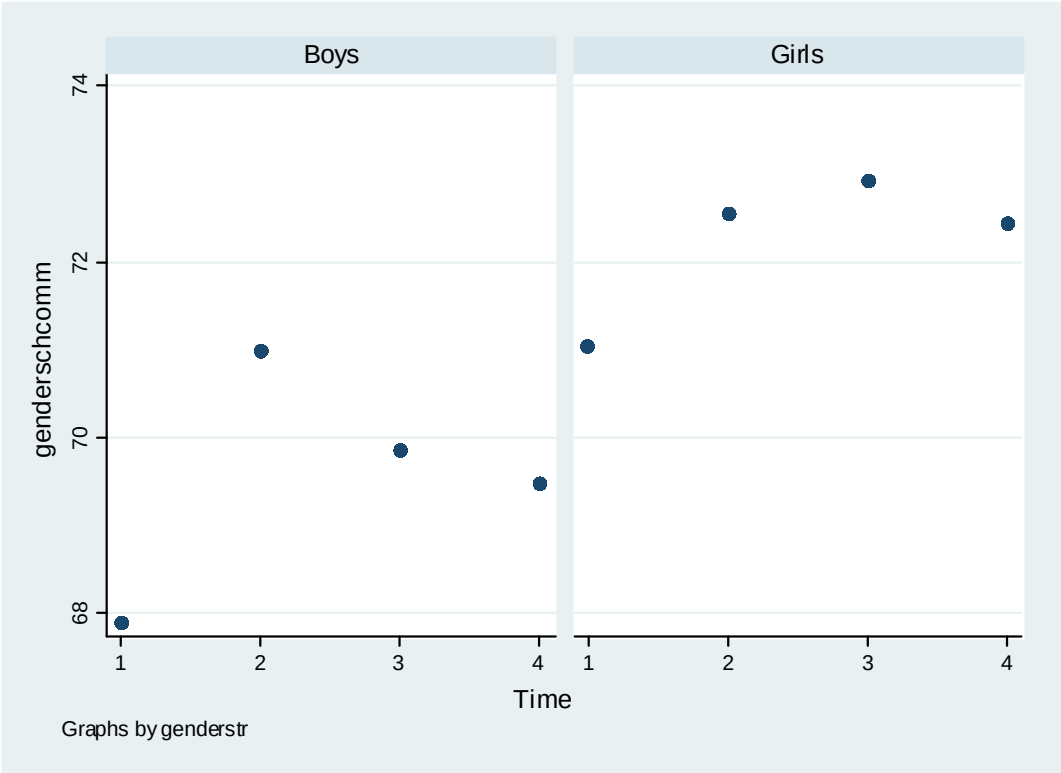
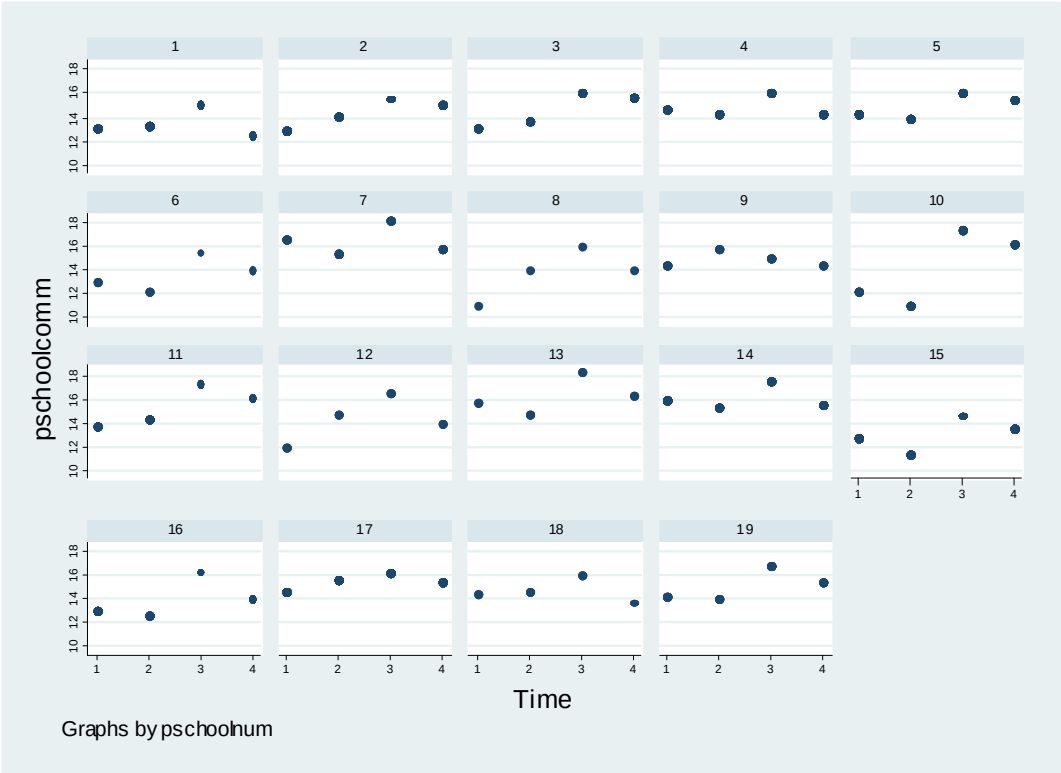


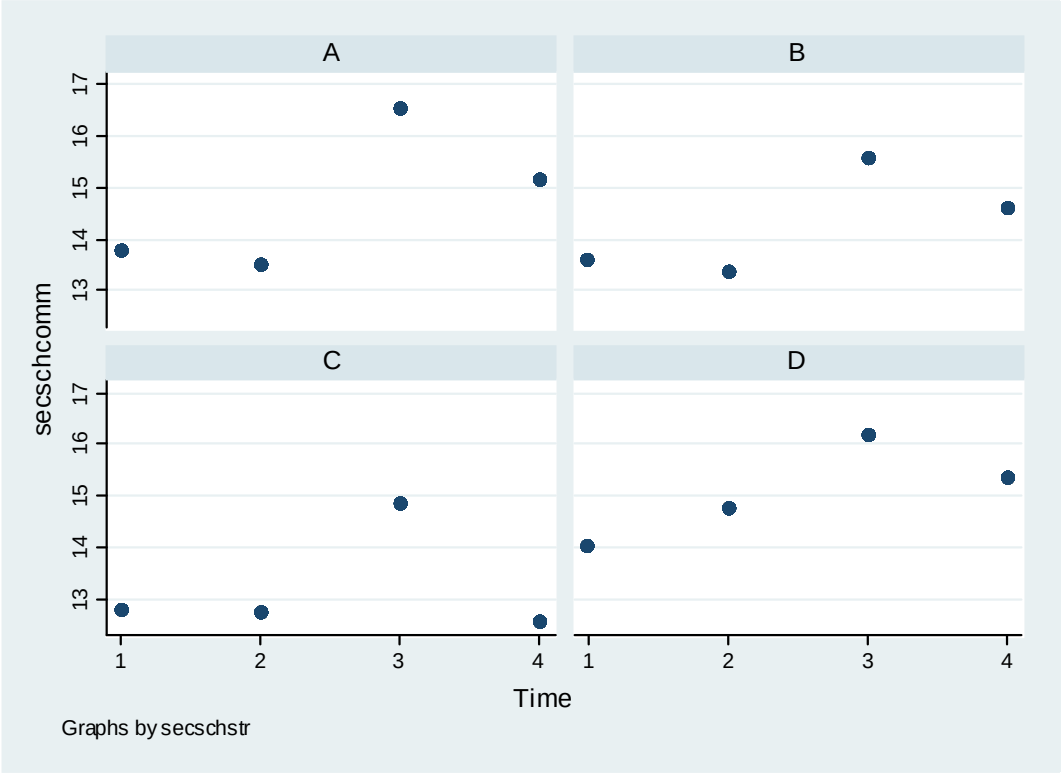
Figure 6.3 shows that the pattern of commitment for primary schools is very consistent, with all schools except one having the highest scores for commitment at time 3. Commitment declined for all schools after time 3, the extent of the fall varying between schools. Although it is disappointing to note this decline in school commitment, only two schools, Schools 1 and 18, had the lowest commitment of all at time 4. However, general levels of commitment varied considerably, schools 7, 10 and 13 having the highest values at time 3 and schools 1, 2, 9, 15, 17 and 18 displaying lower levels overall.

Figure 6.3: Average commitment over time by primary school



The pattern averaged for secondary schools (Figure 6.4) shows that, without exception, commitment peaked at time 3. The level of school commitment at time 3 for school C is noticeably lower than for the other secondary schools. Although it dropped between time 3 and time 4 for all secondary schools, school commitment declined more sharply for school C than for the other three secondary schools. In addition, the low level of school commitment recorded for school C at time 4 was not only lower than the other schools but also the time when the lowest value for commitment was recorded for school C.

Figure 6.4: Average commitment over time by secondary School



Time (Model 6.1, Table 6.1)

A series of models were then fitted to help explain the pattern of changing commitment described above. The statistical results in Model 6.1 (Table 6.1) demonstrate that commitment fell, but not significantly, between time 1 and time 2, confirming the impression in Figure 6.1. The measurement at time 2 was taken during the last six weeks of primary school so it is highly likely that children were less involved with their primary school and perhaps more excited about the move to their new secondary school. By this time, many had also visited their proposed secondary schools and many have had additional school visits and induction days. With no particular expectations, it seems quite reasonable that commitment should drop towards the end of primary school and improve as children transfer to secondary school. Although there was a decline in commitment between time 3 and time 4, it was significantly higher both at time 3 (p=0.000, z=11.48) and time 4 (p=0.000, z=4.69) than at time 1. Thus, commitment was *better* at secondary school, at least for the first six months, than at primary school. Children may be anxious about making a

good impression and want to comply with rules and expectations when arriving at secondary school. The peak at time 3 might well be explained by the initial nervousness on entering secondary school, when children are unsure about what to expect and when they make a special effort not to get into trouble. The significant fall in commitment between time 3 and time 4 ($p<0.0005$) may simply represent a natural decline to a more realistic level as children relax. It would be important to monitor any further change in commitment beyond the timeframe captured in this study. This model ignores other covariates, some of which may be correlated with time, and the following models are of a more complex nature.

Table 6.1: Summary of models for school commitment

Variable	Model 6.1			Model 6.2			Model 6.3			Model 6.4		
	Commitment/time			Commitment/time/gender/ secondary school			Complex			Parsimonious		
FIXED EFFECTS	β	p	z	β	p	z	β	p	z	β	p	z
Time 1												
Time 2	-0.019	0.923	-0.10	-0.016	0.936	–0.08	-0.229	0.281	-1.08	-0.072	0.711	-0.37
Time 3	2.268	0.000	11.48	2.268	0.000	11.49	2.141	0.000	8.65	2.073	0.000	10.39
Time 4	0.928	0.000	4.69	0.932	0.000	4.71	1.068	0.000	4.16	1.119	0.000	5.38
Boy												
Girl				1.408	0.000	5.21	0.751	0.002	3.06	0.835	0.000	3.86
Secondary School A												
Secondary School B				-0.087	0.875	-0.16	0.851	0.068	1.82	1.038	0.016	2.42
Secondary School C				-1.773	0.002	-3.07	Dropped			Dropped		
Secondary School D				0.581	0.267	1.11	0.829	0.036	2.10	0.890	0.018	2.37
Self esteem							0.015	0.586	0.55			
Locus of control							0.073	0.014	2.45	0.070	0.011	2.56
Wellbeing							-0.041	0.233	-1.19			
Small primary school												
Medium size primary school							5.087	0.066	1.84			
Large primary school							5.591	0.041	2.05			
Free school meal %							-0.018	0.152	-1.43			
Both original parents							0.266	0.343	0.95			
Care/no original parent							-0.123	0.733	-0.34			
Has siblings							0.061	0.859	0.18			
Parental involvement in education							0.055	0.091	1.69	0.076	0.002	3.11
Parental relationships							0.013	0.555	0.59			
Parental control/knowledge							0.044	0.358	0.92			
Organized non-school activities							0.004	0.922	0.10			
Hobbies							0.064	0.140	1.48			
Activities with parents							-0.202	0.081	-1.74			
Religion							-0.017	0.704	-0.38			
Peer relationships							0.005	0.783	0.27			
Neighbourhood crime neighbourhood							-0.000	0.631	-0.48			
Neighbourhood educational skills deprivation							-0.000	0.417	-0.81			
Neighbourhood housing deprivation							0.000	0.065	1.85	0.000	0.006	2.73
Pupil SIMD							0.000	0.456	0.75			
Self-concept							0.036	0.083	1.73	0.062	0.001	3.44
Resilience							-0.047	0.024	-2.26	-0.041	0.019	-2.34
Happiness							0.010	0.867	0.17			
Trust							-0.031	0.630	-0.48			

P7 average SIMD			-0.000	0.659	-0.44			
S1 average SIMD			0.000	0.298	1.04	0.000	0.030	2.17
Mixed age groups in primary school			5.313	0.053	1.94			
Gender of P7 teacher			-0.197	0.584	-0.55			
Distance from home to secondary school			0.047	0.420	0.81			
Attends designated secondary school			-1.289	0.014	-2.46			
Older sibling in same secondary school			-0.092	0.670	-0.43			
School discipline			0.035	0.277	1.09			
School bullying			0.001	0.981	0.02			
School safety			0.054	0.454	0.75			
School physical environment			0.102	0.059	1.89			
Teacher support/classroom environment			-0.052	0.001	-3.27			
School community			0.052	0.000	3.96	0.030	0.001	3.22
School inclusion			0.003	0.925	0.09			
Loneliness			-0.090	0.468	-0.73			
Boredom			-0.671	0.000	-6.79	-0.621	0.000	-8.11
School attachment			0.004	0.891	0.14			
Motivation			0.036	0.425	0.80			
Aspiration			0.101	0.000	3.72	0.090	0.000	4.49
Secondary school absence			0.024	0.158	1.41			
Ability			0.100	0.110	1.60			
Health			0.113	0.520	0.64			
Risk behaviour			-0.335	0.002	-3.11	-0.415	0.000	-4.18
RANDOM EFFECTS								
Child	Significant	Significant	Significant			Significant		
Primary school	Insignificant	Insignificant	Insignificant			Insignificant		
N	1474	1474	1243			1431		
Log likelihood	-3810.6772	-3788.9807	-3115.7619			-3557.5219		

Time, gender and secondary school (Model 6.2, Table 6.1)

The model was extended further to incorporate gender and secondary schools as fixed effects. Commitment dropped just before transfer to secondary school but improved on entry to secondary school before dropping again at time 4. It was also found that girls were significantly more likely to be committed than boys. However, the results show that compared with school A, school commitment was worse in secondary schools B and C, significantly so for school C. This relatively poor commitment at school C could be related to a number of child or school factors which might be explained as further complex models are developed.

Complex and parsimonious models (Models 6.3 and 6.4, Table 6.1)

Once the effects of time, gender and school, were established, the model was developed further to incorporate all those variables which were hypothesised to have a possible influence on school commitment. These fixed effects derived from the four main aspects of children's lives measured in the questionnaire – home, emotions, lifestyle and school. A large number of variables were incorporated into this model as the causes of school commitment are little understood. A parsimonious model was then developed which involved an iterative process of identifying the most significant explanatory variables (Model 6.4).

There were 12 significant explanatory variables in the complex model while in the parsimonious model there were 13 significant variables (once a number of insignificant explanatory variables were removed). In the complex model seven of these were very significant, but the final parsimonious model had nine highly significant variables. Four significant variables in the parsimonious model were not significant in the complex model and these were parental involvement in education, neighbourhood housing deprivation, S1 average SIMD and self-concept. Three variables were significant in the complex model but not in the parsimonious model. Two of these were not very significant and although teacher support/classroom environment was significant in the complex model ($p=0.001$, $z=-3.27$), the relationship was a negative one which is difficult to explain. If the valuing of education is an internalized belief deriving from parents and family, it is quite possible that the influence of teachers is minimal.

Focusing on the parsimonious model shows that commitment was significantly better at time 3 and time 4 compared with time 1, with school commitment peaking at time 3. The drop at time 4 still remained significantly higher than commitment levels recorded in primary school, while controlling for a range of other explanatory variables. This may be a response to new challenges and the greater responsibility of a more mature environment. Gender is also significant ($p<0.0005$, $z=3.86$) with girls showing more commitment to school than boys, especially at secondary school, confirming the position suggested in Figure 6.2. Children at secondary schools B and D displayed significantly higher levels of commitment than at school A. A good sense of school community emerged as the main school-related factor encouraging commitment to school ($p=0.001$, $z=3.22$). The concept of school community includes a whole range of feelings such as being valued, accepted, respected and included in school life, and it is clear these factors act in a positive manner to encourage school commitment. As noted in Chapter 4, the variable describing teacher support and classroom environment forms one variable as the two factors are inextricably linked.

The average S1 SIMD was also weakly significant and positive ($p=0.030$, $z=2.17$) indicating that the less deprived the average socioeconomic background of the year group, the greater the level of school commitment. There may be many factors involved here, including family background, peer influences, and the quality of schooling. In addition, the standard of living of the children's accommodation may have a direct bearing on commitment as the housing deprivation index was significant ($p=0.006$, $z=2.73$), indicating that the better the standard of housing, the greater the school commitment, thus providing additional evidence that children from more deprived backgrounds tend to feel less committed towards school.

The only significant immediate family factor was that of parental involvement with education ($p=0.002$, $z=3.11$). It is clear that children benefit when parents display an interest in their children's schooling (Fan and Chen, 2001; Feuerstein, 2000; Izzo et al., 1999; Keith et al., 1998; McWayne et al., 2004; Stevenson and Baker, 1987) as this appears to encourage higher levels of commitment.

In the parsimonious model, boredom ($p<0.0005$, $z=-8.11$) is the factor that was most negatively associated with school commitment. Thus, when children are least bored

they are most likely to be committed to school, although it should also be recognised that the direction of effect may be difficult to disentangle. Even so, boredom is an issue that schools could and should address, especially as this could be linked to increased risk behaviour (Patterson and Pegg, 1999) which is also very significant ($p<0.0005$, $z=-4.18$) in the parsimonious model. Boredom in school may lead to disruptive or apathetic behaviour in the classroom (Allen, 1986; Nelsen, 1985). However, some children may be more predisposed to boredom than others as children who report being bored in school also experience high levels of boredom outside school (Larson and Richards, 1991). The pupils' results for boredom are shown in Figure 6.5. While the pattern is similar for boys and girls, it is clear that boys are much more easily bored than girls (Figure 6.6).

Figure 6.5: Average boredom over time for all children

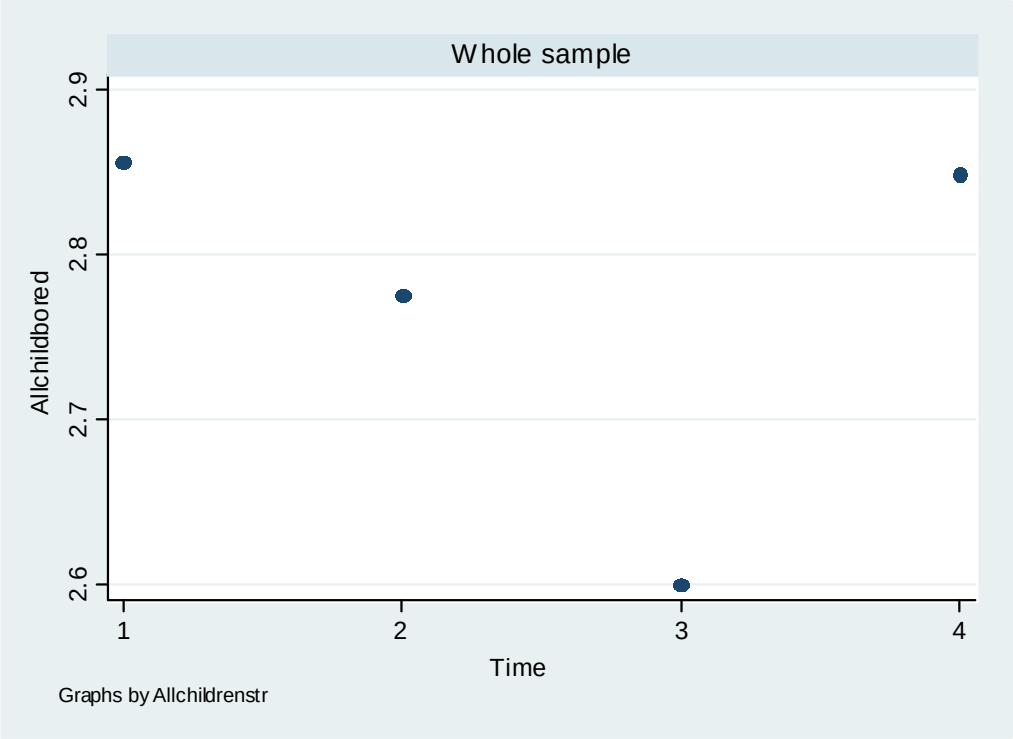
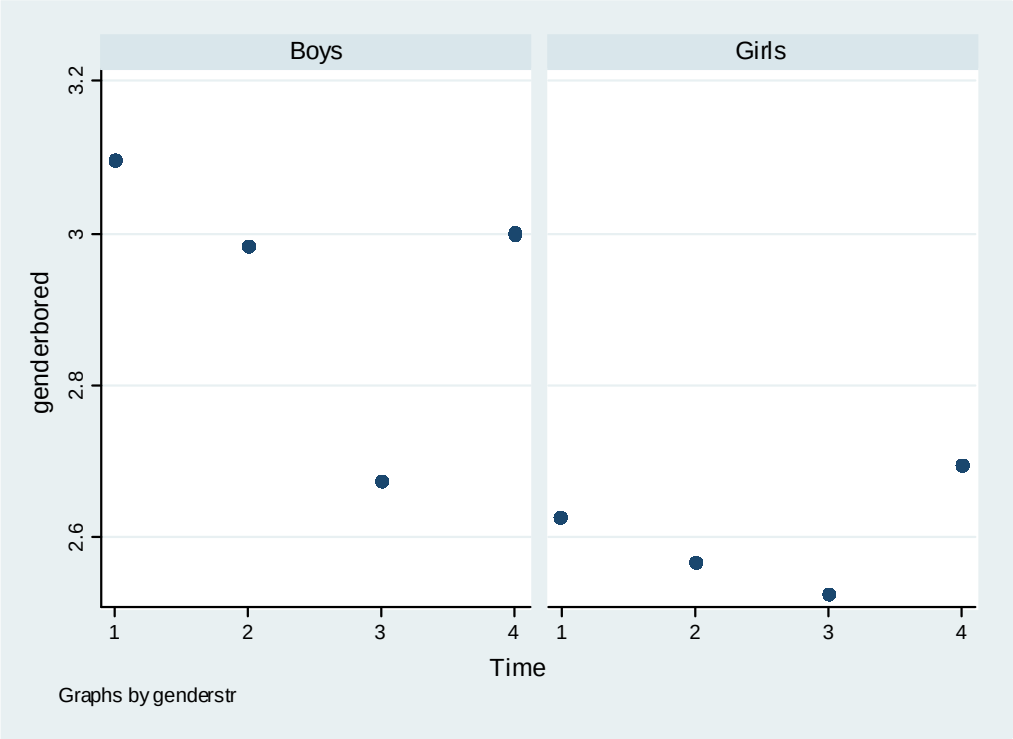


Figure 6.6: Average boredom over time by gender



Certain other personal qualities appear to have a significant influence on school commitment. Aspiration ($p<0.0005$, $z=4.49$) has a positive effect on commitment, perhaps reflecting that pupils understand the need for commitment if they are to realise their goals. Clearly those children who want to achieve good academic results are generally very committed to the educational process. Motivation and ability, however, were not significant factors.

Both positive self-concept ($p=0.001$, $z=3.44$) and internal locus of control ($p=0.011$, $z=2.56$) appear to enhance commitment. It may be that a good self-concept confers upon children a sense of self-belief that gives them some assurance that they can achieve their educational goals (Pajares and Schunk, 2001). Children with internal locus of control are those that believe they can influence their own lives to some extent and this may well be reflected in better school commitment in the belief that this will result in academic success. Resilience ($p=0.019$, $z=-2.34$) was also significant, but the negative value indicates that children with lower resilience are more committed to school and there is no obvious explanation for this.

There are some factors, in addition to those already noted, that might be expected to discourage commitment, such as bullying, school safety and school attachment; they

did not, however, appear to do so in this multivariate model. If the concept of school commitment derives from the home, and values experienced outside school, perhaps school effects are relatively unimportant. If this is the case, then the idea of school commitment may have been inculcated before and during the early years of primary school, and perhaps hinted at by the significance of parental involvement in school. Of all the significant explanatory variables, apart from that of time (observation 3), the most significant variable in discouraging school commitment is boredom. This is an issue which needs to be taken on board by teachers in the classroom and also by school administrators in developing an appropriate school curriculum.

Two types of random effects were considered in these models. In each case, there was significant clustering at the pupil level, implying that scores obtained for a single child were likely to be more similar than would be expected by chance. However, there was no significant clustering by primary school. Nevertheless, since commitment peaked at time 3 for all four secondary schools, it may be that the primary school influenced this outcome to some degree.

School Belonging

The idea of school belonging, relates to the social context of schools. The sense of school belonging implies more than just attending a certain school. It includes social relationships with all those involved with school, not simply relationships with teachers (McNeely, 2003). The concept of school belonging is sometimes referred to as school connectedness (Blum, 2005; McNeely, 2003; Roeser, Midgley and Urdan, 1996) and is used to describe pupils' perceptions of being important members of the school and feeling that adults in the school care about their learning and about them as individuals (Blum, 2005). There is also a direct relationship with feelings of achievement (Roeser, Midgley and Urdan, 1996). School belonging may also have a protective function as, in both positive and negative school climates, those who have strong connectedness to school are less likely to be victims of physical aggression and bullying (Wilson, 2004).

It was expected that school belonging would generally be good at the first two measurement points, with possibly a fall, at least initially, after the move to secondary school. At times 1 and 2, children are in their final terms at their primary schools,

with people they know well and in a very familiar environment. They have probably shared many activities over the years with their peers both inside and outside school. In this final primary year, they are also known by all the teachers and are likely to have positions of responsibility and trust as the most senior members of the school.

Despite any induction courses they may have experienced, the move from smaller, familiar primary schools to much larger and relatively unknown secondary schools might be expected to result in some drop in feelings of belonging, at least initially. The primary school is the environment where most of the children have spent several years of their lives, sharing activities with a familiar group of adults and other children. Their new secondary schools are likely to be large and unfamiliar, and initially children meet many new teachers and peers and have to cope with a number of new situations. At this time, it would not be unreasonable for feelings of school belonging to fall, although it might not be too long before they recovered to their previous levels.

Perhaps surprisingly, examination of the graph showing patterns of school belonging over the four time periods for all children (Figure 6.7) shows a clear peak at time 3 followed by a slight decline. This is an unexpected result as the third measurement was taken only four weeks after arrival at secondary school when children might still be settling in and feeling a little disorientated and new in their unfamiliar surroundings. The weakest sense of school belonging occurred at time 1 in primary school, which is again surprising as it might be expected that primary school children might record the highest levels of belonging in the primary schools they have attended for several years. Feelings of school belonging decline slightly after time 3 but do not fall to a level as low as in primary school.

Figure 6.7: Average belonging over time for all children

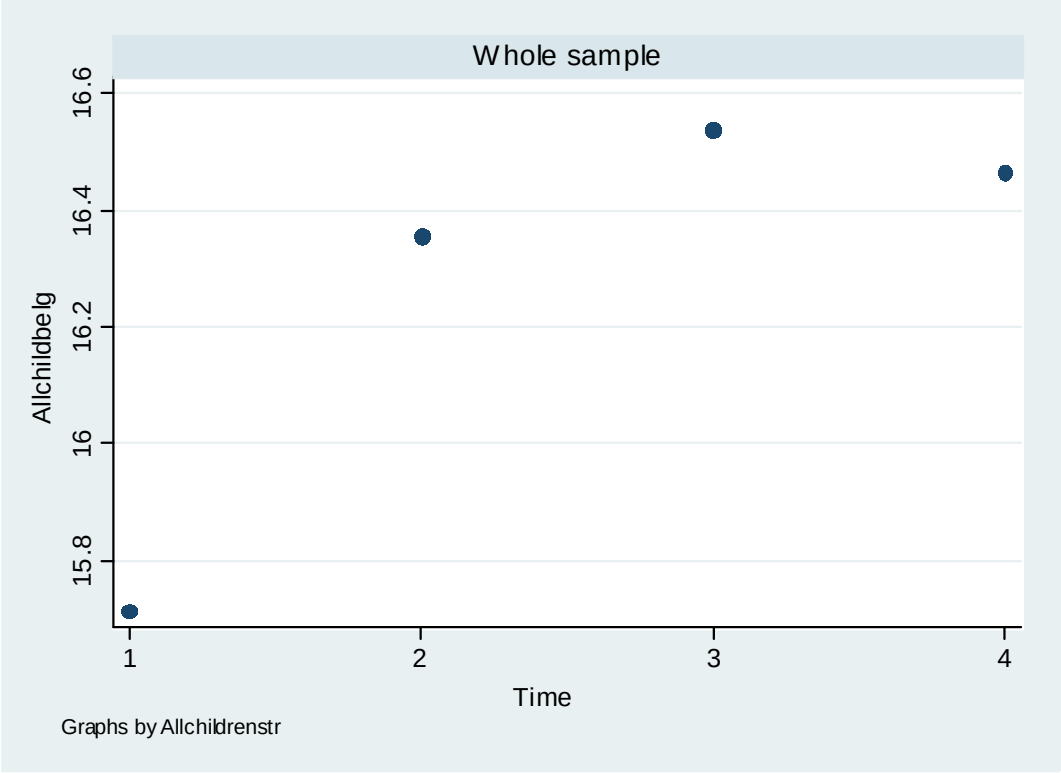
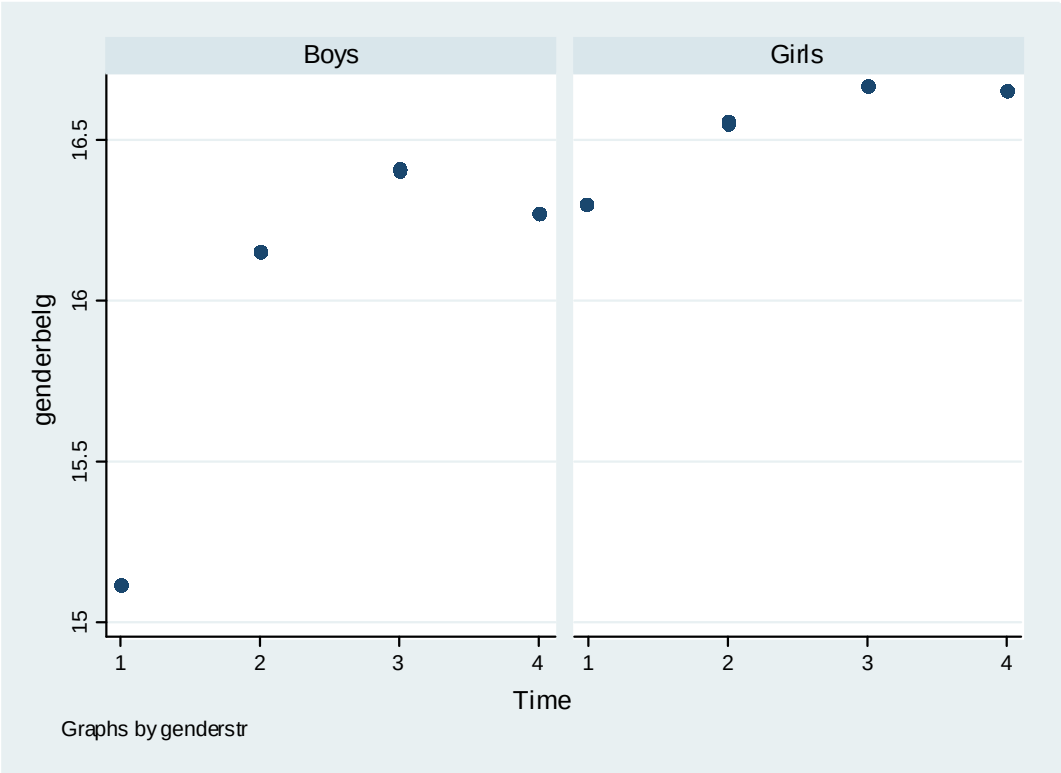


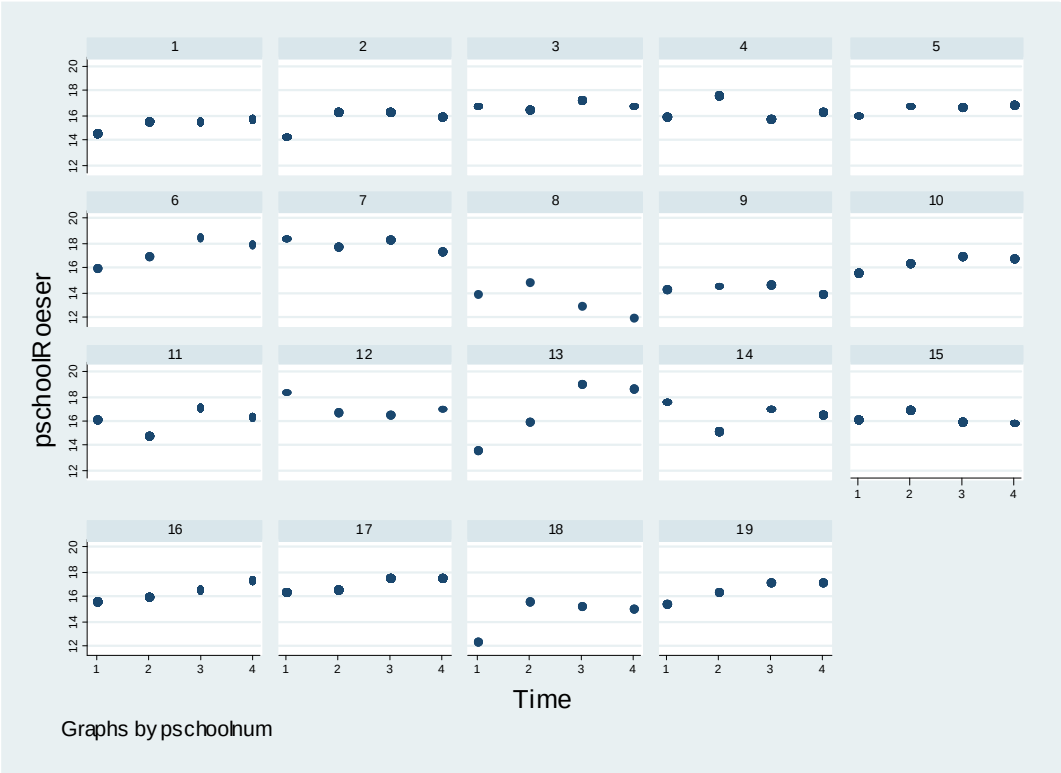
Figure 6.8 shows the difference between boys and girls in their perceptions of school belonging. It is interesting to see that the pattern is quite different for belonging than for commitment. In this case, although still recording marginally lower values than girls, boys show a distinct improvement in feelings of belonging at secondary school compared with primary school. While girls also indicate improved feelings of belonging after transfer to secondary school, their overall improvement is much smaller than that for boys. By time 4, there are signs that for girls, feelings of belonging have levelled off while for boys they start to decline. Girls in particular seem to enjoy chatting with their primary teachers and may develop quite close relationships with them in primary school, but the secondary school environment does not provide the same opportunity for prolonged, daily contact with one teacher. Boys, however, may prefer the greater stimulation of a larger number of teachers, many more of whom, are likely to be male.

Figure 6.8: Average school belonging over time by gender



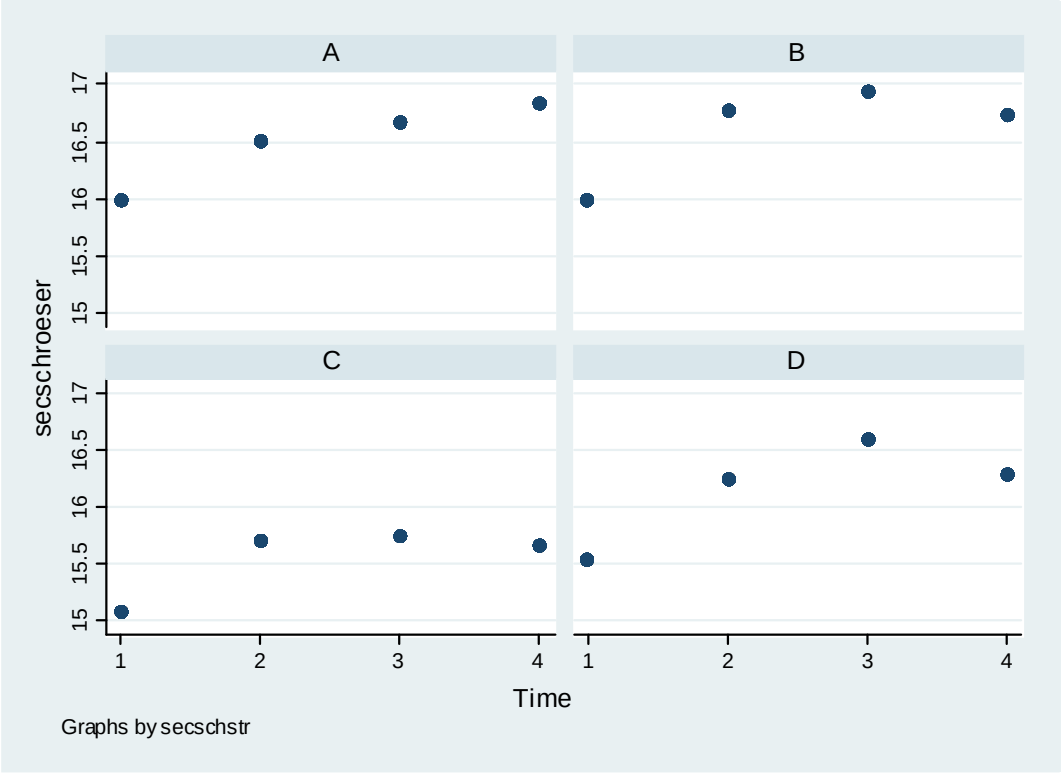
The pattern of belonging by primary school (Figure 6.9) shows that two very small schools (schools 6 and 13) had the best sense of belonging at time 3 and time 4, while another three of the smallest schools (schools 8, 9 and 18), had the lowest sense of belonging at time 3 and time 4. School belonging generally appears to either fall gradually after time 3 or at least starts to level out. Ten primary schools recorded improved school belonging at time 3, but only three of these, schools 4, 12, and 16, showed continued improvement at time 4. Belonging for the remaining schools either showed little change or started to decline after time 3.

Figure 6.9: Average school belonging over time by primary school



The results by secondary school (Figure 6.10) demonstrate the same pattern of a peak at time 3. Only school A continued to show improving school belonging after time 3 but, nevertheless, all schools had higher levels of school belonging at time 4 than at time 1. Secondary school C displayed markedly lower levels of school belonging than all other schools at all stages and showed virtually no increase in belonging after time 2.

Figure 6.10: Average school belonging over time by secondary school



Time (Model 6.5, Table 6.2)

Model 6.5 indicates that feelings of school belonging improve significantly over time compared with time 1. This is because the values recorded at time 1 were particularly low, especially for boys. Thus, while still at primary school, school belonging is significantly better at time 2 than at time 1. School belonging peaks at time 3, but is not significantly better than at time 2 or time 4. Although declining slightly after time 3, the level still remains higher than at primary school and significantly better than at time 1.

Table 6.2: Summary of models for school belonging

Variable	Model 6. .5			Model 6. 6			Model 6.7			Model 6.8		
	School belonging/time			School belonging/time/ gender/secondary school			Complex School belonging			Parsimonious School belonging		
FIXED EFFECTS	β	p	z	β	p	z	β	p	z	β	p	z
Time 1												
Time 2	0.625	0.000	3.56	0.625	0.000	3.56	0.216	0.179	1.35	0.196	0.170	1.37
Time 3	0.842	0.000	4.73	0.842	0.000	4.73	0.369	0.051	1.95	0.314	0.030	2.18
Time 4	0.725	0.000	4.05	0.728	0.000	4.07	0.285	0.139	1.48	0.291	0.047	1.99
Boy												
Girl				0.521	0.028	2.19	0.065	0.671	0.43			
Secondary School A												
Secondary School B				0.114	0.767	0.30	-0.118	0.685	-0.41			
Secondary School C				-0.863	0.032	–2.15	-0.263	0.449	-0.76			
Secondary School D				-0.216	0.554	-0.59	-0.290	0.143	-1.46			
Self-esteem							0.071	0.001	3.44	0.061	0.000	3.55
Self-concept							0.037	0.012	2.52	0.023	0.041	2.05
Locus of control							-0.024	0.253	-1.14			
Wellbeing							0.001	0.976	0.03			
Medium sized primary school							0.807	0.685	0.41			
Large primary school							1.213	0.543	0.61			
Free school meal %							-0.008	0.371	-1.90			
Both original parents							0.022	0.904	0.12			
In care or no original parents							0.150	0.524	0.64			
No siblings							-0.373	0.085	-1.72			
Pupil SIMD							-0.000	0.448	-0.76			
Parental involvement in education							0.011	0.629	0.48			
Parental relationships							0.002	0.889	0.14			
Parental control/knowledge							-0.027	0.417	-0.81			
Organized non-school activities							-0.040	0.165	-1.39			
Hobbies							-0.071	0.019	-2.34	-0.065	0.012	-2.50
Activities with parents							0.136	0.104	1.62			
Religion							0.013	0.661	0.44			
Peer relationships							0.012	0.300	1.04			
Happiness							0.042	0.323	0.99	0.074	0.039	2.06
Trust							0.057	0.218	1.23			
Resilience							-0.029	0.058	-1.90			
Mixed age groups in primary school							1.460	0.462	0.74	0.422	0.043	2.03
Attends designated secondary school							-0.085	0.769	-0.29			
Distance from home to secondary school							0.017	0.561	0.58			
Gender of P7 teacher							-0.020	0.913	0.11			

No older sibling in same secondary school			-0.135	0.328	-0.98				
School discipline			0.007	0.776	0.28				
School bullying			0.023	0.402	0.84				
School safety			0.071	0.165	1.39				
Teacher support			0.023	0.054	1.93	0.031	0.000	3.70
Class involvement			0.004	0.740	0.33				
School community			0.115	0.000	11.84	0.113	0.000	13.97
School attachment			0.016	0.455	0.75				
School inclusion			0.042	0.081	1.75	0.054	0.000	3.93
Loneliness			-0.056	0.529	-0.63				
Boredom			-0.039	0.585	-0.55				
Extracurricular activities			0.003	0.939	0.08				
Motivation			0.222	0.525	0.64				
Aspiration			-0.008	0.716	-0.36				
Secondary school absence			0.008	0.471	0.72				
Ability			0.106	0.030	2.17	0.151	0.000	3.91
Health			0.061	0.620	0.50				
Risk behaviour			0.122	0.098	1.65				
RANDOM EFFECTS									
Child	Significant	Significant	Significant			Significant			
Primary school	Insignificant	Insignificant	Insignificant			Insignificant			
N	1478	1478	1235			1443			
Log likelihood	-3643.3189	-3638.9858	-2667.2845			-3061.6184			

Model 6.6, Table 6.2

Model 6.5 was extended further to include gender and secondary school as well as time (Table 6.2, Model 6.6). This showed that school belonging remains significantly better at all times compared with time 1. Results for gender indicate that girls have significantly better feelings of school belonging than boys, although this is not strongly significant. There is also a difference between the secondary schools. Both schools C and D recorded a weaker sense of belonging than schools A and B, and in the case of school C, this is significantly lower than school A (p=0.032, z=-2.15) and B (p=0.0261). Schools C and D are both relatively small but they have contrasting free small meal percentages and, at this stage, it is difficult to give clear reasons why they both record lower levels of school belonging. However, this model ignores other covariates which may have an effect, and this is considered in more complex models (Models 6.7 and 6.8).

Complex and Parsimonious Models (Model 6.7 and 6.8, Table 6.2)

Model 6.7 incorporated 45 variables hypothesised to have a possible influence on school belonging. Five of these are significant, with two, self-esteem and the sense of school community, being very significant. Iterative removal of the least significant variables resulted in the parsimonious model (Model 6.8) which had ten significant variables, including the five significant variables identified in the complex model. The additional significant variables are time, happiness, mixed age groups in primary school, teacher support and school inclusion.

After controlling for a range of other factors, the final parsimonious model shows that, in accordance with the previous models, feelings of school belonging improve after transfer. Both time 3 (p=0.030, z=2.18) and time 4 (p=0.047, z=1.99) record significantly better feelings of school belonging than time 1, although time 3 is not significantly better than time 2. It is curious that children recorded the highest values for school belonging at time 3, when they had just arrived at secondary school, but they may be responding to concerted effort from secondary schools to make all new pupils feel as welcome and relaxed as possible. Although still significantly better at time 4 than time 1 (p=0.047, z=1.99), the feeling of school belonging drops a little by this time and is less significant, but it is not clear whether this is the beginning of a downward trend or just a natural adjustment and levelling off. Gender is not

significant and neither is there any significant difference between the secondary schools.

Most of the remaining significant variables relate either to personal qualities or to school in some way. The most significant variables describe school characteristics. As in the complex model, the most significant factor in the parsimonious model is a sense of school community ($p<0.0005$, $z=13.97$). This idea of school community is a rather intangible concept. It can be described as a welcoming atmosphere of acceptance and co-operation encouraging all children to feel they are valued, while sharing goals to the benefit and wellbeing of everyone in that community. It is perhaps the way in which a school makes pupils feel comfortable, secure and important and one would expect this complex concept to be a major factor determining a sense of school belonging.

Other important influences are a positive classroom environment, largely determined by skilled and supportive teachers ($p<0.0005$, $z=3.70$) and school inclusion ($p<0.0005$, $z=3.93$). Both these factors help children to feel they are welcome and valued members of their school community. It is during lessons that most of the interaction between pupils and teachers occurs and it is quite clear that children value teacher support and a positive atmosphere in the classroom. This may be more difficult to achieve in secondary schools where children move from class to class and from teacher to teacher, rather than developing a strong bond with one teacher over the course of a year as is more possible in primary schools. The feeling of school inclusion refers to the wider school community and includes other pupils as well as teachers. There may be various reasons that explain why some children feel more included in school than others, such as having many friends or having an older sibling in the school. However, when children initially move to secondary school, there may be a number of initiatives designed to encourage children to get to know each other. It is not surprising that the more pupils feel they are accepted and included in school, the stronger the sense of school belonging.

Feelings of school belonging also appear to be encouraged when children are taught in mixed age groups in primary school ($p=0.043$, $z=2.03$), although this is not very significant. This situation occurs in very small primary schools where there are only

two or three classes altogether for all the children between five and twelve years of age. Children become accustomed to working and playing with children of all ages and they are often involved in helping younger children. These mixed age environments may encourage social and co-operative skills which may engender confidence when developing new relationships and meeting large numbers of new people.

The final five significant variables relate to individual characteristics. Self-esteem ($p<0.0005$, $z=3.55$) and ability ($p<0.0005$, $z=3.91$) seem to be important personal attributes. Xin (2003) believed high self-esteem to be the best predictor of school belonging and while self-esteem does not emerge as the most significant factor in these results, it is the most significant personal quality, apart from academic ability, to encourage school belonging. A good self-concept ($p=0.041$, $z=2.05$) also encourages feelings of school belonging and probably acts in the same way as self-esteem by enhancing self-confidence in social situations. There is no real explanation of why academic ability promotes school belonging, but it might be because more able children do more, achieve well, maybe have better social skills and many friends, and so experience more positive feelings about school generally.

Both happiness ($p=0.039$, $z=2.06$) and having hobbies ($p=0.012$, $z=-2.50$) are significant variables but while happiness encourages feelings of school belonging, the pursuit of hobbies does not. It is not quite clear whether happiness promotes feelings of belonging or *vice versa*. It may be that happy people make more friends and it is also probable that children who feel they belong are happier. The role played by hobbies is also difficult to disentangle. Model 6.8 indicates that children who have more hobbies have a weaker sense of school belonging. The variable does not give any information on the type of hobbies concerned but it is possible that children who have interests which they pursue out of school, or on their own rather than in a group, may have less opportunity and motivation to become involved in school activities and relationships.

It is interesting to note that neither class involvement nor participation in extracurricular activities, are significant in explaining school belonging. The most important influences relate to social aspects of school – a sense of school community,

teacher support, feeling included as a valued member of the school and mixed age groups in primary school. The sense of school belonging is obviously far more dependent on social influences than on involvement in activities *per se*.

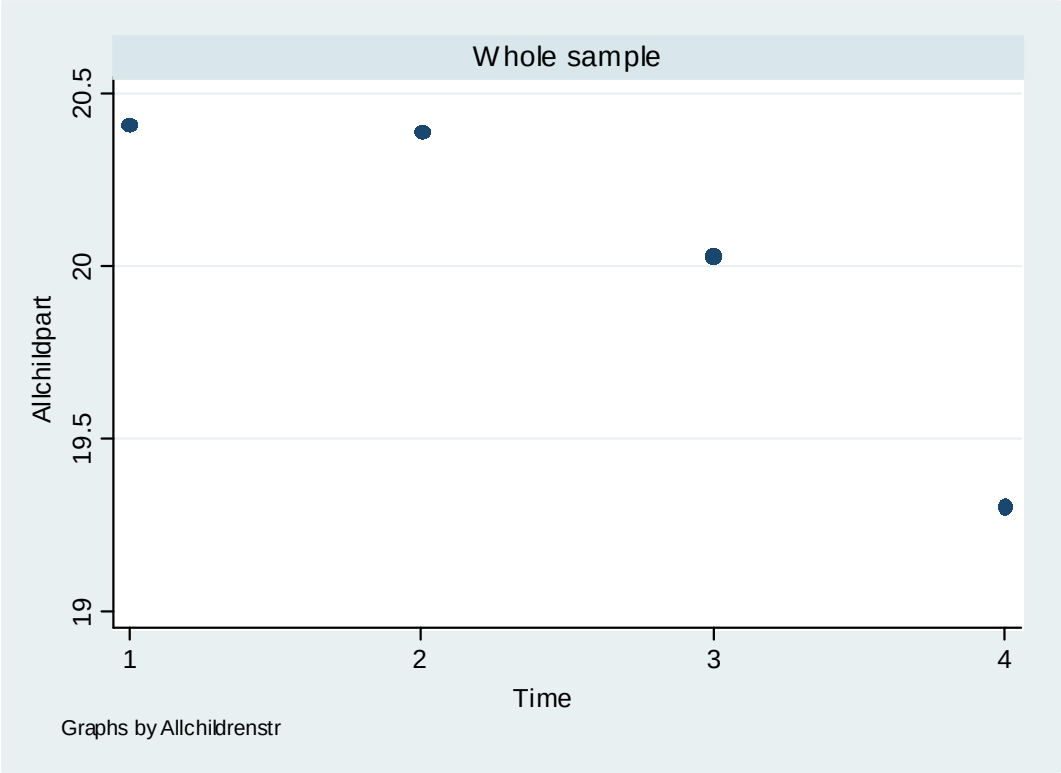
In all four models describing school belonging there is significant clustering within children but again no clustering within primary schools.

School Participation

Participation in school activities involves students' interactions and responses within the classroom and in school activities generally. The level of participation can be seen as falling on a continuum from basic school attendance at the lowest level to more complex involvement, perhaps when children are older and more mature, such as shouldering personal responsibility for study, and membership of the student council.

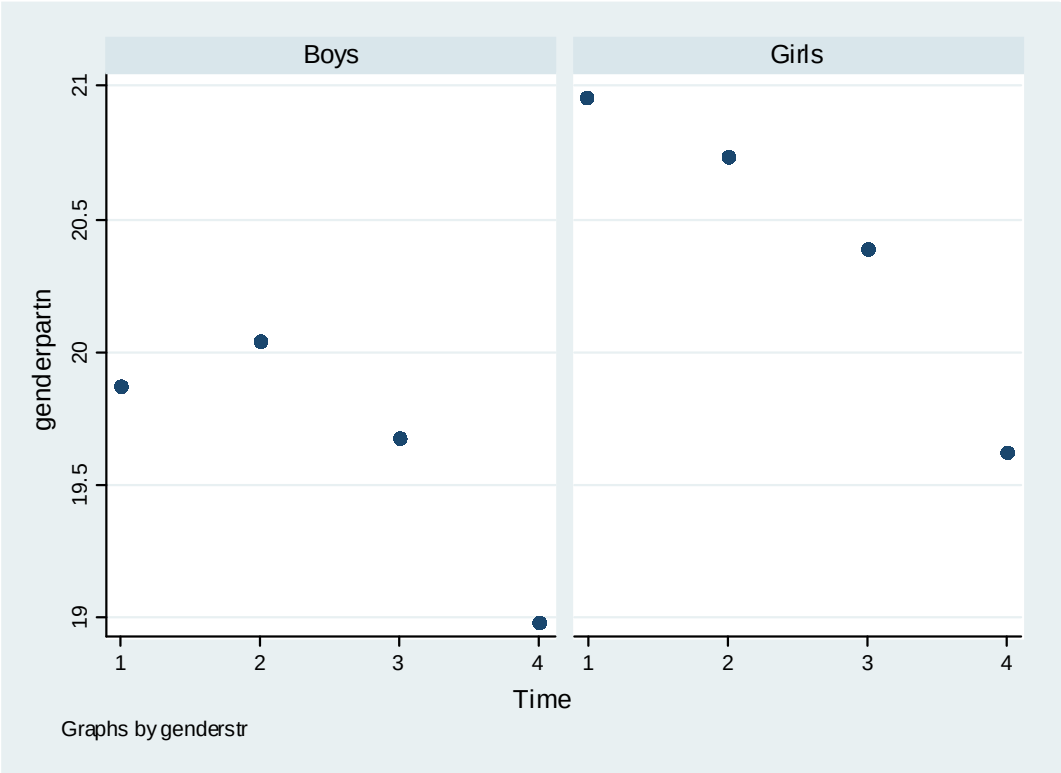
Over the particular time of this study, it was expected that school participation would be at its highest level during primary school, partly because primary schools tend to organize many activities and functions, and partly because in comparison with others in the school, P7 children are generally the most capable, and expected to take responsibility for many school events. It is unlikely that pupils newly arrived at secondary school will be involved in organization of activities and it may even take some time for them to join existing groups as they gradually develop confidence and get to know what is available. Figure 6.11 shows that, indeed, the general pattern of school participation for all pupils indicates a very sharp decline between primary and secondary school.

Figure 6.11: Average school participation over time for all children



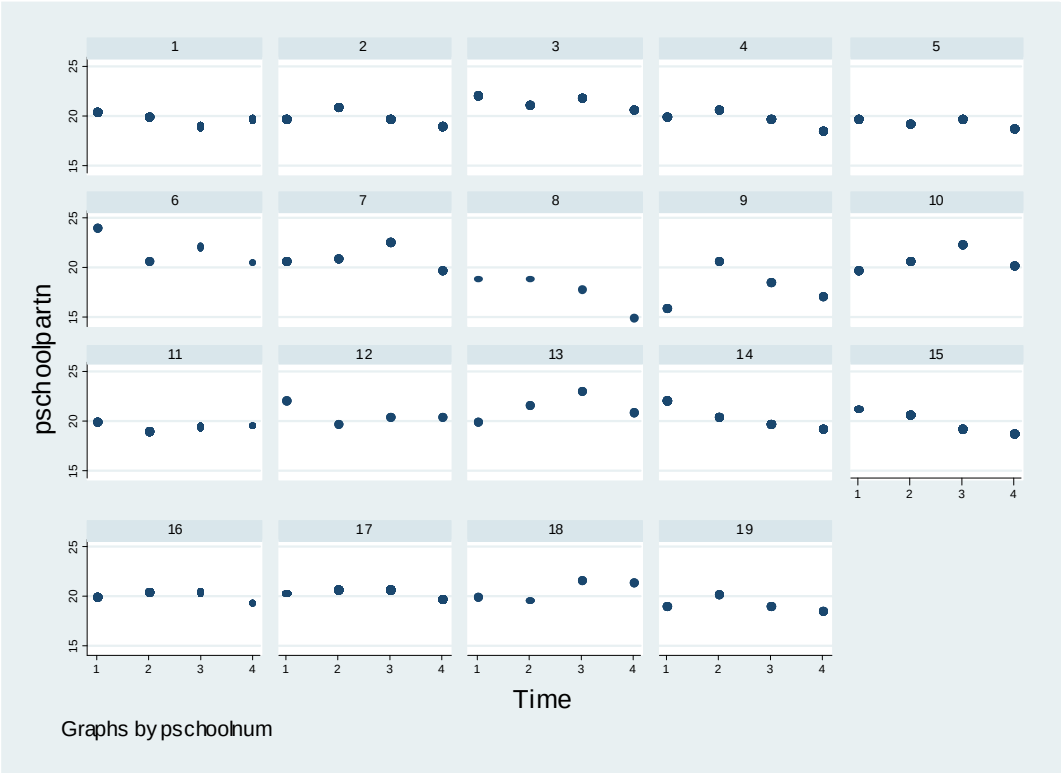
When school participation is examined separately for boys and girls, it can be seen that there is a similar downward trend from time 2 (Figure 6.12). Girls start this descent from a higher level and record a slightly sharper decline than boys. However, while girls' participation declines continuously from time 1 to time 4, the downward movement in boys' participation starts at time 3 and it is possible that the changes associated with transition are partly responsible for initiating this downward movement. Although girls still show a higher level of school participation than boys at time 4, the gap between them is smaller. There may be a number of reasons for decreasing school participation, including increasing interest in non-school activities as children get older, adolescence with its attendant self-consciousness, and different class and school routines after transfer.

Figure 6.12: Average school participation over time by gender



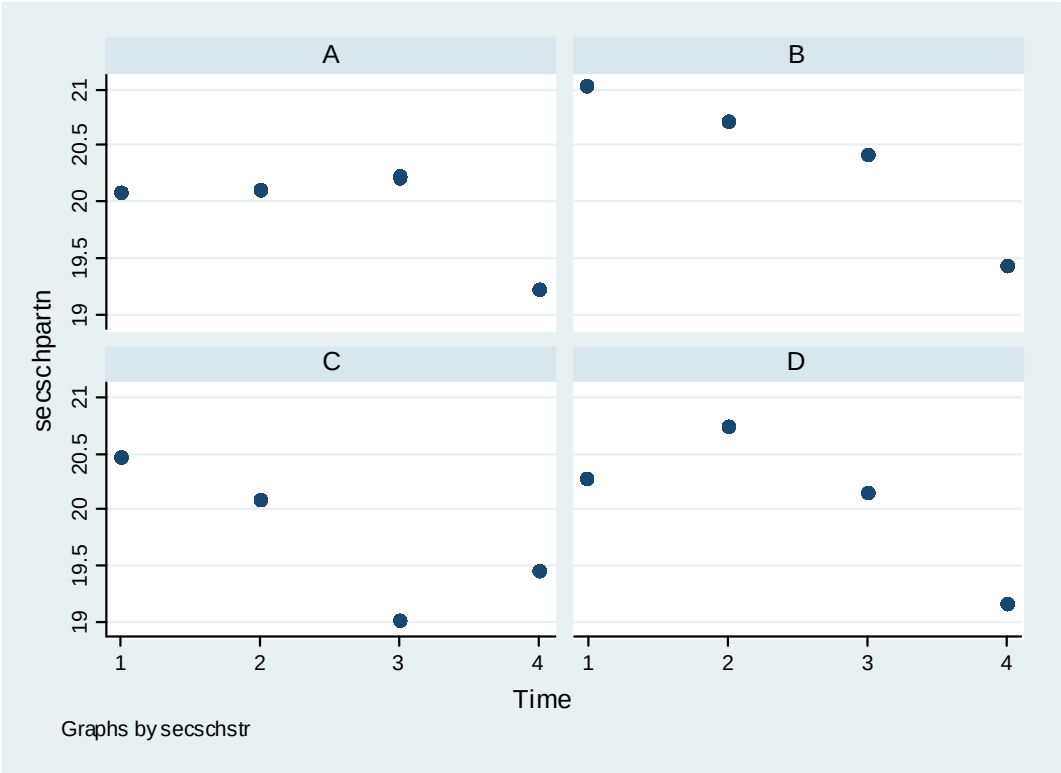
The pattern of participation by primary school (Figure 6.13) shows a fall in participation after the move to secondary school generally, and particularly after time 3. Schools where this is especially pronounced are schools 2, 4, 7, 8, 9, 13, 14 and 15. Although most of these primary schools were at a considerable distance from their secondary schools, thus involving long bus journeys to and from school, this outcome variable focuses largely on class involvement, with only a small element concerned with participation in general school activities. The downward trend probably mostly reflects changing teaching techniques and different learning styles, although declining participation may also be a response to a new, larger school environment.

Figure 6.13: Average school participation over time by primary school



Participation change by secondary school (Figure 6.14) again indicates that, in most cases, participation drops over time. The most notable exception to this pattern is seen for secondary school C where, although participation does drop initially at time 3, there is nevertheless a clear upward movement by time 4. It is possible that school C, recognising the particular needs of its children, makes a special effort to involve children in all aspects of school life, perhaps even using more inclusive teaching techniques than other schools. The other exception is school A, where participation initially increases slightly on entry to the school at time 3. This suggests that school A may adopt special measures in the early weeks to help children settle in.

Figure 6.14: Average school participation over time by secondary school



Again modelling analysis was undertaken to examine the effects of time, gender and secondary school, followed by the complex and parsimonious models.

Time (Model 6.9, Table 6.3)

The results in Model 6.9 show that school participation fell over time. There is no significant difference in participation while at primary school between time 1 and time 2. After transfer to secondary school participation begins to decline, although there is no significant difference between time 3 and time 1. However, the continued decrease between time 3 and time 4 results in a significant difference between time 4 and time 1 ($p<0.0005$, $z=-5.65$).

Table 6.3: Summary of models for school participation

Variable	Model 6.9			Model 6.10			Model 6.11			Model 6.12		
	School participation/time			School participation/time/ gender/secondary school			Complex			Parsimonious		
FIXED EFFECTS	β	p	z	β	p	z	β	p	z	β	p	z
Time 1												
Time 2	0.003	0.989	0.01	0.001	0.995	0.01	-0.259	0.103	-1.63	-0.148	0.291	-1.06
Time 3	-0.353	0.068	-1.82	-0.352	0.070	-1.81	-0.748	0.000	-4.09	-0.512	0.000	-3.55
Time 4	-1.098	0.000	-5.65	-1.094	0.000	-5.62	-0.823	0.000	-4.36	-0.711	0.000	-4.82
Boy							-0.362	0.027	-2.21			
Girl				0.784	0.006	2.76						
Secondary School A												
Secondary School B				0.540	0.213	1.24	-0.036	0.897	-0.13			
Secondary School C				-0.42	0.926	-0.09	dropped					
Secondary School D				0.168	0.686	0.40	0.136	0.556	0.59			
Self esteem							-0.027	0.199	-1.28	-0.032	0.035	-2.11
Locus of control							0.002	0.053	1.94	0.034	0.038	2.08
Wellbeing							-0.004	0.874	-0.16			
Self concept							0.029	0.053	1.94			
Medium size primary school							-0.044	0.983	-0.02	-0.480	0.072	-1.80
Large primary school							-0.696	0.727	-0.35	-0.763	0.003	-2.93
Free school meal %							-0.012	0.217	-1.23			
Both original parents							-0.033	0.861	0.17			
In care or other with no original parents							-0.289	0.244	-1.17			
Has siblings							0.310	0.179	1.35			
Crime deprivation							-0.000	0.509	-0.66			
Educational skills deprivation							0.000	0.722	0.36			
Housing deprivation							-0.000	0.273	-1.10			
Pupil SIMD							0.000	0.608	0.51			
Parental involvement in education							0.054	0.024	2.26	0.047	0.009	2.61
Parental relationships							-0.043	0.006	-2.76	-0.030	0.025	-2.24
Parental control/knowledge							-0.040	0.243	-1.17			
Organized non-school activities							0.054	0.068	1.83	0.057	0.027	2.21
Hobbies							-0.008	0.797	-0.26			
Activities with parents							0.137	0.107	1.61			
Religion							0.090	0.004	2.86	0.075	0.009	2.61
Peer relationships							0.036	0.003	2.97	0.031	0.003	2.97
Happiness							0.062	0.159	1.41			
Trust							0.008	0.858	0.18			
Resilience							0.039	0.011	2.55	0.047	0.000	4.03

P7 average SIMD			-0.000	0.077	-1.77	-0.000	0.000	-3.83
S1 average SIMD			-0.000	0.477	-0.71			
Mixed age groups in primary school			0.436	0.827	0.22			
Gender of P7 teacher			-0.243	0.271	-1.10			
Distance home to secondary school			-0.035	0.333	-0.97			
Attends designated secondary school			0.159	0.634	0.48			
Has older sibling in secondary school			0.269	0.065	1.85			
School discipline			0.063	0.008	2.66	0.079	0.000	3.63
School bullying			0.001	0.974	0.03			
School safety			-0.026	0.621	-0.49			
Teacher support			0.048	0.000	4.06	0.053	0.000	4.90
School community			0.034	0.001	3.47	0.038	0.000	4.55
School attachment			0.071	0.001	3.29	0.080	0.000	4.25
School inclusion			0.062	0.011	2.55	0.038	0.006	2.72
Loneliness			-0.125	0.163	-1.40			
Boredom			-0.058	0.420	-0.81			
Motivation			0.196	0.000	5.92	0.172	0.000	5.67
Aspiration			0.061	0.002	3.07	0.067	0.000	4.21
Secondary school absence			-0.004	0.738	-0.33			
Ability			0.325	0.000	7.11	0.290	0.000	6.92
Health			-0.235	0.063	-1.86			
Risk behaviour			-0.132	0.774	0.29			
RANDOM EFFECTS								
Child	Significant	Significant	Significant			Significant		
Primary school	Insignificant	Insignificant	Insignificant			Insignificant		
N	1441	1441	1223			1422		
Log likelihood	-3686.2687	-3685.7011	-2682.6939			-3051.4581		

Time, gender and secondary school (Model 6.10, Table 6.3)

Model 6.10 indicates that, controlling for gender and secondary school, the results for time are similar to the previous model, with significant declines in school participation between time 4 and time 1. Overall, girls participate significantly more in school than boys ($p=0.006$, $z=2.76$). However, this position is worth monitoring as it was noted from Figure 6.12 that the decline in school participation for girls accelerated between time 3 and time 4 compared with the decline for boys. No significant difference is found between the four secondary schools, although the figures show that children in school C had lower participation rates than children in the other three schools.

Complex and parsimonious models (Models 6.11 and 6.12, Table 6.3)

Model 6.11 included 48 variables which it was thought could influence school participation. A surprisingly large number of these were found to be significant. After iterative removal of variables, the parsimonious model included 19 significant variables, 14 of which were significant in the complex model (Model 6.11). The reduced participation over time continues to be significant at time 4 compared with time 1, and both models also show a significant decline in participation between times 3 and 4 and time 1. This suggests that time has an influence on participation, but that falling participation may not necessarily be wholly associated with transition itself. Declining participation may also be associated with adolescence and a growing interest in other activities unrelated to school. Gender ceased to be significant once the models controlled for a whole range of additional variables.

No variables are found to be significant in the complex model that are not also significant in the parsimonious model and the rest of the discussion on school participation therefore refers only to the parsimonious model. Many of the factors influencing participation in school relate to the school context. These are a good sense of school community ($p<0.0005$, $z=4.55$), a supportive classroom environment ($p<0.0005$, $z=4.90$) and good school discipline ($p<0.0005$, $z=3.63$). Good discipline and a positive classroom environment are probably related to each other as in a well-controlled classroom it is much easier to generate a sense of fun and good interpersonal relationships between children, and to promote active learning (Klem

and Connell, 2004). Clearly a strong sense of school community helps to make all children feel comfortable and accepted into the school and is likely to encourage participation generally. Other significant factors relating to school are school attachment ($p<0.0005$, $z=4.25$) and a sense of inclusion ($p=0.006$, $z=2.72$) both encouraging school participation, although it is possible that greater participation results in improved school attachment. Children from primary schools in relatively deprived neighbourhoods were found to participate more in school ($p<0.0005$, $z=-3.83$). There is no clear explanation for this but it could be that these schools provide more activities or use different methods to encourage participation. It is also possible that children from relatively deprived areas are not so involved in activities with their families and therefore have more time available for school events. It is also the case that the two secondary schools in the sample with higher free school meal percentages are located in more urbanised areas and their pupils generally live in the immediate vicinity of the school. Many pupils attending the other two secondary schools live in small villages some distance away. Larger primary schools have significantly less participation than smaller schools ($p=0.003$, $z=-2.93$), possibly reflecting the need for everyone to join in where total pupil numbers are small.

Several of the most significant explanatory variables relate to personal qualities such as ability ($p<0.0005$, $z=6.92$), motivation ($p<0.0005$, $z=5.67$), aspiration ($p<0.0005$, $z=4.21$), and resilience ($p<0.0005$, $z=4.03$), with both religious commitment ($p=0.009$, $z=2.61$) and good friendships ($p=0.003$, $z=2.97$) also being significant in encouraging participation in school activities. Of these, the most significant are ability, motivation, aspiration and resilience and it could be that able, motivated children value all aspects of school and join in as many areas as possible. Children who are ambitious and keen to do well are also likely to be motivated and eager to participate, especially in the classroom. Resilience appears to be a valuable attribute possibly giving children confidence to make new friends and take on new challenges. It may also offer some protection in the classroom, allowing children to attempt new skills and subject matter without worrying about failure and temporary setbacks. Children reporting good friendships are more likely to join in school activities but it is not clear whether this is the reason or the consequence of participation.

The role of religious commitment is not clear. However, children who are involved with church activities may be used to interacting with people of all ages sharing a variety of activities. This experience of regularly spending time, perhaps from a young age, with a group of trusted adults and peers may help the development of a positive outlook which encourages participation in other areas of life. It may even be that those with religious beliefs hold values that stress the importance of full school participation, or that some families encourage participation in general, and church attendance is one reflection of this.

Parental involvement in children's education ($p=0.009$, $z=2.61$) also fosters school participation. This could be due to general parental encouragement or it could be that in many cases, the parents themselves become involved with their children in some activities, perhaps in sport or in helping to organise school events. This seems to contradict the finding that those with poor parental relationships ($p=0.025$, $z=-2.24$) are more likely to participate in school and, in fact, there is no real explanation for this, unless school activities provide an alternative source of support for these children. A weakly significant factor encouraging school participation is involvement in organised non-school activities ($p=0.027$, $z=2.21$). This may a direct response to children's interests and enthusiasm, or it may reflect parental encouragement to do extra activities, or it could even be that some children are prepared to join a group or pursue an activity because their friends do so. Whatever the reason, this may be a good general protective factor, as children who are bored in their leisure time are more likely to become involved in alcohol and drug abuse (Patterson and Pegg, 1999). Children who are involved in out-of-school activities may also be sociable and enjoy most situations where they are part of a group.

Out of interest, participation in extracurricular activities alone was also examined and an even more extreme pattern was noted than for school participation. For all children (Figure 6.15) there is a clear and sharp decline in involvement in extracurricular activities after transfer to secondary school. The same steep fall is noted for both boys and girls (Figure 6.16). The only difference is that girls start from a higher level of participation in primary school than boys but their involvement in extracurricular activities falls to almost the same low level as for boys after transfer to secondary school. There may be a number of reasons for this. If some activities are organised to

take place after school, children dependent on school buses for transport may not be able to participate. Although some schools organise additional transport, this is not the case for any of the secondary schools in the sample. It may be that, as the youngest members of the school, these first year children feel reluctant to join in activities with unknown and older students. They may not even know about all the possibilities open to them. This downward trend should be monitored to see if it is temporary or longer term.

Figure 6.15: Average participation in extracurricular activities for all children

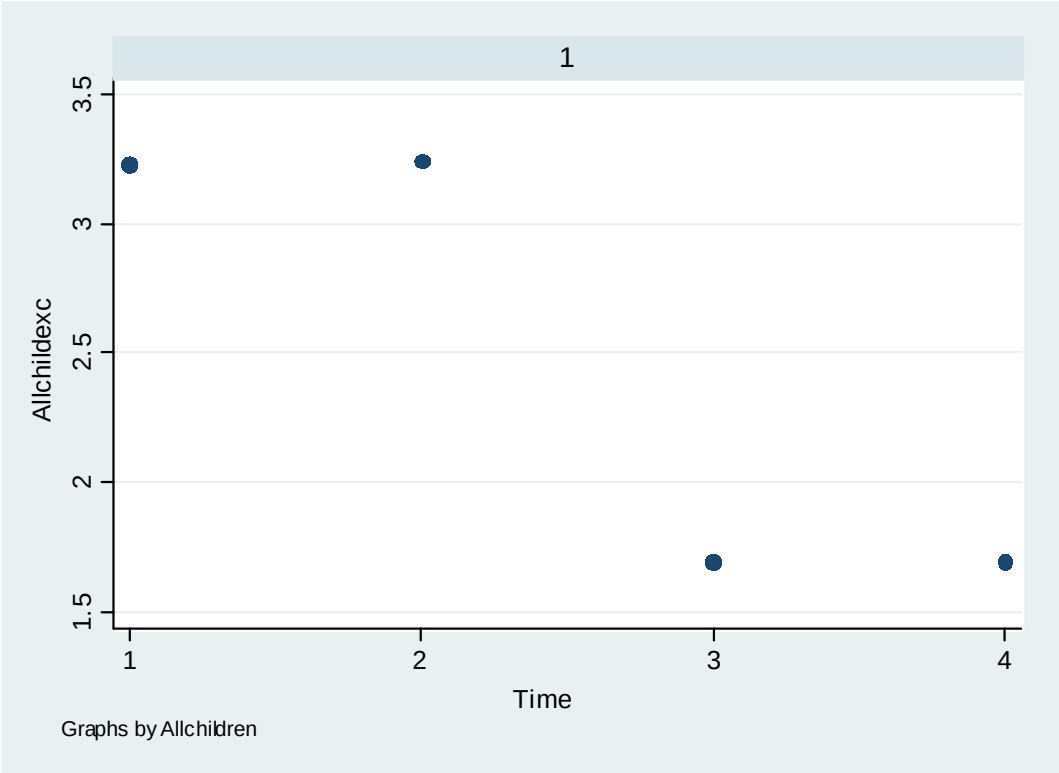


Figure 6.16: Average participation in extracurricular activities by gender

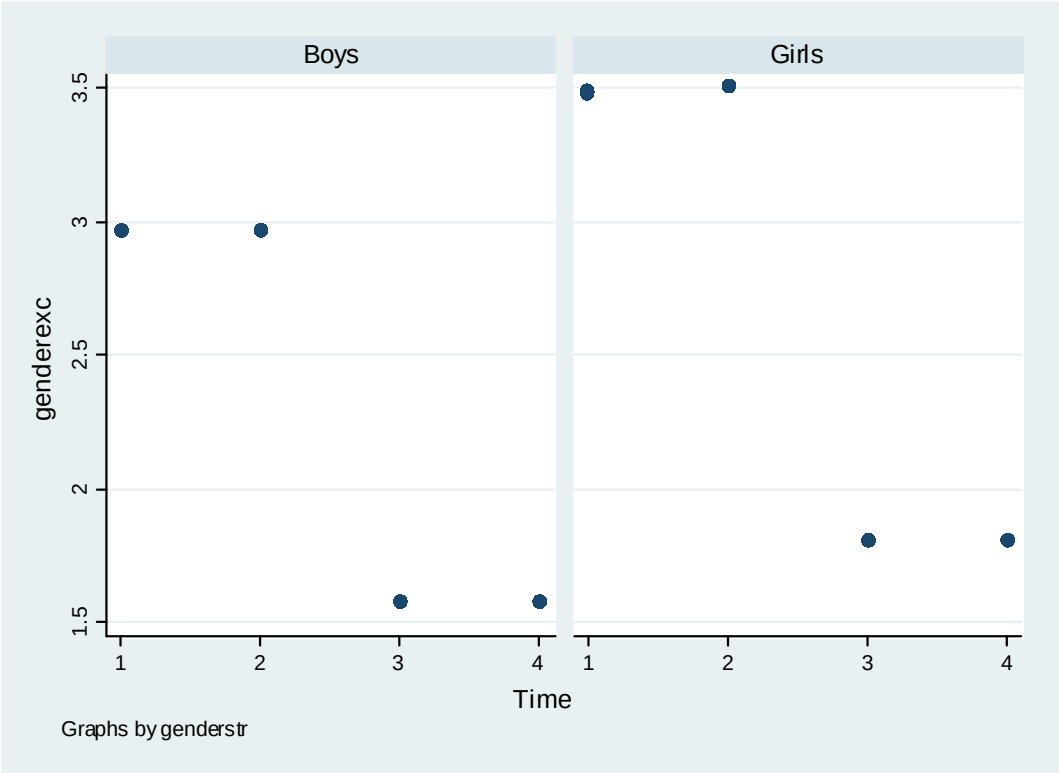


Table 6.4 indicates that while there are some variables that influence one or two components of engagement, there is only one variable apart from time – sense of school community – that influences all three components of engagement. However, it is interesting to see that for each component there is a small group of variables relating solely to that component. Thus, as well as sharing some variables, each component is also clearly dissimilar from the other two in the factors that are associated with it. Each component is therefore a distinct construct.

Table 6.4: Summary of significant explanatory variables of parsimonious models for school commitment, school belonging and school participation

Variable	Commitment			Belonging			Participation		
	β	p	z	β	p	z	β	p	z
Time 3	2.073	0.000	10.39	0.314	0.030	2.18	-0.512	0.000	-3.55
Time 4	1.119	0.000	5.38	0.291	0.047	1.99	-0.711	0.000	-4.82
Sense of school community	0.030	0.001	3.22	0.113	0.000	13.97	0.038	0.000	4.55
Self-concept	0.062	0.001	3.44	0.023	0.041	2.05		-	
Aspiration	0.090	0.000	4.49		-		0.067	0.000	4.21
Parental involvement	0.076	0.002	3.11		-		0.047	0.009	2.61
Locus of control	0.070	0.011	2.56		-		0.034	0.038	2.08
Resilience	-0.041	0.019	-2.34		-		0.047	0.000	4.03
Self-esteem		-		0.061	0.000	3.55	-0.032	0.035	-2.11
Ability		-		0.151	0.000	3.91	0.290	0.000	6.92
Teacher support/classroom environment		-		0.031	0.000	3.70	0.053	0.000	4.90
School inclusion		-		0.054	0.000	3.93	0.038	0.006	2.72
Gender	0.835	0.000	3.86		-			-	
Secondary school B	1.038	0.016	2.42						
Secondary school D	0.890	0.018	2.37						
Boredom	-0.621	0.000	-8.11		-			-	
Risk behaviour	-0.415	0.000	-4.18						
Housing deprivation SIMD	0.000	0.006	2.73						
S1 average SIMD	0.000	0.030	2.17						
Happiness		-		0.074	0.039	2.06		-	
Hobbies		-		-0.065	0.012	-2.50		-	
Primary mixed age groups		-		0.422	0.043	2.03		-	
Motivation		-			-		0.172	0.000	5.67
School attachment		-			-		0.080	0.000	4.25
School discipline		-			-		0.079	0.000	3.63
P7 average SIMD		-			-		-0.000	0.000	-3.83
Large primary school		-			-		-0.763	0.003	-2.93
Peer relationships		-			-		0.031	0.003	2.97
Religion		-			-		0.075	0.009	2.61
Parental relationships		-			-		-0.030	0.025	-2.24
Organised non school activities		-			-		0.057	0.027	2.21

Time is significant for all outcome variables. School commitment and belonging both show significant improvement after transfer, peaking at time 3. Even though they decline slightly at time 4, school commitment and school belonging still record a significant improvement in relation to time 1. However, general participation in school drops after transfer with a significant decline at time 3 which drops even further at time 4 compared with time 1.

Apart from time, the most frequently occurring variable is a sense of school community which had a positive relationship with each of the three engagement components. Models 6.7 and 6.8 (Table 6.2) show that it is also the most significant of all the variables influencing school belonging. Variation between schools in the sense of community is probably dependent upon the staff, systems and processes schools have in place. It is a far more influential factor for school belonging than it is for school commitment and participation. A number of explanatory variables influence two of the three components. Only one, self-concept, encourages both school commitment and school belonging. However four explanatory variables influence both school commitment and school participation, and a further four influence school belonging and school participation.

It may be easy to dismiss boredom as a typical and unimportant element in children's lives but the results show that after time and sense of school community, it is the most influential of all explanatory variables and is particularly influential in preventing commitment to school. On the other hand, it was thought that some variables would be more influential than was the case. Examples include happiness, motivation and peer relationships, but each of these was significant in relation to only one of the outcome variables. A handful of explanatory variables influence more than one of the outcome variables. However, Table 6.4 also shows quite clearly that for each outcome variable there is also a group of explanatory variables which are specific to each outcome alone.

Self-Esteem

Findings on change in self-esteem during school transfer vary. Eccles et al., (1989) noted that self-esteem declined at transfer but that it improved later, while Wigfield et al., (1991) found that there was a negative shift in many subject areas, especially mathematics, and suggested that this could put adolescents at risk for later failure. Hirsch and Rapkin (1987) found no change in self-esteem over the course of transition. Since research has revealed different patterns of self-esteem over the time of school transition, it is clear that this concept is influenced by many factors, some of which are explored in this study. It has been suggested that self-esteem may play an important part in buffering against stress (Zimmerman et al., 1997) and it may also contribute towards general wellbeing (Diener, 1984).

According to the literature, self-esteem might be expected to drop after transfer to secondary school (Blyth, Simmons and Bush, 1978; Eccles, Lord and Midgley, 1991; Hirsch, DuBois and Brownell, 1993; Seidman et al., 1994; Wigfield et al., 1991). However, Figure 6.17 showing self-esteem change for all children in the study, indicates that it rises continually and steadily from time 1 to time 4. Moving to secondary school appears to have no negative effect on self-esteem at the time of transfer. This could be because the children have been well prepared for transfer on their induction programmes or because the negative effects of school transfer have been over-magnified.

Figure 6.17: Average self-esteem over time for all children

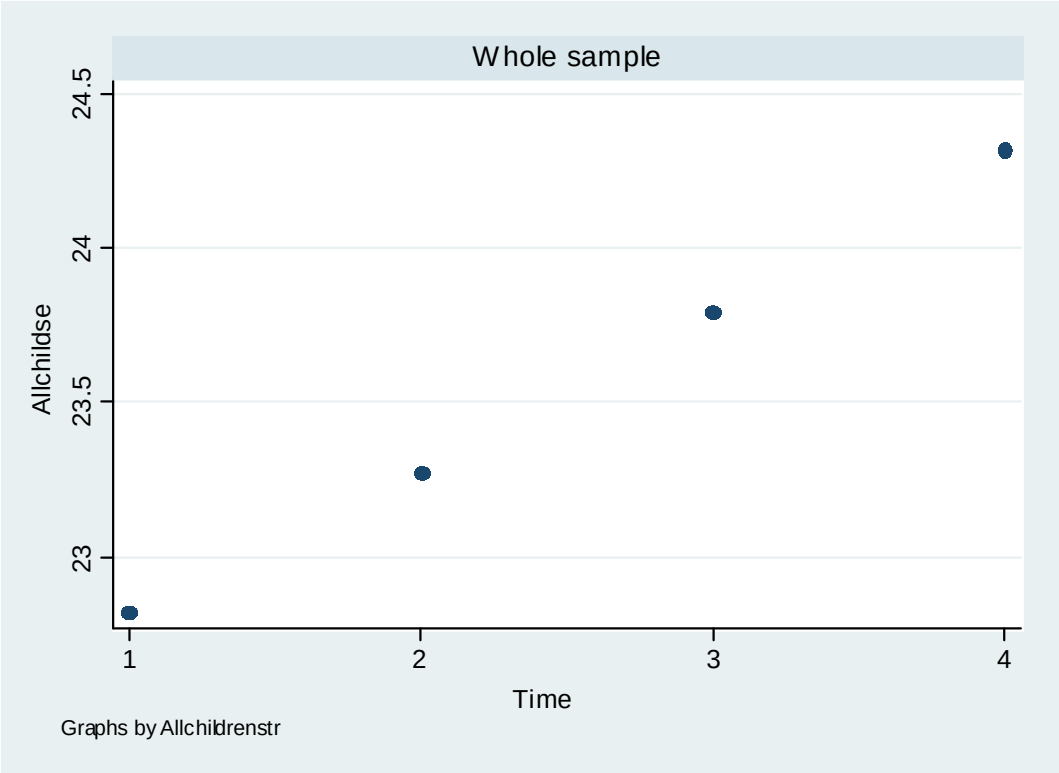
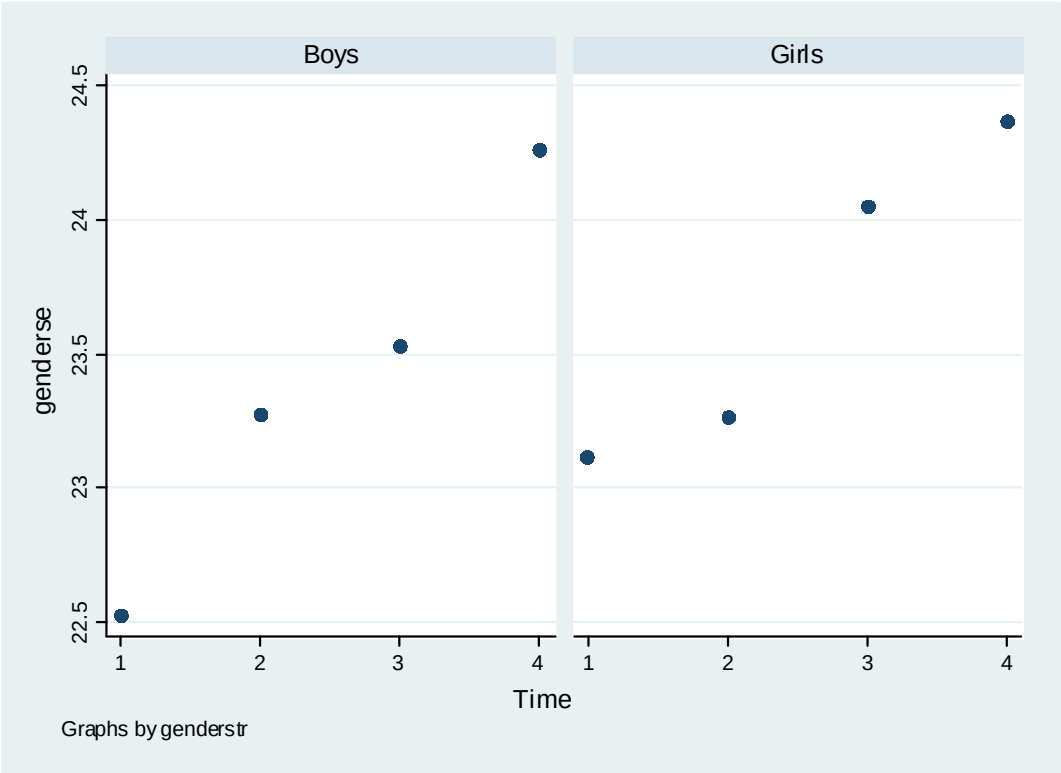


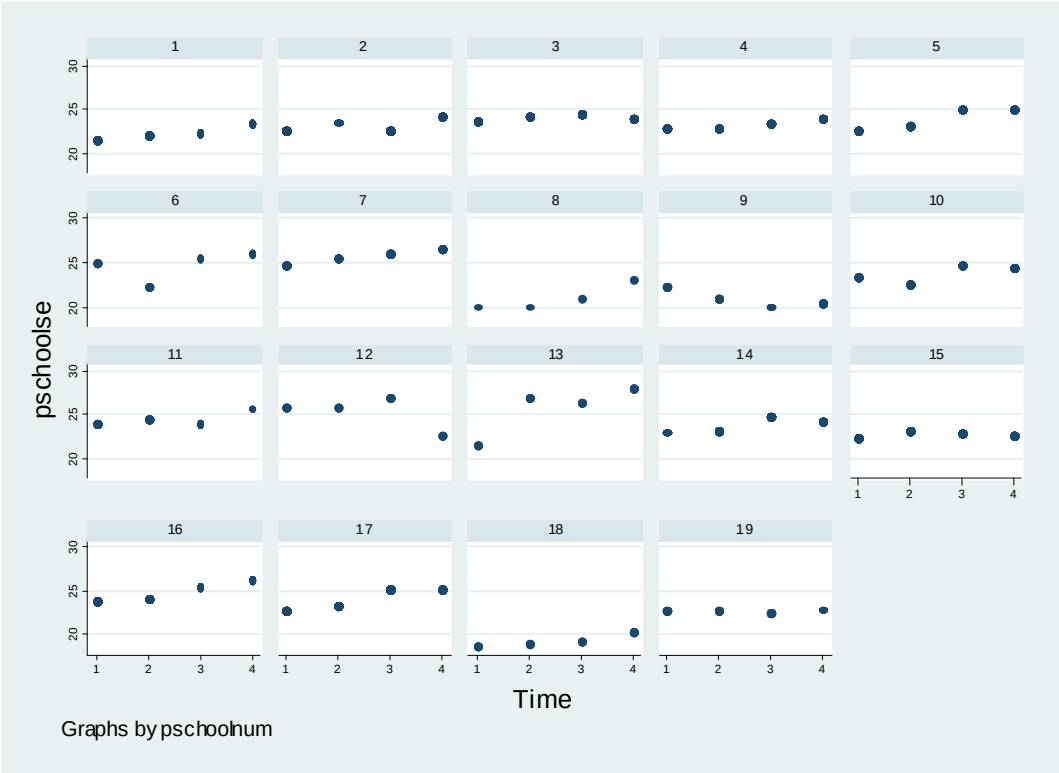
Figure 6.18 plots self-esteem separately for boys and girls. Self-esteem for girls at time 1 in primary school is higher than for boys, but by the end of primary school the levels are almost exactly the same. Self-esteem continues to rise for everyone at secondary school, improving more for girls between time 2 and time 3 and more for boys between time 3 and time 4. By time 4, both boys and girls record almost the same level of self-esteem, indicating that over the whole time span, boys improve in self-esteem more than girls.

Figure 6.18: Average self-esteem over time by gender



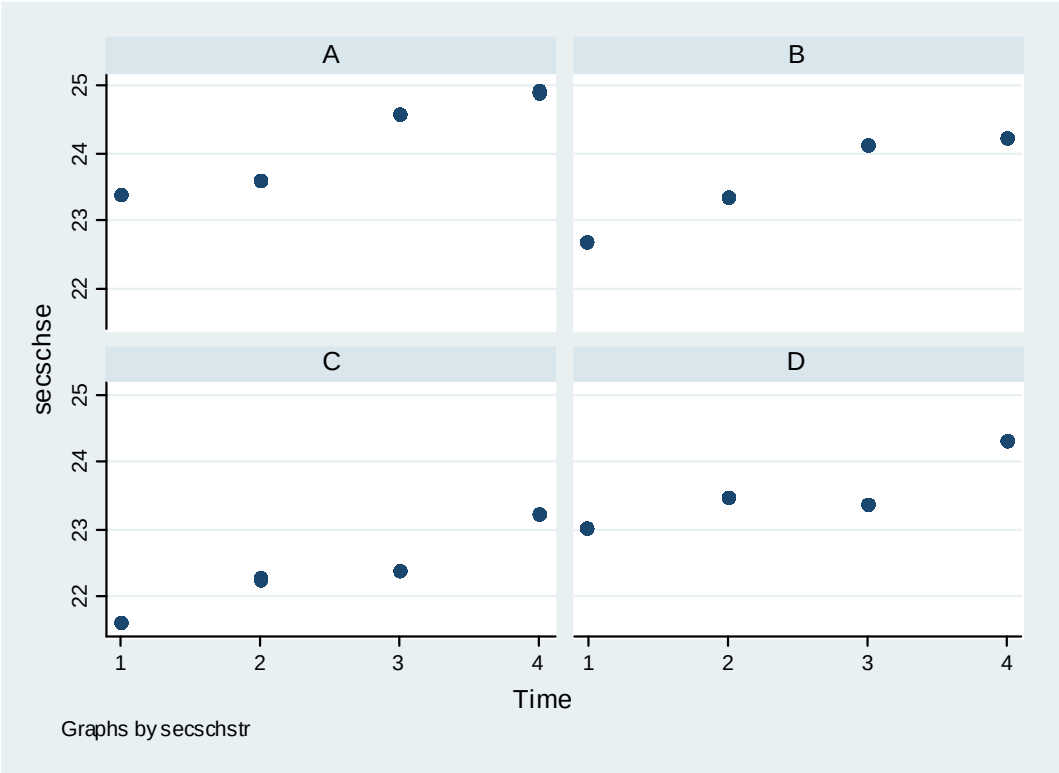
However, examination of the pattern of self-esteem by primary schools shows more variability (Figure 6.19). For pupils in only five schools – schools 1, 7, 16, 17, and 18 – does self-esteem appear to improve constantly over time. Two schools show decreasing self-esteem over time – schools 9 and 12 – while nine of the remaining 12 schools, although displaying rising self-esteem overall, have one time period where self-esteem either drops or maintains the same level. Perhaps more interesting is the pattern after time 2, after the move to secondary school. Six schools show decreased self-esteem between time 2 and 3 and a further five schools record a fall in self-esteem between time 3 and time 4. Of these, school 15 records declining self-esteem between time 2 and time 4, thus showing a constant decline after transfer to secondary school. The other school of note is school 12 where children show increased self-esteem at time 3, on first entering secondary school, followed by a very sharp drop to the lowest level recorded at any time for this school.

Figure 6.19: Average self-esteem over time by primary school



Changes in self-esteem by secondary school (Figure 6.20) show a much more consistent pattern than for primary schools. For all four schools there is an overall increase over time with only one school – school D – recording a small drop between time 2 and time 3. More significantly, schools C and D indicate a clear improvement between time 3 and 4, with a less marked rise in the level of self-esteem for schools A and B. The other main point of interest is that schools A, B and D share a relatively similar range of self-esteem level across all time periods but school C, while showing the same degree of improvement, has a lower level of self-esteem at all comparable time points and, therefore, overall.

Figure 6.20: Average self-esteem over time by secondary school



<u>Time (Model 6.13, Table 6.5)</u>

Model 6.13 shows that self-esteem improves throughout the time of the study but this improvement is not significantly better at time 2 compared with time 1. However, after transfer to secondary school, self-esteem improves significantly at time 3 ($p<0.0005$; $z=4.30$) and even more so at time 4 ($p<0.0005$; $z=6.37$) compared with time 1, indicating continued improvement over time. In fact, the increase in self-esteem is significantly better at time 3 than at time 2 ($p=0.0092$) and also significantly better at time 4 than at time 3 ($p=0.0350$).

Table 6.5: Summary of models for self-esteem

Variable	Model 6. 13			Model 6. 14			Model 6.15			Model 6.16		
	Self-esteem/time			Self-esteem/time/ gender/secondary school			Complex			Parsimonious		
FIXED EFFECTS	β	p	z	β	p	z	β	p	z	β	p	z
Time 1												
Time 2	0.369	0.081	1.74	0.368	0.081	1.74	-0.332	0.129	-1.52			
Time 3	0.919	0.000	4.30	0.918	0.000	4.29	-0.319	0.244	-1.16			
Time 4	1.372	0.000	6.37	1.374	0.000	6.38	0.204	0.457	0.74			
Boy												
Girl				0.267	0.466	0.73	-0.469	0.050	-1.96			
Secondary School A												
Secondary School B				-0.400	0.441	-0.77	0.396	0.306	1.02			
Secondary School C				-1.847	0.001	-3.47	Dropped					
Secondary School D				-0.606	0.222	-1.22	-0.065	0.859	-0.18			
School commitment							0.022	0.450	0.76			
School belonging							0.136	0.001	3.32	0.115	0.002	3.03
School participation							-0.104	0.034	-2.12			
Locus of control							0.177	0.000	6.02	0.196	0.000	7.19
Wellbeing							0.114	0.001	3.25	0.116	0.000	3.59
Small primary school												
Medium size primary school							-1.228	0.660	-0.44			
Large primary school							-1.078	0.699	-0.39			
Free school meal %							-0.003	0.795	-0.26			
Both original parents							0.455	0.098	1.66	0.654	0.012	2.51
In care or no original parents							0.102	0.772	0.29	0.193	0.565	0.58
Has siblings							0.852	0.011	2.55	1.091	0.000	3.52
Educational skills deprivation							0.000	0.964	0.05			
Employment deprivation							-0.000	0.130	-1.51			
Housing deprivation							0.000	0.584	0.55			
Income deprivation							0.000	0.528	0.63			
Pupil SIMD							-0.000	0.292	-1.05			
Parental involvement in education							0.049	0.138	1.48			
Parental relationships							0.046	0.035	2.11	0.063	0.001	3.24
Parental control/knowledge							-0.152	0.001	-3.20	-0.135	0.001	-3.44
Organized non-school activities							0.009	0.833	0.21			
Hobbies							0.019	0.660	0.44			
Activities with parents							0.103	0.387	0.87			
Religion							-0.090	0.047	-1.99	-0.091	0.032	-2.14
Peer relationships							-0.011	0.540	-0.61			
Happiness							0.121	0.048	1.98	0.117	0.039	2.06

Trust			0.238	0.000	3.69	0.278	0.000	4.65
Resilience			0.065	0.002	3.10	0.049	0.010	2.56
P7 average SIMD			-0.000	0.292	-1.05			
S1 average SIMD			0.000	0.057	1.90			
Mixed age groups in primary school			-1.179	0.672	-0.42			
Gender of P7 teacher			0.260	0.424	0.80			
Has older sibling in secondary school			0.025	0.904	0.12			
School discipline			-0.038	0.252	-1.14			
School bullying			-0.065	0.094	-1.67			
School safety			-0.166	0.022	-2.29	-0.146	0.013	-2.47
Teacher support			-0.026	0.113	-1.59			
Class involvement			0.014	0.445	0.76			
School community			0.043	0.004	2.88	0.027	0.027	2.21
School inclusion			0.134	0.000	3.97	0.134	0.000	5.51
Loneliness			-0.155	0.216	-1.24			
Boredom			0.286	0.005	2.83	0.247	0.007	2.68
Extracurricular activities			0.040	0.472	0.72			
Motivation			0.173	0.000	3.52	0.119	0.001	3.30
Aspiration			-0.003	0.931	-0.09	0.500	0.002	3.02
Ability			0.070	0.312	1.01			
Health			0.277	0.116	1.57			
Risk behaviour			-0.133	0.216	-1.24			
RANDOM EFFECTS								
Child	Significant	Significant	Significant			Significant		
Primary school	Insignificant	Insignificant	Insignificant			Insignificant		
N	1472	1472	1246			1342		
Log likelihood	-3991.6583	-3985.6631	-3146.9226			-3320.1555		

Time, gender and secondary school (Model 6.14, Table 6.5)

The initial model was extended to incorporate both gender and secondary school as fixed effects (Model 6.14). The results for time remained consistent with those in Model 6.13. Model 6.14 shows that although girls record higher levels of self-esteem than boys, the difference is not significant. All secondary schools record lower levels of self-esteem than school A, but this is only significantly lower for school C ($p<0.001$, $z=-3.47$). This may be partly explained by the fact that children from primary schools 1, 15 and 17 moved to school C and since these three primary schools all show relatively low levels of self-esteem at times 1 and 2, it may be that there are factors pertaining to the primary schools that continue to have an effect into the secondary school. However, it is also possible that, as these three primary schools are quite close to each other, they share environmental and socioeconomic similarities that act to hinder the development of self-esteem. There may also be secondary school effects.

Complex and parsimonious models (Model 6.15 and 6.16, Table 6.5)

With the effects of time, gender and secondary school established, the model was developed further to incorporate all the variables hypothesized to have a possible influence on self-esteem. The 49 variables included reflect some basic family characteristics, some neighbourhood characteristics, school influences, feelings about school and other emotions, and aspects of lifestyle. The complex model (Model 6.15) resulted in 16 variables showing a significant relationship with self-esteem, ten of these being highly significant. Removal of insignificant variables using an iterative process resulted in the parsimonious model with 17 significant variables.

Both the complex and parsimonious models show that, although a significant variable in all preceding models, time ceases to be significant when controlling for a range of other explanatory variables. This may be because other school factors such as a sense of belonging to school and a sense of school community, which become more significant during the process of stepwise removal provide a more accurate explanation of this concept. Transition may have an indirect effect on self-esteem if it influences change on some factor which then influences self-esteem, but the transition itself does not seem to be influential.

Focusing on the parsimonious model, important family influences which are significant are good parental relationships and having siblings in the family. Having siblings appears to provide positive support ($p<0.0005$, $z=3.52$). It may be that interaction with at least one sibling helps the development of social and communication skills which eases relationships generally with others. Divorce has been reported to have a negative effect on self-esteem (Rosenberg, 1965), and compared with lone parent families, two-parent families have a significant ($p=0.012$, $z=2.51$) and positive effect in developing children's self-esteem.

Good parental relationships are also a significant factor ($p=0.001$, $z=3.24$). Children with parental support who are able to communicate easily with their parents develop better self-esteem that those with poor parental relationships. Researchers emphasize the importance of unconditional parental love (Coopersmith, 1967) and stress the importance of warmth and understanding in the family (Robertson and Simons, 1989; Rosenberg, 1965). It is argued that continuing support and interest conveys to the child information about his or her inherent worth (Gecas and Schwalbe, 1986). Given the role that parental support plays in the development of self-esteem in young children, it is not surprising that this is significant but, even so, it is not as significant as some other variables. Parental control is significant ($p=0.001$, $z=-3.44$) indicating that the more the knowledge and control parents exert over their children, the lower their self-esteem. While parental control is often considered desirable, and sometimes believed to be lacking in today's society, this may not be particularly beneficial in developing self-esteem. Freedom from parental control allows children more opportunity to explore their environment and to develop their own ideas. It also implies that the parents trust the child, all of which enhances self-esteem (Gecas and Schwalbe, 1986).

The ability to trust others probably grows out of the experiences encountered as a young child, especially in the home. It is a quality that is essential in social relationships and those who trust others tend to be happier than those who are inclined to be suspicious and distrustful (Martin, 2005). Trust may help in encouraging more independence and determination when times are difficult and it was a significant indicator of self-esteem ($p<0.0005$, $z=4.65$).

There was no clear expectation of how religious belief might influence self-esteem but it is found to be a weakly significant influence in reducing self-esteem ($p=0.032$, $z=-2.14$). The direction of this relationship is not known. It is possible that people with low self-esteem are more likely to turn to religion than those with higher self-esteem. On the other hand, perhaps involvement in religious activities promotes self-examination and emphasis on real or imagined wrongdoing, which may be one explanation for the finding that religion tends to reduce self-esteem.

There are a number of school factors influencing self-esteem and the most significant of these is school inclusion ($p<0.0005$, $z=5.51$). Again, the direction of this relationship is not certain as high levels of self-esteem result in feelings of social inclusion (Crocker and Park, 2004) while low self-esteem is strongly associated with social anxiety, and social alienation (Crocker and Luhtanen, 2003). However, it is also possible that children who feel included and accepted as a valued member of the school community develop a stronger sense of self-esteem. Another school factor, which is probably related to the feeling of school inclusion, is a sense of school belonging which is significant ($p=0.002$, $z=3.03$). This suggests that a sense of school belonging, which involves the belief that the individual is an important member of the school community, encourages good self-esteem. On the other hand, in a similar fashion to school inclusion, since people with high self-esteem have more self-confidence than those with low self-esteem (McFarlin and Blascovich, 1981) they may be less inhibited from engaging in physical and social activities resulting in stronger feelings of school belonging. Although there is a positive relationship between self-esteem and a sense of school community, this is not very significant ($p=0.027$, $z=2.21$). However, it seems reasonable to expect that a positive school community would strengthen and reinforce the positive effects of school inclusion and school belonging in enhancing self-esteem.

There are two school results that are difficult to explain. Both school safety ($p=0.013$, $z=-2.47$) and boredom ($p=0.007$, $z=2.68$) are significantly related to self-esteem. However, in both cases, the relationship is contrary to what would generally be expected, with higher self-esteem being related to a poorer perception of school safety and to being more bored in school. It is possible that the variable for school safety measures characteristics in addition to the school environment, such as the behaviour

of other pupils, but it is still difficult to reconcile the relationship. It is also difficult to explain the relationship between boredom and self-esteem, but it is possible for children to feel 'cool' and bored with school but quite confident in themselves.

Two variables relating to student attitudes towards school are also related to self-esteem. Motivation ($p=0.001$, $z=3.30$) appears to encourage greater self-esteem. This may be because there is the satisfaction of working hard and achieving goals. It may also be linked to receiving good marks for work done and possibly experiencing positive feedback from teachers. Although not significant in the complex model, aspiration is a significant variable in the parsimonious model ($p=0.002$, $z=3.02$). However, this is another independent variable that is difficult to explain as the negative relationship implies that the lower the level of aspiration, the better the self-esteem. The only suggestion that can be made is that those with little aspiration do not easily feel a sense of frustration or failure, even if they achieve poor marks, as their goals are easily achievable.

The final group of significant factors concern the personal characteristics of locus of control, wellbeing, resilience and happiness. Again, for all of these variables, the direction in which the relationship operates is not certain. These are all significant in the initial complex model and, apart from resilience, all increase in significance during development of the parsimonious model. Of the four factors, happiness is the least significant and locus of control is the most significant.

Locus of control is the most significant of this group ($p<0.0005$, $z=7.19$). Locus of control can be thought of as the perceived control an individual has over their behaviour. It ranges from believing that one has no control over what happens and that everything is the result of fate, to believing that an individual is ultimately responsible for what happens and is in control of his/her destiny. A strong relationship would be expected between locus of control and self-esteem as people who feel they are in control of their lives generally feel happier and more positive about themselves.

A good sense of wellbeing is also significant ($p<0.0005$, $z=3.59$). However, self-esteem is also considered to be a good predictor of wellbeing (Diener, 1984;

Rosenberg et al., 1995). Whatever the direction of the relationship, it seems wholly reasonable that high self-esteem and a good level of wellbeing are positively linked as both describe a sense of satisfaction, or perhaps harmony with the self and with life, and they are likely to go hand in hand. Happiness (p=0.039, z=2.06) is not the same as wellbeing and in this study the concept of happiness was measured very simply as one dimension, children being asked to rate how happy they were on a scale of one to ten. In retrospect, it might have been better to provide more guidance in obtaining this information on happiness as it is not possible to tell from the data whether children felt happy at that moment in time or happy in general, or what factors they took into account. However, it is reasonable to accept that those who are happy have higher self-esteem or, conversely, that those with good self-esteem are also happy.

The final factor in this group is resilience (p=0.010, z=2.56). Resilience measures the extent to which individuals feel they can cope with events as they happen. In some ways, it is similar to locus of control, as those who are resilient tend to take things in their stride and believe they have the strength and skills to cope with difficult situations as they occur. This is clearly a valuable quality, especially during the time of transfer to secondary school, and it is likely to make children feel good about themselves and enhance their self-esteem.

It is interesting to see that the teacher support is not a significant factor for self-esteem. Teachers and teaching style have often been cited as a powerful influence on self-esteem of students (Coopersmith, 1967) but this is not demonstrated in this study. It may be that more time is needed in secondary school for relationships between teachers and the newly arrived pupils to develop before children assess their teachers in a positive manner.

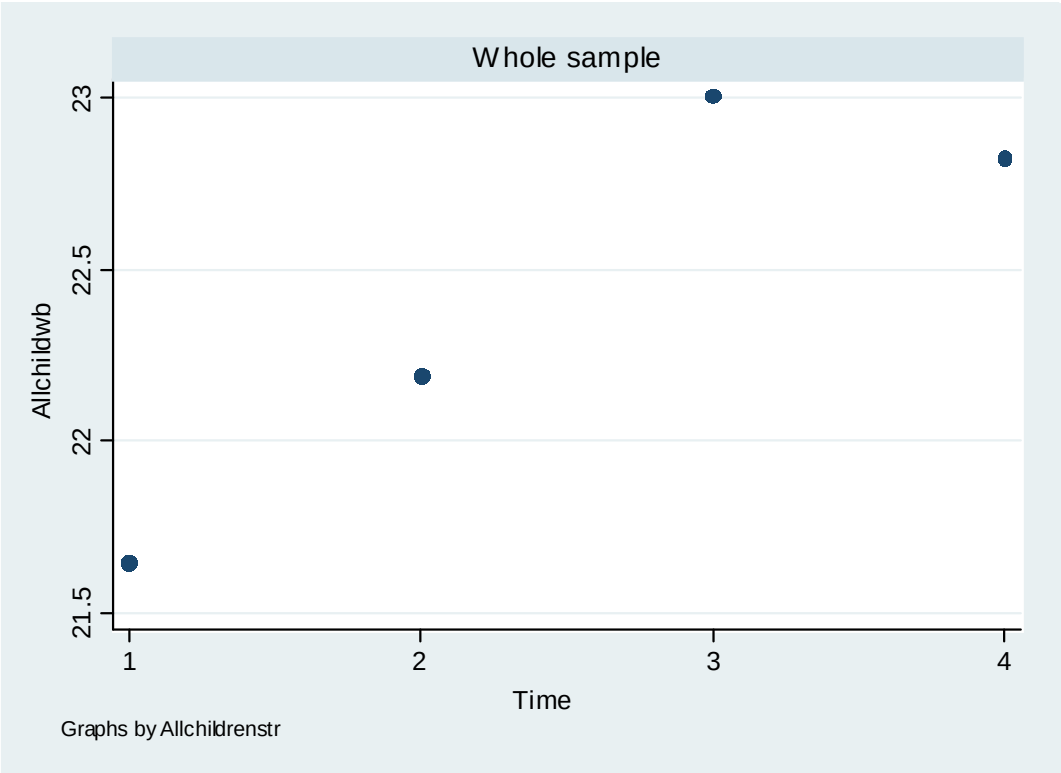
For all models, as with the previous outcome variables discussed above, there is significant clustering within children but not within primary schools.

Wellbeing

Wellbeing is just one of a whole range of outcomes which might be expected to change as children experience the process of school transfer, but it may provide a

useful indication of the degree to which children move smoothly from primary to secondary school. However, since there is little or no information on how wellbeing changes during the time of transfer from primary to secondary school, it is only possible to speculate on the scores that might be recorded during this time. Since the move to secondary school involves a mix of experiences, some positive and some negative, it might be thought that wellbeing would remain at roughly the same level before and after the move, perhaps improving later as children become accustomed to their new schools, make new friends and gradually become more independent and autonomous. In fact, Figure 6.21 indicates that wellbeing improves continually from time 1 to time 3, with the improvement between time 2 and time 3 almost double that occurring between time 1 and time 2. The move to secondary school thus appears to enhance children's perception of their wellbeing. However, six months later, this perception of wellbeing drops.

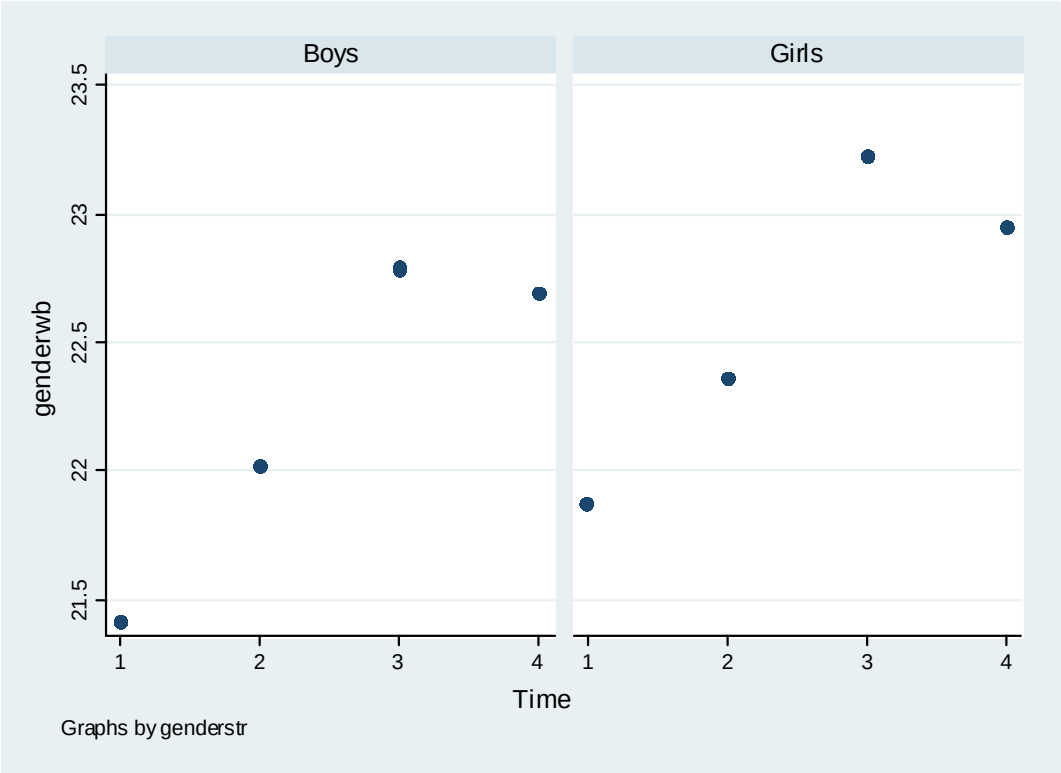
Figure 6.21: Average wellbeing over time for all children



The overall picture is surprisingly similar when examining change over time by gender (Figure 6.22), but there is a marked difference between boys and girls. Starting at a higher level, girls recorded a higher perception of wellbeing at all times

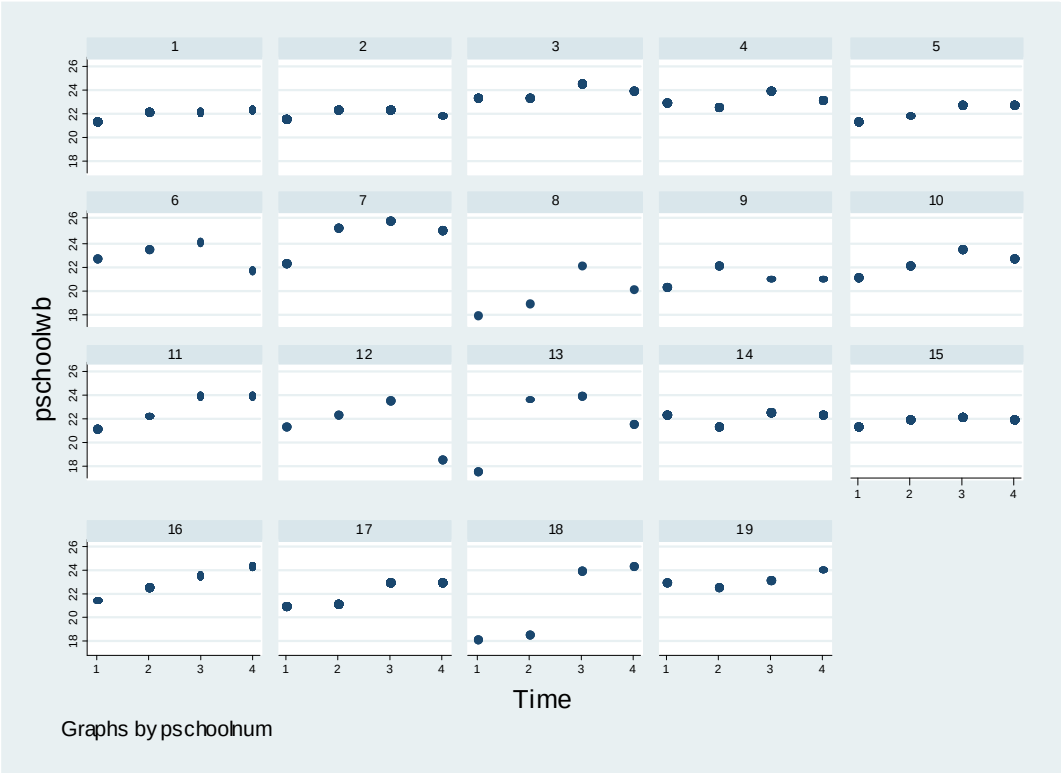
compared with boys. However, although it is true that at time 4 girls' wellbeing was higher than that recorded for boys, it is noticeable that the drop between time 3 and time 4 is greater for girls so that by time 4 the scores are nearly at the same level. This suggests that certain factors, not necessarily related to secondary school, impinge more negatively on girls at this time than on boys.

Figure 6.22: Average wellbeing over time by gender



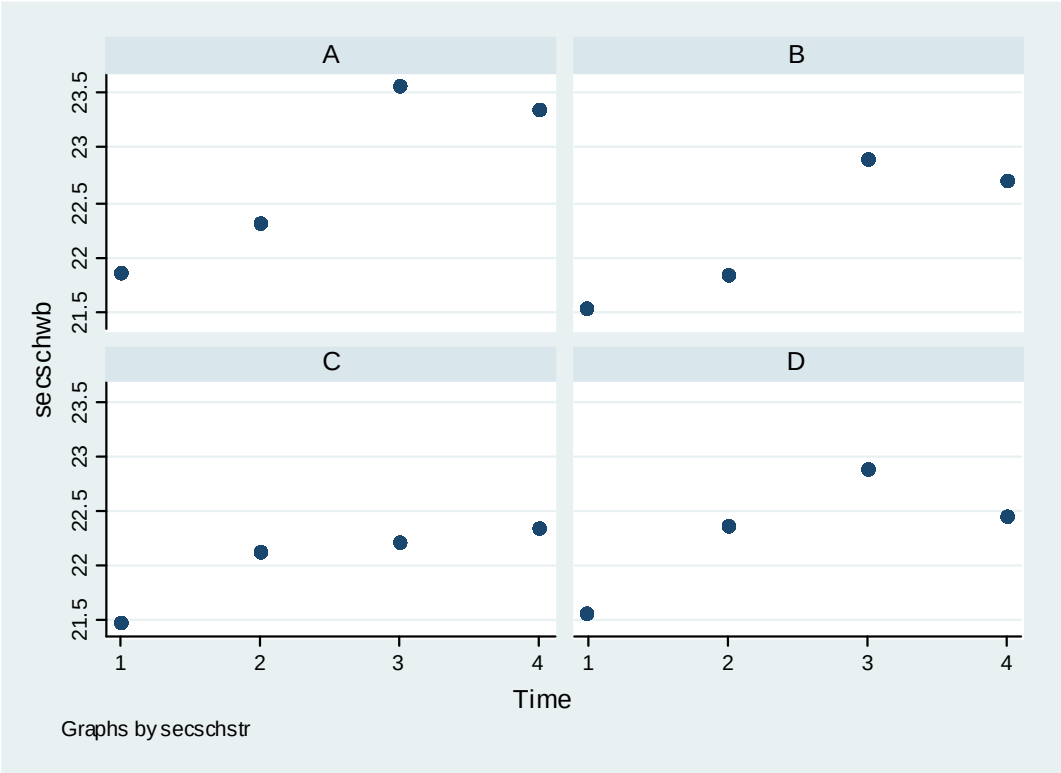
Children originating from ten primary schools had results indicating a decline in wellbeing at time 4. These ten primary school were schools 2, 3, 4, 6, 7, 8, 10, 12, 13, 14, with the decline for schools 6, 8, 12, 13, appearing especially sharp. Six schools – 1, 5, 9, 11, 15 and 17 – had results showing pupils' wellbeing remained at almost the same level between time 3 and time 4. Children from the remaining three schools – 16, 18, and 19 – recorded an improvement in wellbeing between time 3 and time 4.

Figure 6.23: Average wellbeing over time by primary school



The pattern for secondary schools (Figure 6.24) generally reflects the pattern of change for all children (Figure 6.21) with a steady improvement in wellbeing between time 1 and time 3 before falling at time 4. Again, school C was the only school to have a different pattern. The level of wellbeing at time 1 was similar to that of other schools and while it improved less rapidly than for the other schools, it continued to improve between time 3 and time 4, whereas the other schools recorded a decline in wellbeing between these two times. School A recorded the highest levels of wellbeing overall.

Figure 6.24: Average wellbeing over time by secondary school



Time (Model 6.17: Table 6.6)

As indicated by Figure 6.21, wellbeing improves continuously from time 1 to time 3 and although it drops slightly at time 4, Model 6.17 confirms that this improvement is significantly better for each time compared with time 1. The difference is least significant at time 2 (p=0.003, z=2.94) and most significant at time 3 (p<0.0005; z=7.46), when wellbeing attains the highest score overall. It remains significantly better at time 4 compared with time 1 (p<=0.000; z=6.28), but slightly less so than at time 3.

Compared with time 2, both time 3 (p=0.0000) and time 4 (p=0.0006) record significantly better wellbeing. This seems to suggest that the move to secondary school does not upset children unduly, perhaps because of good preparations and because secondary schools take positive steps to help children settle in well. However, the decline in wellbeing by time 4, although not significantly different from time 3, may be an indication that the initial high level of wellbeing at time 3 is a

temporary phenomenon that cannot be sustained as the difficulties and realities of secondary life become more apparent.

Table 6.6: Summary of models for wellbeing

Variable	Model 6.17			Model 6.18			Model 6.19			Model 6.20		
	Wellbeing/time			Wellbeing/time/ gender/secondary school			Complex			Parsimonious		
FIXED EFFECTS	β	p	z	β	p	z	β	p	z	β	p	z
Time 1												
Time 2	0.529	0.003	2.94	0.529	0.003	2.95	-0.010	0.915	-0.11	-0.026	0.864	-0.17
Time 3	1.358	0.000	7.46	1.358	0.000	7.47	0.370	0.098	1.66	0.330	0.037	2.09
Time 4	1.151	0.000	6.28	1.150	0.000	6.28	0.422	0.059	1.88	0.319	0.043	2.02
Boy												
Girl				0.361	0.258	1.13	-0.188	0.372	-0.89			
Secondary School A												
Secondary School B				-0.387	0.413	-0.82	0.227	0.576	0.56			
Secondary School C				-0.870	0.075	-1.78	dropped					
Secondary School D				-0.432	0.339	-0.96	0.367	0.378	0.88			
School commitment							-0.040	0.105	-1.62			
School belonging							0.004	0.894	0.13			
School participation							-0.056	0.166	-1.38			
Self-esteem							0.068	0.004	2.85	0.071	0.001	3.46
Self-concept							0.082	0.000	4.68	0.067	0.000	4.65
Locus of control							0.009	0.731	0.34			
Medium size primary school							-1.342	0.557	-0.59			
Large primary school							-1.949	0.388	-0.86			
Free school meal %							0.003	0.748	0.32			
Both original parents							0.363	0.123	1.54			
In care, or no original parents							-0.152	0.618	-0.50			
Has siblings							0.211	0.470	0.72			
Parental involvement in education							-0.016	0.567	-0.57			
Parental relationships							0.070	0.000	3.88	0.077	0.000	5.14
Parental control/knowledge							0.051	0.198	1.29			
Organized non-school activities							0.001	0.987	0.02			
Hobbies							-0.032	0.384	-0.87			
Activities with parents							0.005	0.962	0.05			
Religion							-0.040	0.290	-1.06			
Peer relationships							-0.000	0.974	-0.03			
Education skills deprivation							-0.000	0.026	-2.23	-0.000	0.000	-3.90
Employment deprivation							-0.000	0.788	-0.27			
Health deprivation							-0.000	0.236	-1.18			
Housing deprivation							-0.000	0.266	-1.11			

Income deprivation			0.000	0.638	0.47			
Pupil SIMD			0.000	0.574	0.56			
Resilience			0.170	0.000	9.89	0.185	0.000	12.77
Happiness			0.300	0.000	5.98	0.354	0.000	7.97
Trust			0.063	0.243	1.17			
P7 average SIMD			0.001	0.029	2.18	0.000	0.000	3.75
S1 average SIMD			-0.000	0.273	-1.10			
Mixed age groups in primary school			-1.159	0.610	-0.51			
Gender of P7 teacher			-0.733	0.022	-2.30	-0.634	0.011	-2.54
Has older sibling in same secondary school			0.124	0.495	0.68			
School discipline			-0.028	0.310	-1.02			
School bullying			-0.096	0.003	-3.02	-0.092	0.001	-3.28
School safety			0.125	0.036	2.10			
Teacher support			-0.012	0.378	-0.88			
Class involvement			0.033	0.032	2.14			
School community			-0.003	0.784	-0.27			
School inclusion			0.053	0.057	1.90	0.047	0.002	3.10
Loneliness			0.070	0.497	0.68			
Boredom			0.024	0.779	0.28			
School attachment			0.038	0.129	1.52			
Extracurricular activities			-0.033	0.476	-0.71			
Motivation			-0.010	0.804	-0.25			
Aspiration			-0.041	0.095	-1.67			
Secondary school absence			-0.025	0.085	-1.72			
Ability			0.029	0.617	0.50			
Health			0.202	0.173	1.36			
Risk behaviour			0.034	0.705	0.38			
RANDOM EFFECTS								
Child	Significant	Significant	Significant			Significant		
Primary school	Insignificant	Insignificant	Insignificant			Insignificant		
N	1479	1479	1216			1431		
Log likelihood	-3781.9951	-3779.5475	-2848.3154			-3282.5591		

Time, gender and secondary school (Model 6.18: Table 6.13)

In model 6.18, which includes gender and secondary school as fixed effects, wellbeing is significantly better at all times compared to time 1, the figures being almost identical to those in Model 6.17. However, the higher wellbeing scores shown by girls in Figure 6.22 are not significant. Model 6.18 also indicates that, although all secondary schools have poorer wellbeing levels than school A, these differences are not significant, even for school C where the levels of wellbeing are noticeably lower (Figure 6.24).

Complex and parsimonious models (Model 6.19 and 6.20, Table 6.6)

In the complex model (Model 6.19) of 52 variables, 11 are significant, six of these being very significant. The least significant variables were removed using an iterative process resulting in the parsimonious model (Model 6.20), which also consists of 11 significant variables. School safety and class involvement are no longer significant in the parsimonious model, while time and school inclusion, although not significant in the complex model, are significant in the parsimonious model.

In the parsimonious model (Model 6.20) wellbeing is no longer significantly better at time 2 than at time 1; in fact, it is now worse at time 2, but not significantly so. As before, wellbeing is significantly better at time 3 ($p=0.037$, $z=2.09$) and time 4 ($p=0.043$, $z=2.02$) than at time 1, but the level of significance is lower than in Models 6.17 and 6.18. In the first year of secondary school, then, the perception of wellbeing is better than in primary school. However, there is some indication of a decline by time 4 compared with time 3. It is possible that this position might stabilise at this point, although a study by de Fraine et al., (2005), also found average wellbeing to be highest in the first year of secondary school with a subsequent decline in the following years.

The most significant influence on pupil wellbeing is resilience ($p<0.0005$; $z=12.77$). As explained above, resilience can be described as the ability to resist stress and adversity, and to cope with change and uncertainty. Resilient children are also able to recover faster and more completely from traumatic events (Newman and Blackburn, 2002). Factors that are thought to engender resilience include supportive families, or other supportive individuals, good peer relationships and a sense of mastery or

internal locus of control (Compas, 1987). Children with good problem-solving skills also seem to be able to develop strategies to cope with stressful events (Dubow and Tisak, 1989). Transfer from primary to secondary school may well be a time of stress, but most children appear to cope well. However, where necessary, schools may be able to boost children's resilience by ensuring school responsiveness to students, encouraging student participation in school activities and maintaining school safety (Catterall, 1998).

Additional personal strengths that significantly influence wellbeing include happiness ($p<0.0005$; $z=7.97$), self-concept ($p<0.0005$; $z=4.65$) and self-esteem ($p=0.001$, $z=3.46$). Many researchers equate happiness with subjective wellbeing (DeNeve and Cooper, 1998; Diener, 2000; King and Napa, 1998; Ryff, 1989) and Seligman and Csikszentmihalyi (2000) acknowledge that, in practice, subjective wellbeing is a more scientific-sounding term for what people usually mean by happiness. However, for the purpose of this study, happiness was a more simple construct based on the meaning of the word as used by children in their everyday lives and did not imply the overall sense of satisfaction with life generally associated with wellbeing. Children themselves know what they mean by happiness but are not necessarily so sure about the meaning of wellbeing. Happiness in this study is seen more as a contributory factor to wellbeing, but it is accepted that it is a more complex concept than at first appears. Since happiness may well be a transient state, often governed by events at the time, it is accepted that the question asking about happiness in this study may not have measured a very enduring state and may simply have noted how children felt on that particular day or even at that particular moment. In addition, it is quite possible that children assess happiness in different ways. Nevertheless, it was assumed that happiness measured in this way supplied some valid and differentiated information about children's feelings at the time and, indeed, it is not surprising that the colloquial view of happiness has a significant influence on wellbeing.

Self-concept can be seen as a guidance system enabling a person to take a consistent stance on life. Positive self-concept during adolescence is likely to influence both mental and physical health. A robust self-concept has been found to be protective against stress (Pearlin and Schooler, 1978) and consequently may help individuals meet the everyday challenges of the teenage years. It has also been argued that people

with a strong self-concept may have better coping strategies than those with weaker self-concept (Mullis and Chapman, 2000). It has already been noted that there is an association between locus of control and self-concept so it also likely that those with good self-concept have additional strength deriving from internal locus of control. Positive self-concept is thus important in encouraging a strong sense of wellbeing and was strongly significant ($p<0.0005$; $z=4.65$). Self-esteem is also a significant ($p=0.001$, $z=3.46$) explanatory variable, but it is not as significant as self-concept. Model 6.16 shows that wellbeing is a significant factor ($p<0.0005$, $z=3.59$) in encouraging good self-esteem and it is difficult to decide which is the causal factor, but it is reasonable to accept Diener's (1984) view that high self-esteem has a positive effect in promoting a sense of satisfaction with life.

Clearly this group of factors is important in the development of wellbeing, and schools should take steps, where possible, to nurture improvement in these areas. Although they are qualities that develop as the child grows and matures from an early age, and are often a response to many situations in the home environment, there are undoubtedly ways in which schools could encourage and enhance self-concept, self-esteem and resilience. Primary schools may have a particularly important role as the later problems occur or are identified, the harder they are to resolve.

It is not surprising to find that a recurring influential factor in children's lives is the strength of parental relationships. As has just been suggested, the qualities of resilience, happiness, self-esteem and self-concept have their origins in childhood where the family is the most important influence. It is easier to develop good self-esteem where the home is a safe haven, where children feel accepted, and experience unconditional love (Coopersmith, 1967). The strong significant relationship between parental support and wellbeing ($p<0.0005$; $z=5.14$) reflects the importance of this variable in influencing wellbeing.

The most significant factor deriving directly from the school environment that has a strong influence on wellbeing is bullying ($p=0.001$, $z=-3.28$). Bullying is clearly distressing and can pervade all areas of life. Theory suggests that early adolescent boys use aggression to establish dominance in a new social arena (Pellegrini and Smith, 1998) and this is supported by empirical work (Humphreys and Smith, 1987; Pellegrini, 1995; Pellegrini and Bartini, 2000). The transfer to secondary school may

interrupt social networks and relationships as well as increasing feelings of isolation and may be particularly difficult for those who have problems adapting to new environments (Glover et al., 1998). The move from smaller to larger schools, and from classrooms where social groups remain largely intact during the day to classes where groups may be different for every lesson, forces children to readjust their friendship groups, and possibly their status within these groups, throughout the day. Any decline in peer affiliation with an increase in loneliness is likely to have a negative impact on children's lives (Wigfield et al., 1991) particularly if it involves victimization (Pellegrini and Bartini, 2000).

If it is the case that the disruption of friendships on moving to secondary school leads to increased bullying, (Glover, Cartwright and Gleeson, 1998) then we might expect bullying to be at its highest at time 3 followed by a decline by time 4. However, this is not the pattern observed (Figure 6.25). It appears that bullying decreases steadily between time 1 and time 3 to be at its lowest on first entering secondary school but after this, the incidence of bullying increases between time 3 and time 4. The pattern is similar for boys and girls, although girls appear to experience less bullying overall (Figure 6.26)

Figure 6.25: Average incidence of bullying over time for all children

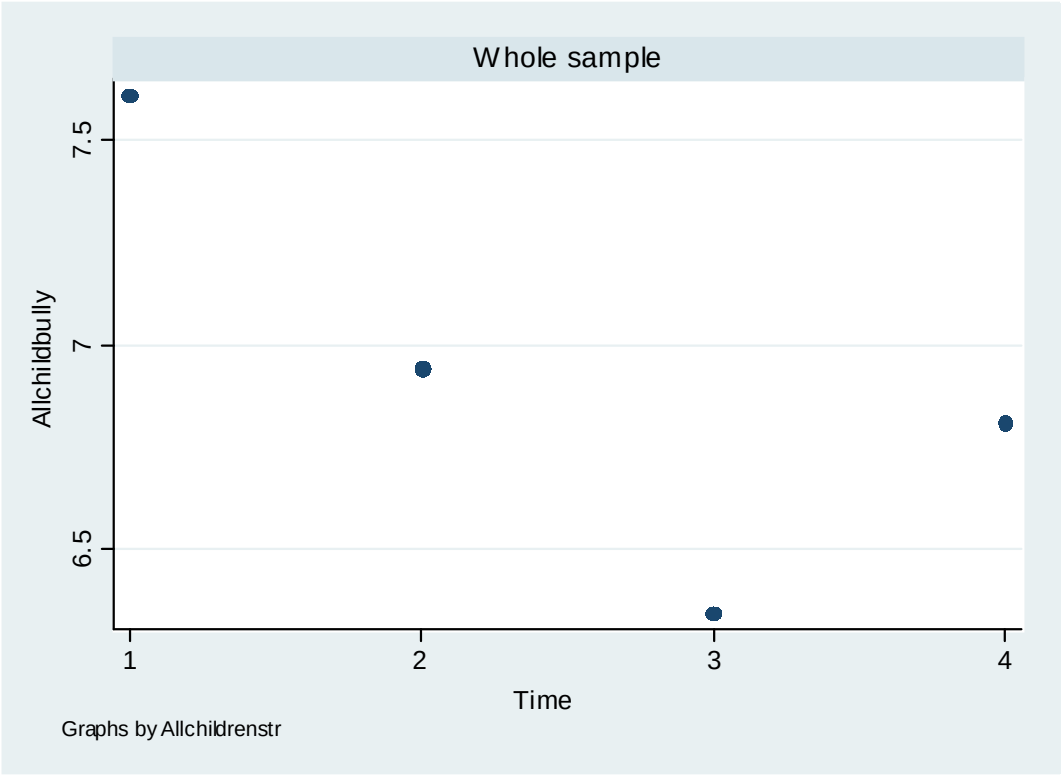
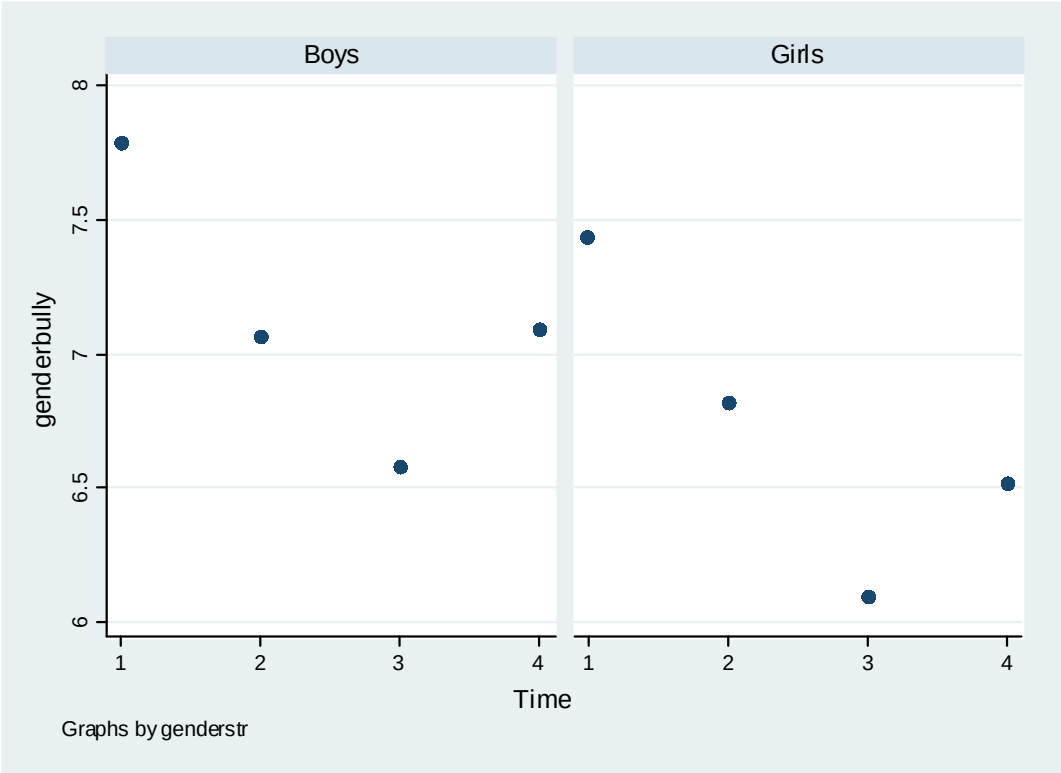


Figure 6.26: Average incidence of bullying over time by gender



Another school factor in the parsimonious model which is strongly significant in influencing wellbeing is a sense of school inclusion (p=0.002, z=3.10). This is a broad measure focusing mainly on friendships, together with feelings of loneliness and boredom. Parents and family are probably the most significant people in the lives of children as they start school, but over time friendships develop and become increasingly important. The stability of friendships increases markedly between the ages of six and ten and, while parental support is valued throughout the school years, peer-related support appears to play a more significant role in children's lives as they reach adolescence (Wentzel, 1998). At this time they spend more unsupervised time with peers than before. Early adolescence represents a transitional time of significant changes in children's relationships with both their peers and their parents (Fuligni and Eccles, 1993). This is a time when they begin to distance themselves a little from parents and place more importance on their peers. This is not a permanent change, but peers may provide appropriate emotional support at this stage. As they reach adolescence, children tend to want fewer but more particular, close friends and may increasingly prefer interactions with a small group of very close friends with whom they can share private thoughts (Berndt and Hoyle, 1985).

For some, the transition to fewer, closer friends may be difficult to make as Parkhurst and Asher (1992) found adolescents are lonelier than most other age groups. Not all children are able to attract and maintain a relationship. Various behaviours may make children unpopular (Parker and Asher, 1987) and children who are dissimilar from their peers face increased risk for rejection, regardless of their social skills or interpersonal style (Brownell and Gifford-Smith, 2003). These children are particularly nervous about the transfer to secondary school, fearing lack of friends and also the possibility of bullying (Glover, Cartwright and Gleeson, 1998). There is some evidence that boys find it more difficult than girls to turn to peers for help at this age, maybe because it is more threatening for boys to admit to the need for support, possibly with the danger of losing self-respect (Marcoen and Brumagne, 1985).

Children without friends often feel rejected and lonely. They may also be overlooked by teachers as they are often quiet and cause no problem while teachers tend to be preoccupied dealing with more challenging behaviour in the classroom (Sletta, Valas and Skaalvik, 1996). Lonely children tend to have negative perceptions of themselves and may achieve poorly; this could be a consequence of unhappiness or, perhaps, less attention from teachers. Loneliness is another factor which may attract bullying (Berguno et al., 2004).

Feelings of school inclusion may have implications for more than individual happiness and wellbeing. Teenagers who have a strong attachment to peers at school generally have a stronger connection to school which results in ready acceptance of school norms and values, often leading to greater interest in school with maybe enhanced motivation and achievement in a number of areas. Friends are likely to discuss issues and problems and give each other support and reassurance. It is also possible that supportive friendships have a buffering effect for any general problems children experience such as non-cohesive family environments. Young adolescents who have friends tend to report high levels of wellbeing and low levels of emotional distress (Wentzel, Barry and Caldwell, 2004).

Female teachers for P7 classes ($p=0.011$, $z=-2.54$) appear to enhance children's wellbeing. This may be especially true for young children as they enter primary school when a female may seem maternal and more reassuring. However, other factors may be important here. It was noted when making primary school visits that

most male P7 teachers were either teaching headmasters in the smaller schools, who may have many other demands on their time, or teachers in large primary schools taking one of the P7 groups. Thus there may be other issues influencing the results.

The final two significant factors in the parsimonious model are related to aspects of pupils' local neighbourhood environments. The first of these is a neighbourhood index providing information of the relative levels of educational skills ($p<0.0005$, $z=-3.90$). It is difficult to explain this result, which suggests that pupils originating from areas with poor levels of educational skills have greater wellbeing than those from areas with higher levels of educational skills. The second variable describes the average level of multiple deprivation of each P7 group in the study. This result suggests the reverse of the previous variable. It seems that pupils in primary schools where the average neighbourhood deprivation for the P7 group is low, experience better levels of wellbeing. This provides a more instinctively acceptable interpretation but the two opposing results are a reminder that conclusions based on all results should be considered with care.

In all models the random effects component showed that there is significant clustering within children but not within primary schools.

This section has concentrated on the analysis of two, clearly important but possibly nebulous concepts and Table 6.7 shows all the significant variables for these psychological outcomes. There are links and similarities between self-esteem and wellbeing, but also clear differences. This indicates they are distinct constructs. Both outcomes improve generally over time but this is only significant for wellbeing. It is encouraging that self-esteem shows no sign of decline by time 4 and, although there is a fall in the perception of wellbeing, this is not significant.

Table 6.7: Summary of parsimonious model significant explanatory variables for self-esteem and wellbeing

Explanatory Variable	Self-esteem β	Self-esteem p	Self-esteem z	Wellbeing β	Wellbeing p	Wellbeing z
Time 3				0.330	0.037	2.09
Time 4				0.319	0.043	2.02
Parental relationships	0.063	0.001	3.24	0.077	0.000	5.14
Resilience	0.049	0.010	2.56	0.185	0.000	12.77
Happiness	0.117	0.039	2.06	0.354	0.000	7.97
School inclusion (peer acceptance)	0.134	0.000	5.51	0.047	0.002	3.10
Sense of school community	0.027	0.027	2.21			
Trust	0.278	0.000	4.65			
Siblings	1.091	0.000	3.52			
School belonging	0.115	0.002	3.03			
Locus of control	0.196	0.000	7.19			
Wellbeing	0.116	0.000	3.59			
Religion	-0.091	0.032	-2.14			
School safety	-0.146	0.013	-2.47			
Parental knowledge	-0.135	0.001	-3.44			
Boredom	0.247	0.007	2.68			
Motivation	0.119	0.001	3.30			
Aspiration	0.500	0.002	3.02			
Both original parents	0.654	0.012	2.51			
Self-esteem				0.071	0.001	3.46
Self-concept				0.067	0.000	4.65
Bullying				-0.092	0.001	-3.28
P7 teacher gender (female)				-0.634	0.011	-2.54
P7 Average SIMD				0.000	0.000	3.75
Educational skills Deprivation index				-0.000	0.000	-3.90

Four variables only are significant for both outcome variables. These are good parental relationships, resilience, happiness and school inclusion. The value of strong parental support has long been emphasized and the many problems resulting from dysfunctional families are much to the forefront today. It was considered that peer friendships would be beneficial in most areas of life but this is not apparent in these results. Although in reality friendships are likely to be important for most people, they are not significant in enhancing self-esteem or wellbeing. However, the variable measuring school inclusion indicates that the feeling of peer acceptance in school is valuable in contributing to the development of self-esteem and wellbeing. Resilience, or the ability to cope with life's challenges, also appears to be influential for both self-esteem and wellbeing, although it is only strongly significant in relation to wellbeing. It is, however, a skill or approach to life that could perhaps be encouraged with appropriate help or instruction in schools. It is clear that a whole range of factors, including many not included in these models, are important influences on these two psychological variables. Self-esteem and wellbeing also interact with each other, but it is hard to determine the precise nature of these interrelationships. There are overlapping themes between both variables but there are also elements in which they are different. Clearly different elements are being measured, but quite what is measured may not be so obvious.

Conclusion

It is interesting to compare the results for the engagement components with those for the two psychological outcomes. While the five outcomes may appear to be related, the parsimonious models seem to suggest that very different explanatory variables influence each one. Although each outcome shares at least some explanatory variables with one or more of the other outcomes, there are also some explanatory variables which are unique to each outcome variable. This suggests that each outcome is a distinct concept. For example, pupils with good school commitment are most likely to be girls ($p<0.0005$, $z=3.86$), with low levels of boredom ($p<0.0005$, $z=-8.11$) and risk-taking ($p<0.0005$, $z=-4.18$), although these two factors may also be linked to gender. It is interesting that children who experience a strong sense of school belonging are those who have attended primary schools where there are mixed age teaching groups ($p=0.043$, $z=2.03$). This is also the only engagement outcome where happiness ($p=0.039$, $z=2.06$) is a significant explanatory variable. Pupils who

tend to participate most in school are well motivated ($p<0.0005$, $z=5.67$), generally enjoy school ($p<0.0005$, $z=4.25$) and attend schools with good school discipline ($p<0.0005$, $z=3.63$). There are many explanatory variables influencing self-esteem but not wellbeing and many of these relate to family and home life such as having siblings ($p<0.0005$, $z=3.52$) and both original parents ($p=0.012$, $z=2.51$); there seems to be a good level of trust ($p<0.0005$, $z=4.65$) and the parents do not exert too much control over their children ($p=0.001$, $z=-3.44$). The most important school factor is a sense of belonging ($p=0.002$, $z=3.03$), and children with good self-esteem seem to be well-motivated ($p=0.001$, $z=3.30$) and aspire to achieve well ($p=0.002$, $z=3.02$). Good self-esteem in associated with a strong sense of wellbeing ($p<0.0005$, $z=3.59$) and an internal locus of control ($p<0.0005$, $z=7.19$). Children who feel they have high levels of wellbeing have a good self-concept ($p<0.0005$, $z=4.65$), together with good self-esteem ($p=0.001$, $z=3.46$). At school, low levels of bullying ($p=0.001$, $z=-3.28$) encourage feelings of wellbeing and a female primary teacher also helps to engender wellbeing ($p=0.011$, $z=-2.54$).

The results show that for all outcomes except self-esteem, time is important, even when controlling for other factors. Pupils' feelings and attitudes and feelings towards school change over time but not quite in the way expected. Although it was anticipated that there might be a significant change in the outcome variables at the time of transfer, it was hypothesized that feelings of school belonging and school participation would initially decline and then later recover as the children settled in to their new schools. It was not known how school commitment might change but it was expected that, whatever the level of commitment recorded immediately after transfer, this was likely to improve as students responded to a more adult setting, and more challenging work ultimately leading to school examinations. Given the many changes children experience at this time, the surprising result was that both school belonging and school commitment were significantly better at time 3 than at time 2, although, as predicted, school participation declined after transfer. Perhaps particularly interesting are the results for the outcomes at time 4. By this time, pupils should be reasonably well settled in to their secondary schools but, while an improvement in all the engagement outcomes at time 4 was expected, a noticeable drop was recorded between time 3 and time 4 for all three outcomes. Although still at levels higher than

at primary school, this downward movement should be monitored to see if it is the beginning of a whole downward trend.

In this study, self-esteem improved for both boys and girls during transition, but time was not a significant factor. This contrasts with earlier studies which found a decline in self-esteem after transfer (Blyth, Simmons and Bush, 1978; Seidman et al., 1994; Wigfield et al., 1991) and those noting a decline in girls' self-esteem (Lord, Eccles and McCarthy, 1994; Simmons et al., 1987). However, the perceived improvement in wellbeing at time 3 compared with time 2 was significant. Children's perception of wellbeing then declined between time 3 and time 4, showing a similar pattern to the three engagement outcomes. Thus the main conclusion here is that time has a significant effect on all outcomes except self-esteem, but the effect of time is more prolonged than might at first be thought. The actual event of moving to secondary school, if defined as the point of transfer, does not appear to have a negative effect on any outcome except school participation but the effects of school transfer may well be influential over a much longer time than generally supposed. It seems that further monitoring of these outcomes is vital to determine whether the results are the start of a downward trend or whether they represent a readjustment to a reasonable and stable level after the excitement of the move to secondary school.

Some explanatory variables influence a number of outcomes. The most important school influence is a sense of school community which promotes the development of school commitment, belonging and participation and also is significant in boosting self-esteem. The classroom environment, largely reflecting teacher support and sensitivity, is also vital in enhancing children's feelings of school belonging and their participation in school, but it is not significant in promoting self-esteem or wellbeing. The home environment is also influential in various ways. Good relationships between parents and their children are very important in encouraging good self-esteem and wellbeing, as well as encouraging children's participation in school. In addition, when parents are involved in their children's schooling, children have a greater sense of school commitment and participate more in school activities. Possibly one of the most helpful findings is that the quality of resilience is a valuable attribute, which encourages self-esteem, wellbeing, and also school participation. The value of this result is that resilience could be fostered and boosted by teachers and

schools which would benefit more than one aspect of children's lives. Other variables have not been significant when it was thought they might be. For example, it was thought that gender might be significant, with girls and boys displaying noticeably different attitudes towards school. However, gender was only significant in relation to school commitment. It was also thought that happiness would particularly important in all areas of school life but it was only significant in relation to school belonging, and the level of significance was not very high. Happiness was one of the most influential variables fostering wellbeing but did not contribute to the development of self-esteem.

Although not always significantly different, the pattern and level of the outcome results are noticeably different for school C than for the other secondary schools. Whatever the pattern of change over time, almost without exception, the values for all the outcomes are lower for school C than for all other schools. School C was selected as an example of a small secondary school from a relatively deprived area and there is some evidence that this may be a factor influencing results. However, the values for both school participation and wellbeing increase between time 3 and time 4, a reverse of the pattern for the other three schools. This suggests that, even though overall levels of the values are lower, there may be some recognition of the particular needs of pupils in this area, with special efforts made to include children in school life.

It might be argued that a good test of the effect of transition would be to see if the outcomes improve or decline at time 3 compared with time 2. However, this underestimates the impact and nature of transition. It is not realistic to suggest that transition occurs at a stroke, or even over a month. For most children, the move to secondary school involves change in many areas of their lives. They may be required to make considerable adjustment in response to greater academic demands, new teachers and styles of teaching, larger and more mixed peer groups and new routines, all taking place in a larger and initially unfamiliar environment. Children have to evaluate and adapt to all these new influences while continuing to make progress academically. The results presented here suggest that school transfer is a process with effects that may be pervasive for many months.

CHAPTER SEVEN
CONCLUSION

> "the development of pupils as 'professional learners' requires not just our attention when pupils move from one school to the next, but continuously" (Galton and Morrison, 2000).

Introduction

This thesis has examined transfer from primary to secondary school, an event that thousands of children experience each year, and nearly all children experience at least once during their time at school. Although the word *transfer* simply means the movement from one place to another, the word *transition*, the passing or change from one condition to another, allows a broader evaluation of the nature of the move from primary to secondary school. The move to secondary school presents new experiences to all children and unfamiliar situations are likely to occur for several weeks, or even longer. While some may do so, it is unreasonable to expect children to adjust instantly to the changes experienced and therefore common sense suggests that school transfer is more of a process continuing over many months than a single episode occurring at one moment in time.

The main aim of this study was to investigate how far, and in what ways, the transfer from primary to secondary school impacted on children's attitudes towards school and on some key emotions. Of course, there are many areas of life that could be affected by school transfer, but this study concentrated on examining changes in three elements of school engagement as well as in self-esteem and wellbeing. It is not possible to measure the success of transfer *per se*, but it was believed that the observation of school commitment, school belonging and school participation, as well as self-esteem and wellbeing, during the time of transfer, would provide useful insights into the feelings children experienced, and also give some information on how their attitudes towards school and learning change during this time.

This concluding chapter first revisits the original objectives stated in chapter 1, and considers how well these issues have been addressed. This is followed by a brief

discussion of the general findings together with some comments on policy implications. The advantages and limitations of the method are then assessed and suggestions made for future research.

Objectives

Three objectives were stated in Chapter 1:

i) to summarise how engagement (school commitment, school belonging, school participation), self-esteem and wellbeing vary across children in our sample;

ii) to examine how engagement (school commitment, school belonging, school participation), self-esteem and wellbeing change over the time of transfer from primary to secondary school;

iii) to explore, during the time of transfer, the main individual, family and school factors that influence school commitment, school belonging, school participation, self-esteem and wellbeing using multi-level, longitudinal models.

The study was designed to include a range of primary and secondary schools in terms of size and relative deprivation of the school population. In addition, the primary schools were selected to include the further dimension of distance from their allocated secondary school. Gender was included as an explanatory variable permitting comparison of boys and girls, while the longitudinal structure of the study allowed the identification of any changes occurring in the outcome or explanatory variables during the time of the study. Various independent variables describing, for example, personal qualities of children such as resilience and happiness, and family characteristics such as parental relationships and parental involvement with school, also helped to explain some of the differences between children.

Objective 1

Differences between boys and girls were measured for all outcomes but a significant difference was only found for school commitment, with girls displaying significantly better school commitment than boys. Although the graphs in Chapter 6 show that boys and girls recorded different values for all the other outcomes as well, these did not result in a significant difference in any case.

The children in the study were initially grouped within their primary schools. Analysis revealed no significant difference between the primary schools for any outcome. However, three of the outcomes were influenced by one or two primary school characteristics. The organisation of primary school teaching into mixed age groups encouraged feelings of school belonging. Participation in school was significantly better for children from small primary schools than from large primary schools, and also better for children from primary schools where the average level of affluence for the P7 class was relatively low. It may be that children from smaller primary schools are used to being fully involved in school events, as many activities may be done as a whole school and the involvement of all children may be needed in, for example, school plays and games teams. The link between relative affluence and school participation is not easy to explain but it is possible that primary schools in less affluent areas make a particular effort to involve children in activities. Wellbeing is the third outcome that is influenced by primary school characteristics. Children who have a female P7 teacher have higher levels of self-perceived wellbeing, as do those from primary schools where the average level of affluence for the P7 class is relatively high. It is not surprising that those from a relatively affluent background rate their wellbeing at a reasonably high level, but more research would be needed to discover the particular advantages that a female P7 teacher has in relation to wellbeing.

One of the aims of the study design was to see if school size and relative poverty influenced the quality of school transfer. Since there were only four secondary schools, each with a different combination of these two characteristics, no hard and fast conclusions could be drawn. However, the results showed that secondary school C displayed consistently poor results, recording the lowest scores for all the outcomes measured. This school is a relatively small secondary school with pupils drawn from

the most deprived area in the sample. Since the other small secondary school showed the best commitment of all the schools, and did not record any of the lowest scores, it is reasonable to conjecture that the general socioeconomic deprivation of the children in school C's catchment, with all its attendant and complex problems, could contribute to the low scores noted for this school. However, since it is clear that the secondary schools do not all receive identical children, it may be more valid to look at change between the time of secondary school entry and the final measurement time six months later. This reveals a different pattern. Although it is true that school C still recorded relatively low scores, it can now be seen that it was the only school to show improved pupil participation (Figure 6.14) and wellbeing (Figure 6.24) between time 3 and time 4. This may indicate that school C adopts an approach that is different and more effective than that taken in the other schools or it could, of course, be a temporary reversal of the more general pattern.

Although the results showed no significant difference between primary schools, there is a clear difference between pupils for all outcomes. Before transfer to secondary school, there were some instances where children recorded the highest possible values and others the lowest possible values, even within the same primary school, for all outcomes except school participation. While it would be possible to identify individual children with low scores, the most helpful approach would seem to be to identify specific factors, especially those relating to school, which could be enhanced or moderated in some way for the benefit of all pupils. Given the aims of this study, quantitative models were designed to identify a number of school factors which were significant in influencing one or more of the outcome variables.

Objective 2

All outcomes except school participation improved after transfer to secondary school and this improvement was significant for school commitment, school belonging and wellbeing. School commitment was significantly better at time 3 than at all other times, but although it had dropped by time 4, it was still significantly better than the values recorded at primary school. School belonging also peaked at time 3 and although falling in the same way as school commitment by time 4, it was still significantly better than at time 1. Wellbeing had a similar pattern to school belonging, peaking at time 3, and declining by time 4, but still significantly better at

time 3 and time 4 than at time 1 and time 2. Although the results showed that self-esteem improved continuously through the study, at no time was it significantly better than any other once other explanatory variables were taken into account. Nevertheless, the decline in self-esteem found in some research (Blyth, Simmons and Bush, 1978; Cantin and Boivin, 2004; Eccles, Lord and Midgley, 1991; Hirsch, DuBois and Brownell, 1993; Seidman et al., 1995; Simmons et al., 1979; Wigfield et al., 1991) was not noted in this study.

The highest values for the three outcomes of school commitment, school belonging and wellbeing were recorded immediately after transfer, followed by a decline. This seems to suggest that when children first move to secondary school, it is a relatively trouble-free time. This may be because they have been well prepared by primary staff and induction programmes, and the secondary schools do make a particular effort to help children feel welcome and comfortable in their new school environment. The general fall in all outcomes except self-esteem after time 3 could be explained in a number of ways. It could be that after a while, any special attention and allowances made when children first transfer to secondary school tends to wane and the demands of secondary school life become more exacting. Alternatively, it is possible that the extra support is still provided but that the new challenges of secondary school become increasingly onerous. Another possibility is that other stresses and problems gradually emerge in response to progress through adolescence, or there could be some combination of these explanations.

The pattern of change for school participation was different from the other outcomes, decreasing significantly after primary school and reaching its lowest level at time 4 at the end of the study period. School participation was the only outcome to fall immediately after children moved to secondary school. The fall in participation implies a change in the nature of the learning environment in the classroom as well as a reduced participation in extracurricular activities. The structure of the teaching day is quite different in secondary schools compared with primary schools. In primary schools, children spend nearly their whole day in one room and generally have a degree of freedom to move around in the room to obtain books and other resources. In addition, many learning tasks and activities may be done in small groups. This is much less likely to be the case in secondary schools where classroom organisation is

generally much more structured. It may also be more difficult to join in with activities after school as buses leave school at the end of the teaching day. Unless children can arrange alternative transport, it may not be possible for them to stay at school for extracurricular activities. Therefore, the transfer to secondary schools appears to have an immediate negative effect on school participation.

There was no difference between boys and girls for any outcome apart from school commitment. Girls registered overall significantly better commitment to school than boys. The graphs in chapter 6 indicate that commitment peaked for girls at time 3 but for boys it peaked at time 2 declining at time 3 and falling even further at time 4 while girls' commitment dropped only slightly after time 3. The pattern of change was very similar for school belonging, self-esteem and wellbeing for both groups, although girls recorded slightly higher wellbeing, though not significantly, than boys at time 3. However, there is a contrast in the patterns shown for school participation. Although participation for girls and boys declines overall between time 1 and time 4, it declines more sharply for girls throughout the study period. Even so, participation is greater than for boys at each measurement time.

It is of some concern that all outcomes apart from self-esteem decline after time 3, and continued monitoring of these outcomes would indicate whether they continue to fall or whether they stabilize after time 4, with the peak at time 3 perhaps representing a 'honeymoon period' (Galton, Gray and Ruddock, 2003; Harter, Whitesell and Kowalski, 1992) immediately after school transfer. It may be that the change in school environment allows a predisposition to disengage from school to emerge, or it could be that certain aspects of the secondary school environment itself could be influential in encouraging disengagement in some pupils. Since the responses of the children early after transfer are generally positive, it seems that the actual event of transfer is not a negative one in itself. It is difficult to disentangle the relative importance of other influences as time goes on but, given the number of adjustments that children have to make, including those relating to peers, teachers, subjects, teaching methods, organisation of work and practical issues such as moving classes and travel, it seems more reasonable to consider transfer to be more of a process than an event, successful transfer requiring adaptation over a period of time. Further study would help to clarify this.

Objective 3

School commitment was relatively low at primary school but improved dramatically when children moved to secondary school, only to decline again by time 4, although not quite to the same low level as at primary school. It is not surprising that one of the main factors influencing school commitment is aspiration. However, the results show that aspiration reached its peak at time 2, and by time 4 it had dropped sharply to a relatively low level. Other individual factors which promote school commitment include resilience, self-concept and internal locus of control and these three factors all improved at time 3 when children first moved to secondary school. After this, resilience declined sharply and self-concept levelled off while locus of control became even more internal. Although significant in improving school commitment, it is not surprising to see that parental involvement in education drops off sharply after time 3 to reach its lowest value of all at time 4. Few school factors influence school commitment, although a good sense of school community, which is helpful in promoting school commitment, peaked at the end of primary school, and then declined gradually to time 4. Boredom acts in a negative fashion by preventing children from valuing school and education, and while boredom dropped to its lowest value at time 3, it had increased to a high level by the end of the study. It is also possible that school commitment is related to socioeconomic background as children from less deprived neighbourhoods tended to record higher levels of school commitment than others. It is important to note that many of the factors having a positive effect on school commitment, such as parental involvement, aspiration, resilience, and a sense of school community are all perceived to have declined once children are established in their secondary schools.

Feelings of school belonging improved steadily from time 1 to time 3, just after the transfer to secondary school, but declined slightly after this. There were no direct family influences, but children who typically felt a sense of school belonging were those who were happy and academically able, with good self-esteem. Happiness increased steadily until after the move to secondary school and remained stable after that while self-esteem improved continuously between time 1 and time 4. However, self-perceived ability dropped gently across transfer between time 2 and time 3 and then fell more sharply between time 3 and time 4. A sense of school belonging

seemed to be determined mostly by school factors. Particularly important factors were a good school community, a supportive classroom environment, and the ability to convey to children feelings of school acceptance. As already noted, the sense of school community is perceived to deteriorate once children enter their secondary schools. Teacher support remained at the same level during time 2 and time 3 but by time 4 pupils perceived a large decline in the quality of the classroom environment and teacher support. Feelings of school inclusion also dropped after time 3. Children who had been to small primary schools, where there are mixed age classes, also appeared to experience stronger feelings of school belonging. There was no difference between boys and girls. The decline in self-perceived ability once in secondary school may be a direct response to the perceived deterioration in teacher support and classroom environment and may be a particularly important warning sign that pupils are struggling to cope with new subjects and new learning methods or that, for some reason, there is little incentive to work hard. Since pupils quite clearly feel disappointed with the classroom environment and believe they are less academically competent than before, this area needs to be explored further.

Personal qualities were most influential in increasing school participation. Thus, motivated, academically able, resilient children with educational aspirations participated well in class and in school activities generally. However, all these factors declined at some time after school transfer. Aspiration and motivation remained fairly stable between time 2 and time 3 but both declined very markedly between time 3 and time 4. Self-perceived ability declined from the moment children moved from their primary schools while resilience initially improved at secondary school but then deteriorated. Other, less influential, personal characteristics included an interest in religion and involvement in organised non-school activities. Although not strongly influential, good friends also encouraged participation and, despite children's anxiety before transfer, children felt that the quality of their friendships gradually improved over the whole time of the study. It was thought that friendships would be an important factor influencing several outcomes but, contrary to expectations, this was the only occasion when friendships appeared to influence any aspect of engagement, self-esteem or wellbeing. Schools appeared to promote participation when there was a good sense of school community, good school discipline and supportive teachers but all these influences deteriorated after transfer. School discipline was perceived to be

considerably poorer at secondary than at primary school while, as already seen, both the quality of support in the classroom and the sense of school community fell after transfer. Thus the factors found here to be particularly helpful in encouraging school participation – motivation, aspiration, resilience, ability, a positive classroom environment, good school discipline and a sense of school community were all perceived to deteriorate after children moved to their secondary schools.

In summary, although there is some overlap of the factors influencing the three components of engagement, there is also a distinct grouping of variables. Emotional characteristics tend to feature strongly in encouraging school commitment while feelings of school belonging and school participation are influenced mainly by aspects of school context, although a handful of individual personal characteristics were also important. This supports the argument that these three concepts are distinct from each other while, at the same time, sharing some similarities.

Self-esteem improved steadily and consistently between time 1 and time 4 and the transfer of children from primary to secondary school between time 2 and time 3 appeared to have little effect. Individual qualities influencing self-esteem included resilience, happiness, trust, locus of control, wellbeing, motivation and aspiration. Apart from happiness, and locus of control, all these factors declined after school transfer. Trust, resilience and wellbeing peaked at time 3 and then declined. Motivation and aspiration dropped slightly just after transfer at time 3 and then both fell steeply at time 4. Happiness improved steadily between time 1 and time 3 and then remained static. Locus of control became gradually more internal over the time of the study but this is most likely a response to children becoming more independent as they grow older. As noted in the previous chapter, it is difficult in some instances to know whether self-esteem is a causal or consequential factor. Since self-esteem continued to improve despite a decline in several qualities, including resilience, trust, motivation and aspiration, there may be other more influential factors. It was no surprise to find that good parental relationships encouraged high self-esteem, and these appeared to improve until time 3, after which they deteriorated slightly. Children with siblings also tended to have higher self-esteem. The development of self-esteem may be a response to socioeconomic status as children in first year secondary classes comprising pupils mostly from less deprived areas generally had

higher self-esteem. In this study, self-esteem also appears to be a response to family factors, which supports early research (Coopersmith, 1967).

Children's perceived wellbeing improved rapidly and consistently between time 1 and time 3, after which it deteriorated slightly at time 4. Wellbeing for young adolescent children is influenced by various factors. Resilient and happy children also reported positive wellbeing, and good self-concept and self-esteem were also responsible for high levels of wellbeing. Self-concept, self-esteem and happiness generally improved over the time of the study with only resilience recording a decline between time 3 and time 4. The only direct significant family variable encouraging wellbeing was good parental relationships. Children experienced improving relationships with their parents until time 3 but after this they deteriorated to a level slightly lower than at time 2. At school, bullying was detrimental to wellbeing but feeling included in a group of friends promoted wellbeing. Surprisingly, feelings of being included in school peaked at time 3 but dropped slightly at time 4. However, the incidence of bullying declined steadily between time 1 and time 3, after which it was reported to increase. As with self-esteem, children from less deprived neighbourhoods experienced higher levels of wellbeing. The pattern of change for wellbeing over time was very similar to the pattern for resilience and this emerged as the most significant explanatory variable in the parsimonious model for wellbeing.

Nearly twenty factors directly or indirectly related to school were identified as having an effect on the five outcomes in this study. Some of these were strongly influential and others were less so. Some of the variables were found to be important in several ways, while other were influential in only one instance. The most commonly occurring variable of significance was a sense of school community, which influenced all outcomes except wellbeing. Feeling an important member of the school was also important. Other school factors which were significant for at least two dependent variables were a good classroom environment with teacher support, good school discipline, and boredom. A number of other aspects of school context were less important overall, although for some individual children they might make all the difference to their school experience. Examples of such contextual factors include feelings of school safety, bullying and mixed age groups at primary school.

Although it was suspected that a sense of school community would have beneficial effects, it was perhaps surprising to find that it was a strong influence for most outcomes, helping to promote school commitment, participation, feelings of belonging, and self-esteem. It was particularly important in encouraging a sense of school belonging. The sense of school community is clearly a multidimensional construct and it is quite possible that the separate elements act in different ways and in different combinations. This was not evaluated in the study.

General Discussion

The general finding was that the move from primary to secondary school did not appear to be particularly traumatic or have any immediate negative consequences. In fact, the reverse appeared to be true with children reporting unexpectedly positive perceptions of their new schools. Thus, the actual transfer to secondary school appeared to be sensitively managed with the result that, despite their prior misgivings, children felt happier, more engaged, and less anxious than they anticipated. This may be partly the result of induction programmes which are aimed at familiarising pupils with the school layout and some of the new routines they will encounter at secondary school. However, six months later, levels of school engagement, commitment, belonging, and participation, and also wellbeing showed a general decline. Some researchers have noted what they describe as a 'honeymoon' period immediately after the transfer to secondary school (Galton, Gray and Ruddock, 2003; Harter, Whitesell and Kowalski, 1992) and this may be the situation observed here. There may be a number of reasons for a honeymoon period. Children may discover that their fears are unfounded, that they still have their friends, that the work is not as difficult as expected, and so on. Teachers may try to avoid tensions and difficulties in the early lessons as they establish their relationships with pupils. Minor infringements of the rules may be overlooked. Work and homework may be less challenging as teachers explore the abilities of new pupils. These and various other examples may be responsible for the honeymoon period.

Despite the honeymoon period, the results suggest that ultimately there may be a decline in school engagement and wellbeing. Research indicates that engaged students get more from school on all levels than do their disengaged peers (Fredricks, Blumenfeld and Paris, 2004; Norris, Pignal and Lipps, 2003). One of the main

purposes underlying the objectives was to note aspects of school transfer which seemed detrimental to pupil adaptation after transfer and, where these were identified, to see if there was any way in which improvements could be made. It is therefore useful to consider the nature of the variables measured in relation to their malleability, or the ease with which they can be accessed and manipulated to enhance their influence on pupils' lives. In this context, the variables can be divided into four groups:

i) those that cannot be changed, such as gender;
ii) those that could be changed but are difficult to access directly, such as parental relationships with children, involvement in religion or organised activities outside school;
iii) those that could be addressed more easily by schools and others in an attempt to improve children's school engagement and feelings about themselves;
iv) those that are, surprisingly in some instances, not significant.

i) There are a number of variables that cannot be changed, or that are very difficult or unlikely to change, such as gender and family structure and, although it may be possible to offer positive support, these variables are probably resistant to efforts for improvement.

ii) Variables relating to the family are likely to be difficult to change and efforts to instigate change within families may well be ineffective. It is quite likely that there are many parents who never visit their children's schools and these are usually the parents that schools would particularly like to see. Alternatively, sometimes parents are quite willing to meet teachers and other advisors but find it difficult to fit it into their working lives. Other parents may listen to advice but for a number of reasons are just unable to put them into practice. Arguably, most families do the best they can with the resources they have. Other examples of situations where intervention is likely to be complicated are loneliness and difficulty in making friends.

iii) The group of variables which appear to hold out most promise for change, and thus improvement for pupil engagement and wellbeing, are those relating to school

context. These variables are at least accessible to school administrators and teachers but considerable effort may be required to actually implement the changes needed. Examples of these factors include school discipline, supportive teachers, classroom environment, and boredom in school. Other variables in this group, not directly related to school context, include key attitudes towards study and school such as aspiration, motivation, and resilience. It is not quite clear whether these attitudes promote engagement and wellbeing or if they are consequences, but either way, these attributes are an essential part of school success.

iv) The final group of variables are those which were expected to be influential but, in this study at least, were found to have limited impact. These include variables such as bullying, school safety, and friendship. This is not to say that these aspects of school life should not be addressed, but it should be borne in mind that focusing on these elements alone is unlikely to result in the improvement that might be hoped for.

Concentrating on the third group of variables described above, this study has identified a small group of factors that schools might be able to focus on to improve aspects of engagement and wellbeing. These particular factors include school discipline, teacher support, school participation and an inclusive classroom environment. There are no hard and fast rules for addressing these issues as each school needs to take into account the needs of its students, together with the resources available and the feasibility of change. Another issue that repeatedly emerged was that of boredom. This is not a specific aspect of school context, and probably partly reflects an individual's attitude, but the data suggest that boredom is an issue. This was confirmed by the first year secondary pupils in the focus group who specifically mentioned that boredom at school was common. However, in various discussions with primary school children boredom was never mentioned as a problem, so it appears to become more of an issue after the move to secondary school. There may be several reasons for this. It may be that the structure of the primary school day is less likely to make children feel bored. It is also possible that older pupils may become more bored with school in general or, even if they are not bored, feel that it is not 'cool' to be interested.

A sense of school community has already been briefly discussed and this emerged as the most frequently occurring influential variable encouraging all components of engagement as well as self-esteem. This is clearly an aspect of school life that needs to be developed but more research is needed in order to ascertain the particular aspects of school community that are most helpful. There are other factors that children rated as valuable in enhancing wellbeing and engagement components, such as being included in a group of friends or feeling a valued member of the school but these more abstract factors are less under the control of school administrators and more difficult to alter.

Geographical Aspects of Study

While one of the main aims of this research was to examine how children fared during transfer from primary to secondary school, there are geographical concepts at the heart of the study determining the selection of schools for the sample. Firstly, all schools, both primary and secondary were selected taking account of the socioeconomic status of the school population it served. For secondary schools, this involved taking two schools from relatively affluent areas and two from relatively deprived areas. Since the structure of the study entailed the inclusion of many more primary than secondary schools, it was possible to include a broader sample, with schools covering almost the entire range of socioeconomic status as well as the two extremes. Second, while it would be ideal to have secondary schools from rural and urban areas, or even from small urban and large urban areas, this was not possible within Fife where all secondary schools are located in relatively small urban areas. However, primary schools in the sample were selected from towns, villages and remoter rural areas. Third, primary schools located at various distances from the secondary schools were chosen. As far as possible, the nearest and the furthest schools were chosen together with other schools at intermediate distances. It was thought that there might be some effect, either positive or negative, for children who travelled long distances to schools outside their home communities.

Another aspect of geography that might affect all new pupils at secondary school, regardless of the distance travelled to school, is that of sense of place. This is difficult to define but perhaps can best be described as feeling comfortable and at home in the

school environment. This may be a contributory factor to the sense of school belonging that was measured as an outcome variable in this study.

The results of the multi-level modelling indicated that there was no significant difference between primary schools for any of the five outcomes examined in the study. The location of the primary school in either a rural or an urban area therefore had no influence on any of the three engagement outcomes, or on self-esteem or wellbeing. The variable describing the distance children travelled from home to their secondary schools was included as an explanatory variable in the complex models for the three engagement outcomes but it was not significant at any time. Thus the possibility that children might be at a disadvantage as a result of a long journey to school or because they attended a secondary school outside their home area was not supported. Indeed, although not investigated, they may, for a number of reasons, enjoy the opportunity of being free to go into a town for lunch compared with the more restricted movement allowed when they were at primary school. As measured by the outcome relating to school belonging, the idea of sense of place also appeared to have no geographical influences, as none of the significant explanatory factors relating to geographical concepts were significant for this outcome. The sense of belonging and feeling 'comfortable' in the surroundings is much more likely to be attributed to the generation of a good sense of school community than any of the geographical factors examined here.

There were a number of different explanatory variables describing various aspects of relative deprivation, both in relation to the areas where the children live and in relation to the general socioeconomic characteristics of the schools themselves. One or more of these explanatory variables was significant in relation to the three outcomes of school commitment, school participation and wellbeing. Thus, children with the greatest commitment to school were most likely to live in more affluent residential areas and attend secondary schools where the average level of affluence for pupils in the first year was relatively high. Perhaps unsurprisingly, wellbeing was also perceived to be better for those where the average level of affluence for pupils in P7 was relatively high. If the relative affluence for the P7 class is relatively high this suggests that the primary school itself is located in a less deprived area and this is likely to be reflected in self-perceived wellbeing. The only other outcome to be

influenced by relative deprivation was school participation. In this case it was found that children from relatively poor home areas where the average SIMD for the P7 class is relatively low, participated more in school activities. It could be that children from more affluent homes are more involved in extra activities paid for by their parents such as piano lessons, horse riding and ballet lessons. They may also go out more with their families. As a consequence they may not have the time or inclination to join in so much with school activities. Another possibility is that certain schools make a particular effort to encourage participation – a factor that was not measured in this research. It is also possible that aspects of deprivation or relative affluence also underlie some of the other variables but in a less obvious fashion.

The descriptive results (Chapter 3) and the graphs in Chapter 6 show that, for all outcomes, secondary school C recorded the lowest values. As already explained, this school was selected to represent a school population drawn from a relatively deprived area. Since the other small secondary school recorded the highest value for school commitment and, clearly, did not record the lowest values for any outcome, this seems to suggest that relative deprivation is more responsible than size of school for the poor results noted. However, although school C recorded the lowest values for all outcomes, it was only significantly worse than the other schools for school commitment. In addition to the results noted for school C, it is also the case that some aspect of socio-economic deprivation also influences three of the outcomes. School commitment is greater for children from affluent areas, who also attend schools where the average S1 SIMD, as measured by this variable, is higher. Self-perceived wellbeing is better for children from primary schools with a higher average P7 SIMD and, therefore, probably from more affluent neighbourhoods. As already observed, school participation is greater for children from more deprived neighbourhoods and this may well be because children with more affluent backgrounds have more opportunities to engage in various pastimes either to develop particular interests and skills or to share in other activities with their families. Although not necessarily the most significant explanatory variables, it is noticeable that factors related to some aspect of relative affluence occur more frequently than many other explanatory variables.

Policy Implications

It is quite apparent that the schools in this study gave considerable thought to the process of school transfer. Observation of P7 classes, together with discussions with head teachers and P7 teachers, suggested that primary schools prepared their pupils well by ensuring that they knew what to expect in secondary school and by providing them with a thorough academic grounding. The four secondary schools in the sample developed their own approach in developing induction programmes and familiarisation activities. These included pupil induction days, group activities with children from other primary schools, and meetings for prospective parents. Some schools even provided residential courses where children could get to know children from other primary schools who would be in the same year after transfer. All these preparations were clearly effective, as virtually all the children in the survey perceived the actual process of transfer from primary to secondary school in a positive light.

However, the data show that after the initial excitement and anticipation of secondary school has worn off, this positive perception declined and levels of engagement, as measured by all three components, fell. Levels of motivation, aspiration, and wellbeing also declined. This may be an almost inevitable consequence of adolescence and getting older or it may be the effect, as some have suggested, of an inappropriate environment for teenagers (Blyth, Simmons and Carlton-Ford, 1983; Eccles et al., 1993b; Simmons et al., 1987; Ward, 1982). Nevertheless, this decline in school interest should not be accepted as inevitable, whatever the cause.

As already noted, children often mentioned, during general discussion, that they found secondary school boring. Towards the end of their time at primary school, many children admitted that they were excited at the prospect of going to new schools and doing new subjects, despite a general anxiety that the work might be too difficult. It is understandable that secondary schools do not want to burden new pupils with too much work, or to pressure them unduly, but it is clear that many children felt let down after the preparation and build-up in primary schools. The data in this research show that boredom plays a significant role in reducing school engagement and commitment. Schoolwork does not automatically have to be made more difficult to be more

stimulating, but a different approach may be necessary and this may place additional demands on teachers, who already feel overstretched.

Another notable difference between primary and secondary school was a dramatic reduction in school participation. This was measured by asking about class involvement as well as participation in general school activities. As far as reduced classroom involvement is concerned, this may go hand in hand with boredom, and both may be a response to the contrast in primary and secondary teaching styles. It may be that, at least for the first year of secondary school, a more interactive approach to teaching should be adopted so that children do not have to adapt so abruptly from a more activity based environment to a more passive one, where listening is the norm.

It has been argued that school participation is particularly influential in encouraging children to become engaged with the whole process of education (Connell, Spencer and Aber, 1994; Finn, 1993; Voekl, 1996). However, it may not be easy to persuade children to become involved in general school activities as soon as they arrive at secondary school. They may not know what is available, or they may feel they do not know anyone else, or are merely nervous about joining new groups. Nevertheless, it should be remembered that these children have recently been the oldest and most trusted in their primary schools, often responsible for the organisation of various school functions, as well as taking part in sporting, musical and other activities. In order to allow first year pupils to feel valued, trusted and responsible, perhaps they could choose, develop, organise and present a first year event of some kind. If some of the preparations took place during allocated class time, this would also fulfil some of the need for greater class interaction.

Finally, it was interesting to see that resilience was by far the most important factor in encouraging pupil wellbeing. It also helped to promote school participation. The final suggestion, therefore, is that schools introduce a programme to help children develop their coping skills. This could be introduced at primary school and continued at secondary level within the personal and social development syllabus. This might need to be developed and implemented initially by the school psychology service, but the skills learned would be beneficial not only at school but also later on in life.

There are other changes that schools could probably make in order to improve attitudes towards school and wellbeing. This research indicates that boys and girls respond to different influences and further work is needed to clarify these. Similarly, a strong sense of school community is a vital school ingredient and some schools are better than others in developing this intangible quality. Again further work is needed, but it might also be helpful if schools shared their ideas on this topic. These suggestions have focused on elements that can be addressed by schools although there are clearly other aspects of children's lives that influence their engagement in the educational process.

Advantages of Method

A key aspect of this research was the longitudinal approach. Longitudinal designs involve drawing a single sample and measuring their responses on more than one occasion. Any number of measurements is possible in theory. The main advantage of the method is the ability to follow individuals and to monitor the impact of events in the responses given. Age-related development can also be studied. Since changes can be monitored within individuals, some of the problems of cohort effects are removed. Any change in the score of a variable can be compared with a previous score for the same individual. A design of this nature is especially useful for tracking developmental changes and the psychological impact of life events such as those occurring in this study. Longitudinal studies can be contrasted with cross-sectional data which provide a snapshot of information about individuals at a particular point in time. Surveys can be repeated, each time with a different group of individuals but, although a series of snapshots can be obtained, such approaches do not trace individuals over time. Research on the development of school-related attitudes is often based on cross-sectional data but interpretations made about change over time could well be unreliable.

The main purpose of this research was to provide a broad understanding of children's perceptions of school transfer. One of the main advantages of using a questionnaire was that it allowed the collection of a large amount of data. Although a time-consuming process, this was ideal, as a prime aim of the research was to explore a large number of variables, not only to provide a full picture of engagement and the psychological attributes, but also to see if some variables are especially important in

explaining a range of different outcomes. The approach also helped identify variables which were apparently relatively unimportant.

Limitations of the Study

Some of the positive aspects of the method could also be construed as disadvantageous. In particular, having a large number of variables, while useful for providing a broad overview of change during school transfer, meant that the detail of many of the variables, some of them multifaceted, was difficult to tease out. For example, a sense of school community appeared to be a very significant factor for many situations, but this is a complex concept in itself and there is no way of knowing if some aspects are more important than others and, if so, which ones. It might be fruitful for future research to examine the nature and impact of school community more fully.

Similarly, while a questionnaire is an ideal way to collect a large amount of data on more than one occasion, it is less than perfect in other ways. A particular criticism that could be made is that all the data collected was based solely on children's reports. There was no supportive or additional information from teachers or parents. However, the main intention was to obtain the children's perceptions of school transfer, even if this only takes into account one view of the process. It was also more than likely that if parents and teachers had been included, the initial sample would have been smaller and attrition would have been much greater.

Another possibility is that some of the words and phrases in the questionnaire might not have been understood or might have been misinterpreted. This problem was removed as far as possible in two ways. Firstly, discussion at the pilot study stage resulted in the removal of the most obvious ambiguities and, secondly, during the administration of the questionnaire there was always help available to answer and clarify questions. It might also be argued that children would discuss issues among themselves and give the same answers but there was no evidence of this, either during the questionnaire sessions or in the later analysis.

Perhaps most problematic of all, the format of the questionnaire limits the possibility of gathering information that is rich in depth and detail; the sort of material that might

be gleaned from more in-depth qualitative approaches. Thus, it is difficult to examine complex issues and opinions. The use of Likert scales was considered appropriate because all the children were used to this format, so clerical errors were unlikely. However, responses necessarily had to be confined to one box and, in addition to a lack of detail, there is also the possibility that children were inaccurate in their assessment of the most appropriate answer to give. However, errors of this type may even out over the whole questionnaire. The efficacy of the questionnaire also depends on the reliability and relevance of the measures used, but earlier interviews and pilot studies considered these issues in some detail.

There are also problems associated with longitudinal studies. There is likely to be some attrition over time as respondents drop out, although in this study this was only a minor problem as the children were quite happy to be involved at each time. On any one visit to secondary schools, only about 10% of the children was absent. This was a relatively low attrition rate and the statistical models can cope with this missing data. There is also a possibility that as the children completed the questionnaire on four separate occasions, they would quite quickly learn what was expected, and remember some of the questions they would be asked. They might talk to others between the visits and be persuaded, not necessarily intentionally, to change their views. However, it seems unlikely that children thought much about the questionnaire after it was completed and, indeed, on many visits some children had completely forgotten they had ever completed an earlier questionnaire. In addition, the length of time between questionnaires, several months on each occasion, would diminish the problem of repetitive answering. Another problem is that measured changes in attitude may not be related solely to the effects of school transfer, but might be confused with age-related development, perhaps particularly at this time of adolescence.

It is also important to realise that the sample was not random. The intention was to include a full range of schools in relation to size, free school meal percentage, and location and, although this was achieved, not all the schools initially invited to participate agreed to do so. Once the sample of participating schools had been finalised, it was the responsibility of the primary schools to recruit children from their P7 classes. This was much easier for small schools than for larger ones, but some

schools approached the task with much more vigour than others. The result was that some of the larger primary schools had fewer respondents than smaller schools. Finally, each child had to obtain parental permission to take part. Some parents specifically did not want their children to be included while others just failed to complete the necessary form and return it to school, hence excluding the child from the survey. However, overall these problems were relatively minor and there was little evidence, if any, of misunderstanding, collaboration between pupils, repetition or clerical error.

Future Research Questions

This research has thrown up a number of questions which would benefit from further exploration. It is clear that declining engagement and wellbeing is a problem for children in secondary schools, and initial examination of the data gathered here indicates that girls and boys may respond in different ways to a number of influences. Before schools can develop and adopt any techniques designed to sustain or improve engagement and wellbeing, it would be useful to discover which factors are most likely to encourage boys and girls to value school and education. Greater understanding of children's perceptions of the school environment is needed to implement appropriate remedial action.

This analysis has not been split to investigate whether there are different factors influencing any of the outcome variables for girls and boys. However, if it were discovered that girls and boys responded to influences in different ways, then it should be possible to develop appropriate and specifically tailored strategies for the maximum benefit of all pupils.

Another way of gaining further understanding of children's wellbeing and engagement would be to continue with the existing sample of children, using the same questionnaire. The dataset already established is a valuable research resource and would be even more valuable if further waves of data were added. Regular testing would allow further changes in all the outcome variables to be identified. It is quite possible that the factors influencing engagement and wellbeing could change over time as children grow older. This might be either a change in the relative influence of individual factors, or it could be that some factors cease to be influential while new

ones take their place. It might also be useful for schools to compare their results and share their ideas.

A different technique altogether could be adopted to discover and analyse some of the detail behind the results indicated by the questionnaire. For example, interviews might be able to tease out some of the detail of the issues concerning children. Interviews can be structured or unstructured. However, unstructured interviews would be most likely to discover the attitudes and experiences beneath the behaviour and opinions expressed in the questionnaire. The advantages of this method are that complex issues can be probed and answers clarified. Individual interviews can take place in a private, relaxed setting, and this may allow children to discuss more personal and sensitive information.

All of the preceding research would be useful in its own right, but it might be possible to combine all the information gained to develop a diagnostic test to measure engagement. The intention would be to create a measure that is simple and short, which could be administered easily by teachers in a short space of time. The idea would be that the results would be quickly analysed to give an instant indication of whether or not a pupil is reasonably engaged with school and educational studies. If the test were administered at regular intervals, any change in engagement would be noted immediately. In providing a measure of the level of risk for each pupil, the test would be able to forewarn schools of problems well before the situation became intractable. If necessary, children could then receive appropriate help and support.

Finally, because the concept of school community appeared to be so important for so many aspects of all engagement, it would be valuable to examine this concept further. Schools cannot be viewed merely as places where individuals come and spend a few hours each day. They need to be places where all pupils, and other members of the school, know they are cared for and can receive the support they need. Where exactly is the sense of school community found? There may be many smaller communities within the whole school community and it is probable that the classroom community is the most important place for children in school, especially in primary schools where the class is stable over a long period of time. However, it may well be that children experience the support of a community as a member of the sports teams or in the

school choir, for example. Further research is needed to tease out the different strands of school community and to learn which elements are particularly beneficial.

The findings from this study should apply to other schools in Fife and to schools in many other parts of Scotland. There were no schools in the sample representing city locations but, while it is possible that additional influences could come into play, it is unlikely that those already noted would not apply. It would also be interesting to see if similar findings occurred in other parts of Britain where the age for school transfer is eleven, one year earlier than in Scotland.

Conclusion

Over time society has changed, and social institutions must adapt if they are to function effectively. This is as true for schools as it is for any institution. The provision of education alone may have been enough a hundred years ago, but children's lives have probably become more complex over time, with accompanying problems and needs. As parents and families become more stretched in so many ways, they may not be able to provide the support, comfort and security that children so desperately need, not just when they are very young but continuing through adolescence and beyond. There is no doubt that schools have realised the need to ease the transfer from primary to secondary school, but is this enough? This thesis has shown that the actual transfer is perceived in a positive light. Children expect difficulties but when they do not materialise in the first few days and few weeks they, their parents and the schools may be lulled into a false sense of security. However, after less than two terms in their secondary schools, the first signs of disengagement occurred, accompanied by a perception of reduced wellbeing. As time goes on some of these children may be at risk of exclusion or dropout. Children's circumstances are often exceedingly complex and difficult, largely as a consequence of our rapidly changing society. As children's lives have changed over time, so the nature of the environment needed for them to flourish may well have changed, and it may be time for schools to re-assess the general environment they provide. Many schools realise this but they are often limited by curriculum demands, finance, time and appropriate skills. The traditional role of schools in providing a good education still exists, but so much more is now required. For children to lose out at this critical stage in their lives is too costly, not just for them but for the whole of our society.

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Appendix 5.1: Details of ethics application

OFFICE USE ONLY	APPROVAL CODE: GEO

UNIVERSITY OF ST ANDREWS
TEACHING AND RESEARCH ETHICS COMMITTEE (UTREC)
SCHOOL OF GEOGRAPHY & GEOSCIENCES

full ethics Application Form

Tick one box **STAFF project** ☐ **POSTGRADUATE project** ✓☐ **UNDERGRADUATE project** ☐

Title of project

Pupil wellbeing and school engagement during transition from primary to secondary school

Name of researcher(s)

M.V. Horobin

Name of supervisor (for student research)

Professor Paul Boyle; Dr. Arlene Astell

Date

15th November, 2005

Submission Requirements: Please submit 4 copies to the School Ethics Committee (1 original copy must be signed by all researchers and supervisors). More copies may be required.

1. Estimated start date	February, 2006
2. Estimated duration of project	Thirteen months
3. Location of fieldwork/research	16 schools in Fife
4. Have you obtained permission to access the sites of research? If YES, state agency/authority/etc and provide documentation.	Yes. Fife Education Authority
5. Is this research funded by an external sponsor or agency? If YES, state sponsor/agency.	No.
6. Does this research entail collaboration with other researchers? If YES, state names and institutions of collaborators.	Yes. Dr. Arlene Astell – School of Psychology Fife Health Board has an interest in the project.

7. In lay terms, give a description of the project's rationale, research techniques and information about the research site and types of participants (in up to 150 words).

The purpose of the research is to try and identify the factors which either promote or hinder children's engagement and well-being as they transfer from primary to secondary school. The children will be asked to complete questionnaires to reflect their feelings about school, family and friends, and self-concept as these are the main factors thought to influence their engagement and well-being during this time.

Most of the information required will be obtained from questionnaires which will be given to children four times over the period of a year, starting six months before the time of transfer and ending six months after transfer. These children will be aged between eleven and twelve. In addition, each participating school will be requested to complete a sheet giving basic information about the school's size, teacher/pupil ratio, class sizes, discipline policy and any transfer programme. Teachers involved in the transition period will be asked to evaluate anticipated problems for particular children and the relative success or ease of each pupil's transfer.

All research will take place on school premises at times previously agreed with school staff; in the primary schools, a member of the school staff is almost certain to be present.

		YES	NO	N/A
8.	Does this research pose any realistic risk to the investigator?	☐	✓	☐
9.	Does this research pose any realistic risk to any paid or unpaid field assistants, helpers, students involved in the project or any others in a dependent relationship?	☐	✓	☐
	If you ticked YES for Q9 or 10, please fill in a risk assessment form and submit separately to the School Safety Secretary.			
10.	Do you think the results of your research have the potential to cause any damage, harm or other problems for the people in your study area?	☐	✓	☐
11.	If your research is collaborative, have you considered issues to do with roles in research, publication strategies/authorship, and devised a framework to ensure that all participants are given appropriate recognition in any outputs?	✓	☐	☐
12.	Has this project been granted ethical approval elsewhere?	☐	✓	☐
	If YES, state where approval has been obtained, provide a copy of the application and approval letter, tick BOX A (p.4) and sign and return form.			

Approval agency [ ] Date approved [ ]

Project title Pupil wellbeing and school engagement during transition from primary to secondary school

		YES	NO	N/A
13.	Does this application involve research with human subjects?	☐	✓	☐

If YES, continue with Q14, if NO, but the project has other ethical considerations (e.g., roles in research, intellectual property, responsibilities to funders, research with policy or other social implications, etc), tick BOX B (p.4) and provide an explanation on a separate sheet.

14.	Is this research solely concerned with secondary data sources?	☐	✓	☐

If YES, please go to Q30.

15.	Will you describe the outlines of the project to participants in advance, so that they can make an informed decision about whether or not to participate?	✓	☐	☐
16.	Will freely given informed consent be sought from participants in the research?	✓	☐	☐
17.	Will you obtain written consent for participation?	✓	☐	☐
18.	Will you tell participants that they may withdraw from the research at any time and for any reason, without having to give an explanation?	✓	☐	☐
19.	If the research is observational, videoed or taped, will you ask the participants for their consent to being observed, videoed or taped?	☐	☐	✓
20.	Will participants be free to reject the use of intrusive research methods such as audio-visual recorders and photography?	☐	☐	✓
21.	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	✓	☐	☐
22.	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	✓	☐	☐
23.	Will participants be clearly informed of how the data will be stored, who will have access to it, and when the data will be destroyed?	✓	☐	☐
24.	Will you debrief participants at the end of their participation, and inform them of any uses to which the research data is likely to be put (e.g. research publications, educational use, broadcasting, etc)?	✓	☐	☐

If you have ticked NO to any of Q15-24, but have ticked BOX A (p.4), please give an explanation on a separate sheet.

25.	Are any of the participants in a dependent relationship with the investigator (e.g. lecturer/student)?	☐	✓	☐
26.	Will your project involve deliberately misleading participants in any way? If YES, give details on a separate sheet, state why it is necessary and explain how debriefing will occur.	☐	✓	☐
27.	Is there any realistic risk to any participants, experiencing either physical or psychological distress or discomfort? If YES, give details on a separate sheet and state what you will tell them to do if they should experience any problems (e.g. who they can contact for help).	✓	☐	☐

If you have ticked YES to Q25-27 you should normally tick and complete BOX B (p.4); if not, please give a full explanation on a separate sheet.

		YES	NO	N/A
28.	Do participants fall into any of the following special groups? If they do, please refer to the *Guidelines* and tick BOX B (p.4).	✓		

Note that you may also need to obtain satisfactory Disclosure Scotland, NHS or LREC clearance (or other relevant clearances)

Children (under 18 years of age)	☐	☐	☐
Institutionalised persons	☐	✓	☐
Other vulnerable groups	☐	✓	☐

29. If working with children or vulnerable people do you have an Enhanced Disclosure Scotland Certificate or other relevant documentation? If YES, a copy must be lodged with this application. ☐✓ ☐ ☐

30. If ethical approval has been obtained for research so similar to this proposed project that a new review process may not be required, please give details of the application and the date of approval.

Approval code [ ] **Date approved** [ ]

PLEASE TICK **EITHER** BOX A **OR** BOX B BELOW AND **PROVIDE THE DETAILS REQUIRED** IN SUPPORT OF YOUR APPLICATION. THEN SIGN THE FORM

A. I consider that this project has no significant ethical implications to be brought forward to the School Ethics Committee. ☐

This form (and any attachments) should be submitted to the School Ethics Committee for consideration.

If any of the above information is missing, your application will be returned to you.

B. I consider that this project may have ethical implications that should be brought forward to the School Ethics Committee, and possibly UTREC, and/or it will be carried out with children or other vulnerable populations. ☑

If you have ticked BOX B, on a separate sheet please provide:

(1) A concise statement of the ethical issues raised by the project, and how you intend to deal with them (in no more than one A4 page, normal text font). Expand on the rationale given in Q7 as appropriate.
(2) Details about consent and information arrangements (attach intended information sheets, questionnaires, consent and debriefing forms, etc., where relevant).

There is an obligation on the lead researcher (and supervisor of student work) to bring to the attention of the School Committee any issues with ethical implications not clearly covered by this form.

The research will use questionnaires given to the same group of children at four times during the project. The questionnaires are drawn from the literature, having been validated and previously used with schoolchildren by various researchers/psychologists. Fife Education Authority and Fife Educational Psychology Service have approved the research and seen the questionnaires and are supporting the project fully; in fact, the Fife Education Psychology Service are approaching each school on our behalf to encourage them to participate. The questionnaires have been piloted with some children with the full consent of

parents and no real difficulty is foreseen; however, if there are any queries, there will be schoolteachers on hand and also the child could be seen by the school guidance staff if necessary.
Written permission from parents will be obtained whenever requested by the schools. The nature and purpose of the project will be explained to the children and every time the questionnaire is given, I shall be present to answer any queries. I am used to working with schoolchildren as I spent most of my working life as a schoolteacher and I am still registered with the General Teaching Council. Children will be told that their questionnaire replies will be confidential and that the questionnaires will be kept securely, and destroyed at the end of the project. They will also be told that they do not have to answer any questions they choose not to.
At the end of the project, the children will be debriefed and told of the general findings. Any questions they have will be answered.

I am familiar with the Guidelines for Ethical Research Practice and have discussed them with the other researchers involved in the project. My supervisor has inspected all paperwork submitted with this application and has endorsed my ethical framework.

Signed …M. Vivienne Horobin Print Name M. VIVIENNE HOROBIN Date 15/11/2005
(UG or PG Researcher(s), if applicable)

Signed …Paul Boyle…… Print Name PAUL BOYLE Date15/11/2005
(Lead Researcher or Supervisor)

STATEMENT OF ETHICAL APPROVAL

This project has been considered using agreed School procedures and is:

Approved ☐
Not approved
More clarification required ☐
New submission recommended ☐

Referred to UTREC ☐

Signed …….. Print Name …….. Date ……..
(Chair, School Ethics Committee)

OFFICE USE ONLY

Approval code: GEO

Additional points for ethics application

Points in relation to ethics application – M.V. Horobin
Pupil wellbeing and school engagement.

This project has been developed over the last nine months in close co-operation and with full support of Fife Education Authority (Carrie Lindsay), Fife Education Psychology Service (Ken Keighren), and Fife Health Board (Dr. Lesley McDonald). Full discussions have taken place throughout the project development with these three groups.

1. **Enhanced Disclosure**

   Enhanced Disclosure has been applied for. Although it is anticipated that this will be received before 1st February, all Primary Heads know that they are not allowed to leave anyone without Disclosure with any children. If they or the teacher are called away, they will ensure that another teacher, classroom assistant, or other approved person is available to be present.
   Some undergraduates may also help with the administration of questionnaires; they will also all obtain enhanced disclosure.

2. **Questionnaire Approval**

   Ken Keighren, Depute Principal Educational Psychologist for Fife will send a letter of approval early in January 2006. In addition, at a preliminary meeting with each Headteacher, I supply a copy of the questionnaire and we go through it together in some detail. No problems have emerged.

3. **Parent Consent**

   Copy of letter to be sent to all parents is attached (following format of letter suggested by School of Psychology). These will be sent to every parent at the beginning of the Spring term.

4. **Informed Child Consent**

   Copy of form for children to sign is attached. This has been developed after discussion with Dr. M. Kesby and primary school Heads. The Heads of the

primary schools would prefer to explain the project to the children themselves, shortly before the first visit in February. They will explain what the project is about, and what it will involve. They will ask the children to sign the consent forms and I shall collect them on my first visit. When I see the children for the first time, I shall explain the project again and again make clear that they do not have to answer any questions if they do not wish to.

The primary school Heads have also assured me that there will be other activities available for children who do not wish to participate. Data collection in secondary schools will only involve those participating in the project and the issue of non-participants does not apply.

As far as feedback is concerned, I shall tell the children that they will learn the main findings on completion of the study. In addition, at the end of every questionnaire session, I shall ask if there are any questions and I shall answer these as helpfully as I can.

5. **School Guidance Counsellors, and**
6. **Debriefing**

Most primary schools do not have a guidance counsellor permanently available. However, the class teacher will be available for children to talk to, as will the Head. If there is any need for further support, Ken Keighren has confirmed that Fife Educational Psychology Service will be available. The Child Consent Form clearly states that the children can talk to any teacher about the project.

At the start of every session with children, I shall repeat the main purpose of the research and what the session will involve. I shall also confirm the support available. If a child wishes to see a guidance counsellor or the psychology service, I shall inform the Headteacher who shall ensure that this request is met.

Before the children move into their secondary schools, the guidance staff there will be made aware of the project and will be available for support.

At the end of every session, I shall ask if any child has any questions, and answer them as far as possible. Since a teacher will also be present, the teacher may also add comments. The children will be thanked.

As already noted, the children will be told the main findings of the study when these are known. They will be assured that all the questionnaire information will be confidential and that their name will never be quoted, or linked with any specific information.

They will be told that the research will be written up and that it is possible that some shorter articles may be written. I shall also explain that some short talks about the project may be made. I shall emphasize that in no case will their name ever be made known. Ultimately, all schools involved will also be informed of the general findings.

7. **Access to Data**

The questionnaires will be coded so that only a number will be attached. They will be locked in a filing cupboard in the university. Only three people will have access to the data – Dr. A. Astell, Professor P. Boyle and myself.

8. **Collaboration**

Box 6 has been amended. Fife Health Board is not a collaborator. It is merely interested in the project and in learning the general findings.

The Ph.D. is funded by the University of St. Andrews, and held jointly by Paul Boyle and Arlene Astell; they are also joint supervisors. The original proposal, on Community Schools, was developed jointly by Arlene Astell and Paul Boyle, but the project has undergone significant change over the last year. The current proposal was jointly conceptualised by Paul Boyle, Arlene Astell and myself.

Ownership of data

Morally the data belong to the respondents.

Intellectually the data belong to M. V. Horobin.

Attached

Copy of the parental consent letter

Copy of Child Consent Form

Approval of Questionnaire

Dear Dr. Law,

Over the last year, Vivienne Horobin and I have had several discussions about the project to study P7 to S1 transfer. In particular, we have examined questionnaire content, structure, format and delivery. Vivienne has taken account of several points raised and amended the questionnaires accordingly. As agreed she has also successfully piloted their use. In view of this I consider them appropriate to be used with the children in the study.

Ken Keighren
Depute Principal Educational Psychologist
Fife Council Psychological Service

University of St Andrews

University Teaching and Research Ethics Committee

6 January 2006

Vivienne Horobin
School of Geography and Geosciences
University of St Andrews

Re: **Pupil wellbeing and school engagement during transition from primary to secondary school**

Approval Code: **GG0262**

The University Teaching and Research Ethics Committee (UTREC) approve this study from an ethical point of view. Please note that where approval is given by a School Ethics Committee that committee is part of UTREC and is delegated to act for the main UTREC.

Approval is given for three years but is dependent on an annual progress report on the study. Please note that as Principal investigator you are responsible for ensuring these reports are sent on a yearly basis to your School Ethics Committee and copied to the Secretary (email: tlm1) of UTREC.

Please note that projects, which have not commenced within two years of original approval, must be re-submitted to your School Ethics Committee.

You must inform both your School Ethics Committee and the Secretary of UTREC when the research has been completed. If you are unable to complete your research within the 3 three year validation period, you will be required to write to your School Ethics Committee and to UTREC (where approval was given by the main UTREC) to request an extension or you will need to re-apply.

Any serious adverse events or significant change of direction which occurs in connection with this study and/or which may alter its ethical consideration must be reported to the School Ethics Committee.

Yours sincerely

Dr Lisa Law
Convenor of the School Ethics Committee

Ccs Supervisor, Prof Paul Boyle (School of Geography and Geosciences)
Supervisor, Dr Arlene Astell (School of Psychology)
School Ethics Committee

St Mary's College, St Andrews, Fife KY16 9JU, Scotland
Direct Line: (01334) 462157 Fax: (01334) 463042

University of St Andrews

Vivienne Horobin
School of Geography and Geoscience

Appendix 5.2: Introductory letter to secondary schools

Dear

Just a quick note to thank you for agreeing to take part in this research project. I do understand that these things are disruptive but I will do my best to be as organized and discreet as possible. By the time I come to your school I will have seen the children at least twice so they will know what is expected and I shall know who may need help.

I am attaching my research statement which gives a bit more detail. Please ask me if you have any queries or if you would like me to visit you. I spent many years as a secondary teacher of Geography (and I am still GTC registered) so I am reasonably familiar in dealing with groups of children.

Thanks again,

(Vivienne Horobin)

Appendix 5.2: Research statement for secondary schools

Research Proposal

Recent research suggests that school engagement, school success and student wellbeing are intertwined. Students are likely to remain engaged and complete school if they feel they belong to and share common values with the school.

The purpose of the study is to try and identify some of the factors influencing children's feelings of 'engagement' as they move from their primary school to secondary school. Although there is no single definition of engagement, its dimensions are generally considered to include:

a) pupils' feelings about school, teachers, and peers;
b) pupils' observable actions or performance, such as completion of homework and participation in extra-curricular activities; and
c) pupils' beliefs about themselves, their motivation, aspirations and general commitment to the school process.

In order to measure engagement as children move between schools, I intend to use a questionnaire that looks at children's

i) attitudes towards school
ii) sense of belonging
iii) interpersonal relationships with peers and teachers
iv) academic motivation
v) classroom behaviour
vi) extra-curricular involvement
vii) locus of control
viii) social capital, and
ix) the extent of parental involvement in their child's education/school.

This questionnaire will be answered by children only, so will reflect their views only on each of the above topics.

The plan is to follow the same group of children from their primary schools into their secondary schools using questionnaires at four different times:

i) February of P7 (February 2006) – baseline
ii) June of P7 (June 2006) – preparation for transfer
iii) September of S1 (September 2006) – transition period
iv) February of S1 (February 2007) – settling in period.

I am unsure what the time commitment would be for the secondary schools. If I come to the school to give the questionnaire, it would again be about one hour, this time in September 2006 and in February 2007. There is no intention to identify individual schools or teachers, apart from a general acknowledgement of help from participating schools.

The overall premise is that the greater the child's engagement, the greater his/her wellbeing in terms of self-esteem, health, achievement, happiness and safety. I hope to be able to identify some factors which are significant in either easing or hindering transition between schools. This should be useful to schools as they consider the transition process and the possible difficulties, both practical and emotional, that some children encounter.

University of St Andrews

Vivienne Horobin
School of Geography and Geoscience

Appendix 5.3: Letter of introduction to primary schools

2nd February, 2006

Dear

By now, you should have received a letter from Carrie Lindsay about my proposed research to measure children's wellbeing as they move from primary to secondary school. The main purpose of this research is to see if it is possible to identify some of the factors that may either hinder or promote children's overall engagement with the educational process. The belief is that the greater the engagement, the better the child's wellbeing is likely to be in terms of self-esteem, happiness, health and achievement.

The intention is to follow a large group of Primary 7 children from a number of primary schools into their respective secondary schools and I hope you will be prepared to take part. I enclose a summary of the project and you will see that I envisage two separate visits to each primary school, one in February and one in June 2006. At each visit I would ask the entire P7 group to complete a questionnaire. This questionnaire is quite long and will be done in three sections, allowing a short break between each part. I hope to have a couple of assistants to help the children if necessary and I anticipate the whole session taking no longer than an hour on each occasion.

If you are willing to take part in this project, I would like to visit you during the next few weeks to introduce myself and to discuss any queries you may have and I shall telephone you shortly to see if I can arrange a convenient time for this.

Although I am now a researcher at the University of St. Andrews, most of my working life has been spent as a teacher and I am still registered with the GTC.

I hope to meet you in the near future.

Yours sincerely,

(Vivienne Horobin)

University of St Andrews

Vivienne Horobin
School of Geography and Geosciences

Appendix 5.3: Research statement for primary schools

Recent research suggests that school engagement, school success and student wellbeing are intertwined. Students are likely to remain engaged and complete school if they feel they belong to and share common values with the school.

The purpose of the study is to try and identify some of the factors influencing children's feelings of 'engagement' as they move from their primary school to secondary school. Although there is no single definition of engagement, its dimensions are generally considered to include:

a) pupils' feelings about school, teachers, and peers;
b) pupils' observable actions or performance, such as completion of homework and participation in extra-curricular activities; and
c) pupils' beliefs about themselves, their motivation, aspirations and general commitment to the school process.

In order to measure engagement as children move between schools, I intend to use a questionnaire that looks at children's

i) attitudes towards school
ii) sense of belonging
iii) interpersonal relationships with peers and teachers
iv) academic motivation
v) classroom behaviour
vi) extra-curricular involvement
vii) locus of control
viii) social capital, and
ix) the extent of parental involvement in their child's education/school.

This questionnaire will be answered by children only, so will reflect their views only on each of the above topics.

The plan is to follow the same group of children from their primary schools into their secondary schools using questionnaires at four different times:

i) February/March of P7 (February 2006) – baseline
ii) June of P7 (June 2006) – preparation for transfer
iii) September of S1 (September 2006) – transition period
iv) January of S1 (January 2007) – settling in period.

The overall premise is that the greater the child's engagement, the greater his/her wellbeing in terms of self-esteem, health, achievement, happiness and safety. I hope to be able to identify some factors which children perceive as significant in either easing or hindering transition between schools. I hope this will be useful to schools as they consider the transition process and the possible difficulties, both practical and emotional, that some children encounter.

For any one primary school there would be one visit in February and one in June 2006 to administer the questionnaire. I would expect this to take about one hour on each visit. I would also anticipate a preliminary visit during the spring term, 2006, to discuss the project and answer any questions schools may have.

Appendix 5.4: Primary 7 perceived advantages and disadvantages of moving to secondary school (pilot study 2)

Possible negatives on moving to S1

Teachers
Strict teachers
No nice teachers
Teachers write too quickly
Teachers should explain more
Teachers use too many abbreviations

Codes
Must sit in rows

Subjects
More subjects
More lessons
More learning
More schoolwork
More tests
Hard tests
Stricter marks
Too many books
Less singing
More homework
Not enough experiments
No extra help
Too much German
Longer essays
Not enough PE

Time
Longer school day
Little free time
Short breaks

Friends
More fighting
Boys and girls separated for PE
No football in the breaks

School
No posters
No corner to play and read
Not such a nice classroom
Smaller classroom
No canteen
Smaller garden
No pool
More stairs
Canteen too expensive
No price given in canteen

General
Fewer trips
More stress
Longer to school journey
Need to get up early

Possible advantages moving to secondary school

Going on the bus
Going into the town for lunch
Doing science
Doing domestic science
Making new friends

Appendix 5.5: Main views from S1 focus group

Recalling feelings in Primary School, many said that it had become increasingly boring. The main area of discontent was that their teacher did not like them. Comments can be listed as follows:

Primary

Good	Bad
Seeing friends	Staying in one room
Lunchtime	Some teachers
PE (2)	Homework
ICT	Maths
Trips (2)	Language
Home time (2)	French
Success maker?	Supply teacher (don't know what they are doing!
All teachers know you	Head teacher
Doing plays	Work
	School lunches

Secondary

Good	Bad
Going out at lunchtime (2)	Teachers (2)
Don't need to stay with same teacher all day	Toilets (2)
Music	Modern Studies
PE	French
Lunch	Homework
Discos	Teachers shout at you (for going slow)
	Teachers pick on you
	Getting up early

All had enjoyed the transition programme, although it is not the same in each case. Felt quite confident when arriving at secondary school at beginning of term. Nobody has missed primary school, except for illness. When asked what would make them want to miss school for a day, replies were

i) if there was a test (not prepared for)
ii) if you hadn't done homework
iii) when there were lessons where teacher shouted at you
iv) some teachers

Appendix 5.6: Pilot Study 3 – Reliability of Questionnaire Items

Cronbach's Simple and Standardized Alpha

Named Test or Variable Measured	Cronbach's Alpha	Cronbach's Alpha based on Standardized Items	Number of Items
People in My Life			
Test	.990	.991	28
Re-test	.990	.991	
Trust			
Test	.940	.958	4
Re-test	.940	.957	
Parental Involvement			
Test	.946	.972	11
Re-test	.967	.981	
Social Capital			
Test	.990	.993	14
Re-test	1.0	1.0	
Students Life Satisfaction Scale			
Test	.993	.994	7
Re-test	1.0	1.0	
Resilience			
Test	.995	.996	15
Re-test	.996	.997	
Locus of Control			
Test	1.0	1.0	7
Re-test	.980	.986	
Self Description Questionnaire			
Test	1.0	1.0	8
Re-test	1.0	1.0	
Harter's Self-perception Profile for Children			
Test	.995	.996	17
Re-test	.984	.989	
Washington SDQ			
Test	.997	.998	15
Re-test	.958	.986	
Young People's Self-Description Questionnaire			
Test	1.0	1.0	12
Re-test	1.0	1.0	

Rosenberg Six-Item Scale Test Re-test	 1.0 .999	 1.0 1.0	6
School Connectedness Test Re-test	 1.0 1.0	 1.0 1.0	4
Psychological Sense School Membership Test Re-test	 .993 .997	 .996 .998	18
School Commitment (Lee and Smith) Test Re-test	 .999 1.0	 .999 1.0	4
School Bonding (Battin-Pearson) Test Re-test	 1.0 1.0	 1.0 1.0	5
Perceived Classroom Environment Test Re-test	 .995 .997	 .996 .998	20
Academic Motivation (Dika) Test Re-test	 1.0 1.0	 1.0 1.0	4
Engagement (Skills) Test Re-test	 .967 .981	 .963 .991	8
Engagement (Emotional) Test Re-test	 1.0 1.0	 1.0 1.0	4
Engagement (Participation) Test Re-test	 .968 1.0	 .974 1.0	4
Engagement (Performance) Test Re-test	 1.0 1.0	 1.0 1.0	4
Total School Engagement Test Re-test	 .994 .997	 .994 .999	20
School Discipline Test Re-test	 1.0 1.0	 1.0 1.0	5
PISA Measure of School Belonging Test Re-test	 .996 1.0	 .996 1.0	8
	 1.0		

Educational Goals (Motivation)	1.0		
Test		1.0	7
Re-test		1.0	
School Safety (Brand et al.)			
Test	1.0	1.0	6
Re-test	1.0	1.0	
Bullying	-	-	-
School Danger (Murray & Greenberg)			
Test	1.0	1.0	3
Re-test	1.0	1.0	
School Safety (Combined)			
Test	1.0	1.0	9
Re-test	1.0	1.0	
Classroom Behaviour	-	-	-
Views on Primary School			
Test	.993	.994	12
Re-test	.996	.997	
Attitude to Changing School (pre-transfer)	.997	.997	12
Test	.997	.998	

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Vivienne Horobin

School of Geography and Geosciences

Appendix 5.7: Explanatory letter to parents and consent form

Dear Parent/Guardian,

I am a researcher in the School of Geography and Geosciences at the University of St Andrews. I are writing to you to ask if you would be willing to allow your child to participate in a study that we would like to run at …………. Primary School.

The study is designed to consider some of the factors which affect or change children's attitude as they transfer from primary to secondary school. Practically, your child's participation will involve them working with one of us in groups at the school. The task involves answering questionnaires about their feelings about the transfer from primary to secondary school. This is a surprisingly under-researched topic, considering that it is such an important event in children's lives and this will be one of the first studies examining it in detail.

The children will be asked to complete questionnaires both before they leave their primary school and again when they have moved to their secondary school. The questions will be short and simple and ask the children's views on their school, family and social life. People who have carried out similar work previously have found that children have been very keen to take part. However, should your child wish to, they will be free to withdraw at anytime and of course you will also be free to withdraw your child's from the study at any point. Your child's participation will be treated with complete confidentiality and only we will have knowledge of their individual performance. All information will be kept in accordance with the confidentiality rules of the British Psychological Society. At no point will any information be written or published that could identify your child.

Approval for this research has been obtained from ……….. Primary School, the Local Education Authority and the Ethics Committee of the School of Geography & Geosciences at the University of St Andrews. In addition I have gone through the enhanced Disclosure Scotland procedure to be able to carry out this project.

If you are willing for your child to participate in the study please complete the slip below and return it to a member of the school staff. Also should you like any further information about the study then please don't hesitate to contact me - using the details above or provide us with your phone number so that we can contact you.

Many thanks,

Vivienne

✂

Child's Name:________________________________Date of Birth:__________________

I am willing to allow my child to participate in the study ☐
I am NOT willing to allow my child to participate in the study. ☐

I would like further information. Please contact me on 01334 462811

Signed: ___________________________________ Date:______________________

Appendix 5.8: Response rate for parental consent for P7 participation

School	Number in P7 2005/06	Number consenting to participate	% P7 Participation
PS School 1	61	58	95.1
PS School 2	53	53	100.0
PS School 3	26	22	84.6
PS School 4	27	26	96.3
PS School 5	95	36	37.9
PS School 6	6	6	100.0
PS School 7	9	9	100.0
PS School 8	2	2	100.0
PS School 9	6	6	100.0
PS School 10	22	15	62.2
PS School 11	21	16	76.2
PS School 12	3	3	100.0
PS School 13	4	4	100.0
PS School 14	27	22	81.5
PS School 15	74	48	64.9
PS School 16	28	28	100.0
PS School 17	47	41	87.2
PS School 18	3	3	100.0
PS School 19	7	7	100.0

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Appendix 5.9: Child consent form

P7 to S1 Transition, X Primary School

The project on moving from primary to secondary school has been explained to me and I understand what it is about. I know I do not have to answer any questions I do not wish to, and I can talk to a teacher if I have anything I want to ask.

Signed _____

Date _____

Appendix 5.10: Examples of puzzles for P7 pupils

Brain Bender 1

This puzzle is going to get harder with each stage. See how far you can go.

Stage 1:
If you have **TWO** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Stage 2:
If you have **THREE** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Stage 3:
If you have **FOUR** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Stage 4:
If you have **FIVE** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Stage 5:
If you have **SIX** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Stage 6:
If you have **SEVEN** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

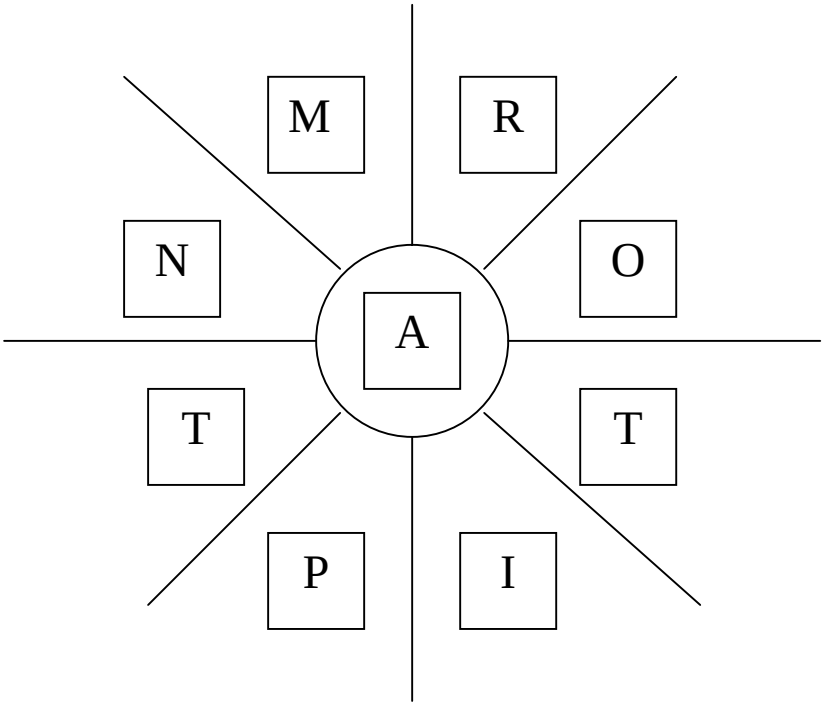
Stage 7:
If you have **EIGHT** people in a room and each person shakes hands with every other person exactly once, how many total handshakes happen?

Name …… School …….

Triangle Shape Puzzle 1

Take a close look at the following figure... How many triangles can you find?

Write down as many words you can think of with 3 letters or more using the letters below. Every word must contain the letter in the middle.



Appendix 5.11: S1 poster competition

Competition

This competition is open to all S1 pupils taking part in the University of St. Andrews P7 to S1 Research Project

Do you fancy being an illustrator?

Illustrations are needed for the cover and some chapters of this research.

Criteria:

- entries should be on A4 (this size) paper

- the subject should be either:

i) a Primary 7 pupil, just before they start at their new secondary school, or
ii) an S1 pupil just after they have started their new secondary school

- the pupil should have a 'thought bubble' showing what they are thinking. It can be something good, or something worrying

- the thought bubble can contain words or drawings

- your name and school should be written CLEARLY on the back

- there will be prizes

Please pass your entries to_____ by the end of this term, December, 2006.

Appendix 5.12: Instructions before each Questionnaire Session

- Thank you for coming and taking the time to complete.
- Reminded of general purpose of the study.
- All questionnaires are totally confidential and remain unnamed.
- Please remember this is not a test – there are no right or wrong answers.
- Please put up your hand if you need help, or don't understand anything, and someone will do their best to help.
- Remember to only tick one box in each row.
- Do not tick across boxes.
- Do not make up a new box.
- If you are getting tired and find you are either losing concentration or just ticking down a while column, stop for a moment, and then go on
- For second and subsequent visits, all of the above and also explained that the questionnaire was largely the same, as we wanted to know how their attitudes might have changed.

PIPS refers to a whole range of related but independent projects designed to track a number of important aspects of schooling as children move through the primary phase. Initially developed within the context of the English educational system, PIPS has acquired an increasingly important international profile in recent years. Working with colleagues across the globe, we have developed assessments based on the PIPS model to suit educational circumstances in different countries.

In Scotland PIPS development is undertaken in partnership with the University of Aberdeen. PIPS assessments are now available for Pre-school, Primary 1, 3, 5 and 7.

Pre-School

The Assessment Profile on Entry for Children and Toddlers (ASPECTS) provides a baseline for children starting nursery from which progress can be measured. It assesses personal, social and emotional development, language and mathematics development, and motor development using a combination of objective tasks and teacher observation. Age-related scores are given for each child at the start and end of nursery and feedback about relative progress at the end of nursery.

On-Entry Baseline for Primary 1

The PIPS On-Entry Baseline uses a combination of objective assessment and teacher rating to provide valuable information about each child as she or he enters Primary 1. The assessment provides a firm basis for measuring pupil progress (value-added) up to Primary 3. These progress measures provide a fair way of making comparisons because they take into account the starting points of individual children.

At the core of the PIPS On-Entry Baseline is an assessment of early reading, early mathematics and phonological awareness. The assessment is completed by an adult working with each child on a one-to-one basis and takes about 20 minutes.

A computerised adaptive version of the assessment is available on CD-ROM. An adult sits down with each pupil at a computer and uses the mouse to indicate the child's responses as the assessment proceeds. The computer automatically records these responses and allows immediate feedback. The results are also sent to the CEM Centre, which then provides the school with detailed analysis for each child.

Personal and social development is assessed through teacher ratings of key features, which are noted in a running record that is completed three times during the child's first year at school.

On-Entry Baseline and Follow Up

Experience has shown that children make enormous progress during their first year in school. Most schools opt to record this progress by simply reassessing each child towards the end of Primary 1. The feedback provides valuable objective evidence to Primary 1 teachers as they reflect on the achievements of their pupils. It also gives excellent information to Primary 2 teachers as they look to the future.

Assessment in Primary 3, 5 and 7

As the children move up the school PIPS gathers information on a range of variables broadly grouped into measures of academic attainment, developed ability and attitude (self-concept). These are used to calculate measures of relative progress or value-added. Value-added measures enable fair comparisons because they take into account important factors outside the control of the school.

PIPS provides measures of academic attainment in maths and reading. In Primary 7 there is an additional science assessment. If a child has been previously assessed using PIPS we can calculate their relative progress over time. We call this 'prior value-added'.

Each PIPS assessment contains a 'context' section. This includes measures of vocabulary and non-verbal ability, which are combined to provide a measure of the child's developed ability. This is an excellent predictor of academic attainment and can therefore to be used to determine if the child is making the progress expected. We call this 'concurrent value-added'. Concurrent value-added can be generated for any child regardless of whether they have been assessed before using PIPS.

There is a strong relationship between prior value-added and concurrent value-added. Together they can be used to build a powerful profile of each child's progress as she or he moves through the primary phase.

The assessments are intended for administration on a whole class basis. Each pupil is provided with an assessment booklet. The teacher is given comprehensive administration instructions to guide the children through each section of the assessment. The assessment can be broken down into half hour sections and completed over a few days or during a half-day session.

No marking is required. Once the assessments are completed the materials are replaced in their original packaging for collection by a courier. The assessments are delivered to the CEM Centre for data entry and analysis.

Appendix 5.14 Copy of questionnaire

P7 to S1 Transfer Fife Schools

Phase One

School of Geography and Geosciences

University of St. Andrews

Code: _____

Questionnaire – Family and Friends

Please tick each box to describe who lives in your house:

Mother	☐			Stepmother	☐	Guardian/carer	☐
Father	☐			Stepfather	☐	Partner	☐
Brother/s	☐	How many?	☐	Grandmother	☐	Other adult	☐
Sister/s	☐	How many?	☐	Grandfather	☐	Other child	☐

If your parents or step-parents have a job, and you know what it is, please fill in the spaces below (even if they don't live with you).

Person	Job
Mother	
Father	
Step-mother	
Step-father	

Read the following statements about family and friends and then tick the box that describes how you feel				
	Always	**Usually**	**Sometimes**	**Never**
1. My parents/guardian listen to me				
2. My parents/guardian accept me				
3. My parents/guardian care about me				
4. My parents/guardian help me with my problems				
5. My parents/guardian can tell when I'm upset				
6. I talk to my parents/guardian about my problems				
7. My parents/guardian ask if something is bothering me				

	Always	Usually	Sometimes	Never
8. I share thoughts and feelings with my parents/guardian				
9. My parents/guardian pay attention to me				
10. My parents/guardian don't understand what I'm going through (if your parents **do** understand, tick never, if they **don't,** tick always)				
11. I get upset easily with my parents/guardian				
12. I feel angry with my parents/guardian				
13. It is hard for me to talk to my parents/guardian				
14. I feel scared at home				
15. My parents/guardian are proud of me				
16. My friends listen to me				
17. My friends accept me				
18. My friends care about me				
19. My friends help me with my problems				
20. My friends can tell when I'm upset				
21. I talk to my friends about my problems				
22. My friends ask if something is bothering me				
23. I share thoughts and feelings with friends				
24. My friends pay attention to me				
25. My friends don't understand what I am going through				
26. I get upset easily with my friends				
27. I feel angry with my friends				
28. My friends are proud of me				
29. I eat meals with my parents/guardian				

Please tick the box that describes how you feel				
	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
1. Other people understand me				
2. The world and the people in it are basically good				
3. In need, I know people who care enough to help				
4. On the whole, I am satisfied with my social life				

Please read the statements and then tick the box that describes you				
	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
1. I discuss school work with my parents/guardian				
2. I discuss school activities with my parents/guardian				
3. I discuss things studied in class with my parents/guardian				
4. My parents/guardian attend school meetings				
5. My parents/guardian speak to teachers				
6. My parents/guardian visit my class				
7. My parents/guardian attend school events				
8. My parents/guardian check my homework				
9. My parents/guardian limit the time I watch TV				
10. My parents/guardian limit how much I go out with friends				
11. My parents /guardian want me to take Standard Grade exams (please tick the final box if you don't know)				

Don't know

Please answer the following questions by ticking the box that describes you best				
How often do you spend time on the following activities **OUTSIDE SCHOOL**?	**Rarely/ Never**	**Less than once a week**	**Once or twice a week**	**Nearly every day**
a) using computers				
b) working on hobbies, arts, crafts				
c) reading for pleasure				
d) doing any sport				
e) talking with, or doing things with your mother or father				
f) talking with, or doing things with other adults				
g) attending religious activities				
	Never	**Several times a year or less**	**2-3 times a month**	**About once a week**
2. In the last year, about how often have you attended religious services? **(DO NOT COUNT SCHOOL SERVICES)**				
	No, not at all	**A little**	**Quite a bit**	**Yes, very**
3. Do you think of yourself as a religious person?				
	Not important	**Quite important**	**Very important**	
4. How important is it for you that your friends to participate in religious activities?				

How often do you do the following activities outside school?	**Rarely/ never**	**Less than once a week**	**Once or twice a week**	**Nearly every day**
1. attend a youth group or sports club				
2 do some voluntary work				
3. have lessons in music, art, dance, sport, other				
4. go to any other organised activity such as scouts/guides				

Lifestyle

1. How many hours of sleep do you usually get at night time? ☐
2. How often did you eat fruit or drink fruit juice yesterday? Please circle one below

   Didn't eat **Ate once** **Ate twice or more** **Don't know**

3. Do you go home after school to an empty house? Please circle one below

   Never **Sometimes** **Usually** **Always**

4. How many hours do you usually watch TV?

   i) on **ONE** average weekday …….Hours

   ii) on Saturday **AND** Sunday (altogether) ……Hours

5. Do you have a TV or computer in your bedroom **No** **Yes**

6. Do your parents/guardian know where you are when you are not at home? (Please circle)

   No **Sometimes** **Yes**

7. Have you drunk any alcohol? **Never** **Once or twice** **Several times** **Often**

8. Have you ever smoked a cigarette? **No** **Just once** **Several times** **Every day**

9. How healthy do you think you are?

   Very healthy **Quite healthy** **Not very healthy**

10. Please put the following in the order of how important they are to you. 1 is the **most important** and 6 is the **least important**. Please use each number **ONCE** only.

    Pleasing your parents ☐
    Doing well in your school work ☐
    Being popular with other children at school ☐
    Being liked by teachers ☐
    Being happy ☐
    Being 'cool' ☐

    Please use all the numbers (1-6) once. Do not use any number more than once

10. Please tick the things that worry you about moving to secondary school:

    Bullying ☐ Going on the bus ☐ Homework ☐

    School lunch ☐ New teachers ☐ Moving classrooms ☐

    New subjects ☐ Making friends ☐ Nothing ☐

    Other (please write) ……...

11. Think about the area of this school. Please tick any of the boxes below that you think are a risk to your own health or well-being.

crime and vandalism ☐ litter and rubbish ☐ the level of noise ☐

smoke and fumes from chimneys ☐ the amount of road traffic ☐

abuse and violence ☐ none of these ☐ other risk (write down)…….…….

12. Please write a sentence to say what you are feeling about moving to secondary school. You can mention anything that is important to you.

_____

_____

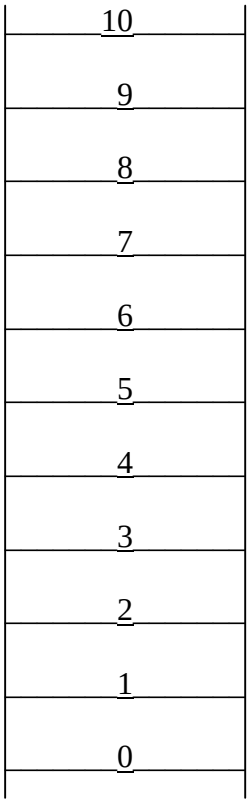
_____

_____

_____

13. Happiness Scale

In general, how happy would you say you are – very happy, fairly happy, or not happy. Use the ladder below to show how happy you are. If the top of the ladder is the most happy you could possibly be and the bottom is the worst possible, where on the ladder would you place your happiness. Mark or shade in the section with the number that matches how you feel.



Feelings

Please read the following statements and tick the box that describes how you feel				
	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
1. My life is just right				
2. I have what I want in life				
3. My life is going well				
4. I have a good life				
5. I would like to change many things in my life				
6. I wish I had a different kind of life				
7. In general, my life is better than most children's				
8. When I make plans I follow through with them				
9. I usually manage one way or another				
10. I feel proud that I have accomplished things in my life				
11. I usually take things in my stride (cope with things as they happen)				
12. I like myself				
13. I feel that I can handle many things at a time				
14. I am determined				
15. I have self-discipline				
16. I keep interested in things				
17. I can usually find something to laugh about				
18. My belief in myself gets me through hard times				
19. I can usually look at a situation in a number of ways				
20. My life has meaning				

	Strongly agree	Agree	Disagree	Strongly disagree
21. When I am in a difficult situation, I can usually find my way out of it				
22. I have enough energy to do what I have to do				
23. I have little control over things that happen to me				
24. There is no way I can solve some of the problems I have				
25. There is little I can do to change many of the important things in my life				
26. I often feel helpless in dealing with problems in life				
27. Sometimes I feel I am being pushed around in life				
28. What happens in the future mostly depends on me				
29. I can do just about anything I set my mind to				
30. I am good at schoolwork				
31. I find it easy to make friends				
32. I do well at sports				
33. I am happy with the way I look				
34. I behave badly at school				
35. I am happy with my weight				
36. I forget what I learn				
37. I have a lot of friends				
38. I am good enough at sports				
39. I am happy with my height				
40. I think I act in a sensible way				
42. I would like to change my hair				
43. I cannot work out problems				
44. I am popular with peers				

	Strongly agree	Agree	Disagree	Strongly disagree
45. I can easily do a new sport				
46. I would like to change my face				
47. I don't get into trouble				
48. I feel pretty sure of myself				
49. I often wish I were someone else				
50. I feel proud of myself				
52. I feel disappointed in myself				
53. I wish I could change a lot of things about myself				
54. I often feel like a failure				
55. I like being the way I am				
56. I feel like I'm going to be a success				
57. I often feel ashamed of myself				
58. I think pretty highly of myself				
59. I'm usually so bad at things, I feel like giving up				
60. I often feel like a loser				
61. I feel I'm as good as anyone else				
62. I wish I were a better person				
63.My classmates make fun of me				
64. I cause trouble to my family				
65. It is hard for me to make friends				
66. I am lucky				
67. I am cheerful				
68. I have many friends				

	Strongly agree	Agree	Disagree	Strongly disagree
69. People pick on me				
70. I like being the way I am				
71. My parents expect too much of me				
72. I am a dreamer				
73. I often offer to help at school				
74. I am a leader in sports and games				

Please tick the box that describes you best					
	Never true	**Hardly ever true**	**Sometimes true**	**Often true**	**Always true**
1. I feel that I am a person of worth, at least as good as others					
2. I feel I have a number of good qualities					
3. I am able to do things as well as most other people					
4. I feel I do not have much to be proud of					
5. I take a positive attitude towards myself					
6. At times I think I am no good at all					

School

Please read each statement or question carefully and tick the box that describes you best	Always	Mostly	Sometimes	Occasionally	Never
1. I feel I belong in this school					
2. I feel I am successful in this school					
3. I feel that I matter in this school					
4. I do not feel I am important in this school					
5. I feel a real part of this school					
6. People here notice when I'm good at something					
7. It is hard for people like me to be accepted here					
8. Other children in this school take my opinions seriously					
9. Most teachers here are interested in me					
10. Sometimes I feel as if I don't belong here					
11. There is at least one teacher or adult in my school I can talk to if I have a problem					
12. People in this school are friendly to me					
13. Teachers here are not interested in people like me					
14. I am included in lots of activities in my school					
15. I am treated with as much respect as other pupils					
16. I feel very different from most other children here					
17. I can really be myself at school					
18. The teachers here respect me					
19. People here know I can do good work					
20. I wish I were in a different school					
21. I feel proud to belong to this school					
22. Other children here like me the way I am					

	Always	Mostly	Sometimes	Occasionally	Never
23. How often do you come to class without pencil or paper?					
24. How often do you come to class without books?					
25. How often do you come to class without homework?					
26. How often do you feel bored in school?					
27. When I have an assignment to do, I keep working on it until it is finished					
28. I do extra work on my own in class					
29. I like school					
30. Most mornings, I look forward to going to school					
31. I like my classes this year					
32. I make friends with children in class					
33. I understand how to do my work in class					
34. I discuss ideas in class					
35. I feel that teachers like me					
36. The teachers care about my feelings					
37. I do group work in class					
38. I pay attention during class					
39. I answer questions during class					
40. My teacher helps me when I have problems with my work					
41. Teachers want me to do well in class					
42. I work alone instead of in groups					
43. I am ready to start class on time					
44. I ask the teachers questions					
45. Teachers treat me the same as other children in class					

	Always	Mostly	Sometimes	Occasionally	Never
46. Teachers are as friendly to me as to other children					
47. I work well with other children in class					
48. I understand my classwork					
49. In class, I help others with their work					
50. I think teachers like all the children in my class					
51. Teachers are fair to all the children in class					
52. I feel I am responsible for my learning					
53. I try hard, no matter how difficult the work					
54. When I fail, it makes me try harder					
55. I try to do my best in school					
56. I make sure I study on a regular basis					
57. I make a good effort					
58. I do my homework					
59. I look over work between classes					
60. I am organized					
61. I work hard in class					
62. I listen carefully in class					
63. I only miss school if I am ill					
64. I see school work as being important to my life					
65. I find ways to make school work interesting					
66. I think about school work at other times					
67. I really want to learn my work					
68. I take an active part in lessons					

	Always	Mostly	Sometimes	Occasionally	Never
69. I ask questions when I don't understand					
70. I have fun in class					
71. I join in actively in discussions					
72. I help other students					
73. I get good marks					
74. I do well in tests					
75. I am confident I can learn and do well in the class					
76. If some children are acting up in class, the teacher will do something about it					
77. When teachers make a rule, they mean it					
78. Children are given clear instructions about how to do their work in classes					
79. Children understand what will happen to them if they break a rule					
80. Teachers make a point of sticking to the rules in classes					
81. I feel like an outsider (or left out of things)					
82. I make friends easily					
83. I feel like I belong					
84. I feel awkward and out of place					
85. Other children seem to like me					
86. I feel lonely					
87. I do not want to go to school					
88. I feel bored					
89. I like to get things done on time					
90. I like to be a good student					
91. I like to learn new things at school					

	Always	Mostly	Sometimes	Occasionally	Never
92. I like to pass my tests					
93. I like to get high marks in every subject					
94. I would like to get high marks to do a course at university					
95. I like to get better marks than my friends					

Please read the following questions on school safety and then tick the correct answer		
	Yes	No
1. Has anyone at school threatened to beat you up or hurt you if you didn't give them money?		
2. Has anyone actually beaten you up or really hurt you while you were at school?		
3. Have you ever brought something to school to protect yourself?		
4. Have you been afraid that someone will hurt you or bother you at school?		
5. Has anything worth more than a pound been stolen from your desk or locker at school when you weren't around?		
6. Has anyone offered or tried to sell you drugs at school?		

Has anyone bullied you in school THIS TERM in the ways listed below? Please tick the box that shows how often this has happened.	**Never**	**Once or twice**	**About once a week**	**More than once a week**
1. Made fun of you because of your religion or race				
2. Made fun of you because of the way you look or talk				
3. Hit, slapped or pushed you.				
4. Threatened you				
5. Spread rumours or mean lies about you				

	No	**Sometimes**	**Yes**
1. There are lots of drugs at school			
2. There are lots of gangs at school			
3. School is a dangerous place			
4. I feel scared at school			

How often do you have trouble:					
	Every day	**Several times a week**	**About once a week**	**Occasionally**	**Never**
1. Getting along with teachers					
2. Paying attention in school					
3. Getting homework done					
4. Getting on with other children					

Read the question below and then tick the box to show how you feel		
	Yes	**No**
Would you like to leave school as soon as possible?		

Please read each statement carefully and tick the box that describes how you feel. **Each sentence starts with the words "SCHOOL IS A PLACE WHERE……..**					
School is a place where…..	**Always**	**Mostly**	**Sometimes**	**Occasionally**	**Never**
1. I like to be					
2. I feel happy					
3. I really like to go each day					
4. I get enjoyment from being there					
5. I have a lot of fun					
6. I always miss very much					
7. I want to go even on holidays					
8. I feel helpless					
9. I feel threatened					
10. I feel neglected					
11. I feel upset					
12. I feel worried					
13. I feel restless					
14. I feel lonely					

Please read each statement carefully and tick the box that describes how you feel. **Each sentence starts with the words "SCHOOL IS A PLACE WHERE …..**					
School is a place where ….	**Always**	**Mostly**	**Sometimes**	**Occasionally**	**Never**
1. Teachers treat me fairly in class					
2. Teachers help me solve problems					
3. Teachers are fair to me					
4. Teacher help me patiently					
5. Teachers help me do my best					
6. Teachers take an interest in helping me with my work					
7. Teachers listen to what I say					
8. I am popular with other children					
9. Other children accept me as I am					
10. Other children are very friendly					
11. People look up to me					
12. People trust me					
13. I get on well with other children in my class					
14. Other people care what I think					
15. What I learn will help me in my future career					
16. I will get help to fit in to society					
17. The work is a good preparation for my future					
18. The things I learn will help me in secondary school					
19. What I learn will be useful to me when I leave school					
20. I get excited about the work we do					
21. I like to do extra work					
22. The work we do is interesting					

School is a place where ….	Always	Mostly	Sometimes	Occasionally	Never
23. I enjoy what I do in class					
24. Learning is fun					
25. I always do work that really interests me					
26. I know I can do well enough to be successful					

We would like to know what you think about moving to secondary school. Please read each statement and then tick the box which describes how you feel.					
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. I think my new school will be really interesting					
2. I think I will do well at my new school					
3. I am worried about going to my new school					
4. I wish I could stay at this school for another year					
5. I am excited about going to my new school					
6. The idea of going to my new school scares me					
7. I feel OK about doing homework at my new school					
8. I think the work will be quite easy at my new school					
9. I worry that I won't be with my friends when I move school					
10. I think I will work hard at my new school					
11. I am looking forward to going to my new school					
12. I think the teachers will be stricter at my new school					

14. I have a brother/sister at my new school. (Please tick the correct box below)

Yes ☐ **No** ☐ **Not sure** ☐

THANK YOU FOR TAKING PART IN THIS SURVEY

Appendix 5.15: Cronbach alpha calculations for questionnaires 1-4

Reliability of questionnaire items: all phases

Cronbach's Alpha Simple and Standardized

Named Test or Variable Measured	Cronbach's Alpha	Cronbach's Alpha based on Standardized Items	No. of Items
People in My Life			
Phase 1	.882	.882	
Phase 2	.879	.879	28
Phase 3	.896	.896	
Phase 4	.911	.913	
Trust			
Phase 1	.584	.599	
Phase 2	.619	.629	4
Phase 3	.722	.726	
Phase 4	.699	.707	
Parental Involvement			
Phase 1	.726	.750	
Phase 2	.680	.768	11
Phase 3	.730	.821	
Phase 4	.745	.818	
Social Capital			
Phase 1	.660	.670	
Phase 2	.630	.627	14
Phase 3	.694	.694	
Phase 4	.654	.648	
Social Capital (Religion)			
Phase 1	.710	.710	
Phase 2	.659	.648	4
Phase 3	.733	.716	
Phase 4	.694	.672	
Students Life Satisfaction Scale			
Phase 1	.834	.849	
Phase 2	.835	.850	7
Phase 3	.850	.863	
Phase 4	.857	.872	

Resilience			
Phase 1	.866	.868	
Phase 2	.893	.895	15
Phase 3	.895	.898	
Phase 4	.890	.892	
Locus of Control			
Phase 1	.544	.538	
Phase 2	.690	.684	7
Phase 3	.782	.776	
Phase 4	.801	.796	
Self-perception Profile for Children			
Phase 1	.813	.819	
Phase 2	.838	.844	17
Phase 3	.854	.860	
Phase 4	.866	.872	
Washington SDQ			
Phase 1	.899	.899	
Phase 2	.910	.911	
Phase 3	.923	.923	15
Phase 4	.932	.931	
Young People's Self-Description			
Phase 1	.744	.756	
Phase 2	.738	.761	12
Phase 3	.750	.774	
Phase 4	.753	.782	
Rosenberg Six-Item Scale			
Phase 1	.737	.748	
Phase 2	.755	.769	6
Phase 3	.852	.853	
Phase 4	.842	.848	
School Connectedness			
Phase 1	.765	.777	
Phase 2	.751	.775	4
Phase 3	.793	.819	
Phase 4	.781	.808	
Psychological Sense School Membership			
Phase 1	.897	.903	
Phase 2	.891	.897	18
Phase 3	.899	.906	
Phase 4	.916	.920	
School Commitment (Lee and Smith)			
Phase 1	.704	.702	
Phase 2	.751	.748	4
Phase 3	.811	.814	
Phase 4	.812	.815	

School Bonding (Battin-Pearson)			
Phase 1	.756	.753	
Phase 2	.714	.714	5
Phase 3	.700	.706	
Phase 4	.738	.733	
Perceived Classroom Environment			
Phase 1	.918	.919	
Phase 2	.929	.932	20
Phase 3	.936	.941	
Phase 4	.944	.946	
Academic Motivation (Dika)			
Phase 1	.784	.790	
Phase 2	.797	.801	4
Phase 3	.859	.862	
Phase 4	.842	.846	
Engagement (Skills)			
Phase 1	.832	.845	
Phase 2	.825	.839	8
Phase 3	.877	.891	
Phase 4	.870	.882	
Engagement (Emotional)			
Phase 1	.835	.840	
Phase 2	.806	.813	4
Phase 3	.849	.854	
Phase 4	.836	.845	
Engagement (Participation)			
Phase 1	.785	.797	
Phase 2	.779	.783	4
Phase 3	.848	.851	
Phase 4	.801	.803	
Engagement (Performance)			
Phase 1	.833	.838	
Phase 2	.832	.841	4
Phase 3	.849	.862	
Phase 4	.868	.875	

Total School Engagement			
Phase 1	.929	.933	
Phase 2	.932	.937	20
Phase 3	.947	.950	
Phase 4	.943	.947	
School Discipline	.849	.851	
Phase 1	.874	.874	5
Phase 2	.888	.888	
Phase 3	.913	.914	
Phase 4			
PISA Measure of School Belonging			
Phase 1	.823	.826	
Phase 2	.776	.783	8
Phase 3	.830	.832	
Phase 4	.846	.851	
Educational Goals (Motivation)			
Phase 1	.772	.816	
Phase 2	.758	.812	7
Phase 3	.727	.792	
Phase 4	.826	.853	
School Safety (Brand et al.)			
Phase 1	.555	.580	
Phase 2	.640	.664	6
Phase 3	.611	.647	
Phase 4	.591	.613	
Bullying			
Phase 1	.817	.814	
Phase 2	.785	.784	5
Phase 3	.752	.747	
Phase 4	.743	.737	
School Danger (Murray & Greenberg)			
Phase 1	.398	.397	
Phase 2	.517	.588	4
Phase 3	.560	.596	
Phase 4	.586	.598	
School Safety and bullying			
Phase 1	.799	.786	
Phase 2	.795	.803	15
Phase 3	.757	.781	
Phase 4	.787	.796	
Total school safety			
Phase 1	.619	.628	
Phase 2	.650	.707	10
Phase 3	.638	.694	
Phase 4	.680	.710	

Classroom Behaviour			
Phase 1	.933	.933	
Phase 2	.939	.939	4
Phase 3	.833	.831	
Phase 4	.934	.935	
Views on Primary School			
Phase 1	.813	.823	
Phase 2	-	-	12
Phase 3	-	-	
Phase 4	-	-	
Attitude to Changing School (pre-transfer)			
Phase 1	.727	.744	12
Phase 2	.731	.756	
Phase 3	-	-	
Phase 4	-	-	
Attitude to Changing School (post-transfer)			
Phase 3	.783	.800	12
Phase 4	.826	.823	
Quality of School Life (combined)			
Phase 1	-	-	
Phase 2	.941	.945	40
Phase 3	.952	.957	
Phase 4	.955	.959	
Quality of School Life (general)			
Phase 1	-	-	
Phase 2	.831	.844	14
Phase 3	.831	.856	
Phase 4	.842	.860	
Quality of School Life (specific)			
Phase 1	-	-	
Phase 2	.937	.941	26
Phase 3	.948	.954	
Phase 4	.956	.960	