Constructing Stage-Environment Fit:
Early Adolescents' Psychological Development and their Attitudes Towards School in English Middle and Secondary School Environments

This dissertation is submitted for the degree of Doctor of Philosophy

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Abstract

This longitudinal multiple methods study explored potential associations between early adolescents' attitudes to school, perceptions of school life and transfer, home and peer relations, and early adolescent development over the course of a school year. It studied two groups of UK 11 and 12 year olds (Year 7): one in a middle school (age range 8–13 years) without transfer at age 11 and the other in a secondary school (11–16 years) where transfer from primary school had just occurred.

Pupils' attitudes to school were surveyed across the Year 7 cohort in each school at the beginning (N=252) and end (N=262) of the school year. The initial survey facilitated selection of two matched groups of target pupils (N=20) who were engaged in an active participation method designed to improve validity. Data on perceptions of school and growing up were gathered in 80 interviews, 40 audio diaries, 42 hours of participant observation and by 63 targeted observations across three school terms. An end of year survey assessed the attitudes of the target pupils and their year groups.

Qualitative data were analysed inductively using grounded theory coding procedures which uncovered early adolescent needs that mismatched with many design features of secondary schooling. Of particular developmental offence were impersonal teachers and lessons that were non-practical, without opportunity for independent learning and unsupervised skills building and that were irrelevant to adolescents' career identities.

Analysis of the quantitative survey data using multivariate procedures identified attitudinal factors congruent with previous research, while multiple regression showed overall attitude to school was best predicted by perceptions of teachers and enjoyment of lessons rather than by adolescent developmental factors. Cluster analysis identified four pupil types validated by the target pupil findings. Of these the *autonomy seekers* had the most freedom outside of school and the greatest decline in attitudes across the year.

The findings assisted generation of new theory incorporating concepts of *maturity status markers* and *focal contexts*. School transfer was found to impel an ecological transition across multiple developmental contexts which increased pupils' maturity self-perceptions, yielding mixed developmental implications. Using Bronfenbrenner's (1979) ecological systems framework as an analytical tool facilitated interpretation of the emergent themes in relation to Eccles & Midgley's (1989) US-based theory of 'Stage-Environment Fit'. The findings support the application of a modified Stage-Environment Fit theory in English schools.

Acknowledgements

I firstly thank my supervisor Dr Linda Hargreaves for her academic mentorship. Without Dr Hargreaves' support, enthusiasm and skill, this project would not have occurred. Her help in providing research and teaching opportunities has also been fundamentally important for my development as an academic. Dr Hargreaves has assisted me selflessly throughout the PhD journey and has always taken the time necessary to scaffold my thinking and writing skills. In an increasingly fast paced world I believe this is crucial to maintaining and improving the intellectual quality of early career researchers. I cannot imagine having a better supervisor.

My advisor, Dr Ros McLellan, has also greatly helped me with her thoughtful discussion of the concepts and techniques used in the doctorate.

The National Middle Schools' Forum are a professional body of middle school headteachers who actively support the development of middle years schooling. They have shared their resources with me with the hope that I might bring further knowledge about how middle schools interact with early adolescent development. They have opened the doors to their conferences and steering committee meetings to me, allowing me to learn much about the pragmatic qualities, political struggles and overarching aims of providing schooling that is fit for early adolescents. I hope that this provision of a detailed picture of early adolescent development will be useful to them in their specialism as middle years educators.

The two schools who participated in the project were supportive and reliable throughout, and endowed me with trust and privilege in allowing me to enter their environments for fieldwork. A special thanks must be given to the headteacher, science teacher and head of Year 7 of one school and to the vice principal and administrator of the other. I also thank the Year 7 pupils in those schools who answered my survey questions. From these, the active participants were of the most importance. For sharing their perceptions with me, for their enthusiasm and desire to change schools for the better, and for their friendship, I thank (in no particular order) Matthew, Chloe, Kevin, Jacob, Ruby, Stacy, Sam, Billy, Brian, Charlie, Bobby, James, Yasmin, Joanna, Deirdre, Alex, Lauren, Ayesha and Gus.

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Finally I must thank my family for their selfless support of my studies. They are my fiancé Tomás Ryan, my mother Karen Symonds and my father Martin Symonds. There would be no journey without them.

Declaration of Originality

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except where specifically indicated in the text. It is not substantially the same as any than I have submitted or will be submitting for a degree of diploma or other qualification at this or any other University.

Statement of Length

This dissertation is 79,197 words in total including headings but not including appendices, primary source material, footnotes and references.

"School brings education, school does bring friends. It's not as fun as you could have when you're outside the school with your friends"

Stacy, age 12, June 2007

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Why study attitude to school?

It may be true that English school pupils have on average high achievement, and do well on achievement tests internationally. Out of 36 countries in the Trends in International Mathematics and Science Study (TIMMS, 2007), English pupils came 5th for Science and 7th for Mathematics, and were most improved for mathematics between 1995 and 2007. The only countries ahead of England (with the exception of Hungary for mathematics) were in the Orient (Korea, Singapore etc).

However, only around half of English pupils actually enjoy going to school most days. Since 2007, a nationally representative sample of English school pupils in Year 6 (age 10/11), Y8 (age 12/13) and Y10 (age 14/15) have shared their views in the Office for Standards in Education, Children's Services and Skills' (OFSTED, 2008) annual survey, 'TellUs' (Table 1). This reveals a large minority of pupils who enjoy school only sometimes, or never.

Table 1. Results from OFSTED's National Survey of English Pupils

Study	2007	2008	2009
N.	111,325	148,988	
I enjoy school…			
Always	*Merged in report*	8%	
Most of the time	58%	42%	
Sometimes	**34%**	**43%**	
Never	**9%**	**1%**	

English pupils' enjoyment of school is fairly low internationally, when comparing results across 35 countries in the most recent Health Behaviour in School Aged Children (HBSC) survey (Currie et al., 2008). A secondary analysis of this published data reveals that the total percentage of pupils aged 11, 13 and 15 who reported liking school *a lot* in comparison to a bit, not much and not at all, was 19%. This places England at the bottom of the third lowest quartile at 25th place, far below Ireland (18th), Scotland (15th) and Wales (13th).

If examining enjoyment of school by age, a clear downward trend is visible for pupils in most countries, with a sharp drop between the attitudes of 11 year olds and 13

year olds (Figure 1[1]). There is no visible difference between genders. Therefore if separating the scores of Y6, Y8 and Y10 pupils in the OFSTED surveys, it is likely that a downward trend in attitudes would be apparent, revealing a clear majority of pupils who like school only *sometimes* or *never* in the lower secondary school years. In the HBSC survey, the sharp drop after age 11 may relate to school structures, for in many countries 11 year olds are still in some form of primary education whilst 13 year olds have transferred schools to begin lower secondary education (Greenaway, 1999).

Figure 1. Declining attitudes to school internationally at ages 11, 13 & 15 (N. 973,836)
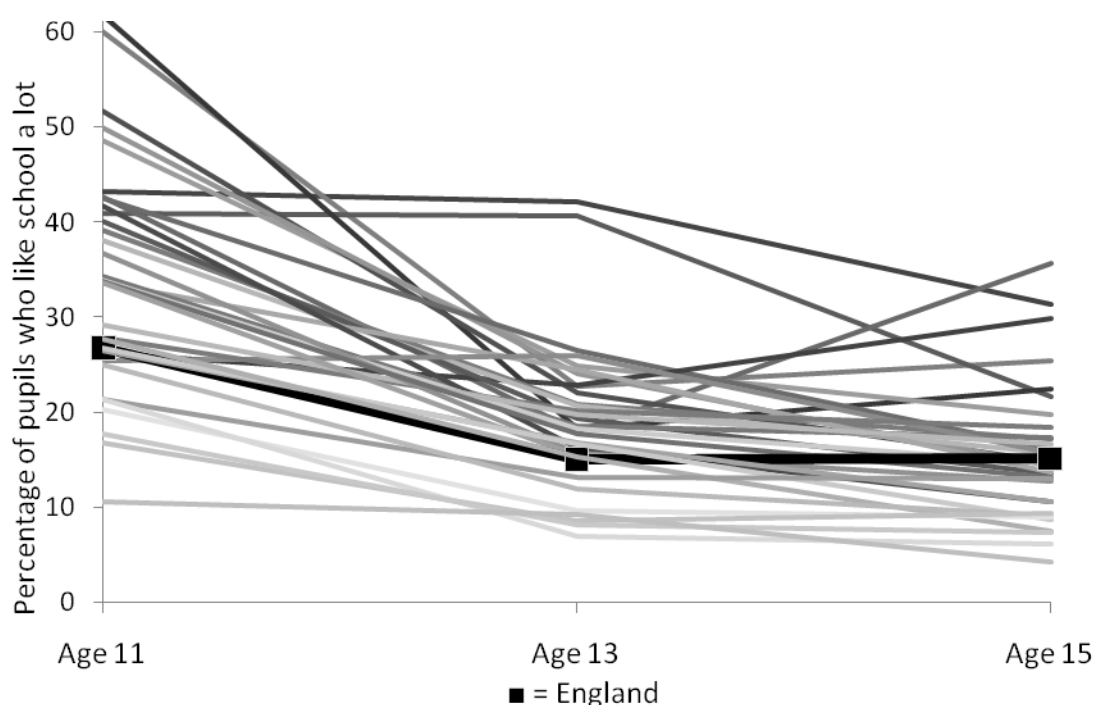
NB the two high scores at age 13 are Norway and the Netherlands.

The four rising scores at age 15 are Slovenia, Hungary, Austria and Malta.

In England, the Leicestershire county council's annual survey of schools (Esat & Howson, 2008a, 2008b) has results that allow for a cross-sectional examination of attitude to school from five to eighteen years of age (Figure 2). Here, attitudes were stable and high across primary school. However, pupils in secondary school had far lower attitudes than

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[1] Macedonia was omitted from the analysis due to its unusually high scores – these are almost 20% above other countries and may be due to sampling or measurement error, or to observed differences.

pupils in primary school. Attitudes to secondary school decreased between each year group until the school leaving age of 15. Those who had stayed on in 6th form appeared to enjoy school more.

Figure 2. Declining attitudes to school in Leicestershire (N.29,049)
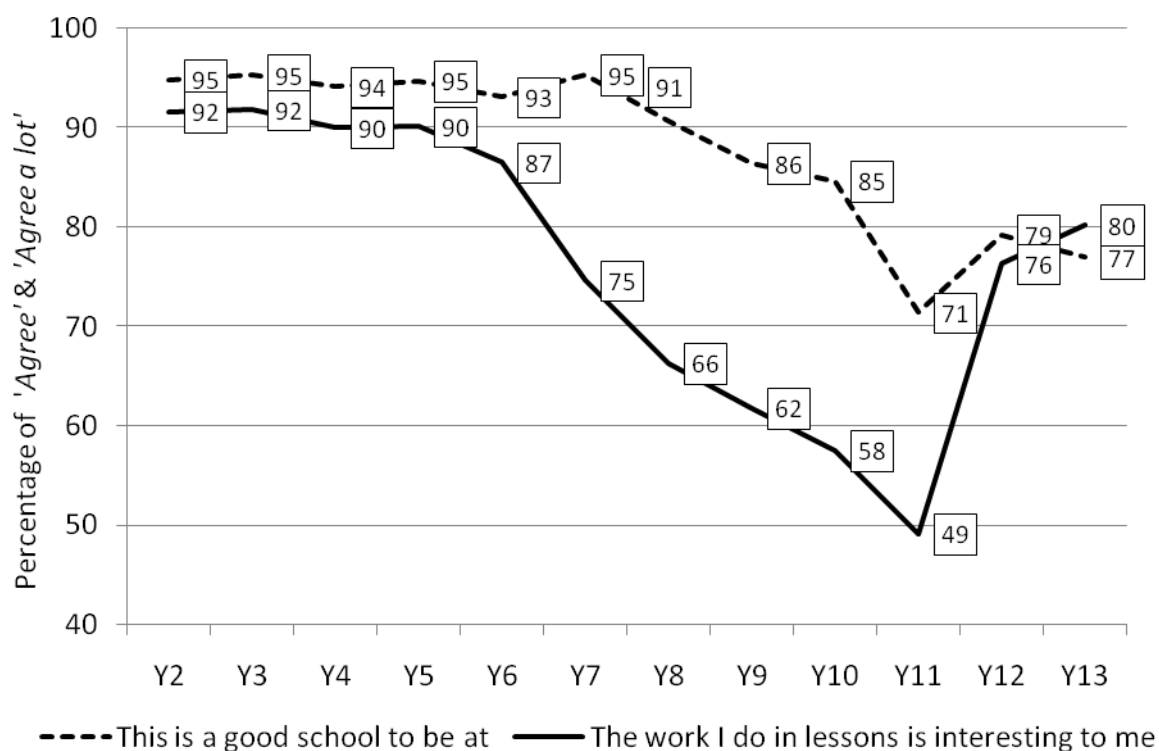
These findings are evidence of an important psychological phenomenon that is commonly appearing internationally in formal secondary school settings. Once children move to secondary school in early adolescence (age 10-14), their attitudes to school decline. This phenomenon is the focus of this report.

Studying attitude to school is potentially useful for improving the experiences of the nearly one and a half million young people in England aged 11-15 in the state schooling system[2] who, with respect to the OFSTED findings, are likely to only enjoy school sometimes or never. It is important to understand why these young people often dislike school, as their perceptions are likely to be a good predictor of their engagement with education, more so than their teachers' evaluations (Skinner et al., 2008) or measurements of their ability, the schools' pedagogy or its curriculum (reviewed in

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[2] Half of the 2,863,690 English pupils aged 11-15 in the state schooling system (DCSF, 2008).

Hofman, Hofman, & Guldemond, 2001). Negative attitudes to school can mediate between instruction and academic outcomes (Hofman et al. 2001), and are commonly given as the foremost reason for why a pupil has dropped out of school (Catterall, 1998). In a systematic review of young people's perceptions of mental health (Harden et al., 2001), worrying about school work and teachers was the main source of stress reported by UK youth in 10 out of 12 studies. Therefore negative attitudes to school may be a portent of anxiety and depression: two mental health issues that, once they emerge during early adolescence, tend to persist across the life course (Gregory et al., 2007; Goodyer, 2008).

It is not just individuals who are affected, as those young people who dislike school throughout adolescence, may retain a negative impression of school as adults. If becoming parents, they may culturally transmit their attitudes to their children (Abrahamson, Baker, & Caspi, 2002), who then have a stronger likelihood of having more negative attitudes to school themselves (Spelman, 1979). Therefore discovery of why attitude to school declines throughout adolescence is important for risk prevention: for reducing achievement loss, school dropout, depression and anxiety and an ongoing cycle of attitude transmission between generations.

Why attitudes decline is a challenging topic, only part of which can be investigated in a doctorate. Therefore the crucial point of transfer into secondary school is isolated as a potentially rich source of information regarding attitude change. At this point, any perceived differences between the old and new school should be in sharp relief, and easily identifiable by the participants in the study. Pupils transferring into secondary school in England are commonly aged 11/12, and are experiencing the biopsychosocial transition into adolescence: a second factor that could provoke attitude change. A challenging, third factor for investigation is the interaction between these biopsychosocial changes and the alterations in school environment, that is hypothesised to be responsible for changing perceptions of school (Eccles & Midgley, 1989). When school environment does not meet the developmental needs of early adolescents, negative individual outcomes should ensue. This theory of Stage-Environment Fit forms the theoretical and analytical framework for the current investigation and is discussed later in detail. Fourthly, there is always the potential for an unknown factor to be influencing attitude change: something that has not yet been identified theoretically or empirically. All four potential influences on attitude change are considered in this report.

Figure 3. Four potential influences on declining attitudes
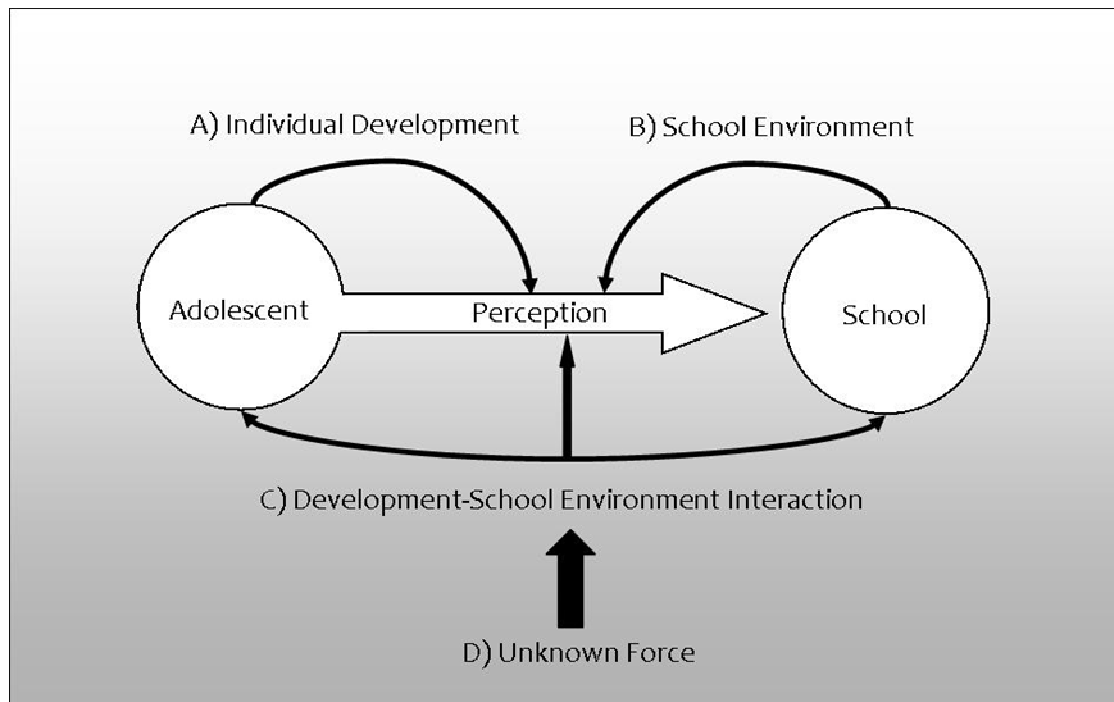
Measurement of attitude to school

Before reviewing attitude to school at transfer, and some known influences on attitude to school at early adolescence, it is necessary to discuss briefly how attitude to school is conceptualised and measured. Psychological research on attitudes defines them as "one's orientations to people, objects, and ideas" (Abrahamson et al., 2002, p. 1392). When considering school as an object of perception, it can be conceived of as an individual construct: an institution, a place to go to during the day, an experience. Measurements of school as an individual construct tend to be single items rated by an evaluative checklist such as 'I like school… a lot, a little bit, etc'… However, school can also be conceived of as an overarching construct, whose contents include experiences with teachers, work, other pupils, administration and physical environment. This type of measurement has been used since at least the 1940s (Tenenbaum, 1944). Multiple items measuring features of each domain are usually grouped together to form a scale of attitude to school. Such scales are constructed to have high internal reliability (as in Galton, Comber, & Pell, 2002).

The idea of 'orientation' towards something presents a challenge to researchers trying to study attitudes. What type of orientation is the issue, as multiple affective states exist for example, attributions of value (liking/disliking, perceived usefulness,

importance), self-perceptions in relation to the object (confidence, engagement, happiness, satisfaction), perceptions of relational links (attachment, solidarity) and behaviours (competitiveness, strictness) etc. Some measures tap into a range of perceptual phenomena (Galton et al., 2002), whilst others focus on single elements such as valuing schoolwork (Eccles et al., 1991b). Different perceptions of attitude to school have been formalised into specific psychological constructs, such as school climate, school engagement and school bonding (for reviews of each see respectively Anderson, 1982; Fredricks et al., 2003; Maddox & Prinz, 2003). Qualitative and ethnographic research explores the different positions that pupils might take towards school, such as the unconfident girl or the alienated boy (point made in Gray & McLellan, 2006). This tradition stems from studies such as Willis' *Learning to Labour* (1977) where boys from disadvantaged families constructed their attitude to school and resulting behaviours in a manner that allowed them only the option of a low status jobs after school, replicating their families' current social position. When measuring and interpreting findings on attitude to school, researchers should be aware of this range of attitudinal phenomena and self-constructions, and that it is unlikely that pupils' attitudes are ever represented completely.

Declines in attitude to school at transfer into secondary education

A meta-analysis of psychosocial changes at school transfer (Symonds & Galton, under review) was conducted for a larger study into school effects on early adolescent mental health (Gray et al., forthcoming). Attitude to school was one of the phenomena included in the meta-analysis. All studies identified in the literature that conducted pre- and post-transition surveys of attitude to school were screened for pre- and post-test comparability (having the same measures at each time point of data collection), plus the reporting of mean values, standard deviations and sample sizes so that they could be re-analysed to give effect sizes using Cohen's (1988) criterion. This yielded a total of three UK studies and three US studies. The raw data for Galton, Hargreaves & Pell (2003) which includes two samples transferring in different years (a & b) and Galton and colleagues' unpublished data from further study (Galton*) was obtained for secondary analysis with permission from Dr Tony Pell. A further data set was included through a secondary analysis of the Michigan Study of Adolescent Life Transitions data (gathered in

1983/1984). This was conducted with permission from Jacquelynne Eccles at the University of Michigan and is reported as 'Symonds with Vida and Eccles'.

Surveys of attitude to school were usually conducted in the final term of the pre-transition year, then at a single or multiple time point post-transition (commonly in first, second and third terms). Means, standard deviations and sample sizes were analysed to give effect sizes between the first and second time points of measurement, and between the third time point of measurement with the first. This gives a standardized representation of change. The valence of change between mean values is shown either as a positive or 'negative' effect respectively. One publication reporting on two cohorts of adolescents who moved schools in successive years is included as two studies (a and b), (Galton, Hargreaves & Pell 2003).

The meta-analysis finds that declines in attitude to school are common across school transfer (Figure 4), in both the US and UK, and across the past twenty years. Older studies not included in the meta-analysis also show declines at transfer (Youngman & Lunzer, 1977; Haladyna & Thomas, 1979).

Figure 4. Attitude to school across school transfer

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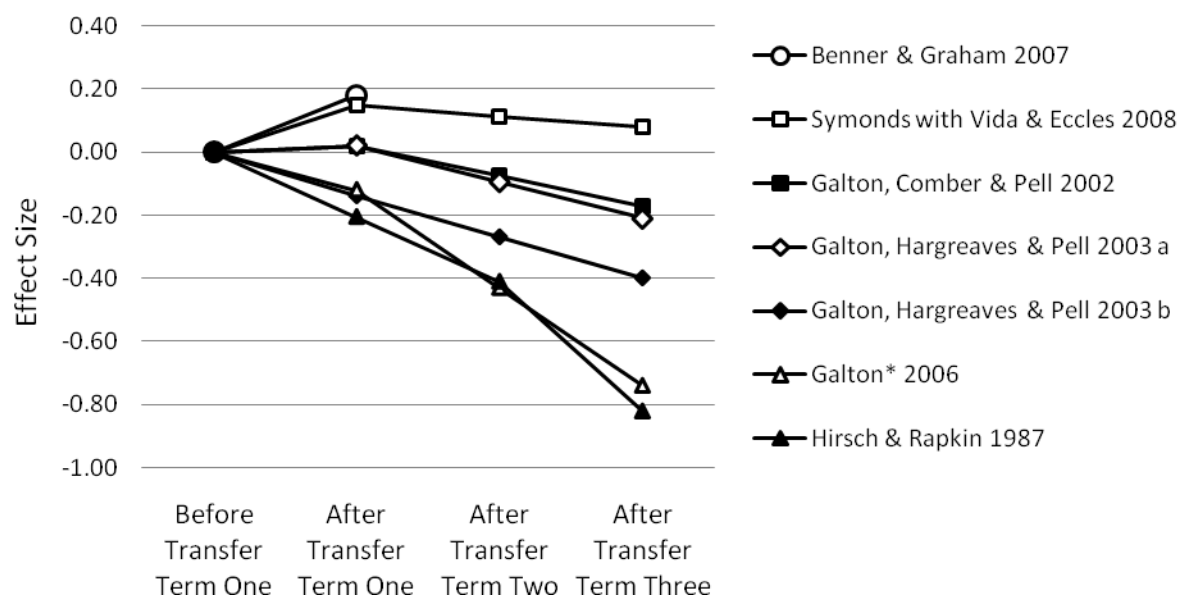
Table 2. Attitude to school effect sizes

Study		Scale (S) or Item (I)	N	CD 1	CD 2	CD 3
Benner & Graham	2007	Liking School (S)	807	0.18		
Symonds with Vida & Eccles	2008	I Like School this Year (I)	263	0.15	0.12	0.08
Galton, Comber & Pell	2002	Enjoyment of School (S)	281	0.02	-0.08	-0.17
Galton, Hargreaves & Pell a	2003	Attitude to School (S)	1315	0.02	-0.1	-0.21
Galton, Hargreaves & Pell b	2003	Attitude to School (S)	521	-0.14	-0.27	-0.40
Galton*	2006	Liking School (S)	70	-0.12	-0.43	-0.74
Hirsch & Rapkin	1987	Satisfaction with School (S)	159	-0.21	-0.41	-0.82
Largest effect				-0.21	-0.43	-0.82
Smallest effect				0.18	0.12	0.08
Range				0.39	0.55	0.90
SD				0.15	0.21	0.35
Mean				-0.01	-0.19	-0.38

CD = Cohen's D

When considering attitudes across the entire post-transfer year, further patterns are apparent. Galton et al. (2003) took measurements twice in the pre- and post-transfer years. Attitudes dipped immediately following the transition, then recovered slightly by the end of Year 7 but were still at lower levels than in primary school. When comparing their data set to one gathered previously by using similar measures, it was found that children's attitudes were lower in 2001 and 2002 than they had been in 1996.

Also for many studies there appears to be a 'honeymoon period' where children's attitudes are temporarily higher in the first term following transfer then decline throughout the year. Benner and Graham (2007) found that Grade 9 high school pupils liked their current school more than they had liked their middle school pre-transfer. Berndt and Mekos (1995) noticed that the amount of positive comments about learning and the new school environment were greater in the first term post-transfer, then decreased by the end of the post-transfer year. Cotterell (1986) also found that Year 7 pupils had less pessimistic views about their new school when in attendance, compared to pre-transfer.

The chance of there being a honeymoon period seems to relate to the type of school attended post-transfer. In Ireland, Spelman (1979) found that post-transfer gains in attitude to school and towards learning during the first term were apparent for pupils transferring into intermediate schools (with structures of two or so years before transfer to the final secondary school), whereas children transferring into vocational schools had lower perceptions. Jennings and Hargreaves (1981) observed that children who changed

into a middle school on the same site as their old primary school had more positive attitudes to their new school post-transfer, whereas those who transferred off-site to a secondary school had lower attitudes than at primary. These findings suggest that attitudes to school are affected by school structures, where schools with smaller age-spans (such as middle and secondary schools) promote higher initial attitudes on transfer.

Declining perceptions of individual subjects

Attitudes towards individual subjects, although showing a general pattern of decline, differ in their trajectories. Galton et al. (2003) found that the attitude towards English of 2521 children rose in the first term post-transfer but then declined throughout the second and third terms. Perceptions of the importance of English have also been found to increase post-transfer (Eccles et al. 1989). English appears to be quite enjoyed in comparison to other subjects (BECD 1975) such as mathematics (Eccles et al. 1989, Galton et al. 2003) and science (Galton et al. 2003). Despite finding a general trajectory of decline in attitudes towards reading, writing and mathematics across transfer in New Zealand, Cox et al. (2005) noted that perceptions of these subjects were reasonably positive. Therefore although declines are found worldwide, they do not usually convey how much adolescents are actually enjoying subjects.

Table 3. Perceptions of subjects effect sizes

Study			Item or Scale	Final Sample	Cohen's D	Effect Size
Attitude to English						
Galton, Hargreaves & Pell a	2003		Liking English	448	0.07	Negligible
Galton, Hargreaves & Pell a	2003		Attitude to English	435	-0.02	Negligible
Galton*	2006		Attitude to English	71	-0.02	Negligible
Galton, Hargreaves & Pell b	2003		Liking English	438	-0.04	Negligible
Galton, Hargreaves & Pell b	2003		Attitude to English	428	-0.06	Negligible
Symonds with Vida & Eccles	2008		I like doing English	2232	-0.1	Negligible
Symonds with Vida & Eccles	2008		Intrinsic value in English	2198	-0.12	Negligible
Rudolph et al	2001		Academic importance	187	-0.27	Small
Attitude to Mathematics						
Midgley et al	1989		Intrinsic value in mathematics	1301	-0.26	Small
Symonds with Vida & Eccles	2008		I like doing Mathematics	2256	-0.28	Small
Midgley et al	1989		Importance of mathematics	1301	-0.32	Small
Galton*	2006		Attitude to Mathematics	71	-0.44	Medium
Galton, Hargreaves & Pell b	2003		Liking Mathematics	995	-0.47	Medium
Galton, Hargreaves & Pell a	2003		Liking Mathematics	1486	-0.52	Medium
Attitude to Science						
Galton*	2006		Attitude to Science	71	-0.15	Negligible
Galton, Hargreaves & Pell a	2003		Liking Science	1238	-0.35	Small
Galton, Hargreaves & Pell a	2003		Attitude to Science	1190	-0.36	Small
Galton, Hargreaves & Pell b	2003		Attitude to Science	250	-0.53	Medium
Galton, Hargreaves & Pell b	2003		Liking Science	258	-0.56	Medium

Predictors of declining attitude to school

Investigations of attitude to school are primarily focused on uncovering the effects of school environment (force A) or of demographic characteristics (force D) on attitudes. Two well conducted studies are reviewed here in detail.

Research into the effects of broader structural components of schools in Germany (Hofman et al., 2001) has shown type of school (12%), class context (8%) and governance (8%) to be the most significant contributors to 11 and 12 year old pupils' overarching perceptions of school. School types considered were religious/non-religious, public/private; governance was the regularity of governors' meetings and their interactions with parents and other groups; class context was represented by emphasis on basic skills, degree of formally stated school rules, and type of pupil evaluation policies. Attitudes were better in non-religious private schools, where governance was of high quality, and where schools placed less emphasis on basic skills, formal rules and achievement monitoring.

In the US, McNeely, Nonnemaker and Blum (2002) analysed the effects of school and individual variables on the perceptions of school connectedness of around 83,000 adolescents aged 12-18 (surveyed in the National Longitudinal Study of Adolescent Health 1994-1995). School connectedness was measured with a five item scale (α .79) (*I feel close to people at this school, I feel like I am part of this school, I am happy to be at this school, the teachers at this school treat students fairly, I feel safe in my school*). Hierarchical linear modelling was employed to discover a set of significant predictors that explained 41% of the variance in school connectedness. These were demographic characteristics (two-parent families, ethnicity, ethnic homogeneity of school), discipline policies (lenient, modal and harsh policy climates), school size, extracurricular activity participation and perceptions of classroom climate (a five point scale). Teachers qualifications and class size had no effect in the model. Here, schools that were ethnically homogenous, that had liberal policies and more opportunities for extracurricular participation, were more likely to house pupils who felt connected to school.

The similarity between Hofman et al. and McNeely et al.'s studies is the fairly low amount of variance explained in attitudes when accounting for a wide range of demographic and systemic variables. More than half the reason for why attitudes were different across individuals was not explained by family or social backgrounds, perceptions of classroom climate nor by the measured structures of schools themselves.

In the OFSTED TellUs surveys, English pupils indicated which features of their school environments needed the most improvement in order for them to have better experiences in school. Table 4 shows the four most popular features (out of eight) and the percentage of pupils who checked them.

Table 4. Factors reported to be important for positive school experiences

Study	OFSTED 2007	OFSTED 2008
N.	111,325	148,988
What might help you do better in school?		
More fun/interesting lessons	79%	81%
More help from teachers	40%	39%
A quieter/better behaved class or group	40%	38%
Smaller classes/groups	36%	34%

Perhaps the OFSTED survey can give some clue as to why attitudes differ. Some adolescents may simply enjoy their subjects more than others, or have better relationships with teachers, no matter what demographic characteristics they or the

school have. Certainly, non-measured variables present a problem for the reviewed multivariate analyses. These include the potential influence of forces A and C: adolescent development and the interaction between development and features of schools.

Stage-Environment Fit: a mismatch between attitudes and development?

A review of pupils' motivation and school environment (Eccles, Midgley, & Adler, 1984) found commonly occurring declines in pupils' motivation throughout the elementary and junior high school years with sudden drops at 6 and 12/13 years, around the time of school transfer. Declines were proposed to result from transition into junior high school (JnHS) and high school (HS) environments that were characterised by greater bureaucracy, more teachers, less teacher-pupil relatedness, more authoritarianism, achievement grouping, more social comparison and less autonomy, and less challenging work. These environmental features were hypothesised to mismatch with pupils' developmental needs for achievement motivation.

Later termed 'developmental mismatch', this hypothesis was extended into the theory of Stage-Environment Fit (SEF) (Eccles & Midgley, 1989). Here, adolescent development and grade related changes in school environment are perceived as two trajectories. Psychological declines should result if these trajectories are unsynchronised. The trajectory of adolescent development was formalised into broad categories of change, and placed alongside common changes between elementary and JnHS environments (Table 5). Both of these trajectories appear to have emerged from the literature.

Table 5. Trajectories of adolescent development and changes in school environment

Early Adolescent Development	Post-Transfer School Environments
Increased desire for autonomy	Increase in extrinsic motivational strategies
Increased salience of identity issues	More rigorous grading practices resulting in lower average grades
Continuing need for safe environment in which to explore autonomy and identity	Increase in practices likely to incur social comparison
Increased peer orientation	Ability grouping
	Whole class instruction
Increased self-focus and self-consciousness	Normative performance grading
	Competitive motivational strategies
Increased cognitive capacity with movement toward formal operational thought	Increase in teacher concern with control
Physical and hormonal changes associated with pubertal development	Decrease in teachers' trust of students
	Decrease in opportunity for student participation in classroom decision making
	Decrease in student autonomy
	Decrease in teachers' sense of efficacy
	Initial decrease in the cognitive level of tasks

(from Eccles et al., 1989)

SEF was first empirically examined in the Michigan Study of Life Transitions (MSALT): a two year, four wave longitudinal study of around 2000 pupils transferring from elementary school (grade 6) to JnHS (grade 7). Evidence for changes in school environment was readily forthcoming. JnHS teachers reported being less efficacious, less likely to trust pupils, more likely to want to control them and to believe in ability as a fixed trait than their elementary school counterparts (Midgley, Feldlaufer, & Eccles, 1988). Pupils observed increased social comparison and competition and less teacher friendliness and support (Feldlaufer, Midgley, & Eccles, 1988) as expected.

However, explicit tests of SEF yielded mixed results. Three measures: pubertal status (representing physiological development), pupils and teachers' actual and desired levels of pupil decision-making in class (five items, representing autonomy), and perceptions of mathematics; were analysed against each other across time. A mean values analysis (Midgley & Feldlaufer, 1987) found that between elementary and JnHS, pupils had increased incongruence between actual and desired for opportunities to choose

'where to sit', 'homework' and 'what to do next'. However, their desire to choose classwork was stable across transfer and their desire to make rules declined. On average, pupils wanted more decision making opportunities than they were awarded at similar levels in elementary and JnHS. These patterns did not confirm SEF theory.

Miller (1986) created a decision making incongruence scale from the measure and analysed this at each wave (fall and spring of G6 and G7) to look for effects of pubertal level and timing on satisfaction with environment. Results were significant for girls only. Early maturing girls answered we 'can't' but 'should' to items more often than 'on time' and late developers. This pattern increased across transfer. However, the greater congruence for late maturing girls came from perceiving more we 'can' and 'should' decision making opportunities. Therefore late developers were more likely than early developers to perceive decision making opportunities in the same environments. Later discussion on Miller's work questions whether these perceptual differences arose from differential treatment of early maturing girls by their classroom teachers (Eccles, Lord, & Buchanan, 1996b), rather than from developmental mismatch.

However a third, more inductive, analysis found clearer evidence of SEF. When grouped by incongruence between actual and preferred levels of decision making, more pupils (73%) experienced incongruence when they were in JnHS, compared to when they were in elementary school (32%) (Mac Iver, Klingel, & Reuman, 1986). Interestingly this was caused by a variety of adaptive patterns identified in cluster analysis, not all suggesting a bad fit. A *constrained congruent* group (n.504) experienced and desired low levels of decision making throughout G7 whilst *relinquishers* (n.505) desired less and less autonomy over the year to fit with the restrictions of their environment. These groups exhibited positive intrinsic and positive adaptive SEF. Inversely, *aspirants* (n.234) experienced incongruence by increasing their desire for autonomy over the school year. The *stable constrained discrepant* group (n.312) experienced lower levels of autonomy than desired throughout G7, whilst *losers* (n.399) had stable desire yet experienced a loss of actual opportunities. The relationships between clusters and perceptions of mathematics is displayed in Figure 5.

Figure 5. Levels of decision making incongruence and valuing of mathematics
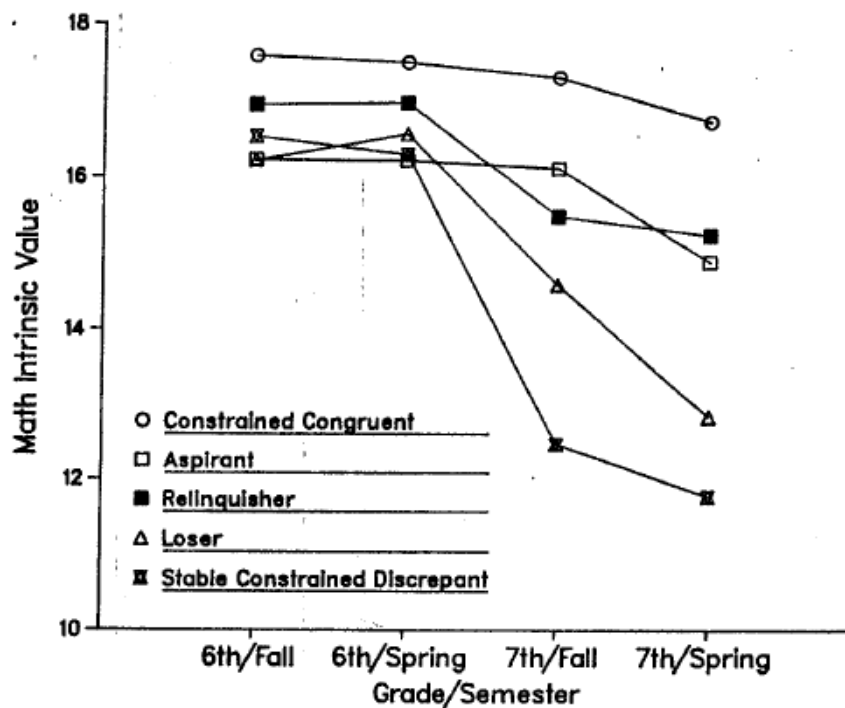
Figure 3. Effects of Seventh-Grade Cluster on Perceived Intrinsic Value of Math by Students who were Constrained Congruent in Sixth Grade.

(Figure from Mac Iver and Reuman 1986)

Figure 3 reveals a general decline in valuing of mathematics for all clusters. *Relinquishers'* attitudes dropped after transition into the more restrictive environment then stabilised by the end of the year, as they accepted their fate. Declining perceptions were steepest for pupils who constantly desired more autonomy than they were given (*stable constrained discrepant*) and who experienced a drop in decision making opportunities over the school year (*losers*). The highest, most stable attitudes were for adolescents who expected to learn in a controlling environment (*constrained congruent*). This study shows that pupils' attitudes are more positive if they readily accept the fixed nature of their setting, whilst attitudes decline if they are critical of their situation or experience a reduction in provision over time.

Since the 1980s, SEF has been discussed in numerous review articles by Eccles and colleagues (see Appendix). Some educational research studies have since used a SEF 'perspective' to examine links between perceptions of environment and positive psychological outcomes (McNeely et al., 2002; Zimmer-Gembeck et al., 2006), yet these are not developmental nor do they explicitly investigate SEF. In family research, Gutman

and Eccles (2007) recently tested SEF by comparing desired and actual family decision making allowances to mental health outcomes and delinquency. When adolescents perceived more opportunities for decision making at home they had higher self-esteem. Although this linked to reduced depression for African Americans, it was also related to increased depression for Caucasians. Explanation was that *fit* itself can vary depending on cultural context. In summary, to date, no tests of SEF in school settings have occurred since MSALT (1983/1984), and it appears that SEF has never been examined qualitatively.

Summary

Stage-Environment Fit presents a plausible hypothesis for why attitude to school may decline at school transition during early adolescence. A continuous mismatch between school environment and adolescent development throughout secondary school may well explain the increasingly negative attitudes observed internationally and in England. However this notion has never been tested qualitatively or outside of the US. Studies that test the effects of individual and school demographic characteristics find that these explain under half the variance in attitudes. Unmeasured variables such as adolescent developmental characteristics, and their interaction with school environment may help explain the remaining variance. The following chapter pays close attention to what is known about these characteristics, and to how they might interact with environments.

Ch. 2) Interaction Between Adolescent Development and School Environment

Early adolescent development

This review discusses changes that are noted to occur for individuals on their entry to and throughout early adolescence, before considering how these might interact with environment (underpinning school environment in particular). Information from both parts is used to inform the theoretical critique of Stage-Environment Fit theory at the end of the chapter. The next few sections are based on Hill's (1980) framework of early adolescent development. Here, three 'primary changes' are enforced by the body and environment. These are puberty, altered social expectations and roles, and cognitive changes. These beget six secondary changes in the psychological self system, in: attachment relationships, autonomy, sexuality, intimacy, identity and achievement. The notion that physical development and social expectations are determinants of psychological change is key in Hill's theory, as it is in my perspective. Yet my work with young people and experience of being a sentient, decisive individual convinces me that psychology is not just a product of external influences. Therefore I add to Hill's model the third influence of agency and review its potential relationship with development in the latter section. The first three sections cover Hill's primary changes but are ordered from the body out (puberty, cognition then relationships). The secondary changes of autonomy, attachment and intimacy are discussed in the relationships section. Then a section dedicated to self-perceptions and agency discusses changes in identity, self-esteem/self-concept, self-awareness and self-regulation. This part of the review ends with a critique on current perspectives of agency.

Puberty

Puberty is triggered by metabolic cues in the body and by social cues in the environment (Sisk & Foster, 2004). The average age of menarche in developed nations has reduced over the last century from an average 16 years old to 12.5 years, commonly attributed to increased nutrition in modern populations (Dahl 2004). This is not a novel development as it is estimated that Palaeolithic girls were childbearing by age 12/13 (Gluckman & Hanson, 2006). Another environmental factor linked to earlier pubertal onset in both genders is having an absent father (Bogaert, 2005). These studies indicate that pubertal

timing can be moderated by context. Certainly there is wide variation in the onset of puberty across individuals.

Pubertal changes begin with the release of three hormones from the hypothalamus. The growth hormone (GnRH) incurs the growth spurt. This begins in both genders across a four/five year age range, with girls starting earlier than boys (on average at age 10 versus 12) and reaching peak velocity sooner, before the growth spurt slows (Tanner et al., 1976). Girls grow slightly less than boys in total (on average 25cm versus 28cm) (Tanner et al., 1976). They tend to gain body fat during puberty whilst boys increase in muscle (Eccles, 1999). Androgen, another hormone, causes oily skin and pubertal hair to develop. The release of testosterone or oestrogen facilitates the development of the sexual organs and fertility (Gluckman & Hanson, 2006).

During puberty there are also changes in many other areas of the body including the heart, the cardiovascular system, the lungs, the muscles (Coleman & Hendry 1999) and the brain (Giedd et al., 1999). Recent experiments with rats observed the development of new cells in sexually dimorphic areas of the brain during puberty, triggered by gonadal hormones. The gender that evolved more cells in a particular region maintained a greater amount of cells in that region in adulthood. The implication for humans is that functional sex differences in the brain that are used in adulthood may emerge during early adolescence (Ahmed et al., 2008).

Cognitive and emotional change

Work on the adolescent brain over the last decade has revealed several important neuroanatomical changes. At around age 11/12, an increase in grey matter (synaptic density) occurs in the front temporal lobes then rapidly declines in a period of 'synaptic pruning' (Giedd et al., 1999). Potentially, the "environment or activities of the teenager may guide selective synapse elimination" (Giedd et al. 1999 p.863). Neural connections speed up as they become insulated by a fatty substance called myelin, facilitating the speed of information processing (Howard Jones et al., 2007). Increases occur in the executive function of selective attention, capacity for long term planning, voluntary response inhibition and working memory (Blakemore & Choudhury, 2006), allowing for the development of greater self-regulatory skills (McClelland et al., in press). This period of cognitive transformation may occur independently of puberty, for individuals who never experience puberty still develop adult cognition (Dahl, 2004). Sisk and Foster

attribute this independency to the governance of different "developmental clocks" (2004, p. 1043).

Changes in cognitive phenomena at adolescence are the basis of several historical stage theories of adolescent development. In the early 1900s, G. Stanley Hall described adolescence as a time of emergence of "higher...human traits", distinct from the primal, feral state of childhood (Brown & Saltman, 2005, p. 23). Vygotsky (1931/1986) proposed that "thinking comes to the fore" (p.188) at puberty, when the visual mental patterns of childhood transform to the linguistically enabled process of "thinking in concepts" (Vygotsky, 1931, p. 12). Information becomes thought of in the abstract and new, abstract concepts emerge as a result. The adolescent's new powers of abstraction create a fundamental shift in the way he or she perceives the world. Similarly, Piaget proposed that early adolescents think using possibility as a central rationale. This ability of *formal operations* emerges around age 11 and finalises by 15, beginning after the childhood period of *concrete operations,* where logical thought formation is organised around reality instead of possibility (Inhelder & Piaget, 1958).

Although executive functioning gradually increases in early adolescence (reviewed in Steinberg, 2002), emotional processing declines. When asked to correctly assign emotions of 'sad', 'angry', 'happy' or 'neutral' to faces, early adolescents (age 11/12) began to perform worse than children or older adolescents aged 18 and above. This decline in performance stabilised by age 15 (McGivern et al., 2002). Younger early adolescents (age 10 and 11) are found to have more varied daily emotional states than older adolescents and their emotional stability is found to increase across time (Larson et al., 2002). This study observed a decline in daily reports of positive affect and an increase in reports of negative affect between the ages of 10 and 16 with the pattern stabilising after age 16. Although reports of affect were positive on average during this period, those with more negative emotion had increased depression, behaviour problems and stressful life events. Early adolescence seems characterised by emotional instability, loss of emotional functioning and an increase in negative emotion.

Relationship development

Adolescence is a time of competing systems of autonomy and attachment, where individuals are in a dynamic process of moving from being 'cared for' to being 'care givers' (Allen & Land, 1999). This transition in social roles requires having greater autonomy, defined as the capability to think, feel and act independently (Russell & Bakken, 2002).

The question of how much autonomy is moderated by context as adolescents' desire for autonomy can be influenced by external forces such as peers, schools and the media (Zimmer-Gembeck, 2001). In many societies, autonomy is facilitated by increasing separation between adolescents and parents, and by increased proximity to peers.

Parents can play an active role in this process by allowing more unsupervised contact with friends (Eccles et al., 1996a). They may also facilitate autonomy in a process of joint construction where parents and youth negotiate freedoms and responsibilities (Young, Marshall, & Domene, 2008) such as gaining part time employment. In many traditional cultures in Africa, Asia and the Pacific, adolescents begin to sleep in single sex dormitories whilst in Western nations, parents may send them to boarding school (Shlegel & Barry, 1991). This separation from parents may also facilitate identity development (Russell & Bakken, 2002) by helping adolescents identify their individualism (Erikson, 1968).

In early adolescence, peer relationships begin to fulfil many different functions than in childhood, such as intimacy, feedback about social behaviours, social influence, attachment relationships and support (Allen and Land 1999). This can assist identity development (Erikson, 1968), and be important for self-esteem (West, Sweeting, & Young, 2008) and successful adaptation to new environments (Kurita & Janzen, 1990; Fenzel, 2000). The quality and extent of peer support increases linearly across adolescence (De Goede, Branje, & Meeus, 2009).

Early adolescents soon begin to desire peer interaction over and above spending time with parents (Blyth, Simmons, & Bush, 1978). This is manifest in time use and in communication quality. A brief secondary analysis of the Health Behaviour in School Aged Children survey (using published data in Currie et al., 2008) finds that across 36 countries, the average percentage of adolescents finding it easy to talk to their parents declines cross-sectionally with age, especially for girls with fathers whilst the average percentage of adolescents communicating electronically with friends every day increases (Figure 6). These general patterns are not visibly different between countries.

Figure 6. Adolescent communication with peers and family
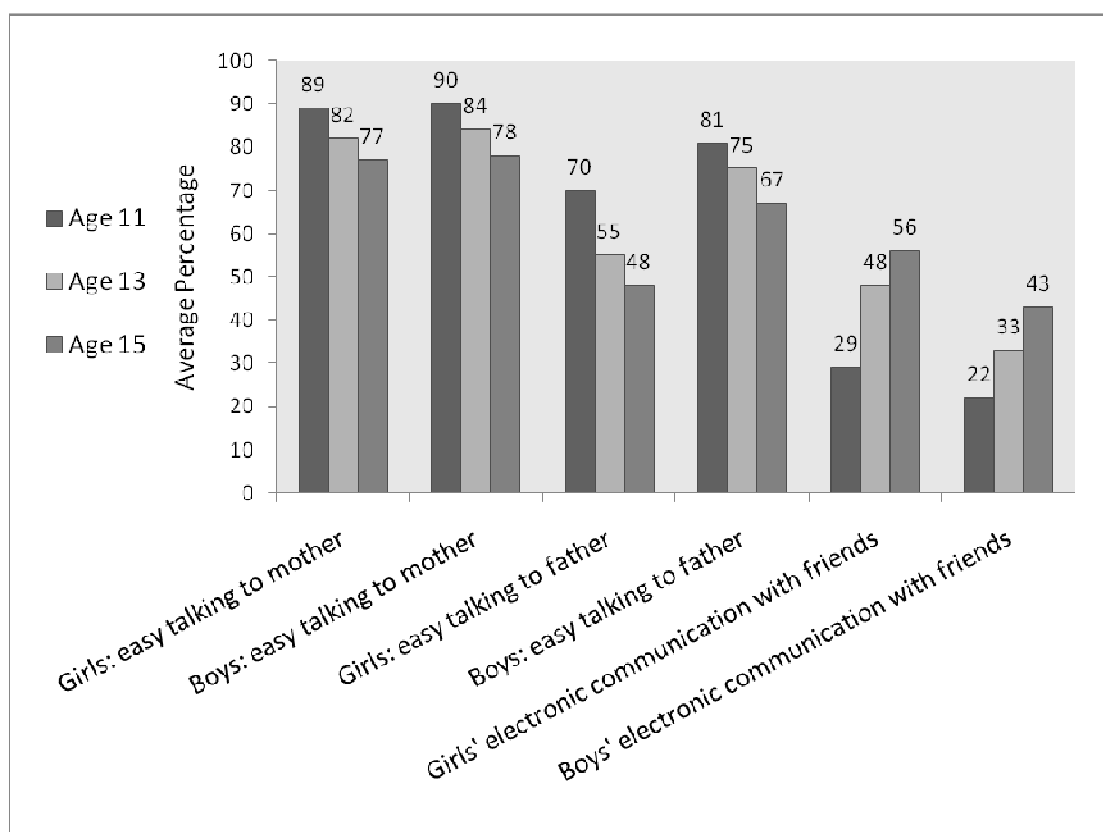
The secondary analysis also finds an increase in the average amount of adolescents who spent four or more evenings a week with their friends (Figure 7).

Figure 7. Adolescents' time spent with friends
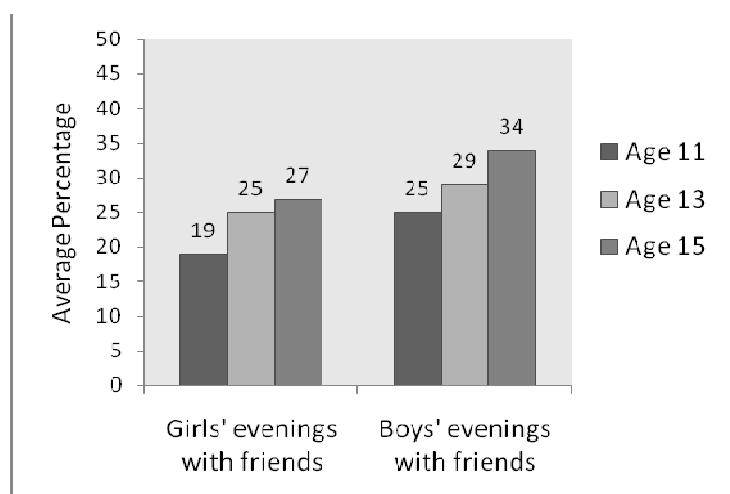
However, measurement of time spent with friends, families and alone in a US sample (Figure 8) finds that only girls increase in peer interaction with age, whilst boys spend increasingly more time alone (Larson & Richards, 1991).

Figure 8. Adolescent time use from Larson & Richards 1991, p.289
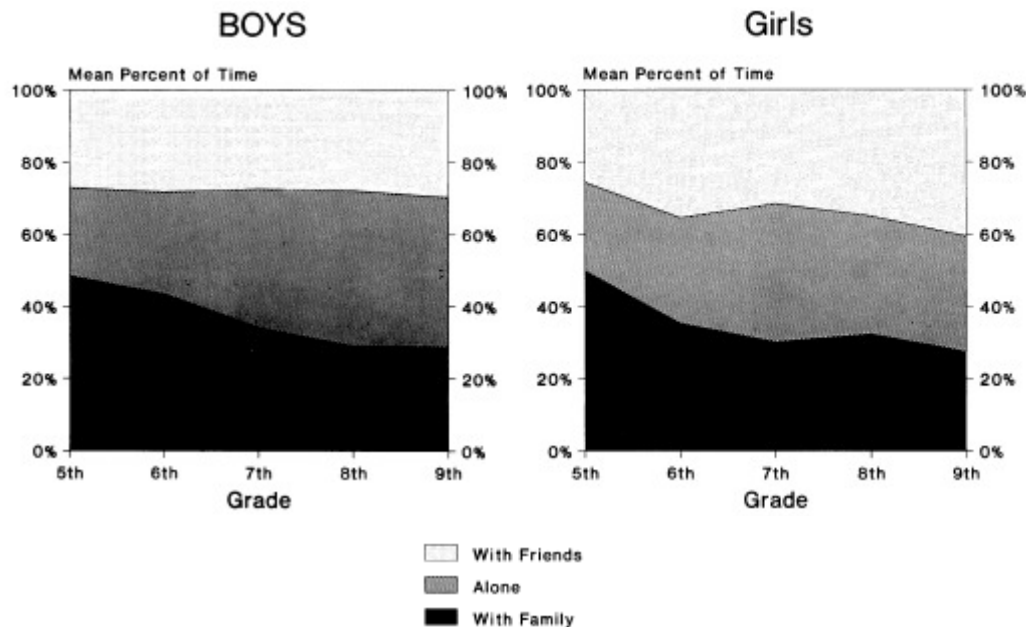
Larson and Richard's observed decrease in family time was only true for time with the entire family unit; there was no decrease in individual time spent talking with parents. This is important as having a stable, supportive bond with parents is prerequisite for positive development (Allen and Land 1999). Other studies document adolescents striving to maintain positive relationships with adults at home (Gilligan, 1991) and at school (Seaton, 2007). However the HBSC data indicates that this may increase in difficulty.

Peers are often thought to be the strongest socialisation agents during adolescence, as in oppose to families (reviewed in Coleman, 1992). However this may be true only of some societies and vary by gender. An anthropological meta-analysis of 176 societies worldwide concludes that peers are primary socialisation agencies for boys in 11 societies, and secondary agencies in 29, whilst are primary socialisation agencies for girls in one culture, and secondary agencies in 18 (Shlegel & Barry, 1991). Therefore, peers might only have considerable socialisation powers in around 20% of cultures internationally. Within these cultures, there may be developmental trends in how

influential peers actually are. Earlier studies show conformity with peers peaking around age 12 before a decline (Costanzo & Shaw, 1966) whilst modern research observes stability in peer influence during early adolescence then a linear decline between the ages of 14 and 18 (Steinberg & Monahan, 2007).

The review finds early adolescence to be a time of considerable change in relationships. A negotiated or enforced separation from parents begins to occur, and certain responsibilities (mainly independent supervision) begin to be transferred to the adolescent. Communication with parents is generally good but is better for 11 year olds than for those aged 13. Time spent with whole family units decreases, whilst peer interaction increases: both electronic and physical. Peer influence may be greatest at the beginning of early adolescence whilst these changes begin to occur. Perhaps the movement towards autonomy facilitated by these changes can also be observed in increased amounts of time spent alone and resistance to peer influence towards the end of early adolescence.

Changes in self-perception, agency and autonomy

The following section limits its review of psychological change in early adolescence to three key phenomena: identity, self-concept/self-esteem and agency, as self-perception and self-moderated activity are fundamental forces in shaping behaviour that might increasingly mediate social influence throughout adolescence.

Erikson (1968) perceived adolescence as the fifth stage of human development, where the ongoing task of identity development comes temporarily to the fore in an "identity crisis" (p.128). Here, adolescents are "preoccupied with what they appear to be in the eyes of others as compared with what they feel they are" and are confused in "how to connect the roles and skills cultivated earlier with the ideal prototypes of the day" (p.128). The process of finding an identity is thought to occur as four distinct phenomena (named in parenthesis) where individuals are not searching and are not committed to an identity (identity diffused), where they have made a commitment to an identity without exploring their options (foreclosed), where they are actively exploring yet have made no firm commitment (moratorium) or when they have explored their options and have made a rational choice of identity (identity-achieved) (Marcia, 1980). Early adolescents exhibit all four identity statuses, although the majority are commonly identity diffused or foreclosed (Archer & Waterman, 1983; Allison & Schultz, 2001). Therefore most early adolescents have not made a start on finding an identity, or have chosen a vocational goal

without having really explored their options. This was evident in my graduate teacher project where in a class of early adolescents (aged 11/12), the majority of boys wanted to be footballers or film stars, whilst girls were more uncertain.

Girls are generally more self-conscious than boys (Jones & Thornburg, 1985) and exhibit greater depression and anxiety especially if they have early pubertal onset compared to their peers (Ge, Conger, & Elder Jr, 1996; Natsuaki, Biehl, & Ge, 2009). Early maturing girls are particularly at risk for declining self-esteem at school transition (Petersen & Crockett, 1985; Simmons et al., 1987). These differences between early maturing girls and other adolescents are hypothesised to be a result of the interaction of early puberty and existing vulnerabilities (Ge, Conger, & Elder Jr, 2001a).

Self-esteem and self-concept are both measures of how confident adolescents are about themselves. Outward appearance in early adolescence is found to be the most significant predictor of overall self-esteem (Shapka & Keating, 2005). Global self-concept is found to be fairly stable across childhood then declines at school transfer in early adolescence (Wigfield & Eccles, 1994). Other studies have also noted sudden declines in self-concept (Youngman & Lunzer, 1977; Seidman et al., 1994) and self-esteem (Simmons et al., 1987) at school transfer. A decline in self-image is also noted post-transfer, after initial heightened perceptions fade (Galton et al., 2002). As discussed, these declines are most likely for early maturing girls. Other studies find that self-concept increases in non-transfer school environments (Eccles, Lord, & Midgley, 1991a) and across transition (Marsh et al., 1988; Chung, Elias, & Schneider, 1998; Fenzel, 2000). The inconsistency across findings is also apparent for studies of academic self-concept across early adolescence, which document declining, increasing and stable trajectories at school transfer (Figure 9) across the ages of 11 to 12 (Symonds & Galton, under review).

Figure 9. Academic self-concept at school transfer
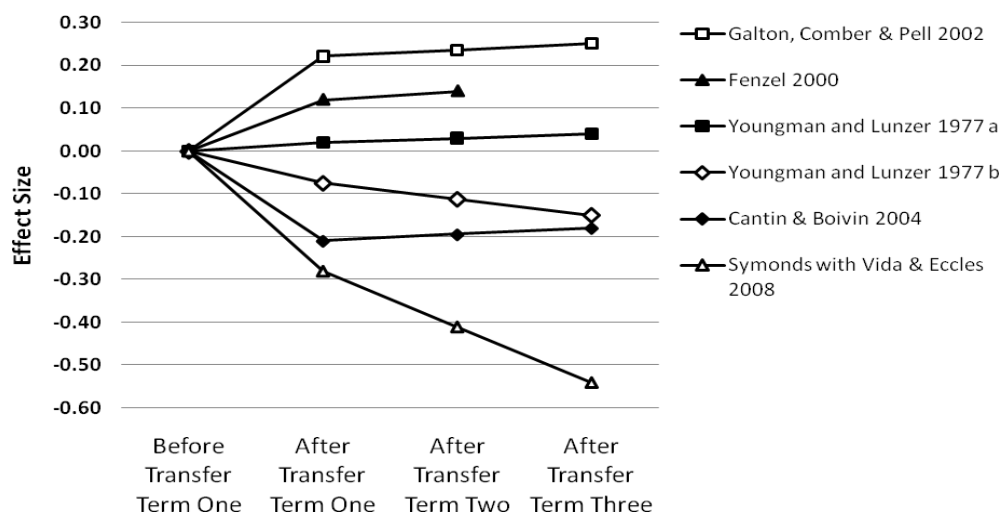
The variable trajectories of self-confidence perceptions in early adolescence between contexts and studies suggest that self-esteem/self-concept is vulnerable to social influence.

Although self-perceptions may change in content (i.e. construction of identity) and in confidence (i.e. feeling competent), little is known about the extent to which early adolescents might be more self-aware than children. Drawing on Piaget and Vygotsky's theories of increased conceptual ability it follows that early adolescents will also be able to form self-perceptions using a greater and deeper information base, and do so with more abstraction. Early adolescents may be able to *consciously* manage themselves better than children can. Warin and Muldoon (2009) move some way towards a definition of self-awareness in their critique of prior self-perception constructs such as identity and self-construct, by referring to it as "the availability of, or ability to maintain and expand, a rich, differentiated story of self" (p.293). They find that early adolescents want to 'be known' by others and take offence when their characters are misinterprete and theorise that this 'identity dissonance' assists a more accurate perception of self to develop. However this is simply another example of Erikson's observation that self is developed in relation to feedback from others. Warin and Muldoon mention nothing about how self-awareness might differ both qualitatively and quantitatively with development, an issue implied within their initial, well crafted definition.

During childhood and early adolescence, the maturation of cognitive capacities leads to increased functioning in inhibitory control, attention and working memory

(McClelland et al., in press). The self-directed management of these processes guide development is termed 'intentional' self-regulation (for a review of the construct see Gestsdottir & Lerner, 2008). In early adolescence, self-awareness may have a positive interaction with intentional self-regulation by better enabling adolescents to make conscious and informed choices about how they want to develop. This may increase individual agency. For example, the interaction between self awareness and intentional self-regulation appears to be a two way process. Adolescents have reported becoming aware of their strategic thinking skills for the first time when having to independently plan projects, as this necessitated thinking across contexts and of multiple possible outcomes (Larson & Angus, under review). Adolescents have also reported purposefully analysing other people's displays of emotion to inform their own emotional regulation skills and to increase their knowledge of how people react in different situations (Larson & Brown, 2007). Therefore the current use of intentional self-regulation to define agency by developmental psychologists (Zimmerman & Cleary, 2006, personal communication with Richard Lerner, July 2009) could be broadened to incorporate the deeper nature of agency as self-directed action, relating not only to regulatory functioning but also to the development of self-perceptions and awareness.

This development of agency may also have biological underpinnings from our mammalian ancestry, as indicated by a review of adolescent rodent behaviour (Laviola et al., 2003). Adolescence in rodents is defined as the time from when weaning stops, until adulthood. Periods of early, middle and late adolescence are categorised by the number of weeks between weaning, adulthood and the typical onset of puberty. Adolescent rodents have a larger dopamine storage pool than adults, enabling the release of larger amounts of dopamine in response to "environmental and/or pharmacological challenges" (p.21). In naturalistic settings, adolescent rats begin to explore further away from the nest: an activity that reduces the risk of inbreeding and mate competition with siblings. Two laboratory experiments by Laviola and colleagues examined novelty seeking behaviour. The first found that adolescent mice spent longer exploring a novel environment when one was presented to them, than did adult mice, and had higher levels of activity within that environment. The second found that mid and late adolescent mice were more likely to explore open and unprotected areas of an elevated plus-maze (a maze with open edges and enclosed spaces), whereas early adolescents and adults preferred to spend time in the closed and protected areas of the apparatus. These naturalistic and

experimental findings suggest that rodents are similar to their human counterparts in that they have increased psychological capability and impetus to explore new settings in adolescence, potentially driven by their desire to reproduce effectively. For a human, this task requires self-directed activity and self-management and is facilitated in early adolescence by the accentuation of intentional self-regulation and agency.

Agency is also found to be moderated by a variety of social influences. These include societal processes such as power and structure (Bourdieu & Passeron, 1977), and the influence of individuals who are close to the adolescents such as youth group leaders (Larson & Brown, 2007) and parents (Young et al., 2008) who can help with the joint construction of conditions to support agentic behaviour. Age-graded change in social contexts, for example school transfer, may enhance agency by raising expectations of self-responsibility, and by providing contexts where self-regulation abilities can be practiced (Gestsdottir & Lerner, 2008). Therefore the potential increases in self-awareness and self-regulation, and therefore agency, in early adolescence, are likely to develop as a jointly constructed process between individuals and the social world around them. Although individuals surely are "producers of their own development" (from Lerner, reviewed in Coleman & Hendry 1999); a phenomenon that has many biological underpinnings; this occurs in a manner that is dependent on social context.

Theoretically constructed development-environment interactions

Person-environment interaction and field theory
At the heart of how individuals develop in relation to their environments is Kurt Lewin's (1890-1947) 'field theory' of person-environment interaction. Lewin formalised this relationship as "behaviour (B) is a function of the person (P) and the environment (E), B=F(P,E)… P and E in this formula are interdependent variables" (1951:25 in Muuss 1996:126). Lewin understood present behaviour as a product of all person-environment interactions throughout the person's life so far. He called the entirety of person-environment interactions the 'life space' (LSp). Within the life space, biological, social and psychological factors interact in a 'psychological ecology' (Muuss 1996).

In adolescence, the life space becomes widely diffuse as the individual changes group membership from family to peers, and from child to adult. The life space contains multiple potential social goals (e.g. smoking pot, having sex, driving a car, homework) and has a lack of individual cognitive structure. Within the life space, the rapidly changing

body becomes unfamiliar and adolescents obsess over their physicality and how they are perceived by others (Muuss 1996). The links between body image and sexuality, attractiveness and adult-like status means that looking older facilitates the transition from child to adult, making it easier to get adult privileges. Until this transition is complete, adolescents remain as 'marginal men', in-between the status of child (C) and adult (A) (Muuss 1996).

Bioecological theory

Bronfenbrenner's bioecological theory was greatly influenced by Lewin's field theory (Muuss 1996). Certainly both built their theories on the notion that multiple contexts exist within a single environment. Secondly, both attributed the success of individual outcomes to the solidarity (and quality) of links between multiple systems. However, whilst Lewin saw behaviour as the product of person-environment interaction, Bronfenbrenner saw human development as the product (Muuss 1996). Bronfenbrenner includes the person twice in his conception of human development, firstly as a moderator of person-environment interactions and secondly as a result of these interactions (Bronfenbrenner, 2005). Bronfenbrenner proposes that development occurs as part of a 'process-person-context-time' (PPCT) model where the *process* of person-environment interaction, involves the *person* (and their characteristics) and the *context* (as nested levels described below) throughout *time* (Bronfenbrenner, 2005). Development at any given time is conceptualised as a product of all person-environment interactions that have occurred so far in the lifespan (Muuss, 1996).

In the PPCT model, environment is compartmentalised into four ecological systems: micro, meso, exo and macro (Bronfenbrenner, 1979). These systems interact reciprocally. Microsystems, or 'proximal' environments, are the immediate environment in which individual adolescents function. For example, peer groups, sports teams and families each constitute a 'microsystem' of interaction, in which the adolescent has a particular role to play. Together, these microsystems constitute the 'mesosystem' which can be conceived of as the adolescent's daily life. Bronfenbrenner proposes that the quality of the mesosystem depends on the quality of links between microsystems. For example, links between microsystems might be weakened when an adolescent prioritises one microsystem over another (e.g. peers over families), or when microsystems are separated by social practices (e.g. large urban schools from the individual family context). Links can also be weakened by conflicting values and behaviours between microsystems

(Muuss, 1996) (e.g. peers support autonomy yet parents do not). Weak linkages constitute an unhealthy meso system, full of developmental risk. Outside the mesosystem, schools, the local government and other overarching community arrangements constitute the exosystem. Decisions made on the exosystem level (e.g. school timetables, by the parent's employer) can influence individual development. The outer edge of ecology is the macrosystem which provides a "societal blueprint" for development (Muuss p.330). The macrosystem includes the national government, legal constitution, religious traditions and mass media as well as other wide scale systems. The macrosystem affects development through determining such things as the legal rights of the adolescent, the provision of food, medical care, and wider societal values.

Bronfenbrenner also identifies a fifth developmental context: the 'chronosystem' of change and continuity in environments through time (Bronfenbrenner, 1986). Changes in time are seen as transitions which can either be 'normative' (such as school transfer and puberty) or 'non-normative' (i.e. divorce). Bronfenbrenner notes that these transitions may have cumulative effects on developmental outcomes throughout the life course. Ecological transitions occur when a system (or all systems) undergo significant change. School transition is an example of change occurring in the microsystem of 'school', but also in the microsystem of 'peers'. It could be conceived that the entire microsystem of school is replaced onto itself in a new form. This incurs stress at the point of transition, and requires the links between microsystems to be modified. By this, the mesosystem as a whole is altered. Puberty could also constitute an ecological transition, when conceptualising the body as a microsystem in itself (much like in Lewin's field theory).

Bronfenbrenner's ecological systems are useful in that they segregate contexts, thus allowing us to isolate environment-development interactions within a particular 'unit of analysis' and to look for links between these units. However, what constitutes a 'unit' is entirely subjective given that we are studying social phenomena. As it may be that there are no determinable boundaries between social phenomena, neither can there be boundaries between micro, meso, exo and macro systems. Take for example a school. Even as this constitutes a microsystem in the adolescent's daily life, it can also be perceived as a mesosystem in itself as it is made up of different elements including peer interaction, classroom learning and break/lunchtimes. Perhaps a better manner of using the theory is to first look for and compare the factors that suggest separation between

environments before focusing the lens of research on a particular layer. Secondly, whilst what Bronfenbrenner suggests may 'feel' right to many of us living in a westernised society, this may result from the common practice of segregating our educational/work, recreational and home environments which may not be true of other cultures. For example, although historical hunter gatherer tribes, or tiny traditional island populations may have different microsystems such as peers and families, and thus a mesosystem, this might be the end of the structure with whole tribe decisions being made on the mesosystem level.

The holistic-interactionist model

A more universalistic model of person-environment interaction builds on Bronfenbrenner's ecological systems theory by dropping the notion of fixed micro and mesosystems etc, and by blending temporality with physicality in its definition of 'environment'. Environments are defined as either *distal* (such as overarching educational structures), *proximal* (everyday environments within these, such as home and school) or *immediate* (moment by moment social and physical experiences of the individual). This 'holistic-interactionistic' model (Magnusson & Stattin, 2006) assumes that every person-environment interaction is linked through levels of systems that operate within these nested environments. For example, an adolescent may be stressed by having to eat their lunch quickly to get to their next class on time (*immediate*) incurred by a tightly packed school timetable (*proximal*) determined by the board of governors' annual timetable meeting (*distal*).

The model further extends Bronfenbrenner and Lewin's by seeing biology as the continuous functioning of the brain and body (i.e. not fixed), appearing for example in every day emotions like stress. Psychology develops as the person subconsciously and consciously reforms their mental structures in relation to environmental experiences (such as general anxiety forming over time in relation to everyday stress experienced at lunch). A driving factor is the individuals' desire to retain equilibrium of internal regulations within the person-environment interaction. This may affect their behaviour, as they strive to change their environment to meet their needs and to avoid negative experiences: such as the adolescent who eats lunch quickly to avoid being late. This is assisted by optimal environments where exactly the right level of stimulation is provided

for the developing individual. Too much or little stimulation can lead to negative psychological outcomes such as boredom or stress.

Magnusson and Stattin (2006) place individual desire for internal equilibrium at the heart of person-environment interaction yet do not elaborate on what this 'equilibrium' might be or how it might be achieved. They propose that individuals purposefully interact with environment to meet their individual needs (p.414), but one must question whether need fulfilment is equivalent to psychological equilibrium. In my perspective, more attention needs to be paid to the forces that propel person-environment interaction. For example, how might person-environment interaction assist the construction of developmental needs, which in turn drive further person-environment interactions? This may be the missing key to the ignition of the person-environment interaction engine.

Developmental contextualism

Developmental needs may arise in the same process as other developmental phenomena, through qualitative shifts in the organism incurred by person-environment interaction. This is explained partially by Lerner's (1986) theory of developmental contextualism. Here, qualitatively new phenomena are thought to occur as the result of fusions between lower levels of functioning. These phenomena are qualitatively new as they cannot be entirely reduced to the elements inherent in the lower states from whence they came. Each phenomenon is governed by both a unique system of laws (to match its novel form) and the general laws of psychology. Phenomena always contain elements of both continuity (links to the previous level) and discontinuity (qualitative novelty) with some phenomena being more continuous/discontinuous than others. In this, phenomena are understandable both in the context of an integrated structure and in isolation. This rationale can be used to see adolescence as a continuation of childhood (Coleman & Hendry, 1999) and as a stand-alone phenomenon.

In developmental contextualism, individuals are perceived as active contributors to their development in an interdependency of organism and context.

> "[T]he organism as much shapes the context as the context shapes the organism, and… at the same time – both organism and context constrain, or limit, the other. In sum, then, the processes that give humans their individuality and their

plasticity are the same ones that provide their commonality and constancies." (Lerner et. al. 1996 p.7)

Lerner calls early adolescence the "exemplary period" (1996 p.16) to study developmental continuity and discontinuity within, as psychological, biological and social changes within this transition occur at a detectable magnitude. The potential for developmental systems to change in multiple directions within the dynamism of transitory periods signifies early adolescence as a time of both developmental opportunity and risk (Lerner et al. 1996). Here, the valence outcomes may depend on 'goodness of fit' (or congruence) between organism and environment, as discussed in Coleman and Hendry's review of developmental contextualism (1999).

An issue is however apparent within developmental contextualism's notion of 'lower' levels spurring new development. In social psychological phenomena, a hierarchy between levels does not always play out. For example, 'fusions' can occur between levels that operate at a magnitude greater than individual perception (i.e. social representations) with internal attributes (biological and psychological) to construct attitudes and desires. Therefore, when using this theory to help understand the emergence of psychosocial phenomena such as attitudes and needs that are in part socially constructed, it is perhaps best not to think of fusions between levels but instead between any type of social or biological phenomena.

Specifically, how might social environments affect development?

This part of the review seeks to understand better how socially constructed environments, like schools, might affect early adolescent development.

Cultural determinism and cultural relativism

An early formalised effort to identify how much social context affects psychosocial development was that of Franz Boas (1858-1942), professor of anthropology at Columbia University, and his student Margaret Mead (1901-1978). Boas' developed a theory of cultural determinism as a backlash against then current movements to attribute developmental processes purely to biology, including Eugenics and compulsory sterilisation of the mentally retarded in some US states (Muuss, 1996). Boas' cultural determinism predicted that social influences were responsible for individual behaviour,

not biology. Therefore it should be possible to find systematic variance in behaviour with cultural context.

Mead's study *Coming of Age in Samoa* (1928/1949) tested cultural determinism by investigating whether typical adolescent 'turmoil' observed in western societies was apparent in an entirely different culture. She embarked on an ethnography of 50 adolescent females in Ta'u, a remote Samoan island, in 1925. Mead observed a 'laid back' sexual culture on Ta'u, with adolescents participating at will and without shame or fear. She documented few conflicts with peers or families, and little violence and competitiveness. Adolescence was seen as a carefree period, thus supporting the idea that cultural influence was at the heart of the 'storm and stress' of western adolescence.

Mead has been criticised for taking a soft focus view of Samoan adolescents who were later observed by Freeman (1983) to be involved in violence, youth suicide and conflict with parents. However Freeman's observations were of different youth on a much larger island, and were gathered almost 40 years after Mead's, during which time considerable societal changes had taken place; factors which could account for observed differences (Nardi, 1984). Even if Mead's observations of lack of turmoil were only partially accurate, her observation of difference in sexual practices does indicate a social position for adolescents that is greatly different from that of westernised societies. Likely within this were a culturally distinct set of norms and values. Other evidence for such differences comes from an early 20th century account of an Indian tribe (the Muria) and their *ghotul* (adolescent dormitory) where adolescents rotated partners and engaged in erotic play and sex (Shlegel & Barry 1991). To not rotate was perceived of as selfish and egotistic. These findings do not rule out biological influence (especially when considering the link between emotions and biology) therefore do not prove cultural determinism, rather they support *cultural relativism,* a later position drawn from Boas' work (Kroeber, 1948). Here, psychosocial and behavioural phenomena are seen to be culturally relative, owing much, but not all of their construction to the social forces embedded in the particular culture within which they are apparent.

Cultural conditioning

One way in which culture affects developmental phenomena is by incurring discontinuities. Another of Boas' students, Ruth Benedict (1887-1948), proposed that growth is by nature smooth and continuous, and that societies provide discontinuities that interact with this growth (Muuss 1996). Some cultures have clearly defined

discontinuities, such as age restrictions for driving, and linear school transitions. These societies are referred to as *age-graded*. Transition between 'grades' creates intra and interpersonal upheaval, resulting in psychological change. Less stress is incurred by societies that expose the child/youth to gradual transitions.

Examples of western discontinuities include the sharp transition from school to work, whereas traditional societies often involve children in livestock supervision and the processing of raw materials (Schlegel and Barry 1991). The movement from subordinate to dominant is marked in western societies by moving away from home, whereas in tribal communities older children would be responsible for younger siblings, whilst still being subordinate to adults in the tribe (Schlegel and Barry 1991) therein having a smoother transition to independence (Muuss 1996). Benedict also proposed a sharp shift in exposure to sexual behaviour and endorsement of sexual activity in western cultures, long after childhood. In comparison, children in traditional societies may have had more daily exposure to sexual practices and sexual activity is a cultural norm for adolescents (Schlegel and Barry 1991). Thus, Benedict attributed social and emotional difficulties in adolescence to the discontinuities in western societies, favouring instead a smooth continuum of childrearing.

Social life phases

Benedict's notion of *age-graded* societies was a cornerstone of Higgins and Eccles Parsons' review of "social life phases" (1983, p. 18), that marked the beginnings of Stage-Environment Fit theory (Eccles, personal communication 19 June 2009). This review linked western culturally determined phases, such as entry to elementary or junior high school, to qualitative shifts in psychosocial functioning. It outlined common environmental changes occurring in early adolescence: of increased socialisation agents (more teachers and peers), more activity participation (extracurricular and part time work), altered function of peer relationships (cliques enable identity exploration and pursuit of common interests); and in agency expectations (increased negotiated freedom from parents and more responsibility at home and school). Many of the social life phases were seen as western specific, and were compared in discussion with the social structures of tribal communities in Asia and Africa. The development of competitiveness and social comparison in early adolescence in western schools was related to the socialisation influences of Anglo-American parents, in comparison to the less competitive values of Mexican-Americans. Higgins and Eccles Parsons concluded that stage like shifts in social

cognition were not simply a product of qualitative changes in predetermined cognitive operations (e.g. Piaget) but were also related to systemic changes in the social environment, and to social by cognitive interactions. This review provided the theoretical framework for Eccles et al.'s 1984 review of age related changes in motivation and school environment.

Review synthesis: application to Stage-Environment Fit

This chapter concludes by exploring SEF in relation to the review of adolescent development, the theory discussed so far in this chapter, and to the focal theory of adolescent development (Coleman, 1974) that has implications for understanding the effects of multiple transitions (such as school transfer and adolescent development). This provides a summary of the current study's theoretical perspective, information to aid analysis, and indicates how SEF might be developed in relation to the doctorate's empirical findings.

Characteristics of early adolescent development

The trajectory of adolescent development used in SEF theory is based on the literature at the time and is not discussed in detail within the SEF compendium of papers. The current review in this chapter allows for it to be updated and expanded. The following table logs the review's findings under the headings of the list given in Eccles et al. (1989). New titles are included (as indicated) to update the original titles in respect of current findings, and new categories are formed when the original list needs expanding.

Table 6. Updated characteristics of early adolescent development

Increased desire for autonomy
NEW TITLE – Increased focus on autonomy
Desire for autonomy is socially and individually moderated
Parents and peers assist autonomy development in different ways
More time spent alone, particularly for boys
SEF research finds increases and declines in desire for autonomy, in relation to environment
Increased salience of identity issues
Many early adolescents are foreclosed or identity diffuse
Some early adolescents are in moratorium or are identity achieved
Continuing need for safe environment in which to explore autonomy and identity
Not discussed in review
Increased peer orientation
More unsupervised contact with friends and more communication with peers generally
Peers assist identity formation, self-esteem and autonomy
Time of strong peer influence and conformity
NEW CATEGORY – Changes in parental attachment and relationships
Reduction of familial control
Negotiated transfer of responsibility from parent to child
Changes (potential declines) in parent-child communication
Increased self-focus and self-consciousness
Increased importance of physical appearance
Potential for increased self-awareness
NEW CATEGORY – Confidence vulnerability
Stable or increasing self-confidence likely unless transferring schools
Declining self-esteem for early maturing girls who transfer schools
Academic self-concept vulnerable to environmental influence
Increased cognitive capacity with movement toward formal operational thought
NEW TITLE – Increased executive functioning and powers of abstraction
Increases in executive functioning (long term planning, inhibition response, working memory)
Potential for abstract thinking – 'thinking in concepts' and with possibility as base rationale
NEW CATEGORY – Temporary decline in emotional functioning
Temporary decrease in emotional processing
NEW CATEGORY – Temporary decline in affect
Decline in positive affect and increase in negative affect
NEW CATEGORY – Shifts in cognitive functioning
Potential emergence of cognitive sex differences
Period of synaptic reorganisation
Physical and hormonal changes associated with pubertal development
Release of sex hormones from the hypothalamus – timing perhaps related to context
Rapid physical growth

Eccles and colleagues' original categories can be extended with the addition of 'changes in parental attachment and relationships', 'confidence vulnerability', 'changes in emotional functioning' and 'shifts in cognitive functioning. From these, 'confidence vulnerability' perhaps needs the most theoretical and empirical development. Not all early adolescents desire greater autonomy, and as perceptions of autonomy are socially influenced, the first title is changed to 'increased *focus* on autonomy' rather than *desire.* Neither do all early

adolescents actively pursue identity development, and studies commonly note a significant separation between those who do and do not, early adolescence might be better described as a time of '*increasing diffusion* in identity statuses'. Recent neuroscientific work enables more specificity in the title of 'increased executive functioning and powers of abstraction' with the latter half changed to incorporate Vygotsky's perspective as well as Piaget's.

This altered and expanded list of early adolescent developmental characteristics should assist the present study's analysis of developmental data and thus examination of SEF theory.

Stage-Environment Fit in theoretical context

In SEF theory, the mechanism proposed to create a psychosocial outcome such as declining attitude to school, is the match/mismatch between adolescent characteristics and school environment. However, when considering prior person-environment theories, declining attitude to school in early adolescence might also relate to what is happening in contexts outside of school. Lewin's theory of the holistic life space, and Bronfenbrenner's links between micro/meso systems (school being a microsystem in western contexts), suggest that declining attitudes might relate to person-environment interactions across different contexts and through time. For example, attitude to school might be connected to the microsystems of peers and family, or to influences within the exo or macro systems such as the mass media. Therefore declining attitude to school at transfer might be related not just to person-environment interactions at school, but also to person-environment interactions outside of school (forces A or D).

When adolescents change schools, their peer environment is commonly altered as friendships change and they are exposed to more same aged and older peers. Therefore school transfer is not just a shift in the microsystem of school, but also in the peer microsystem. The links between microsystems of peers, school and home will probably alter, for example as parents have less contact with school, and as new peers become integrated into out-of-school activities, thus school transfer can be seen as an ecological transition. In ecological transitions, the entire mesosystem changes, altering the social influences on the individual. Fusions may occur between existing psychological and new social phenomena to create qualitatively different needs and attitudes. Therefore school transfer as an ecological transition and the new school environment may contribute to the

development of adolescent psychosocial characteristics which in turn interact with school environment to influence psychosocial outcomes.

Cultural relativism reminds us that psychosocial phenomena, such as autonomy, identity and aspects of peer-orientation, are likely to be different in different cultural contexts as these are (at least in part) culturally constructed. Therefore a major limitation of the original work on SEF is its lack of qualitative grounding. The three SEF analyses found that increased desire for decision making was not universal nor true for all items in the measure, therefore the assumption that early adolescents characteristically desire increased autonomy (see Table 5), (via decision making) in classrooms, was not supported. Fit and mismatch were individually relative as when school environments were perceived as restrictive, desire for autonomy decreased for many adolescents yet increased for others across schools. Therefore not only culture, but personality and personal adaptability can moderate developmental phenomena. The individual nature of fit (Gutman and Eccles 2007) and the cultural relativity of social life phases (Higgins and Eccles Parsons 1983) indicate that adolescent psychosocial development is best examined individually and in context. Only by identifying what development looks like for individuals, can we begin to generalise about what it looks like for a wider group in a particular school. Then we can begin to examine how development and school environment interact in context.

Benedict's theory of cultural conditioning suggests that discontinuities, such as school transfer, result in psychological upheaval. School transfer occurs rapidly over a few months as the individual leaves their old school, enters the new one, then adjusts. This period of flux can be conceived of as transition. The swiftness of the transition, and the extent of differences between school environments on either side, create a sharp discontinuity for many early adolescents. SEF theory does not account for how this discontinuity may create psychological upheaval– in addition to the effect of new school environments, when looking at influences on attitude development.

As discussed, school transfer can incur changes not just in the educational environment but also in the context of peers, and potentially families. During transfer, many early adolescents are undergoing the pubertal transition. This makes school transfer a time of multiple transitions in physical and social realms. Although transitions present opportunities that enhance individual coping skills and adjustment (Lerner et al., 1996) too many transitions at the same time are found to have detrimental effects on self-

esteem and achievement (Simmons et al., 1987). Coleman's *focal theory* (1974) of adolescent development proposes that developmental issues come into focus at different times during the general adolescent transition, so that individuals can manage one issue at a time and therefore have more successful overall adaptation. This does not necessitate resolving one issue before another manifests. Rather issues are continuous and appear in multiplicity, yet are not all salient at the same time. Focal theory evolved from a study of relationship attitudes which changed as a function of age (Coleman 1974). Particular concerns peaked at different periods, for example 11 year olds focused on positive relationships with parents, 15 year olds focused on heterosexual partners, whilst 17 year olds focused on intrapersonal development. Agency is key in the focal model, with individuals monitoring their development both conceptually and through feeling (Coleman & Hendry 1999). The focal theory is useful for explaining declining attitudes at times of multiple transitions, for when individuals are forced to manage more than one major transition at a time then they are flooded with issues of adaptation and may become temporarily overwhelmed. The adaptation that ensues during this period may not be as successful if transitions happened separately. The following versions of the focal model illustrate this process. ***Figure 10. Focal Theory: typical and atypical models***
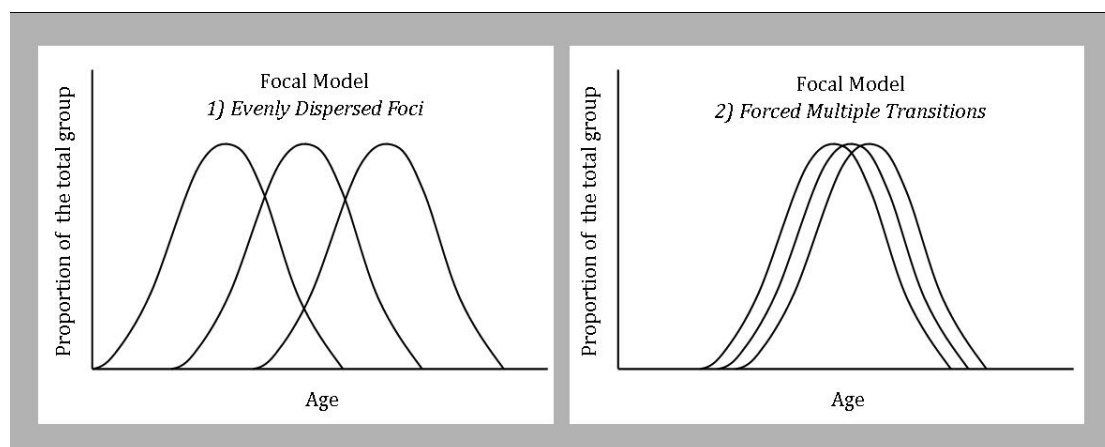
(Adapted from Coleman 1974, p.153)

To summarise, SEF theory proposes that declines are a product of the interaction between school environment and development. More specifically, it suggests that certain features of post-transfer schools mismatch with the characteristics of early adolescents. However, developmental characteristics may not be exactly the same between different cultures and across time, such as between Michigan, US in the 1980s (Eccles' transfer study) and the East of England in the 2000s where the present study is set. Furthermore, school transfer itself may contribute to the construction of new or altered developmental characteristics at this time period, by prompting an ecological transition in the early adolescents' life. Within the ecological transition, changes taking place within the wider social environment outside of school, individual responses to the stress of the immediate transition period, and the potential effects of multiple transitions of puberty and transfer may all be contributing to attitude change. Therefore in order to study SEF it is necessary to investigate developmental characteristics and school features longitudinally and in context.

Ch. 3) Research Questions and Design

Research questions

The Michigan Stage-Environment Fit study looked at whether pupils' attitudes to maths declined post-transfer in relation to the match between the amount of autonomy they desired versus that which they were allowed in classroom decision making processes. This study broadens the lens to attitude to school, in an attempt to uncover why attitudes to school tend to decline in early adolescence and in particular at school transfer. The evaluation of SEF in relation to other person-environment theories suggests that research in this area can be improved by considering the influences of factors within and across multiple contexts of pupils' lives and not just within school environment. Those factors (such as parenting styles, school environment and friendships) can be evaluated in relation to each other to judge the strength of their independent (or co-dependent) influence on attitude to school.

Considering multiple contexts also allows for investigation of whether an ecological transition occurs in pupils' lives around the time of school transfer and puberty. To isolate the influence of school transfer on pupils' attitudes, it is necessary to employ a control group of same aged pupils who do not transfer, and compare them to those who do. However the influence of the pubertal transition is harder to assess, given that pubertal onset is normative in early adolescence yet varies in timing and in physiological consistency. Therefore influences of puberty on pupils' attitudes are proposed to emerge from the data without seeking a strict control.

This study does not assume that the adolescent characteristics outlined in the literature review are necessarily present in school children in England, as to do so may be ecologically invalid given that much of the prior research is from the US. Instead it takes a more open approach to research design. Like the influences of puberty on attitudes, adolescent behaviours and psychology must be allowed to emerge from the field of study. This emergence may be skewed or cloaked by research questions that are too specific, by methods that reveal only one surface of a multidimensional reality, and by investigating only one point in time. Therefore a longitudinal multiple methods study with opportunities for emergence built in to the research design is deemed necessary.

Likewise, SEF might not necessarily be present in an English sample of early adolescents in 2007/8, more than twenty years on from the Michigan study that occurred

in 1983/4. Therefore the research design is left open for any associations between adolescent development and school environment that may be present to emerge from the data. In particular, a key mechanism proposed by SEF theory is that 'mismatches' between adolescents' developmental needs and school environment are associated with negative attitudes to schooling. Taking an open approach instead of specifically testing for mismatches avoids biasing the research towards the observation of negative relationships and operating analytically within a set framework that might not best fit the data. Throughout the research, indications of matching or mismatching are conceptualised liberally, as to whether any emergent relationships between pupils' developmental needs and school environment would have positive or negative associations with wellbeing. Wellbeing is operationalised in several ways[3]: as pupils' happiness, lack of anxiety, self-esteem, and (prosocial) relational fulfilment.

Eccles (in Barber et al., 1987) stated that there are good and bad mismatches, some which disable pupils and others which have enabling properties by pushing pupils forwards. Similarly, an influence that may reduce one pupils' attitude may have a positive effect on another's. Also a determining factor/s of individual attitudes may be true of a larger group of pupils, may operate in a completely different way or be totally ineffective depending on the influence of other forces around it. In order to identify why attitudes decline, it is therefore also necessary to investigate what raises them up and what keeps them steady within a range of individuals who are subject to different environmental and biopsychological influences.

In not forcing developmental characteristics and SEF from the data, an emergent description and analysis of processes can ensue. This then enables existing SEF theory to be discussed in relation to findings that are deliberately unbiased with regards to the SEF framework, to judge whether SEF actually occurs.

The following research questions (Table 7) marry with the research design requirements laid out in the above paragraphs. The order of the questions is crucial as each informs the next in line, until the final question is reached.

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[3] Liking school is thought likely to be produced at least in part by these person-environment interactions. Therefore although it is perhaps an additive influence to wellbeing, it is not proposed to underpin it in the same manner as these psycho-emotional variables.

Table 7. Research questions

Key Question	Qualifier
1. What is the psychosocial development* of early adolescents in my sample? *= ecological systems perspective*	a. What are pupil's perceptions of their external environments and of themselves across time?
	b. What are the links between perceptions and experiences within and across multiple contexts? *(using Bronfenbrenner's perspective of the micro- and mesosystems)*
	c. What are the similarities and differences in these perceptions and experiences and in their linkage, between individuals? *(uncovering developmental commonalities and variants)*
2. Specifically, what is the role of school environment in this psychosocial development? *= ecological systems perspective*	a. How do these commonalities/variants relate to school environment?
3. Specifically, what is the role of multiple life course transitions in this psychosocial development? *= chronological systems perspective*	a. How do these commonalities/variants relate to school transfer?
	b. How do these commonalities/variants relate to the pubertal transition?
4. Specifically, how does environment and development affect attitude to school? *= person-environment interaction perspective*	a. What are the strongest influences on attitude to school from amongst the contextual, psychosocial developmental and transition influences?
	b. From these, what are the strongest influences on declining attitude to school?
5. Does Stage-Environment Fit exist?	a. What evidence is there for developmental needs?
	b. What evidence is there for matching/mismatching between these and school environment?
	c. How, if at all, does this affect pupils' attitudes to school?

* That can be investigated given the study limitations

<u>Questions answered by data collection and type of data required</u>

A large amount of perceptual data is needed to answer question 1a. The collection of this data needs to incorporate avenues for expression of attitude to school, perceptions of transfer and puberty. Otherwise, the collection should be wide and unrestrictive to allow an authentic range of perceptions to emerge. The 'microsystem' links requested by question 1b can be supplied by raw expressive data (i.e. a pupil who says their experience of friendship at school *makes them* feel confident). Data on school environment (2a) can

be gathered in a variety of forms including researcher observations, document analysis and through participant's perceptions. Both open and measured perceptual data can be used to answer question 4 (which requests information on the strength of influence and attitudinal trajectories).

<u>Questions answered by data analysis</u>

Microsystem and mesosystem links in question 1b can also be found using statistical correlational analyses, as well as by analysing the raw expressive data. Also, the mesosystem links can be supplied by a conceptual analysis of influences (i.e. identifying influences on self-esteem within each context studied, thus providing links *across* contexts). The analysis can find similarities and differences in perceptions (1c) by comparing individual accounts. The links between developmental commonalities/variants and school environment, transfer and puberty (2 & 3) may emerge in individual accounts, and can also be directly tested by comparing grouped accounts of pupils in transfer/non-transfer environments. Attitude to school (4) should then be isolatable in an emergent network of perceptions and the individual strengths of the most direct influences on this (4a & b) should be evaluable using conceptual and quantitative methods. The analysis plan is discussed more at the end of this chapter.

Methodological perspective

Ethnographic approaches

The closest established research design that matches with the required data (longitudinal data: open and measured perceptions, observations and documents) is an ethnography. Traditionally, ethnographies were used to study foreign, exotic cultures (Yon, 2003) in an attempt to generate an in-depth understanding of the life of the cultural 'Other' by making the familiar strange (Jeffrey & Troman, 2004). Ethnography has been called a concept and a methodology (Burton, 1998), and when used as the latter, guides the researcher's choice of methods (Crotty, 1998) yet here the methods have guided the choice of an ethnographic approach. Modern day social ethnographies have "extended contact with a given community", care for the "description of local particularities", focus on "individual's perspectives and interpretations of their world", "tend towards the descriptive" and are often concerned with "the refinement of theory" (Miles & Huberman, 1994, p. 8). Ethnographies are often conducted over 12 successive months which (as a school year) is

a naturally occurring time period (Jeffery and Troman, 2004) in the lives of early adolescents.   Multiple methods are often used to capture different angles of a phenomenon across time. The most common method is participant observation, where the researcher 'lives and breathes' the field as an active member of the community of study.

There are few ethnographies that focus on adolescence as a phenomenon. Those found have taken place outside of school settings. Perhaps the only self-described psychological ethnography of adolescence is Mead's (1928/1949) *Coming of Age in Samoa*, reviewed in the previous chapter. As discussed, Mead was criticised for being biased in her interpretations of the environment. With no measured data or co-observer to compare her interpretations to, Mead might struggle to defend these accusations. More recent ethnographies of adolescence include Burton's (1997) examination of adolescence in high risk neighbourhoods and Gaines' (1998) study of local youth culture: '*Teenage Wasteland*'. Burton's (1997) ethnography uses multiple methods including field observations, participant observation, focus group and life-history interviews with teens and parents, interviews with community members and newspaper analysis. Gaines (1998) attempted full immersion in the suburban, rock and roll world of white teenagers in the US north east, by spending time with them in their cars and teenage hangouts. Her attempts to become one of the gang elicited valuable insights into the youths' lives. This was helped by Gaines' youthfulness (age of 24 years) which gave her the advantage of a more parallel relationship with the adolescents in her study.

A larger strand of ethnographic research focuses on schools as microenvironments of cultural reproduction. The rise of educational ethnographies over the past half century is attributed to the development of North American metropolises which provided opportunities for anthropologists to study cultures within institutions and social networks 'at home' in America (Yon, 2003). The view of initial studies that cultural transmission was unilateral from schools to pupils, was redefined in the 1970s in the concept of 'cultural reproduction' where pupils were seen to be active agents in shaping their social realities (Yon, 2003), such as the working class youth of Willis' *Learning to Labour* (1977) During the late 1960s to the 1980s, UK educational ethnographies often took a sociological approach to analysis (Gordon, Holland, & Lahelma, 2001). Some examples of UK educational ethnographies (not all sociological) are those on the experiences of working class youth within school (Willis, 1977; Ball, 1981), school

transfer (Measor & Woods, 1984; Delamont & Galton, 1986); middle schools (Hargreaves, 1986), pupils' construction of social worlds and coping in school (Turner, 1983; Pollard, 1985) and sexuality and gender development (Youdell, 2005). In recent years there appear to have been fewer 'full' ethnographies where researchers spent up to a year fully immersed in the field, and more 'ethnographic approaches' where ethnographic methods are used over time yet the researcher dips in and out of the field as needed. These include Seaton's (2007) ethnography of teacher-pupil relations and Christensen and James' (2001) study of school transfer. Recent educational ethnographies can be psychological and/or sociological and are unfortunately not often published as books. Instead of being available in libraries and online as detailed time and environmental pieces they are fragmented as journal articles or banished as elusive PhD theses.

Ethnographic immersion

There are several methodological issues present in ethnographic study. Reflexivity of the researcher on the subjects is one, and is discussed in this chapter's validity section. Perhaps the most common issue arises from participant observation where researchers are in danger of 'going native' when their level of immersion in the study forfeits their objectivity. Pollard (1985) describes this as "a state of mind in which, through a very close and emphatic identification with the subjects of the research, the demands of the research project itself fail to be met" (p.219). During his role as a teacher/researcher in an ethnography of pupils' coping strategies, Pollard found that conducting out of school discussion about sociology and continued analysis of data helped him to maintain cultural strangeness in order to avoid going native.

The following figure proposes five variants of ethnographic immersion.

Figure 11. Model of ethnographic immersion
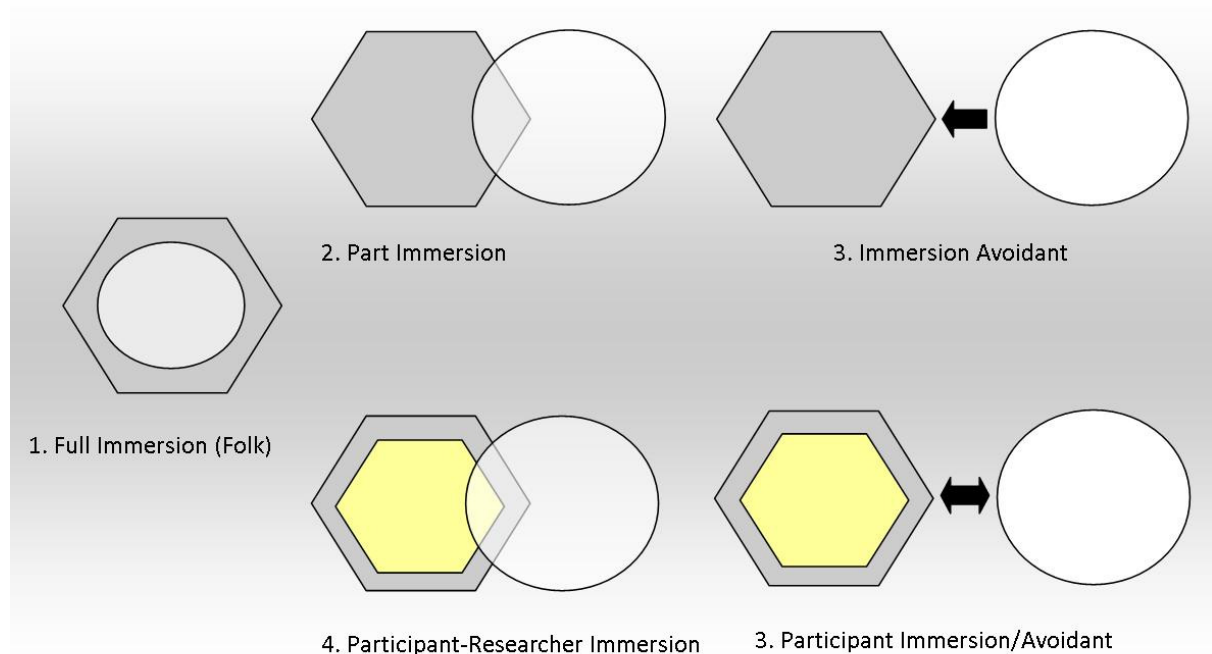
1. 'Full immersion' fits Adelman's (1985) description of 'folk' ethnography, where the researcher (circle) is fully encased by the research environment (hexagon). Here the ethnographer tries to 'fit into' the culture in order to understand it, hence the issues of immersion and reflexivity become critical.

2. 'Part immersion' is where the ethnographer conducts some participation within the research environment yet acknowledges and holds a distance from the culture being studied. Pollard (1985) describes this as operating in two spheres (as participant and as researcher).

3. In the 'immersion avoidant' example, participation is actively avoided and the ethnographer attempts to gather data through distal means such as document analysis or non-participant observation (including reflectively analysing video and audio recordings). This would eliminate reflexivity and reduce the danger of going native.

4. A further suggestion is 'participant-researcher immersion' where participants become native ethnographers of their own culture. This should reduce interpretive bias in data gathering, which can occur when adult perspectives are used to

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interpret the social worlds of children and adolescents (Gordon et al., 2001; Fielding & Bragg, 2003). As researchers have only partial contact with the environment they are unlikely to go native. Through their communication with participants about the research, researchers may incur reflexivity in the data. However, this should be less than in the case of full immersion where all the data is generated by the researcher. Issues of reciprocity could be addressed by giving participants autonomy and research skills.

5. A mixture of 4 and 5 could be where participants are the only avenues of data about the environment. The researcher does not enter the field and communicates with participants off site or via electronic means. This reduces reflexivity in the field yet reflexivity with the data is still incurred through communicating with the participants.

As the culture that I seek to understand is mainly psychological, immersion in pupils' perceptions is perhaps more important than immersion in the school environment. However, as I cannot be physically immersed in these perceptions, but can do so with the physical school environment, option 4 in the immersion model appears best fitted. Here, information about the school environment culture can be gathered by me first hand, and information about the psychological culture (including attitude to school) can be transmitted through the participants' perceptions.

Research design

Choice of methods

Multiple methods are commonly employed during the course of an ethnography, allowing datal triangulation to occur within and across specific time periods, enabling contradictory behaviours and perspectives to emerge and creating a detailed description of social phenomena (Jeffrey & Troman, 2004). In this way, ethnographies empower researchers to get inside the black box of hidden contextual information (Burton, 1998) and in this are in important method for studying development in context. Modern ethnographies commonly use observations, interviews and document analysis and some also use visual methods like photography.

The traditional primary method used in ethnography is participant observation. I can make observations of school environment and of pupils, but as the culture of study is

mainly attitudes and adolescent development, I would have difficulty being a participant observer of these processes. However those being researched are, by design, participant observers of their own attitudes. My primary role then is to gather the participants' perceptions. There are numerous ways to do this: through word based methods such as surveys, interviews, essays and written diagrams; and visual methods like video recordings, image based diagrams, and photography. Although attitudes have an emotional component, they are also based on logical structures, (such as liking school *because* of something), thus perhaps are best expressed as spoken or written language. Therefore the participants' 'observations' of their psychology may be best gathered as words. Surveys, even if given repeatedly and emergently tailored, do not give the freedom of expression that interviews do for many reasons, including the limitations of some participants' poorer writing skills. Interviews are good for gathering in depth information as they allow the time and conversational stimulus for this to appear. It is preferable then that some form of open-ended, in depth, linguistic based approach be used as the main method of data gathering.

Such an approach would not be possible with large numbers of pupils given the lack of resources of doctoral research. It is unlikely that hundreds of pupils could be studied in depth without a team of researchers, and without creating an unmanageable pile of data for a single researcher to analyse. Therefore a small group of pupils is preferable for the main ethnographic study. However, the purpose of the research is to help discover why early adolescents' attitudes to school decline and discovering this for only a few pupils might not be the best use of time available in a three year project, as more pupils can be studied but in a different manner. Therefore, a larger group of 'peripheral' pupils should be involved to complement the smaller group of participants at the heart of the study. As discussed, in depth open-ended methods will allow the smaller group freedom of expression, whilst a survey of the larger group will be achievable given the time available. If administered at the start of the study, the survey could be used to select the smaller group of participants as representatives of the larger group and if given again would allow for inferences drawn from their responses to be checked for validity against a larger population. Therefore the research proposes to explore the 'black box' of declining attitudes through triangulation of the primary data source, which will be an in depth open-ended method, with a survey and researcher observations of school environment.

For or against active participation?

A choice remains as to whether the small group of pupils, as participant observers of their psychology, will be empowered in their role as participant observers. A benefit of actively involving pupils in the research is that they can consciously guide me around the culture of study i.e. their perceptions. Although I might have a fair idea of what this culture might be from prior research, important areas of it may be "hidden, tacit or elusive" (Charmaz, 2003, p. 91). Early adolescent pupils might interpret their environments differently to adults and have a different set of views. Access to this native state is skewed by forced entry, when perceptions are "laundered or leached out" (Smyth & Hattam, 2001, p. 408) by deductive research methods such as surveys or structured interviews. By engaging pupils in the process of eliciting their perceptions they may be more likely to offer them in naturalistic forms. However, there is still a risk of important information remaining hidden as pupils might not be aware or, nor value an area of perception that has crucial theoretical importance to the research. Therefore a balance must be struck between inductive wandering and deductive signposting in a joint exploration of this culture between researcher and participants.

An issue with this expedition into the psychology is the reflexivity incurred by the researcher and participants. Unless the researcher has no connection whatsoever with the research processes they will still influence the data. Therefore as many investigations need careful structuring, the elimination of reflexivity is not necessarily a desired state. Being conscious of influencing the data may help keep researchers' judgements balanced, as reflexivity "works hand-in-hand with the iterative nature of the research to bring preconceived beliefs into the dialogue, rather than seeking to omit or ignore them" (Harry, Sturges, & Klinger, 2005, p. 7). For the participants, being consciously reflective of their perceptions might scaffold and/or heighten their thoughts on a particular issue therefore corrupt the data from its original state. Yet it may be possible to educate them to recognise interference in the data: for example if they feel their perceptions changing as a result of involvement in research. This is surely better than involving them passively and having this interference go unnoticed. This study takes the stance that reflexivity is unavoidable. Although active participation should assist the ecological validity of data by bringing researchers closer to pupils' authentic perceptions, this benefit can only be obtained if the scales of reflexivity are at the forefront of researcher and participants' minds.

Active participation can benefit pupils, as well as the quality of data. Allowing pupils to participate in research is highly ethical as it "seeks to involve, not merely to use young people" (Fielding and Bragg 2003, p.4). It aligns with the United Nations Convention on the Rights of the Child (UN, 1989) which asserts that children should have the right to freely express their views in all matters concerning them (article 12) and have "freedom of expression" (article 13). Another benefit may occur if active participation contributes positively to pupils' psychological development. The literature on early adolescents suggests that they often desire autonomy and responsibility and can benefit from productive relationships with adult role models. Giving them a responsible and autonomous role in research and enabling them to have a safe and productive relationship with a non-familial adult should have a positive effect. Therefore the balance of increased reflexivity versus better quality data is surely outweighed by ethical and potentially developmental benefits if choosing active participation as a method.

A few ethnographies have engaged pupils as active participants. Christensen and James (2001) asked Y6 (11 year old) pupils to generate interview questions about school transfer. The ten most common responses were chosen for use in a short survey and in interviews with pupils. Despite revealing which topics were of importance to participants, the pupil generated questions were simple in form. This may have reduced the quality of data delivered by pupils in response to the questions. Pollard (1985) involved pupils as peer interviewers who investigated other pupils' perceptions of school. The pupil researchers became known as the 'Moorside Investigation Department' (MID), numbering 6 to 13 throughout the year. They recorded interviews during lunch time in an unused classroom and as Pollard noted, a 'sense of secrecy' surrounded the group which increased as they learnt about confidentiality and immunity from teacher prosecution. The MID became seen as a 'club' or society and Pollard felt that their high standing with peers gave the research project legitimacy and enabled its circulation to pupils through the peer network, better informing pupils and prompting them to become involved. Pupils were free to interview whoever they chose, and were guided by basic suggestions such as 'which teachers do pupils like best?', allowing room for personal input into the interviewing process. Pollard attributed pupils' positive responses to the project to the autonomy granted by this process. He found that peer-interviews enabled pupils to cross check and validate the information, similar to 'member checking' where participants are able to check the researchers' accounts (Lincoln & Guba, 1985). However, he also

reported that pupils lacked the theoretical knowledge necessary for carrying out in-depth interviews and that some pupils tended to dominate conversations with peers. Pollard, and Christensen and James' experiences reveal that although active participation is beneficial for pupils, the quality of data can be moderated by age and choice of method.

In conclusion, active participation is likely to benefit pupils and is very ethical. It needs to be managed carefully to strike a balance between research purposes and unadulterated expression and to ensure that reflexivity is accounted for. However, careful testing of methods is necessary before active participation is applied in a given research scenario, to ensure an effective match between age and method in order to produce high quality data.

Ethnographic pilot study

To help select the main research method for use with the small group of active participants and to test observation methods for gathering data about school environment, a two day pilot study was conducted in May 2006. Ten active participants were selected by the headteacher (who was requested to vary their achievement and gender) and their parents gave written consent to their participation. This letter ensured pupils' right to withdraw participation from the study at any time, and promised complete confidentiality and individual anonymity, in accordance with the ethical guidelines of the British Educational Research Association (BERA, 2004) and the British Psychological Society (BPS, 2006).

The first day was spent testing different styles of observation of participants and the general school environment. Firstly, systematic observation of participants was conducted in ten minute intervals. This used pre-established codes (based on adolescent developmental literature) and new codes that were formed during the day. Unstructured observations of pupils in their environment were taken, as were more targeted observations that recorded pupils' behaviour as accurately as possible. A post-hoc comparison of observations concluded that the targeted approach was preferable, as this managed a balance of facilitating emergent data yet kept researcher bias down to a minimum.

The second day of the pilot study was an active participant workshop designed to inform the choice of methods for the main in depth study. Here, ten pupils from one Y7 form class tried and evaluated different techniques of gathering information about their

psychology. The sample of pupils was mixed in gender and achievement and had average socioeconomic status (ascertained by a questionnaire given on the day).

The pupils trained as researcher participants before evaluating the methods. They were given colourful booklets, illustrated by photographs, that contained information on research, and activities regarding their impressions of method use and effectiveness.

Figure 12. Research methods investigation booklet (cover and page 1)

Doing Research

Your thoughts and feelings about growing up and becoming a young adult can sometimes be easy or at times be difficult to talk about. Sometimes we shut down and don't want to discuss how we feel, while at other times we want everyone to know how we are feeling.

By taking part in this short research project, you will learn about the different 'methods' that education researchers use when they do research in schools. You may get to try out some of these methods with your friends and with the researcher.

The person who does the investigating is called the *researcher*.

The people who are being investigated are called the *participants*.

The project aims to find out what you liked or didn't like about the different methods of investigating how you feel about growing up.

In the first hour, pupils were guided through the introduction and descriptions of research methods. Next they generated three questions about growing up that they would raise with a friend or someone of the same age. Their experiences of doing this were then explored during a focus group interview. The second hour concluded with pupils completing a table that prompted them to share their anticipations of using a particular method (individually allocated by the researcher). Following break, pupils worked individually and in pairs to evaluate the techniques of peer interviews, self-administered interviews using an MP3 player, stimulated video recall, projective tests and the construction of social and geographical maps. The evaluation continued after lunch, then finally pupils completed a table parallel to that in session one, which prompted their reflections on using a particular method. Through triangulating the information from the

tables, it was possible to compare pupils' anticipations to their reflections of their experiences.

The pilot study found that pupils were most anxious about sharing information on physical changes. They felt some discomfort with using recording equipment and having their statements recorded. The pupil generated interview questions were simplistic and therefore limited the psychological information gathered. In this respect, the questions were similar to those from Christensen and James (2001). This is perhaps an age specific result for this year group. The interview (peer and self) responses were also not in depth perhaps as pupils read the questions without elaboration and extensions of replies were not encouraged. Pupils' anxieties about being interviewed were somewhat relieved by having prior knowledge of the interview questions. They enjoyed conducting interviews with their peers but some were inhibited by desire to 'look cool'. One pupil commented that the self interview was like 'talking to yourself and you could say anything' although in truth he didn't say much.

In general, the workshop revealed that pupils had no prior experience of research. They enjoyed being taught about research and this had positive implications for data validity by reducing their fears and encouraging their expression. Therefore a research workshop was proposed for the main study. This is also good practice ethically as it enables pupils to gain firsthand knowledge about participating before they are asked to consent to involvement in a longer study. The evaluation of methods revealed specific ways in which these could be improved, and uncovered links between pupils' experiences and evaluations of the methods and their developmental psychology. This information is recorded in a publication of the pilot study (Symonds, 2008). The reported freedom of expression in self-interview (facilitated by the removal of others) appeared to have potential for development. Therefore one method chosen for the main research project was self-interview, by means of 'audio-diaries'. But out of all methods tested, the focus group discussions gave by far the most complex information, mainly as a result of the researcher prompting for more details. However, pupils were still inhibited by child-adult hierarchies, looking cool in front of peers and not knowing how to behave. Therefore it was proposed that researcher-pupil interviews should be conducted but only after the pupils were trained in interview methods and an attempt was made to dismantle child-adult hierarchies.

Choice of schools

The research questions require close examination of individual accounts, as well as the ability to group pupils by transfer/non-transfer environments. The methodological rationale so far asks for a sizable total sample with a smaller representative group within, and for this sample to be followed over one school year. A 'good fit' option then is to examine the year group cohorts of two schools: one with and one without transfer.

The majority of early adolescents in the England are educated in a two tier schooling system with school transfer at age 11/12. A few percent of early adolescents attend a three tier system where they transfer from either 'first', 'lower' or 'junior' schools (Y1-4/5) to middle schools (Y5/6-8/9) that house children and adolescents aged 8/9 to 12/13, before moving to high schools (Y9/10-11/13) to complete their education. The three-tier system is the predominant arrangement in one county only (Bedfordshire). There are very few government maintained mainstream 'all-through' schools, catering for pupils aged five to 16+. These types of schools are more commonly found in the independent sector and in the maintained system for special needs and incarcerated adolescents. All-through schools usually have within school structures to house children and adolescents of different age groups (e.g. lower, middle, and upper 'schools').

Table 8. English school structures

Key Stage	Age	School Year	All Through	Two Tier	Three Tier A	Three Tier B	Three Tier C
	4/5	NA	Reception	Reception	Reception	Reception	Reception
KS1	5/6	1		Primary	Lower	Junior	Lower
	6/7	2					
	7/8	3					
KS2	8/9	4			Middle		
	9/10	5				Middle	
	10/11	6					Middle
KS3	11/12	7		Secondary			
	12/13	8			Upper		
	13/14	9				High	
KS4	14/15	10					Upper
	15/16	11					
6th Form	16/17	12		Inclusive or separate			
	17/18	13					

As the majority of English early adolescents transition at age 11/12 into secondary school, a Y7 cohort at secondary school is the most nationally representative 'transfer' sample available to study. To use a Y8 or Y9 group in a secondary school as the non-

transfer cohort and a second cohort of pupils transitioning into upper or high school would be unviable given the confounding effects of the secondary school transition. Ideally, the second group should come from an all-through school where pupils have never experienced school transfer. However, the closest available all-through state school was several hours commute and since the research intends to be intensive and longitudinal this was not at all practical. Using an independent all-through school would not give data that was relevant to the national trends in declining attitudes found in the state sector. Therefore a second group of pupils in a middle school was preferred. To avoid the climax effect of being in the last year of middle school, and to minimise the effect of a previous transition whilst as children, they should be from three tier system B, entering their third year of middle school. Studying groups from a middle and secondary school is also beneficial for observing differences in state school environments. Middle schools are smaller on average than secondary schools and have less teachers (due to their smaller size). Some middle schools switch from primary style teaching (one teacher for most subjects) to specialist teaching for all subjects between KS2 and KS2, whereas some begin subject specialist teaching a year or two earlier so children are used to it. Secondary schools in comparison have only specialist teaching and are unlikely to offer a consistent teacher across subjects.

The schools participating in the project were checked for their national representativeness by several factors (Table 9) including role size, class size, and test scores, so as to provide the most fitting data for helping to understand the problem of why many English early adolescents' attitudes to school decline. Both closely align with national averages and where there are differences with these, this is true of both schools thus it does not detract from their comparability to each other. As there is little published national average data for middle schools, some factors in Table 9 are represented by primary school national average data as indicated. Both schools are roughly a third larger than the average school of this type in England. They are community colleges that are not linked to any external organisation except for their local authority (LA). Their age range is that of their average school type. Both schools have slightly fewer unauthorised absences than observed nationally. They are at roughly similar levels above average achievement compared to national scores for SATS literacy and numeracy and for the aggregate of English, maths and science. Their value added scores (for KS2 and KS3 respectively) are alike despite these being squeezed into different value added bands. Perhaps the biggest

measured difference between schools is in the number of pupils statemented for SEN. The schools also have slightly different locations with the secondary school being in a village and the middle school being in a small town. However, the immediate location differences are lessened by consideration that the catchment area for both schools incorporates small towns and villages. The participating middle school is in an area of slightly higher unemployment than the secondary school. Both schools are ethnically representative of their school type in England.

Table 9. Participating schools compared to national averages (NA)

Item	Middle School		Secondary School	
	National Average[4]	Butterton	Thorpe	National Average[5]
School Type	Community	Community	Community	Community
Specialism	None	None	Science	Variety
Age Range	8-12	8-12	11-16	11-16
Total Pupils on Roll	335	465	1173	980
Y7 Roll	*No data*	100	243	?
	Primary Schools NA[6]			
Unauthorised Absence	0.5	0.2	0.2	1
SEN statemented	9.9%	8.0%	3.3%	8.8
Literacy[7] Score	KS2: 79	KS2: 87	KS3: 83	KS3: 73
Numeracy Score	KS2: 76	KS2: 81	KS3: 89	KS3: 77
Aggregate Score[8]	242	261	259	222
Value Added[9]	99.8	100.1	99.9	?
VA Band	Middle (99.6-100)	Upper Middle (100.1-101.7)	Middle (99.6-100)	Middle (99.6-100)
Location	NA	Town but serves villages	Village but serves towns	NA
	All of England[10]	**Within County**	**Within County**	**All of England**
People per square km	315	244	145	315
Unemployment	2.11%	3.35%	1.62%	2.11%
White Ethnic Group	93.21%	90.92%	97.07%	93.21%

[4] Data from the National Middle Schools Forum
[5] Data from the DCSF education attainment and performance tables
[6] Data from the DCSF education attainment and performance tables
[7] Percentage of pupils achieving the required level (KS2=Level 4, KS3=Level 5).
[8] Aggregate across the SATS results for English, maths and science for pupils achieving the expected level or above.
[9] The value added (VA) score for KS1-KS2 (primary and middle schools) and for KS2-KS3 (secondary schools) is calculated by comparing the KS2KS3 performance of each pupil in the school with the middle performance of other pupils with similar prior attainment at KS1/KS2.
[10] Data from the National Census 2001

The names of the secondary school (Thorpe) and the middle school (Butterton) used in this report are pseudonyms in order to protect their identities. A letter was sent to Thorpe's headteacher, describing the purpose and proposed methodology of the research. The school accepted verbally following a meeting between the researcher and the vice-principal who administrates research for the school. Butterton was contacted via telephone and email, assisted by the network of the National Middle Schools' Forum. The school formally accepted via verbal response following a meeting with the headteacher, in which the plans for research were outlined. The schools were in favour of surveying their entire Y7 group at the beginning and end of research, and for the researcher to observe classes and research up to 10 active participants. Both schools were aware that they were studied alongside another school.

Overarching design

The study is set in two schools and occurs over three consecutive school terms. It began with a survey of the Y7 cohorts, from which the active participants were drawn as representatives of their year group. It then gathered ethnographic data through 'participant-researcher immersion' (Figure 13). The majority of the ethnographic data came from interviews with participants who were actively involved in the study. A smaller data set was obtained with audio diaries. Data on school environment was gathered partially through pupils' perceptions but also by unstructured observations of schools made by the researcher. Pupils' behaviour was noted using targeted observations in class. A second survey of the Y7 cohorts given at the end of the year tested inferences drawn from the active participation data with the larger group to extend generalisations of the ethnographic study.

The timing, weight and influence of each element of research is shown in Figure 13. This style of conceptualisation draws on the mixed methods tradition (Teddlie, 2003; Creswell & Plano Clark, 2007) but does not restrict itself to notions of 'mixed' occurring only between numerical and thematic data, an assumption that is critiqued by an growing number of authors (Symonds & Gorard, 2008). The diagram reads loosely clockwise in time. The size of the elements of research represents their weighted contribution to answering the research question. The arrows represent the influence of one element to another.

Figure 13. Research design
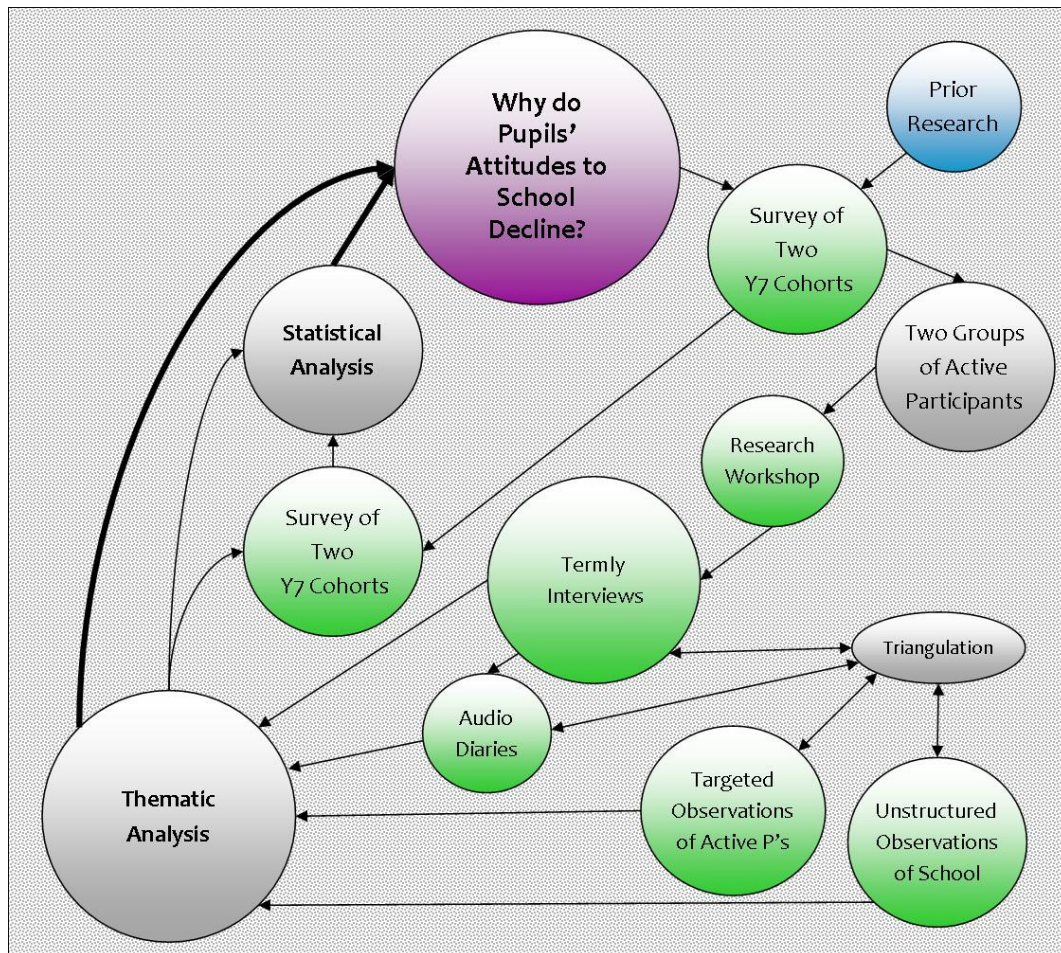
The linear design and final sample numbers are given in Figure 14.

Figure 14. Linear design (and final sample numbers)

WHOLE YEAR GROUP	ACTIVE PARTICIPANTS	WHOLE YEAR GROUP
	Y7 in Secondary School	
Survey One N=197	Interviews Observations Audio Diaries N=10	Survey Two N=176
	Y7 in Middle School	
Survey One N=55	Interviews Observations Audio Diaries N=10	Survey Two N=86

The first diagram illustrates how the small sample of participants were selected from the survey results, then involved in the in depth research. It acknowledges the contribution of prior research to the first survey and demonstrates how the second survey was influenced both by the first survey and by thematic analysis of the ethnographic data. There is triangulation here, and as illustrated between the ethnographic components. Even though the linear diagram makes clearer how the research was conducted through time, what neither diagram show is the emergent nature of the research with the small sample that occurred through successive sets of interviews and observations. This process is described in the following chapter.

Ch. 4) Research Methods & Analysis

Research Methods

This chapter catalogues the empirical methods of the study and the analytical procedure. These move from abstraction of reality (the survey design) to a more ecological method (active participation) then again towards abstraction in the choice of analytical strategy.

Ethical approval

The research proposal was sent to the Cambridge Psychology Research Ethics Committee at the School of the Biological Sciences at the University of Cambridge in June 2007. The proposal outlined the plans to select and work intensively with a small group of active participants, and to administer two surveys with the first containing a measure of pubertal status. The use of this measure was approved after I supplied a prospective letter to parents asking for permission to involve their child in the first survey, that contained details of the measure. The committee restricted the proposed unstructured observations of school environment by disallowing any observations of teachers or pupils without their explicit consent. A standard operating procedure for use of the audio diaries was requested, and was written with the help of a committee member. The committee initially requested all interview questions for the year to be supplied in the application. However, this was successfully debated in order to protect the emergent nature of the research. The application was finally approved in August 2007.

Survey one

The first survey has three main functions. These are:

- To gather 'social address' data (Bronfenbrenner, 1979) i.e. SES, and maturational data in order to check for pre-existing differences between the year group samples and to analyse group differences

- To give the first part of a two wave measure that will ascertain psychological change across the year

- To identify the active participants from their results on this measure and by their social and maturational addresses.

Table 10. lists the variables used in survey one. Each variable was either directly measured, or in the case of the = sign, was constructed after administration by using data from the preceding variable/s. The response rate (indicating missing data) is given in right hand side column. The measures are described below the table. The descriptive results of the survey are given in the appropriate analysis chapter, except for ethnicity which is detailed here to support its omission from further analyses.

Table 10. Survey one variables

Type of Data	Format of Data	%
Pupil Number	Unique identifier given by school	100%
Social Address		
School	Middle, secondary	100%
Gender	Female, male	100%
English, Maths & Science KS2 SATs	Levels 3, 4, 5, other test, don't remember	
= Achievement Scale	Sum of levels	86%
= Achievement Group	High, med, low	89%
Employment Status of Parents/Carers	Employed, unemployed	100%
Job Description of Parents/Carers	1 open ended option for each person	69%
Self-Employed or Employed by Others	1 open ended option for each person	69%
Working Hours of Parents/Carers	Full time, part time	88%
= Parents/Carers' Socioeconomic Status	High, med-high, med-low, low	81%
= Child's Socioeconomic Status	High, med-high, med-low, low	81%
People Lived with During the Week	Female/male - biological parent, step-parent, carer; other relative	94%
= Family Status	Single parent/carer, biological family, step-parent family, other	94%
Ethnicity	8 multiple choice options	88%
Maturational		
Date of Birth	Day, month, year	100%
= Age	(e.g. 11.63)	
Pubertal Changes Experienced	Yes, no	100%
Pubertal Onset	Year & term/holiday of first changes	78%
= Pubertal Scale	Rank of year and term: 1-13	62%
= Age at First Onset	Age -months between onset & current date	
Perceived Pubertal Status	One item, 5 point scale	
Attitude to School		
Attitude to School	24 items, 4 point scale	100%
School Related Self Esteem	24 items, 3 point scale	100%

School and gender

Pupils were asked if they attended a middle or a secondary school. Their responses were checked against pupil numbers when preparing the data set. They indicated whether they were a boy or a girl.

Achievement

Children reported their KS2 SATs levels for the core subjects of English, maths and science. Where data for all three subjects was available, the levels were summed into an achievement scale. Grouping of levels also occurred to give a rougher score of 3 (high), 2 (medium) or 1 (low). These were constructed by the system displayed below. This allowed for estimation of missing data as the few children who reported levels for only two subjects were grouped assuming that the missing level was akin to the lowest level reported, and had been left out due to embarrassment about failure. No children had a level three as well as a level five.

Table 11. Coding for achievement groups

Achievement	Levels attained across three subjects								
	L5	L5	L5	L4	L4	L4	L3	L3	L3
High	x	x	x						
		x	x	x					
Medium			x	x	x				
				x	x	x			
					x	x	x		
Low						x	x	x	
							x	x	x

Child and Youth Measure of Socioeconomic Status

This measure was devised from the National Statistics Socio-economic Classification[11] (NS-SEC) self-coded method. The self-coded method has reached 75% inter-rater reliability between self-coders and interviewers[12]. An adapted version was created for use with children in the present study. This was examined for suitability in both the quantitative (n.35) and multiple methods (n.10) pilot studies before being used in the first questionnaire. The pilot study children were able to answer most of the questions except that about size of organisation therefore this item was dropped.

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[11] The NS-SEC has been used in all governmental statistics and surveys since 2001

[12] http://www.ons.gov.uk/about-statistics/classifications/current/ns-sec/self-coded/index.html
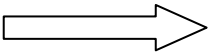
Table 12. Questions used for socioeconomic status

NS-SEC Requirement	Adaptation for Use with Children and Youth (example of female parent/carer questions)
Information about occupation coded to occupational unit group (OUG) level of the Standard Occupational Classification 2000 (SOC2000)	Does your mother, stepmother or female carer have a paid job? What is the name of your mothers, stepmothers or female carer's job?
Information about employment status (an employer, self-employed or an employee)	Do they work for someone else or do they own their own business? Do they work more or less hours in a day than you spend at school in a day?
Information about size of organisation	*Item dropped as commonly unknown by pupils*

The data were processed for female and male parents/carers by using the NS-SEC Self-Coded Method (above). From this the family member with the highest socio-economic classification was chosen as the unit of analysis (known as the 'household reference person[13]'), to represent the pupil's overall SES.

Table 13. Method of coding for socioeconomic status

NS-SEC Self-Coded Method	
Create self-coded occupation variable (1-8)	
Create employment status label (1-7)	
Derive NS-SEC by using the flow chart (provided by NS in a word document) of numerical options for each combination of the above variables	1 Managerial and professional occupations 2 Intermediate occupations 3 Small employers and own account workers 4 Lower supervisory and technical occupations 5 Semi-routine and routine occupations

Family Status

The children were asked to indicate which person or people they lived with the most during the week. They could choose one or more of the following: *biological mother, biological father, stepmother, stepfather, female carer, male carer, other relative, other.* Their responses were coded into the categories of: single parent (one biological or stepparent), biological family (two biological parents), stepparent family (one biological and one stepparent) and other (living with a carer or another relative).

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[13] http://www.ons.gov.uk/about-statistics/classifications/current/ns-sec/self-coded/index.html

Ethnicity

Children's ethnicity was investigated by using the categories from the University of Cambridge's equal opportunities policy. The children were advised that this question was not compulsory, due to several children in the pilot study opposing the idea of giving their ethnic identity due to concerns about racism. This written disclaimer may have influenced the fairly high amount of missing data (29 cases).

Table 14. Measure of ethnicity

A   White
- [ ] White - British
- [ ] White - Irish
- [ ] White – other white background

B   Mixed
- [ ] White and black Caribbean
- [ ] White and black African
- [ ] White and Asian
- [ ] Any other mixed background

C   Asian or Asian British
- [ ] Indian
- [ ] Pakistani
- [ ] Bangladeshi
- [ ] Any other Asian background

D   Black or Black British
- [ ] Caribbean
- [ ] African
- [ ] Other black background

E   Chinese or Chinese British or other ethnic group
- [ ] Chinese
- [ ] Any other background

Table 15. Ethnicity results

		Frequency	%	Valid %
Valid	White	205	81.3	91.9
	Mixed	4	1.6	1.8
	Black	1	.4	.4
	Chinese	9	3.6	4.0
	Other	4	1.6	1.8
	Total	223	88.5	100.0
Missing	Missing Data	29	11.5	
Total		252	100.0	

There were no significant differences in ethnicity between schools, genders nor SES (Chi-Square). As the sample is almost entirely ethnically homogeneous, this variable was dropped from further analyses.

Date of Birth

Pupils gave their birth date as three separate figures (day, month, year). This enabled a formula for calculating total age to be applied in Excel, using the date of survey administration.

Measure of Early Adolescent Pubertal Status (MEAPS)

The following table describes several methods of measuring puberty. Prior to the 1960s, measurements of height and weight and self-report of the age of menarche were commonly used. The 'Tanner Stage' photographs/line drawings (1962), and several more recent questionnaire style measures have expanded on these by representing puberty through multidimensional physiological change (e.g. breasts, pubic hair, oily skin), sometimes used in combination with growth and menarche status. Measurements of hormones are not commonly used, despite the promise that these hold if done in combination with the above methods. This is mainly due to expense and to problems with gaining informed consent[14].

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[14] Prof. Ian Goodyer, Department of Clinical Psychiatry, University of Cambridge, personal communication, September 10 2007

Table 16. Review of measures of pubertal status

Measure	Features of Measure	Comments
Age of Menarche Height and Weight (Growth Spurt)	Self-report data	Measures girls only On average, girls underreport their weight and overestimate their height (Brooks-Gunn et al., 1987).
Testosterone Levels	Hormone testing through saliva samples. Has not previously been used to measure puberty.	Expensive and complicated process requiring assistance of Kings College London (Goodyer, personal communication 2007)
The Tanner Stages (Tanner, 1962; Marshall & Tanner, 1968)	<u>All ages of adolescents</u> Five photographs or line drawings of varying stages of pubertal development, known. Participants choose which one best depicts their current physical state.	Girls' reports correlate highly with physicians' reports (.82) and with their mother's reports (.85). Good reliability (Brooks-Gunn et al., 1987).
Pubertal Development Scale (PDS) (Petersen et al., 1988),	<u>Mid to late adolescents</u> Both genders report on growth spurt, body hair and skin change, boys to rate their facial hair growth and voice change, and girls give information on breast development and menarche.	Alpha of scale moderate for girls aged 11 (.67), 12 (.64) and 13 (.66) with between item correlations ranging from .10 - .63 (Brooks-Gunn et al., 1987).
Adolescence Scale (AS) (Kaiser & Gruzelier, 1999)	<u>Adults respond retrospectively</u> Asks questions about age at menarche, voice break, first nocturnal emission, regular shaving, growth spurt and sexual maturity in comparison to peers.	High internal reliability with a Cronbach's alpha coefficient of 0.87 for women and 0.83 for men. However, this is attributed to its brevity (two questions for women and four for men) (Coleman & Coleman, 2002).
(Miller, 1986)	<u>Parents respond</u> Report on their children's growth in inches during the previous year, existence (yes or no) of oily hair, skin blemishes and pubic hair, girls' breast buds, boys increase in muscle strength and occurrence of menarche.	Not designed for use by adolescent participants

All of the measures listed were considered inappropriate for use with the Year 7 sample. Physician's and parent's ratings and measurements of growth, weight and hormones are too cost and time expensive given the scale of the study. Two items in the AS, the PDS and in Miller's scale are not appropriate for the vast majority of 11 year old boys (i.e. facial hair growth and voice change) hence would probably yield little variance. This leaves one item about nocturnal emissions which on its own might not be a good measurement of

male puberty. A problem is also presented by asking pupils to give detailed information on their physical changes then being face to face with them throughout the year if they are chosen as active participants. This may embarrass them and limit their responses.

To address these issues, a 'sensitive' Measure of Early Adolescent Pubertal Status (MEAPS) was designed in May 2007 with headteacher Michael Clark for use with pupils aged 9 to 12 (Table 17). Heeding the AS's high validity, the MEAPS is brief and asks few questions. It does not ask for reports of development in specific areas (e.g. breast, body hair) but instead asks for a declaration of puberty (yes/no), and then for identification of when the pubertal changes began. The inclusion of Year 8 in the first onset question helps test the validity of the measure (as no child had advanced in further than Year 7 at the time of administration). A final question assesses whether children perceive their changes as occurring before, after or in line with others in their year group.

Table 17. Sensitive Measure of Early Adolescent Pubertal Status (MEAPS)

Have you noticed any 'adult' changes that are happening to your body as you are growing older?

(Some examples of this could be adult body hair, adult upper body development, female period, change in voice)

<u>Do not include growing taller at a normal speed</u>

If you answered no or unsure, please skip this table. If you answered yes, please carry on.

Yes		No		Unsure	

If so, in which school year did these begin?

Year 5	Year 6	Year 7	Year 8	Unsure

At what time did they begin during that school year?

Term1	Christmas Holidays	Term 2	Easter Holidays	Term 3	Summer Holidays

When did these changes start in comparison to the other people in your year group?

A lot before others	A little before others	The same time as nearly everyone	A little after others	A lot after others

The measure provided four types of data. Firstly it was used to group pupils by 'pubertal' 'unsure' and 'non-pubertal'. Secondly, a pubertal scale was constructed by ranking the year and term of pubertal onset for those with data available. A higher score indicated earlier pubertal onset.

Table 18. Pubertal scale ranks

	Term 1	Xmas	Term 2	Easter	Term 3	Summer
Year 5	13	12	11	10	9	8
Year 6	7	6	5	4	3	2
Year 7	1					

Thirdly, age of first pubertal onset was calculated by subtracting two months for each point on the pubertal scale (starting at Y6, Summer) from total months old. For example, pubertal onset reported at term one Y5 resulted in a subtraction of 24 months from the current time (term one Y7), whilst pubertal onset in the summer holidays preceding Y7 resulted in a subtraction of two months. Fourthly, the perceptions of change in relation to others provided a measure of 'perceived pubertal status'.

Attitude to School

This scale was designed by Pell for use in the 1996-1997 ORACLE replication study (Hargreaves & Galton, 2002) with children aged nine to 12. It has since been used by Suffolk County Council in both their transfer investigations (Suffolk, 1996, 2001), and again by Galton, Gray, Rudduck, Pell and colleagues in the Homerton College/DfEE transfer and transitions project (Galton et al., 2003a). In these versions, a stick figure called Sam introduces the survey and asks the children to judge whether each of the 24 items is *a lot like me, a bit like me, not much like me* or *not at all like me* . Previously the measure had been administered on paper. The current study altered the administration of the measure in two ways. Firstly it was given online to allow for increased anonymity (as teachers had no access to paper copies) and to speed up data processing. Secondly the stick figure was removed, to reduce any chance of the Year 7 participants being negatively biased towards a questionnaire that incorporated a childlike drawing.

Table 19. Attitude to school items

	Item		
1	I think my teachers are friendly.	13	When we do tests I feel confident I'll do well.
2	I think most school work is just to keep us busy.	14	I don't have as many friends as I'd like at school.
3	Nobody at school seems to take any notice of me.	15	I'm afraid that I'll make a fool of myself in class.
4	I think that my teachers take notice of what I need.	16	In class I'm often able to work with people I like.
5	People like me will never do well at school.	17	I'm quite pleased with how school work is going .
6	I usually feel relaxed about school.	18	I wish we did things we like instead of being told.
7	I look forward to coming to school most days.	19	People like me don't have much luck at school.
8	I don't really enjoy anything about school.	20	I am liked by most of the other children in my class.
9	I like school better than most other children.	21	I am afraid to tell teachers when I don't understand.
10	Sometimes I feel lost and alone at school.	22	Others in class include me in what they are doing.
11	I am making good progress with my work.	23	I like my teachers.
12	I don't belong to many friendship groups at school.	24	I have trouble keeping up with my work.

Response *Strongly agree, agree quite a bit, don't agree much, strongly disagree*

Self Esteem.

This is another of Pell's measures used in the ORACLE replication study (2002), which has been tested with Years 5 and 6 to receive a high reliability rating of 0.90. The scores for the 24 items are added to get a *negative, global self-esteem* score which can be reversed as necessary.

Table 20. Self-esteem items

	Item
1	Are you always getting into trouble ?
2	Would you say you were good at sport ?
3	Do you often feel lonely at school ?
4	Do you like doing physical exercises ?
5	Are you afraid when you get things wrong ?
6	When speaking to teachers, do you feel shy ?
7	Do you easily get upset when someone tells you off ?
8	Do you often find yourself day-dreaming in lessons ?
9	Will you get good grades in your tests and SATS ?
10	Do you think you are a pretty confused kind of person ?
11	Are you always making mistakes ?
12	Do you look forward to school games ?
13	Are you worried if you have to speak out in class ?
14	Are your parents often cross with you ?
15	Are you good at looking after yourself ?
16	Are you always worrying about something?
17	Do you think you could do better at school ?
18	Are you often sad because you have nobody to play with at school ?
19	Are you strong and healthy ?

20 Do you find most school work difficult ?

21 Do you think that others often say nasty things about you ?

22 Do you worry a lot before you have a test ?

23 Would you say you were popular with your class mates ?

24 Do you give up easily ?

Response

Yes, Not Sure/Sometimes, No

<u>*Survey Pilot*</u>

The survey was given to 66 pupils from a small local middle school (total role 183 pupils) to test the measures whilst gathering data to assist the headteacher's knowledge of his pupils. It was administered online through the provider *freeonlinesurveys.com* where results are available to download in Excel. The sample consisted of 26 girls and 40 boys across Years 5 (N=29), 6 (N=20), 7 (N=3) and 8 (N=14). The demographic measures returned usable data from all or the majority of participants. SES was coded for fathers only and the response rate was 71.2% of respondents. The *MEAPS* measure was responded to by 89.4% of pupils. Across the sample, 54.5% of pupils reported that they had experienced adult body changes, whilst 13.6% had not and 21.2% were unsure. The measures of attitude to school and self-esteem proved to be more internally consistent than in prior research (Table 21). This indicates that there was no negative effect of changing some wording (removing 'SAM') and in administrating the survey online.

Table 21. Comparative measures of reliability for SAM series

Variable	Pilot Study α	ORACLE 2002 α
Overall Attitude to School	0.90	0.84
School Enjoyment	0.83	0.75
Misery/Loneliness	0.90	0.78
Satisfaction with Work Environment	0.83	0.70
Negative Self Esteem	0.96	0.91

<u>*Survey One Administration*</u>

A letter of consent to participate in the survey was sent to parents of the Y7 pupils in September 2007. These letters were sent via an emailing system at Thorpe and were rigorously chased up for replies. Butterton letters were sent home via pupils and replies were collected as they came in by form teachers. This resulted in a lower response rate. The letters gave permission for pupils to participate in the survey in

September/November (Term 1) and again in June/July (Term 3). In early September, the schools arranged a Y7 assembly where I briefed the pupils on the survey with the aim of educating them about research to improve their responses and to better inform their personal consent (pupils who did not wish to participate on the day were given alternative work to do in class). I engaged them in discussion on research purposes and ethics, and on the importance of their contribution. The contact staff member at both schools delegated the survey administration to another staff member who ensured that the survey was given in class (Thorpe = ICT, Butterton = Science) by subject specialist teachers in late September/early November 2007. These survey 'line managers' were given letters explaining the survey procedure (including the online access details, a short text to read to pupils before giving the survey and tips for ensuring that it went well) and a paper copy of the survey. These were photocopied and given to classroom teachers administrating the survey. Copies of permission letters, the assembly plan, the survey instructions and both surveys are given in the Appendix. Both schools administered the survey in under a week and all the results were downloaded and ready for use by mid November 2007.

Determining the Population of Study

Cleaning the Data Sets

The data were entered into Excel and were checked for unusable cases[15] which were deleted. It was then sorted by school, gender and date of birth to identify clear examples of duplicate cases. These were only confirmed as duplicates if one case had significantly less data than another (indicating a 'repeat attempt' at the survey). Finally, individual cases were matched between survey one and two by their date of birth, gender and school attended.

Resulting Cases

In total, 322 children took part in the survey. From these, 192 children participated at both times one and two. This latter cohort is referred to as the 'through sample' as in

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[15] Cases were deemed unusable if they had partial data for the main scales of attitude to school and self-esteem.

oppose to the 'whole sample' (the latter being the total participants at either time one N= 252, or time two N= 262).

Table 22. The survey samples

	September 2007	July 2008	
	Whole Sample 1	Whole Sample 2	Through Sample
All	252	262	192
Middle School	55	86	46
Secondary School	197	176	146

	Female			Male		
	Whole Sample 1	Whole Sample 2	Through Sample	Whole Sample 1	Whole Sample 2	Through Sample
All	134	145	106	118	117	86
Middle School	35	53	30	20	33	16
Secondary School	99	92	76	98	84	70

Active participation

<u>*Identification of the Active Participants*</u>

The survey data were used to develop eight categories that represented different 'strata' (Teddlie and Yu 2007, p.90) of the total population. The strata was compiled of gender, puberty and attitudes given that Stage-Environment Fit theory is based on the link between pubertal/adolescent development and attitude to school. It was not possible to include further variables such as self esteem, achievement or socioeconomic status in the strata as the different combinations of variables had already yielded 8 groups of pupils (giving 16 potential participation placements across the schools).

Table 23. Deductive survey strata

Strata	Gender (B/G)	Attitude to School (H/M)	Pubertal Status (E/L)
1 (B-H-E)	Boy	High to Medium	Established
2 (G-H-E)	Girl	High to Medium	Established
3 (B-H-L)	Boy	High to Medium	Recent/Late
7 (G-H-L)	Girl	High to Medium	Recent/Late
2 (B-L-E)	Boy	Low to Medium	Established
6 (B-L-L)	Girl	Low to Medium	Established
4 (G-L-E)	Boy	Low to Medium	Recent/Late
8 (G-L-L)	Girl	Low to Medium	Recent/Late

The attitude to school responses were grouped into quartiles, giving the low/medium and medium/high categories. Pupils' responses within the top and bottom quartile or nearing these were preferred, to maximise differences. Established pubertal status was the 'yes' responses to having experience changes, and late status was 'no'. The data set was split by school and sorted by the three variables. A minimum of two cases and a maximum of ten cases were identified for each of the eight categories. Matching pupils' birthdates and identification numbers were sent by email to the schools who made the final selection by omitting special educational needs pupils or those who had known vulnerabilities, and by choosing pupils from either the same form class (Butterton) or from similar teaching groups (Thorpe), to assist the planned observations. Each school identified eight pupils, and two 'spare' cases to counter for potential attrition. The final selection of pupils were sent permission letters, explaining the ethnographic research and their prospective role in this. Nine Butterton agreed and were given parental consent to participate. Three of the chosen Thorpe pupils/their parents did not consent and were replaced by alternatives within the category. Table 24 shows that although not all categories were represented in each school, the categories were represented across schools hence maximum variation was achieved in the small sample.

Table 24. Strata of active participants

	Strata 1 B-H-E	Strata 2 G-H-E	Strata 3 B-H-L	Strata 4 G-H-L	Strata 5 B-L-E	Strata 6 G-L-E	Strata 7 B-L-L	Strata 8 G-L-L
Thorpe	Billy Brian Matthew	Ruby Chloe		Stacy	Jacob Kevin Charlie	Sam		
Butterton	Gus	Ayesha Yasmin	James Bobby	Deirdre		Joanna	Indiana	Lauren

A tenth Butterton pupil was selected before the interviews began, based on a request from a boy whose vulnerability became apparent only after first face-to-face contact with the pupils. Not only did his inclusion balance the groups in number and gender but it allowed the vulnerable pupil to have peer support company during the interviews. In total, six boys and four girls from each school participated. All pupils were of white ethnicity.

Figure 15 shows the balance of active participants given their scores on attitude to school and for self-esteem.

Figure 15. Active participants' attitudes and self-esteem by school
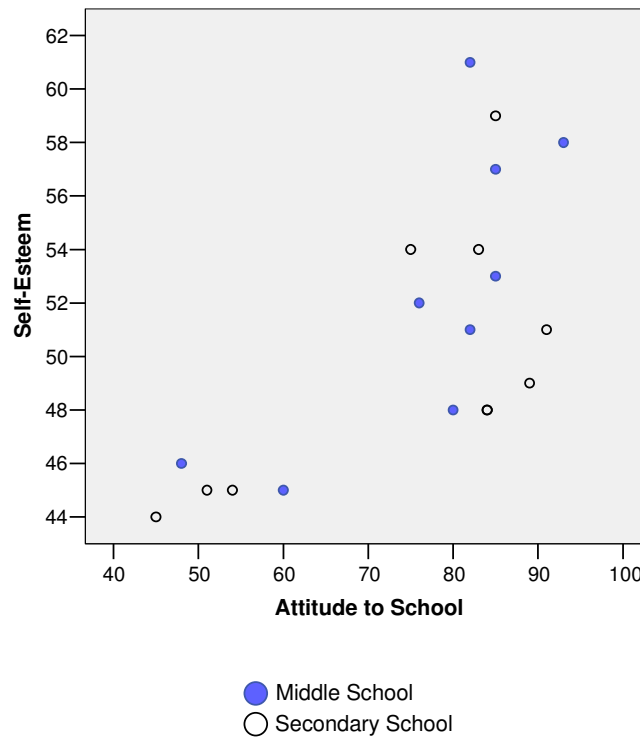
Cross Check of Active Participant Representation

The mean attitude to school scores from surveys one and two of the active participants and the remaining sample were compared to check whether being involved as active participants had distorted their representativeness to the sample. There were no significant differences in attitude to school between groups at either time (Mann-Whitney U). Both the active participants and the remaining samples' attitudes declined on average under one point on a 96 point scale (-0.88 vs. -0.29) across time.

Table 25. Cross check of active participant representation

		Attitude 1	Attitude 2
Y7 Cohort	N	233	246
	Mean	74.10	73.81
	sd	7.96	9.02
Active Participant	N	19	16
	Mean	75.32	74.44
	sd	14.55	14.86

Active Participation Research Design

The ethnographic research began with an active participation workshop where pupils learned about research methods, ethics and the purpose of the study before giving their informed consent. This was followed by termly interviews (N=4)and observation days (N=3), conducted over one school year (nine months). The interviews became more interactive across time, starting with an initial acclimatisation of the interview process then gradually introducing active participation methods (Figure 16). Observations were made across whole school days during which the researcher joined the participants in all lessons and in break times. Each set of observations and interviews were conducted a few days apart. As there were breaks of up to two months between visits, the order of observation and interview days was varied to counter for and utilise the effects of acclimatisation. Whichever day came second benefitted from increased personalisation with the researcher. It also allowed for further investigation of the themes arising in the day scheduled before it. The active participation research ended with a 'wrap up' workshop, designed to gather information on the pupils' experiences of participating whilst releasing them gently from the study.

Figure 16. Active participation research design
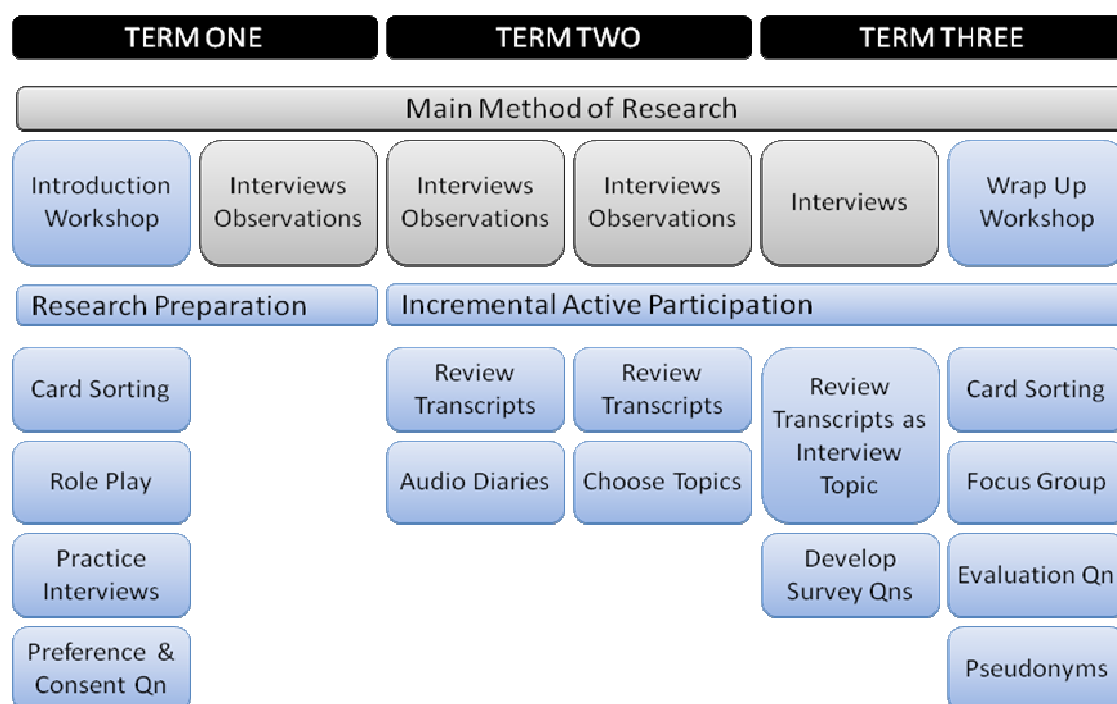
<u>*Ongoing Communication with Schools, Parents and Pupils*</u>

A letter outlining the active participation design was sent to schools in term one. Letters were also sent at the start of terms two and three to remind schools of the research planned for that term. Each of the three letters was accompanied by an email to arrange dates for the observations and interviews. The active participants were given one letter per term that detailed these dates. Examples of the letters are in the Appendix. Beginning in the introduction workshop, pupils were kept aware of their right to withdraw from the study as it was believed that their consent was 'fluid' and not static (Battacharya, 2007).

<u>*The Introduction Workshop*</u>

A two hour workshop was conducted in each school to scaffold pupils' understanding of the project and research methods whilst attempting to meet their social and emotional needs. It followed the current style of teaching that pupils would expect in school to induce a familiar atmosphere but was designed to be 'over and above' a school type experience by including healthy snacks and drinks. The pupils were engaged by several practical activities and slideshows. These provided familiarisation with psychology research, interview techniques, interview questions, research ethics and interview coping strategies.

Creating a comfortable and purposeful environment. The surroundings were prepared for creating good first impressions with healthy snacks and drinks laid out beforehand. As the pupils entered they were invited to call me by my first name. Everyone sat together in one group. The pupils were introduced to the workshop and given folders that contained copies of slides and activities for future reference. They were encouraged to ask general questions about the research and the researcher, whilst a slideshow of my family, pets and holiday photographs played in the background to increase familiarity. The main research question of 'investigating your experiences of school and growing up' was made transparent and discussed.

Scaffolding knowledge. The first educational slide show described psychological research as being the investigation of people's thoughts, emotions and behaviour. Pupils were told that "researchers always use a plan of action… this is called a *research design*" (Figure 1).

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Figure 17. Diagram of research design
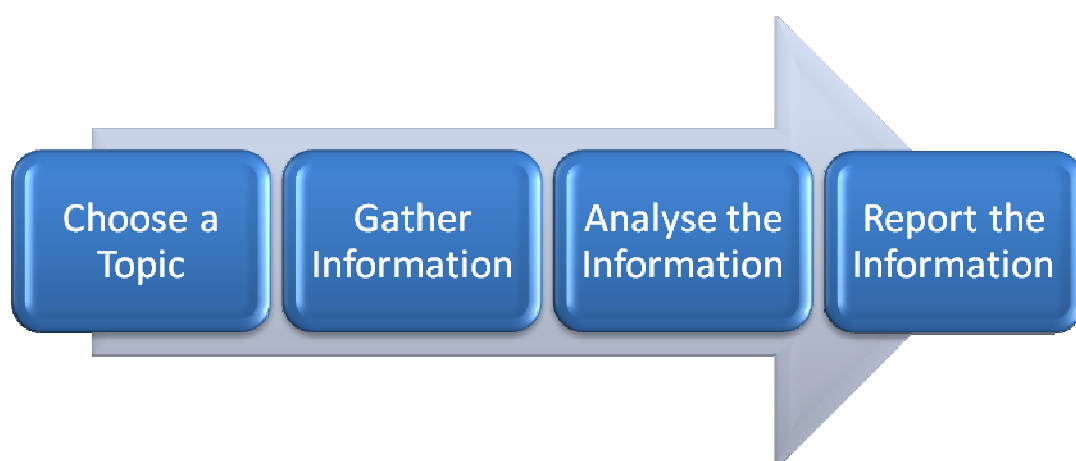
The methods of gathering information (<u>asking others</u>: interview, survey, mind maps, projective tests; and <u>watching others</u>: observation, video recording) were illustrated. A slide on 'How is my privacy respected?' outlined the concepts of anonymity and confidentiality. Finally, an overview of the intended research was given.

Challenging child-adult hierarchies. The first activity aimed to deconstruct perceived child-adult hierarchies that might inhibit active participation and adolescent autonomy. Building on the previous slideshow, the pupils were asked to order cards, representing different parts of research design, in a timeline. They were then given a different coloured card pair for each topic. They chose which colour represented the researcher, and which represented them as participants, and moved the card of the person who 'has the most choice and control' to the top of each pair.

Figure 18. Example of the 'research choice and control' activity
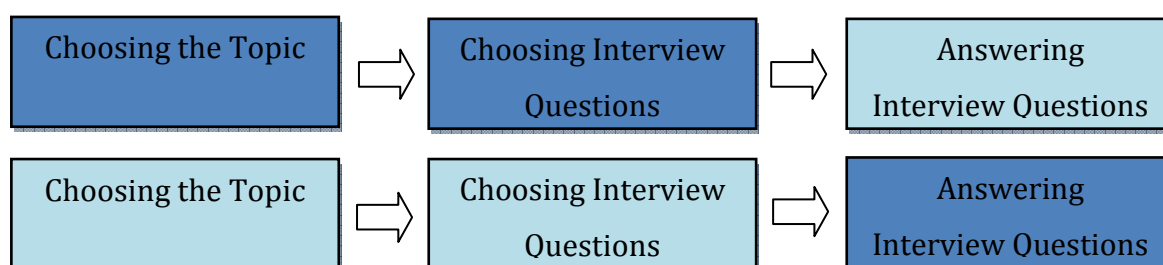
The results prompted discussion about power relations between the researcher and researched. Alternative solutions were offered by the researcher, as to how the participants could have control throughout the entire research process.

Training in interview methods. This activity aimed to empower pupils in their position as interview participants, whilst improving the validity and complexity of their responses. A

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slideshow outlined questioning techniques in relation to interviews. The four basic question types of *open, closed, leading* and *loaded* were discussed and the pupils were quizzed on which question type matched provided statements. They were next told that 'interviewers can fish for information using several techniques'. These were outlined as *prompting, deliberate pauses, repeating/rephrasing* and *encouraging continuation of topics*.

Figure 19. Metaphor of 'fishing for information'

Continuing the analogy, the pupils were invited to see 'who could catch the biggest fish', by interviewing the researcher. This activity generated much enthusiasm. Not only did it reverse power relations between the researcher and participants but also demonstrated through the researchers' improvisation how interviewees can, both purposefully and unwittingly, avoid giving complex information and how this can be managed ethically.

   Research ethics and coping strategies. The pupils were introduced to ethics in order to facilitate knowledge of their rights and build trust that would allow them to speak honestly and personally with the researcher. The heading of 'what is 'ethics'?' was followed by a series of simple definitions. The pupils were then engaged in a scripted role play, enacting an unethical interview as 'Sam' and 'Susie' followed by an ethical interview as 'Leo' and 'Caroline'. In discussion they successfully identified key unethical and ethical features of each interview. The image of a pair of scales then demonstrated the ethical balance between fishing for information and protecting the participants' anonymity and confidentiality (Figure 4).

Figure 20. Balance of investigation and protection

Finally, the pupils were given sets of 'interview coping strategies' cards. These included 'be honest when you don't understand the question', 'say when you have no information in your mind', 'ask the researcher to go over the question again', 'say when you don't want to answer a question' and 'ask to stop the interview'. These items were derived from anxieties and reflections gathered in the pilot study. The pupils were assured that at each interview these cards would be on hand for their reference.

   Gaining informed consent. Only after the pupils had a thorough introductory grounding in research methods was their final informed consent requested. This was gathered progressively throughout a simple questionnaire that measured their comfort levels of being interviewed, their desire to use an audio-diary, their preference for individual or peer-pair interview, and their overall perception of whether they wanted to participate. All pupils wanted to use the audio diaries and all gave their consent to participate. Six pupils were 'quite confident' whilst nine were 'very confident' about participating. Figure 21 shows the prevalence of gender differences where more females than males (n.6 vs. n.3) chose to be interviewed with a friend.

Figure 21. Preference for interview format

Preference for interview format (time one)
Alone | Don't Mind | With a Friend
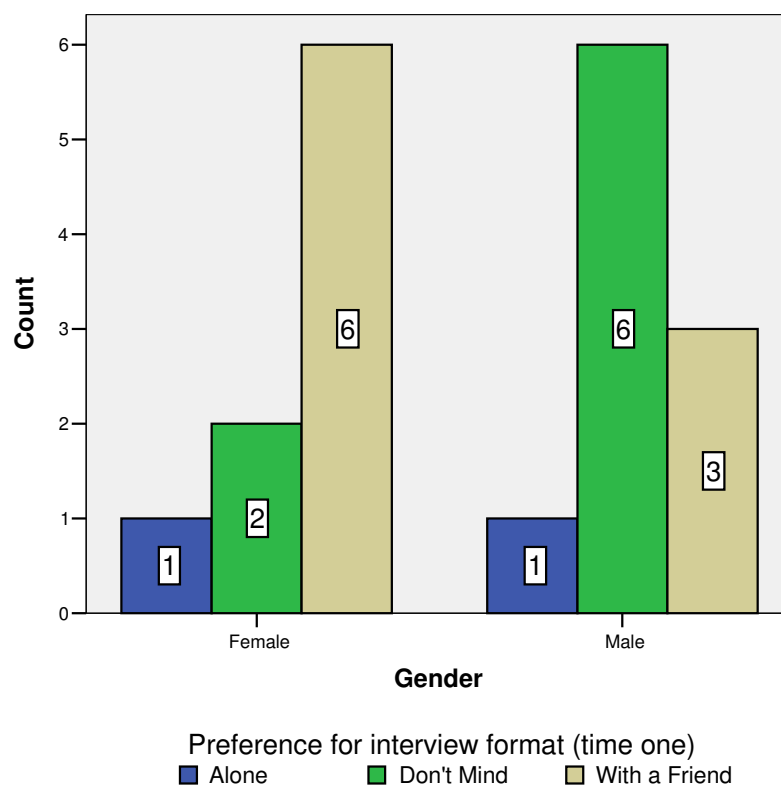
Observations

The ethnographic data gathering began in term one with a day's observation in each school. I arrived in time to attend pupils' form classes and joined them in their lessons throughout the day. Here I was not a participant observer but instead made targeted observations of each active participant across ten minute intervals. This enabled each pupil to be observed in class at least twice per term. The observation fieldnotes were focused on pupils' actual behaviour such as the things they said, their body language, their movements and their interactions with others. A conscious effort was made to not make inferences about behaviour whilst observing. This was to avoid personal judgement from biasing the observations (as noted in Delamont & Galton, 1986). An example of an observation transcript is given in the Appendix. After each lesson, pupils were invited to view their personal observations only, and to alert me to any instances where I had recorded their behaviours incorrectly. This was very useful for improving the quality of the observation fieldnotes and for enabling active participation. During break and lunchtime, I joined pupils for meals and spent time with them in the school grounds. Here they often pointed out interactions and places of interest. At these times I was a participant observer, and made fieldnotes quickly following events using a digital voice

recorder or in a notebook. At convenient times I made notes on the physical school environment, recording information such as noise levels, building layout and state of preservation, wall decorations and school organisation. To protect pupils' anonymity, I used coded names in all the observation notes. This system of day long observation (targeted, participant and unstructured) was repeated in the second and third terms, yielding 6 days of observation in total, and a total of 66 targeted ten minute observations.

Interviews

Each group of active participants were interviewed during one school day in a private administration office at the front of the schools. Each pupil was interviewed for thirty minutes, either alone or with a friend from the research group present as requested. When friends were present, they did not contribute to the interview unless asked. The half hour interview slots ran during lesson times only, not during break or lunchtime. Pupils often reported enjoyment of skipping classes to be interviewed. To increase their comfort in interview, I brought along bottled mineral water and sugar free cordial and they were free to make unlimited drinks by mixing this in plastic cups. They were provided with the coping strategy cards but interestingly did not use them at all, perhaps as these were considered to be unnecessary or symbolic of incompetency. Before the interviews commenced, pupils were encouraged to handle the digital recorder and make informal recordings. They were given the list of questions to look through beforehand and were asked to indicate their comfort in responding to these. During the interview, they were invited to ask questions about the researcher and were offered anecdotes about the researcher's experiences, to facilitate familiarisation.

The style of questioning was fairly casual. Although there was a written interview schedule, emergent topics of interest were frequently pursued. To help interpret early adolescent constructs and thought connections, the anthropological style of 'vernacular-term' questioning was often employed by asking participants 'what do you mean by…. that?' (as used by Eyre, Hoffman, & Millstein, 1998). Pupils were often reminded that if they had nothing in their minds in response to a question, that this was okay and they just need mention it. This appeared particularly helpful for reducing pressure to respond for several male interviewees who were often stuck for something to say and might have made it up otherwise.

Throughout the interviews, attitude to school was conceived of as a multifaceted construct. Like the summing of items in the attitude measure, it was induced that there

would be an overarching attitude held by individuals, and that this attitude would be of a generally positive or negative quality. This perspective was sometimes used to guide questioning, but not to limit it or response so as to leave room for other, alternative forms of attitude to emerge.

Term one interviews. Here, pupils were introduced to the format and expectations of a semi-formal interview. They were asked about their home backgrounds, their everyday lives in school and their perceptions of growing up. In particular, they were asked about what things were important to them in school/about school, and why these things were important. They were asked to imagine if somebody just like them was to come to the school, what they might say to warn the person or tell them they had to look forward to. These questions aimed to elicit their impressions of school without biasing the discussion towards a particular feature of school. Following the interview, their suitability for participating in the audio diary activity was investigated through subtle questioning about personal organisation skills and the chances of diaries being stolen or abused by siblings. All pupils were selected to participate.

Term two audio diaries. This method aimed to encourage disclosure by creating a balance of familiarity (prior knowledge of the research) and anonymity (removing the researcher's presence), a hypothesis driven by the pilot study findings (Symonds, 2008). Each group of participants was briefed on the purpose of the activity and on how to make audio diaries responsibly and without danger to themselves (as in using code names to prevent harm in the case of loss or theft). They were each loaned one digital voice recorder from ten that had been given to me free of charge and obligation from Olympus UK Ltd for use in the research. Attached to each recorder were laminated tags giving instructions for operation, and four questions (two open, two specific) to prompt reflections on perceptions of school. The adolescents could choose which question to answer each day. The operation tags ensured that they could erase and edit their recordings to assist privacy and comfort. There were no reported negative incidents with the diaries, data were retrieved from 19/20 pupils and 9/10 digital recorders were returned.

The diary results were disappointing as only two out of twenty adolescents[16] gave detailed data. The majority simply responded briefly, using short sentences and generalised information. Each recording lasted around 15 seconds. Despite the great exuberance conveyed by the adolescents in anticipation of the activity, the findings suggest that, perhaps in relation to age, oral self-reflections are not readily forthcoming without conversational or more detailed written prompts. The information received in the audio diaries was sufficiently little enough to allow them to be dropped from the study. If including them, the detailed information from two adolescents may have biased the wider pool of ethnographic data.

Figure 22. Audio diaries

Term two interviews. Pupils were asked whether things at school and their feelings about school had changed since the first term. They were also asked to discuss what made them happy at school, home and in general, to uncover their wellbeing needs, both developmental and in general.

Reviewing interview transcripts. In the second interview, pupils' active participation was increased as they were asked to review their interview one transcripts in a quiet place outside of the room, whilst the next pupil was being interviewed. Pupils crossed out sensitive information they did not want included in the study, highlighted information

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[16] These adolescents were an articulate high achieving boy, and a low achieving girl who characteristically explored her momentary and daily experiences through lengthy periods of talking.

that they did not want directly quoted and indicated transcription mistakes. Both genders tended to highlight items not to be directly quoted that evidenced prior, lesser markers of maturity status, such as earlier bedtimes, watching children's TV or playing with toys. Unprompted, they made additions to the data to show social progress, such as 'I am sitting at lunch with Year 9 students', (age 14), or 'I stay up later to help mum with activity x'. They were also concerned to improve their language by erasing slang and casual phrases. The male adolescents removed a few additional pieces of information: about physical self-consciousness, emotional displays, perceptions of girls and sensitive information about divorce. The information removed was of an insignificant amount compared with the total pool of data and was anyway repeated in other interviews. Therefore the provision for autonomy over the data was not thought to seriously threaten validity. Feedback on participation revealed that this activity was the most successful method employed during the year for relieving anxiety and assisting the quality of data (Symonds, 2009).

Term three interviews –first set. More active participation was employed in the third term interviews. The first set asked pupils to choose three out of nine topics to discuss from a set provided on coloured cards. These topic were the emergent themes from the first two sets of interviews that had, by that time, been coded during an interim analysis. I chose a fourth card at each time to ensure that all nine topics were discussed across the groups. Pupils most often chose to discuss school transfer, friends and school environment. The least popular cards were behaviour at school and growing up. Following the interview, pupils checked their interview two transcripts in the same method as before.

Term three interviews – second set. In the final interviews, pupils verbally critiqued their three interview transcripts for developmental change/stasis. They were asked to identify whether their current attitudes and perceptions differed from those in the transcripts, and to discuss why this was or was not the case. This gave plentiful information on specific changes that had occurred in perceptions and in home and school environments over the year. Finally, pupils were asked specific questions about Stage-Environment Fit. Until this time, no prompts on 'matching/mismatching' between their needs/desires and school had been given. The pupils were then asked to offer ideas for questions for the second survey and Gus and Bobby (who were amongst the last to be interviewed) helped

write the wording for the new questions (informed by pupils' suggestions and by emergent themes).

Table 26. School context interview questions

Interview One	▫ What things are important to you (what things matter to you) in school?
	▫ What is it about these things that makes them important?
	▫ If someone just like you was to come to this school, what might you tell them that they would like about this school?
	▫ If someone just like you was to come to this school, what might you warn them about?
	▫ What makes you happy about school?
	▫ Why does this make you happy?
	▫ Are there any things that make you feel uncomfortable in school?
	▫ What are these?
	▫ Why do they make you feel uncomfortable?
	▫ What do you need to make you feel comfortable in school?
	▫ What do you need to make you feel interested in your school work?
	▫ How do you feel about doing well in school?
Interview Two	▫ Have things changed at school since we last talked?
	▫ If so, how so? If not, why do you say this?
	▫ Has how you feel about school changed since we last talked?
	▫ If so, how so? If not, why do you say this?
	▫ Have you noticed any general changes in the way that people hang out and treat each other since the start of the school year?
	▫ Has any of this affected you in particular?
	▫ Tell me about the teachers at this school. What do you think their relationships with pupils in your year group are like?
	▫ Has this changed since the start of the school year?
	▫ Has any of this affected you in particular?
	▫ What do you need at school to feel happy?
	▫ How do you feel about concentrating in class? Do you find this easier or harder in some classes than others? If so, can you please describe this to me?
Interview Three Participants' choice of three topics. Researcher's choice of one topic.	School transfer
	▫ What do you think about transferring schools?
	▫ What was it like for you? (asked to secondary school pupils only)
	Purpose of school
	▫ What would you like to do when you leave school?
	▫ Is school important for this?
	The Wider School Environment
	▫ What do you think about…
	▫ School size
	▫ School year groups
	▫ School buildings and classrooms
	▫ School break
	▫ School dinners
	▫ School uniform
	▫ School commute

Questions derived from emergent coding themes.	<u>The Learning Environment and Learning</u> ▫ What do you think about the way in which your lessons are organized? ▫ What do you like about your teachers or about teachers at this school? ▫ What do you not like about your teachers or about teachers at this school? ▫ What do you like about lessons? ▫ What do you dislike about lessons? ▫ How do you feel about your own achievement at school? ▫ How do you feel about the way in which your brain works in lessons? ▫ How do you feel about the way in which your brain works when you are around your friends? <u>Expectations of Behaviour</u> ▫ What is good behaviour at school? ▫ What is bad behaviour at school? ▫ What do most teachers expect you to behave like? ▫ What do you think about your school's system of behaviour punishments and rewards? ▫ How much responsibility do you get at school? ▫ How much freedom do you get at school? <u>Peer Groups</u> ▫ How do the people in your friendship group act towards each other? ▫ Are there times when you have been unhappy because of other pupils in school? This could be your friends or other people that you know. ▫ How are friendship groups organized in your school?
Interview Four Review of transcripts & SEF questions.	▫ What do you think about growing up in school? ▫ Is there anything about school that does not fit well with growing up? ▫ Is there anything about school that fits well with growing up? ▫ Has the way you feel about school changed as you are getting older? ▫ If so, how so? If not, why do you say this? ▫ What is more important for growing up – school or home? Please explain your answer.

Table 27. Home and peer context and growing up interview questions

Interview One	▫ What are the most important things that you remember about your childhood? ▫ Tell me a little bit about what things were like when you were 9/10 years old ▫ Do you talk with anyone at home about growing up?
Interview Two	▫ Have you noticed any general changes in the way that people hang out and treat each other since the start of the school year? ▫ Has any of this effected you in particular? ▫ What do you need at home to feel happy? ▫ What do you need in general to feel happy? ▫ What types of things make you unhappy? ▫ What makes you the most happy? ▫ How do you feel now about growing up? Is this the same or different from before?
Interview Three Participants' choice. Questions derived from emergent coding themes.	<u>Social and Cognitive Development</u> ▫ At what age are you no longer a child? ▫ Do you think this is the same for everybody? ▫ Have other people's expectations of your behaviour changed since you've been growing up? ▫ Has the way that you think about things changed this year? ▫ Do you talk to anyone about growing up? ▫ How often do you think about growing up? ▫ What types of things do you think about the most? ▫ What types of things do you think about the least? <u>Peer Groups</u> ▫ How much time do you spend alone with your friends with no adult present outside of school? ▫ How do the people in your friendship group act towards each other? ▫ What do you need to feel happy in relation to your friends? ▫ What do you talk about the most with your friends? Has this changed since you were in Year 6? ▫ Do you have any thoughts about romantic love? <u>Growing Up</u> ▫ What is growing up like? ▫ How do you feel about growing up? ▫ Is this the same or different from the last time we talked?
Interview Four Review of transcripts & SEF questions.	▫ What do you think about growing up in school? ▫ Is there anything about school that does not fit well with growing up? ▫ Is there anything about school that fits well with growing up? ▫ Has the way you feel about school changed as you are getting older? ▫ If so, how so? If not, why do you say this? ▫ What is more important for growing up – school or home? Please explain your answer.

Post-Test Wrap-up Workshop

To complete the research, a two hour 'wrap-up' workshop was conducted at the end of the school year. This intended to finalise the pupils' participatory experiences in a gently structured manner. It also provided opportunities to discuss participation.

Firstly, pupils completed a short questionnaire. This assessed how comfortable they were with each aspect of the research process and how much comfort was awarded to them by the different active participation methods (Figure 23). It also investigated their confidence in being interviewed and this data is compared to their pre-participation confidence gathered at the start of the project (Figure 24). Secondly, pupils completed a card sorting activity where they listed ten topics about participation in order of preference for review in a focus group discussion. Thirdly, these results were used to open and stimulate conversation in the discussions, which were soon after led by pupils.

Figure 23. Comfort awarded by active participation methods
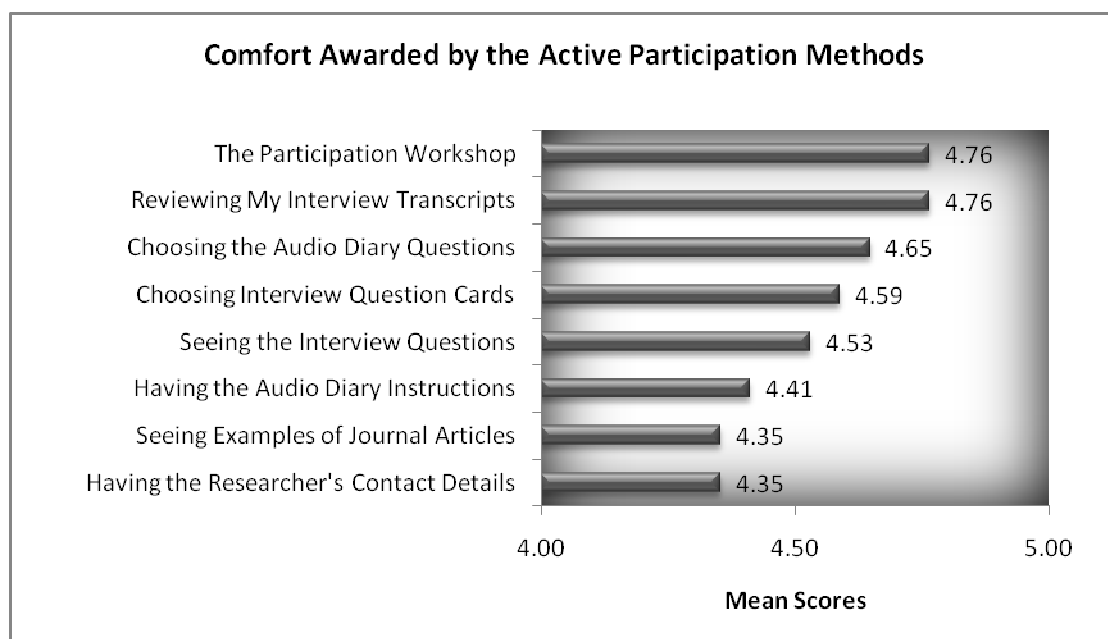
(Scale: 1= It made me uncomfortable, 2= It made me a bit less comfortable, 3= no real feelings, 4= It made me a little more comfortable, 5= It made me a lot more comfortable)

The general perspective appeared to be that the active participation methods had facilitated pupils' disclosure and relieved their anxieties. Fifteen out of eighteen pupils present reported being able to say most things or everything they felt about growing up and about school in interviews (Figure 24). A full analysis of the active participation data is given in Symonds (2009).

"I felt really relaxed, because you talked us through everything and we didn't have to answer the questions, we had a choice, and we had some control over what information we gave, and so it made us feel more confident, so we can come out with the answers, instead of keeping it inside us" (Gus, focus group interview, term three).

Figure 24. 'Amount of Things I Could Comfortably Say in Interview About…'
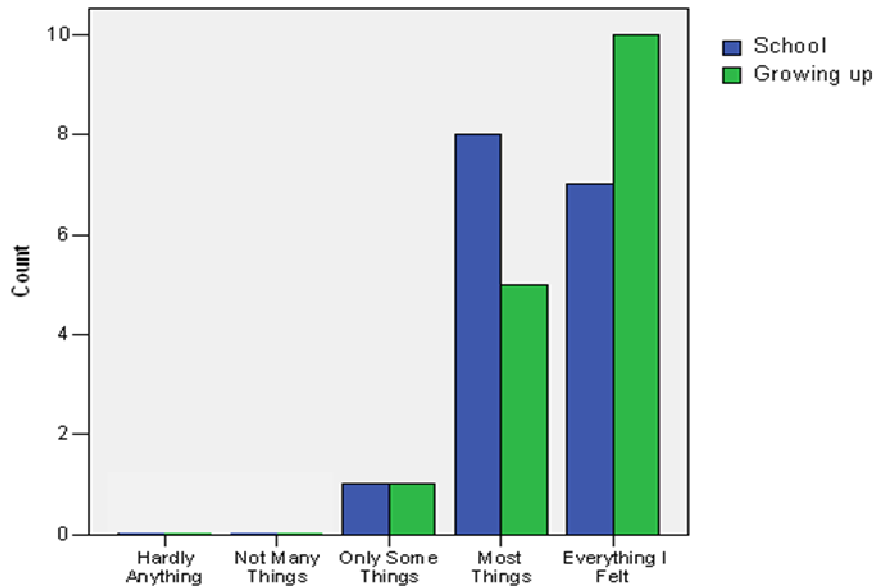
Survey two

The second survey was given in June/July, using the same administration method as before. This survey aimed:

1. To test emergent variables and inferences from the ethnographic research with a wider population.

2. To measure change across the year by repeated measures of self-esteem and attitudes.

3. To compare outcomes in the schools.

4. To identify whether the active participants' attitudes had changed in a manner that was non-normative in relation to the whole sample, in order to identify whether their involvement in the research had affected their representativeness.

New variables

Emergent themes included psychosocial maturation, the importance of school for identity construction and perceptions of individual subjects. New questions were formed to test these variables with the help of the active participants.

Psychosocial maturation

Single items tapped into areas of psychosocial maturation. Pupils were asked what time they usually went to bed on week nights (5 options: *7-8pm* to *11-12am*), and how much time they spent with their friends without an adult present after school (5 options: *none* to *5-10 hours per week*). They were asked separate questions about how much they liked spending time with friends outside of school, spending time with friends in school, spending time with their families, doing things alone, going to new places and playing sport. These items were rated on a five item scale (*a lot* to *not at all*). The importance of school for their future careers was assessed with a four point scale (*very important* to *not at all important*).

Additional attitude to school items

As the concept of attitude to school was explored, the importance of enjoyment of subjects and freedom in learning emerged. Pupils' perceptions of subject enjoyment, of freedom in learning, of the personal importance of subjects to them and how good they thought they were at subjects were queried for English, maths, science, physical education, design technology, art, and music. The subjects were selected to cover the core subjects and to represent physical, practical and arts based enrichment subjects. Individual items assessed pupils' enjoyment of learning and liking school (*a lot* to *not at all*) which could be triangulated with the main measure. Pupils were queried about their preference for being in a three or a two tier system, and were asked to report up to three things that they thought school was important for (open ended).

Table 28. Survey two questions

Type of Data	Format of Data	%
Identifier with First Survey (Demographic)		
School	Middle, secondary	100%
Gender	Female, male	100%
Date of Birth	Day, month, year	100%
Maturational		
Time Spent in Unsupervised Play	1 item, 5 point scale	99%
What I do the Most in Unsupervised Play…	5 multiple choice & *1 open ended* options	99%
Bedtimes	5 multiple choice options	99%
Liking of Spending Time with Family	1 item, 5 point scale	99%
Liking of Friendships Outside of School	1 item, 5 point scale	99%
Liking of School Friends	1 item, 5 point scale	99%
Importance of Education for Career	4 multiple choice options	100%
Attitude to School		
Attitude to School	24 items, 4 point scale	100%
School Related Self Esteem	24 items, 3 point scale	100%
School is Important For…	*3 open ended options*	100%
Enjoyment of Subjects*	7 items , 5 point scale	100%
Personal Importance of Subjects*	7 items, 5 point scale	100%
Academic-Self Concept Across Subjects*	7 items, 5 point scale	100%
Freedom in Learning in Subjects*	7 items, 5 point scale	100%
Liking of Learning at School	1 item, 5 point scale	99%
Liking of School in General	1 item, 5 point scale	99%
Further Extra-School Factors		
Liking of Doing Things Alone	1 item, 5 point scale	100%
Liking of Going to New Places	1 item, 5 point scale	100%
Liking of Playing Sport	1 item, 5 point scale	100%

(* subjects assessed were English, Maths, Science, Information Communication Technology, Physical Education, Design &Technology, Music)

Timeline of research

In total the fieldwork took nine months from September 2007 to July 2008 (Table 29). The time between July 2008 and November 2008 was used for transcribing interviews. This occurred with the help of undergraduate transcriptionists who had previously been my supervisees. Each student signed a data protection agreement (given in the Appendix) and were given a guide to transcribing. The resulting transcripts were of very good quality. The survey and ethnographic data were analysed over six months (November 2008 – May 2009). During this time, both schools were provided with a full report of the survey data. From June to September 2009, the literature review was updated, a final analysis plan was hatched and the data were reanalysed in the process of writing the thesis chapters. The methods and discussion section were written last.

Table 29. Fieldwork timeline

Term 1 (first half)	Term 1 (second half)	Christmas Holidays
Survey One *Identification of Active P's*	Participant Workshop Observations One Interviews One	*Interim Analysis of Survey Data*

Term 2 (first half)	Term 2 (second half)	Easter Holidays
Audio Diaries *Interview Transcription*	Observations Two Interviews Two	*Interim Analysis of Ethnographic Data*

Term 3 (first half)	Term 3 (second half)	Summer Holidays
Observations Three Interviews Three	Interviews Four Wrap-up Workshop Survey Two	*Interview Transcription* *Preparation of Survey Data*

Validity

Several methods of improving data validity were employed in the study. These have already been discussed, but are overviewed again here to provide a fuller picture. Firstly, the active participation was thought to improve the quality of the data by engaging pupils in reviewing their observation and interview transcripts for inaccuracies, by scaffolding their understanding of research processes and improving their participation skills and by assisting their comfort in interview. Secondly, my reflexivity with their perceptions of school environment was kept to a minimum by avoiding making suggestions about what school was like, and by spending an effective yet economical amount of time in the school

environment, therefore not becoming a part of it. The reflexive nature of active participation was checked by a comparison of active participant and year cohort attitude to school scores. The ecological validity of the study was facilitated by emergent interview and targeted yet naturalistic observation data and by the use of this data to form part of the final survey.

Analysis

The data available for analysis by November 2008[17] was 66 targeted observations and additional pages of fieldnotes, school timetable and curriculum documents, 80 interviews and two surveys of 252 and 262 pupils respectively. The ethnographic data were inputted into NVIVO 7 and were analysed separately to the quantitative data.

The analysis followed a pyramid design where the ethnographic data, which formed the bulk of the study, was analysed in increasingly specific forms until it reached a point where significant meaning would have been lost by condensing it further. Links between categories were established using an in vivo method and were pulled together in a Network of Perceptions (Chapter 8). This provided a framework for guiding the survey analysis that both tested and provided a quantitative description of the ethnographic observations and inferences.

The ethnography is used to guide the survey analysis firstly because it is mainly comprised of language based data and as Miles and Huberman argue (1994), words are "fatter" than numbers and "render more meaning than numbers alone" (p. 56). Secondly, its data is semi-emergent and open ended and therefore more authentic to the phenomenon of study than the deductive survey (even at time two).

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[17] Omitting the active participation data gathered in the introduction and wrap-up workshops which is a separate study written as a conference paper (Symonds 2009).

Figure 25. Pyramid analysis design
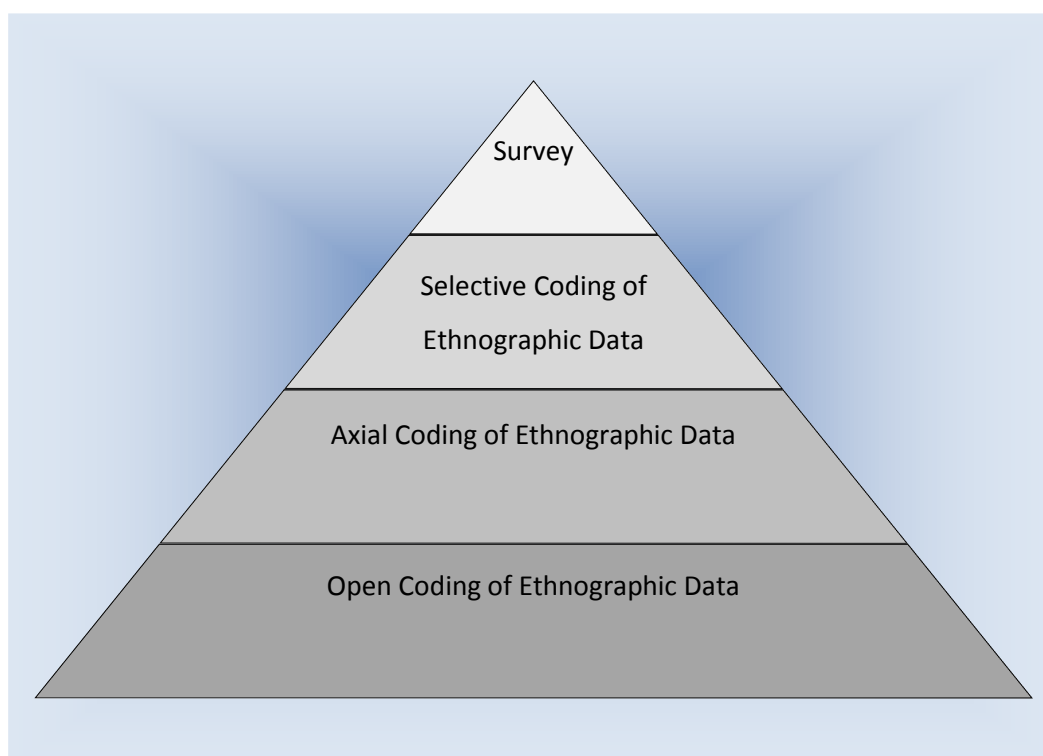
Coding of ethnographic data

Miles and Huberman (1994) describe the fieldworker's mind as "the soft computer" (p.52) that systematises and interprets detailed information rich in meaning. The ongoing coding of interview and observation data used the intuitive programming skills of this soft computer to identify patterns and trends, to pull out unusual and important information and to form categories to contain this data.

Open coding

'Open-coding' (Glaser & Strauss, 1967) as developed in grounded theory, is a technique of inductively systematising data. Like the pyramid analysis design model, this technique begins as closely as possible to the data, by forming codes from words and topics of interest in each successive sentence or chunk of information in a transcript, then becomes more abstract as these codes are added to or refined by subsequent reading and categorisation of the data. Once a fairly firm system of codes is in place, then a looser reading of transcripts is employed and it becomes easier to siphon information into bulk categories. However, my eyes were still open to small details, such as the particular use of a word, or a phrase/opinion that seemed unusual compared to others. These either added

a new dimension to an existing code or were used to form codes of their own, which were sometimes added to as the remaining data were analysed.

The codes were developed in vivo, that is directly from the data. However, some of the data were still linked to prior theory as it had been prompted by the interview questions constructed to test prior assumptions. Yet much of the data were emergent as this was either free discussion or had been prompted by interview questions that were based on emergent topics from these discussions. When interpreting the results of this study it is advisable to bear in mind that the codes are in vivo categorisation of a mixture of prompted and emergent psychology.

A total of 72 codes were developed, as a result of interim coding during the fieldwork and during a subsequent longer period of data analysis. Data was often 'double coded', as in if the participants said that they enjoyed design and technology because they had freedom when making an object, then this piece of data would be classed as both 'liking of subjects' and 'freedom in learning'. Likewise if they said that they disliked being at school when teacher were too strict this would be coded as 'attitude to school negative' and 'teacher dislike'. The data within each code could then be analysed to uncover which factors were interrelated with this, and to what extent. This allowed for a qualitative correlational approach to the ethnographic data analysis.

Axial coding

The second step in grounded theory coding is 'axial coding' where codes are clustered around 'axes' or intersections to create broader classifications (Glaser & Strauss, 1967). This was achieved in my study by ordering the codes into 'tree nodes'[18]. As the research was longitudinal and emergent, this gave me opportunity and reason to refine the nodes across one year, beginning with the interim analysis. The general pattern of the codes was that they clustered into either school related or specific perceptual areas of wider phenomena, such as the physical environment, activities, relationships and self-perceptions (e.g. 'perceptions of teachers'). These node categories provided a useful and manageable framework for analysis in line with person-environment fit. Like the codes within them, the nodes were fairly conceptually independent but were formed of data that was interrelated across the set.

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[18] 'Tree Nodes' is the term used by the computer program NVIVO.7 for overarching categories. These can be used within the program to form conceptual maps.

<u>*Selective coding*</u>

The nodes were then clustered selectively in order to show the relationships between them, a technique known as 'selective coding' which is the third and final step of coding in grounded theory. As the research was longitudinal and emergent, I had time and reason to make three attempts at selective coding, using different techniques of linking the nodes (and codes) together.

First attempt. The first grouping of nodes occurred in order to form a conceptual framework, being "the researcher's map of the territory being investigated" (Miles & Huberman, 1994, p. 19). This map draws on the "system of concepts, assumptions, expectations, beliefs and theories that supports and informs" my research to form a "tentative theory" of the studied phenomena. (Maxwell, 1998, p. 77). It is made out of information 'bins' that represent events, settings, processes and constructs such as school transfer, school size and identity. The conceptual map (figure X) was developed following the interim analysis of interview and observation data and was presented as part of a poster at the Society for Research on Adolescence's biannual conference in Chicago in March 2008. At this point the nodes were the broad categories of biological and biosocial functions, psychological functions, social activities, social representations and school structure features. They were grouped very simply, to indicate that biological processes feed psychology in development, and that these influence the social activities and representations apparent in the adolescent's life, as do the structural features of school. The main problem with this framework was that these links were only *implied* by the data and were based mainly on prior reading and on my emerging understanding of the phenomena of study. They are 'bulk' links that represent a range of connections, thus although they show that there is a process, they do not clearly indicate what this is or how it might occur.

Figure 26. Conceptual map (March 2008)

STAGE-ENVIRONMENT FIT
Inductive Coding Structure From the First Set of Ethnographic Data

Biological and Biosocial Functions

| Appearance | Energy | Memory | Thought Construct Development | Sexuality & Romance |
| Aggression | | | |

Psychological Functions

| Aggression | Competition | Self Efficacy | Confidence | Depression |
| Anger | | | | |

Self Concept Development

| Autonomy | Identity (current) | Identity (future) | Self Consciousness | |
| Independence | | Aspirations | | |

Social Activities & Empirical Observations

Peer Group Organisation	Peer Support & Respect	Peer Pressure & Bullying	Unsupervised Play
Family Routines	Parental Reliability & Support	Freedom Given by Parents	Home and Community Activities
Relatedness with Teachers	Teacher Authority	Freedom Given by Teachers	
Experience & Salience of Change	Information About Growing up	Age, Sex, Appearance Differences	
Negative Behaviour (own)	Positive Behaviour (own)		

Social Representations

| The End of Childhood | Maturity Expectations (others) | Maturity Expectations (self) | Growing up as a Construct |

School Structure Features

School Size	Age Group Span	School Buildings & Grounds	School Dinners
Bureaucratic Administration of Learning	Organisation	Behaviour Control Systems	Classroom Resources	School Break
School Transfer			
Extra-curricular Activities			

Second attempt. The next grouping of nodes occurred once all the ethnographic data had been inputted and exhaustively coded. This attempt was simpler as it split the nodes into two dimensions: school (e.g. liking teachers) and 'adolescent development' (e.g. growing up, home life) perceptions. The data overlap between the two dimensions was far smaller than the overlap within the dimensions which justified the split for analytical purposes. Within dimensions, nodes were grouped into wider categories that attempted to define the qualitative nature of data within. For school perceptions (Figure 27), these categories were purely descriptive (e.g. 'activity perceptions' and 'relationships'). There was no attempt to show links between categories other than by grouping them into wider categorical bins. However the adolescent development perceptions (Figure 28) were in themselves a process therefore they were binned in consideration of how the links between them might contribute to development in a particular area. At the time of analysis, the pupil's maturity self-perceptions were of much interest as this code had a wide and consistent range of overlap with perceptions of home, self, peers and school. Most extra-school nodes (and codes), with the addition of school transfer, were able to be linked as part of this category. Those that could not provided an interesting insight into development that occurs 'under the radar' of pupils' maturity expectations: they observe these processes but perhaps do not expect or at least utilise them for constructing their own development. This second analysis revealed the usefulness and authenticity of linking codes directly from the data in comparison to using informed guesswork (as in the first conceptual map).

Figure 27. Attitude to school dimensions (May 2009)
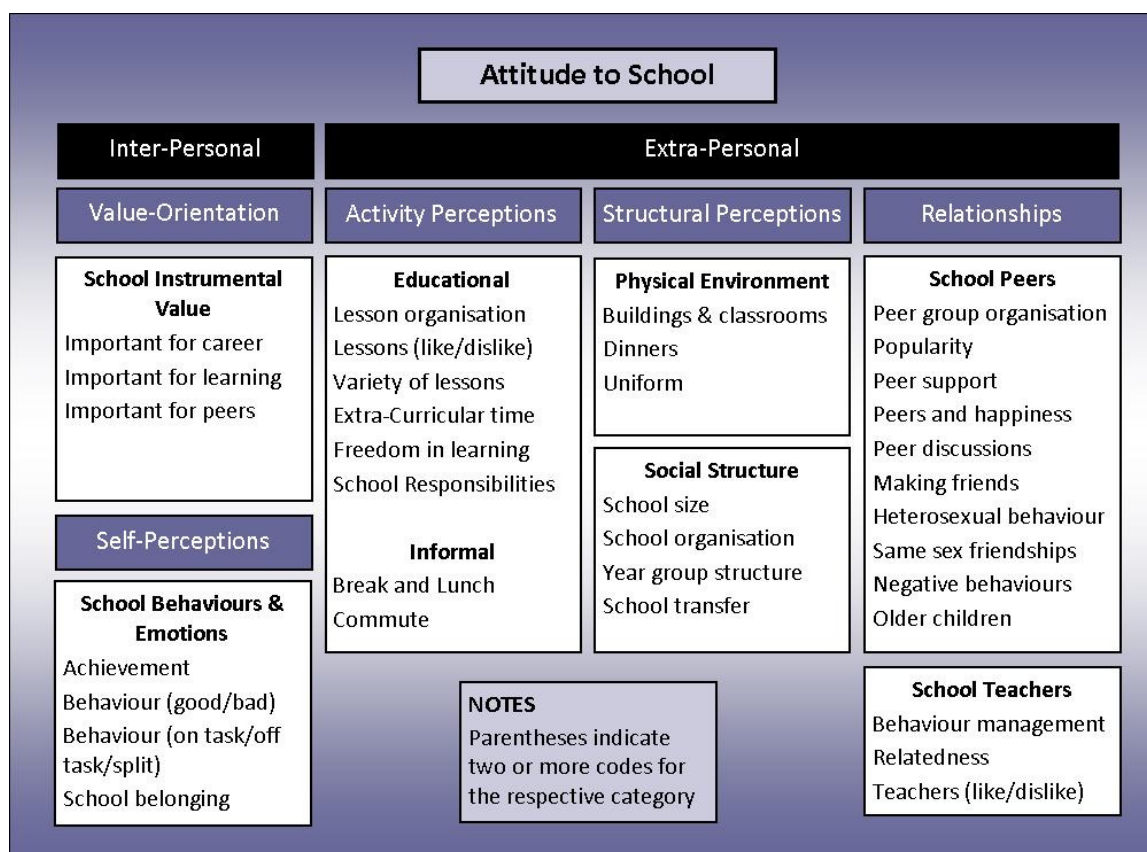
Figure 28. Perceptions of home and of growing up (May 2009)
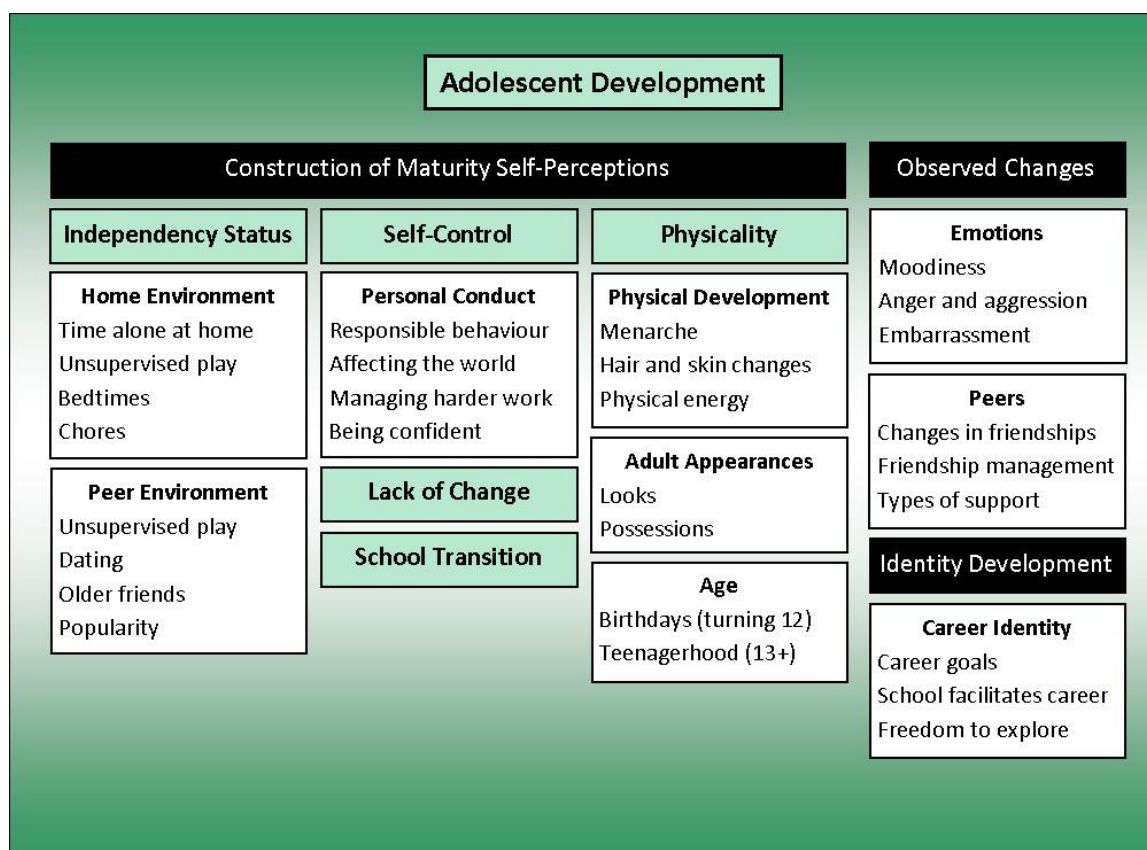
Third and final attempt. The first two attempts at selective coding acted as pilot analyses that informed the final analytical methods used in this thesis. As shown by the inclusion of 'school transition' in the adolescent development model above, and by the inclusion of perceptions of peers in both models, there was no clear split between in school and extra-school factors or of developmental factors from schooling. Instead, development appeared to be occurring across and within the fairly distinct environments of self, home, peers, and 'schooling' (as in oppose to 'school' to distinguish between educational provision and whole school environment). After the literature review was finalised, it became clear that Bronfenbrenner's concept of microenvironments was an excellent tool for dividing the data: into self, home, peer and schooling developmental contexts. The links between contexts (and specific features within them) were not readily guessable using prior theory thus needed to be analysed in vivo. The method of doing this is given below.

Analysis response to research questions

1. What is the psychosocial development of early adolescents in my sample?

a. What are pupil's perceptions of their external environments and of themselves across time?	• Coding perceptions. • Separating these into developmental contexts. • Analysing each code within contexts.
b. What are the links between perceptions/experiences within and across multiple contexts? *(using Bronfenbrenner's perspective of the micro- and mesosystems)*	• Identifying links in vivo from analysis of codes within contexts. • Tables of in vivo links for each developmental contexts. • Constructing a network of links (perceptions) across contexts.
c. What are the similarities and differences in these perceptions and experiences and in their linkage, between individuals? *(uncovering developmental commonalities and variants)*	• Analysing each code within contexts for group and individual differences/similarities. • Paired case studies of similar/different trajectories across the Network of Perceptions and in individual domains.

Firstly, the individual codes within each developmental context (e.g. peer support within 'perceptions of peers') are analysed between schools, genders and individuals, in order to find developmental patterns and individual differences. These reveal common and less common links across contexts. For example, analysis of peer support (Chapter 5) shows similarities and a gender difference in why peer support is important, both of which link to pubertal development as a modifier of possible social interactions.

Once each code is analysed in this manner within context, the links identified are summarised in a table (end of Chapters 4-7). A notation system is used to aid interpretation of these tables, which was developed during the analysis as a descriptive categorisation of all data within the set. It is a reconfiguration of the four forces hypothesised to influence attitudes and development in the literature review (Chapter 1, Figure 3), into a more Bronfenbrenner type framework of (i) biology, (ii) individual psychology, (iii) family influences, (iv) peer influences, (v) schooling influences and (vi) neighbourhood influences.

The dependent variable of overarching attitude to school is analysed using the same format as the individual codes but only after it is split into positive, negative and instrumental perceptions and a cross tabulation analysis of 'double coded' data within each of these had been applied. This extra structure provides a deeper analysis of the dependent variable and helps clarify direction of effect. The summary of links between overarching attitude to school and other codes are given in a table midway through Chapter 8.

Then, the tables from Chapters 4-8 are amalgamated into a 'Network of Perceptions' by bringing together all the links for each code into a web of in vivo links with attitude to school at its heart. Much like one spins a map of the world to observe England as the country at the front, this map could have been drawn in different angles. Therefore the Network of Perceptions provides a summary of the ethnography of pupil's psychology 'positioned' around attitude to school, that is aimed for in the research design.

A final response to research question one is the in depth exploration of individual differences/similarities in two paired case studies (2 x 2 pupils) that contrast and align psychology in individual codes and in the Network of Perceptions.

2. Specifically, what is the role of school environment in this psychosocial development?
and
3. Specifically, what is the role of multiple life course transitions in this psychosocial development?

As the links between perceptions are identified they are coded as one of six types of influences using a notation system, as described. These include (i) biology and (v) schooling which are coloured green and white respectively in the Network of Perceptions.

In this manner, the role of school environment and life course transitions is clearly identifiable as part of the wider psychological ethnography. Their influences are also considered in the paired case studies.

The combined effect of school environment and school transition is investigated by comparing scores between schools on the attitude to school measure, and on the emergent factors within this. This analysis reveals whether attending a school without transfer and with different environmental features at age 11/12 is related to pupils having a different average level of attitude to school.

4. Specifically, how does environment and development affect attitude to school?

a. What are the strongest influences on attitude to school from amongst the contextual, psychosocial developmental and transition influences?	• Observing most direct influences on attitude to school in the Network of Perceptions. • Translating these constructs into latent and measured variables. • Single and multiple regression of attitude on these variables.
b. From these, what are the strongest influences on declining attitude to school?	• Cluster analysis using attitudinal trajectories and the strongest unique influences on attitudes. • Analysing the declining attitudes profile for group differences with other clusters.

The fourth research question centres the analysis on attitude to school. As the Network of Perceptions is constructed from this as a centrepiece, all direct (identified) links between attitude to school and other factors are accounted for. These include specific schooling, peer and self perceptions and are translated into latent and measured variables using the survey data. As quantitative data, they can then be tested for the strength of their influence independently, and in relation to each other and to potential factors unaccounted for in pupils' perceptions through regression analysis. Attitude to school and the strongest unique influences on this are then used in a cluster analysis that uncovers how these variables are displayed within subgroups of the Y7 cohorts. A group with declining attitudes emerges and are compared to other key clusters to isolate the group differences that might predict declining attitudes.

5. Does Stage-Environment Fit actually exist?

a. What evidence is there for developmental needs?	• Table of emergent adolescent psychology
b. What evidence is there for a matching/mismatching between these and school environment?	• Description of interactions between adolescent psychology and school environment
c. How, if at all, does this affect pupils' attitudes to school?	• Description of interactions in relation to attitude to school. Illustrated with predictors of attitude to school.

In the discussion section, the emergent adolescent characteristics and needs are tabled in comparison to those identified in prior literature. Specific interactions between psychology and school environment are detailed in relation to these developmental features, and to attitude to school. The significant predictors of attitude to school that were part of this interaction are also discussed. The extent to which these interactions resulted in positive or negative wellbeing is used to evaluate whether the matching/mismatching construct is ecologically valid. This inductive testing of Stage-Environment Fit potentially provides the first critical empirically based analysis of the theory since its conception.

Ch 5) Perceptions of Schooling

Introduction

The target pupils' perceptions of specific features of school were coded inductively from the interview data. In this chapter, each key feature of schooling identified in their perceptions (e.g. lunchtimes) is analysed to show similarities and differences in psychology and behaviour between the two schools. The analysis draws mainly from interview data, and lightly illustrates it with observations of the pupils and survey findings. The chapter ends with a summary table that identifies common influences on perceptions (such as practical lessons positively influence enjoyment of learning) from the similarities and differences in the perceptions of individual pupils and of the grouped pupils between schools. To begin the chapter, an objective analysis of the school environments is conducted using general observations, interviews with senior staff members, document analysis of school timetables and calendars, and Ofsted statistics. This provides a background to the pupils' perceptions of their educational and organisational environments.

Throughout this and further chapters, the middle school is referred to as 'Butterton' and the secondary school as 'Thorpe'. In tables with interview data, these are indicated as 'constant environment' and 'altered environment' respectively to maintain a focus on the effects of transfer.

The secondary and middle school environments

The organisational and physical environments of the middle and secondary school are summarised in the following table and then discussed comparatively. Clearly observable differences are shaded in gray.

Table 30. Comparison of school environments

Observational Unit	Thorpe (transfer)	Butterton (no transfer)
Population		
Transfer Points	Y7 & Y12	Y5 & Y8
and Age Range	Age range 11-16 years	Age range 9-13 years
Roll Size	1173	465
Class Size	30 for each Y7 'set' group	25 for each Y7 form class
	15-31 across subjects	20-25 across subjects
Year 7 Cohort	Y7 n.243	Y7 n.100
	8 x Y7 classes	4 x Y7 classes
Teachers		
Teacher-Pupil Ratio		
Teachers per Subject	1-2	1
Teachers Across Year	25 overall for each adolescent	9 overall for each adolescent
Calendar	3 terms yearly	3 terms yearly
Timetable		
Weekly Timetable	Lessons: 5hrs x 5	Lessons: 5hrs x 5
(daily x weekly units)	Morning break: 20m x 5	Morning break: 25m x 5
	Lunchtime: 35m x 5	Lunchtime: 1hr x 5
	Tutor time: 25m x4	Tutor time: 20m x3, 20m x 2
	Assemblies: 30m x 1	Assemblies: 20m x 3
Weekly Time at School	31hrs 40m	35hrs
academic time	25hrs	25hrs
free time	4hrs 30m	7hrs
pastoral time	2hrs 10m	2hrs 40m
Yearly Time at School		
Curriculum		
Formal Education	15 subjects in total	13 subjects in total
	Core x 4, enrichment x 10	Core x 4, enrichment x 9
	Of which 5 practical	*Of which 5 practical*
	Learning skills x 1	
	1 PHSE day per term	1 PHSE day per term
	Setting in class groups Y7	Setting for core subjects Y7 & Y8
	Setting for core subjects Y8	
Extracurricular	Music, sports, ICT, performance	Music, sports, ICT, performance leadership
	None in the school day	*1hr daily (at lunch time)*
	Various evenings	*Various evenings*
Out-of-School	10-17 days yearly	10 days yearly
	Subject day trips	Subject day trips
	1 x Y7 residential + 1x optional week	1 x Y7 residential week
Pastoral Provision		
Assemblies	Occasional Y7 assembly	2 x Y7 assemblies weekly
	1 x house assembly weekly	1x whole school assembly weekly
Tutor Time	Form tutor for KS3-KS4	Form tutor for KS3
	Vertical tutor groups (dif. ages)	Same age tutor groups

Home-School	1 parents' evening yearly Pre-transfer parent's evening	2 parents' evenings yearly
Pupil Participation	<u>Involving Y7</u> As below - no Y7s usually attend <u>Involving older pupils</u> House councils (form class reps) Various activity leaderships Head boy/girl Y10 mentors	<u>Involving Y7</u> School council <u>Involving older pupils</u> Y8 trained tour guides
Built Environment		
School Buildings	Built circa 1970s Main hallway and reception School hall Standard teaching classrooms Specialist rooms for art, music & DT Sports hall Drama studio	Built circa 1970s Main hallway and reception School hall Standard teaching classrooms Specialist rooms for art, music & DT Sports hall
Lunchtime Facilities	Sports field Tarmac area	Sports field Tarmac area Astroturf for Y7 & Y8 Wooden pagoda for rainy days
Catering Facilities	School dinners served in the hall	School dinners served in the hall
Commute	Mainly buses Some walking and cycling	Mainly walking and cycling Some buses

Figure 29. Allocation of time during the school day

Table 28 reveals many similarities between the schools including their compulsory academic, vocational and fitness programs and built facilities. Both schools offer tutor groups and school assemblies, optional extracurricular activities and opportunities for out-of-school visits and trips. Therefore adolescents in Butterton and Thorpe received education through the same technical framework.

However, there are considerable differences in school size and transfer points, and number of teachers for each Y7 adolescent. Butterton has a smaller age range of pupils, less Y7 pupils (n.100 vs. n.243) and a smaller overall size than Thorpe. Most Y7 pupils in Butterton had known each other for two years by the time they were placed into tutor groups and sets in KS3. In comparison, most pupils transferred to Thorpe with only a few friends from primary school and were taught by 25 new subject teachers during their first year. The Butterton pupils had to adapt to only 9 subject teachers, many of whom were familiar to them from KS2. Hence Butterton provided a more intimate social environment than Thorpe.

There were slight differences in school timetables. Butterton gave its pupils two and a half hours more free time per week than Thorpe, to socialise in an uncontrolled peer setting. Butterton had a longer lunchbreak thus could provide lunchtime extracurricular activities whilst Thorpe could not. Thorpe's shorter overall school day was observed to create time pressure for pupils and staff. Pupils had to purchase and eat their break and lunchtime food quickly in order to socialise and get to the next lesson. With more pupils in the school, corridors and outdoor commuting pathways were very busy and noisy during these times. The pace of life in Butterton was considerably slower, in part due to the longer periods of free time and also to the smaller size of its campus being easier to get around.

Finally, differences in the built environment were observed. Thorpe was considerably larger and had more expensive facilities than Butterton. For example, it had a large gym and six floodlit Astroturf tennis/football courts. However, these facilities were out of bounds to pupils outside of lessons. The only facilities available to Y7s at lunch were a small piece of tarmac area and the back field. Butterton allowed the Y7s to use its smaller Astroturf court at break and lunchtime which gave many of the boys an opportunity to play casual sport. It also had a purpose built wooden pagoda for rainy days which groups of pupils could sit in. Therefore despite the school facilities being better at Thorpe, Butterton pupils had more use of school facilities overall.

Educational Perceptions

Relationships with teachers

When they arrived at Thorpe, most pupils had their first experience of different teachers for every subject. The things they liked about this were being able to move rooms between lessons and having more specialised tuition, although one boy had trouble adjusting to different teaching styles. In term one, many pupils noticed that teachers were stricter and less friendly than their teachers at primary school. This had a positive effect for Ruby who felt more grown up as a result of not being babied. Her perception was based on her experience of being told to fend for herself when she fell over in class and she mentioned this across the year when asked how she felt about teachers. In physical education, I observed boys being told to behave as they were "in Y7 now". This reveals a process where the teacher was utilising pupils' maturity perceptions to control behaviour. Chloe rationalised that the strictness evident in her teachers was "for your own good" otherwise classes wouldn't behave. However many pupils also felt that the stricter teachers restricted their freedom in learning. By term two, most pupils interviewed noted that teachers had become even more strict. Teachers were observed to have unwavering perceptions of who was naughty and who was not, and target their strictness on the naughty pupils no matter what their behaviour. They were observed to be more friendly with pupils who behaved well. At this point, the pupils were asked to describe what a teacher was like as a person. The Thorpe pupils mainly suggested that teachers were there to do a job – to teach, and to help you if you needed it – but that teachers were not your friends. When asked what they needed to feel happy at school in term three, several Thorpe pupils said for teachers to be nicer.

The Butterton pupils also mentioned having a few strict teachers but these teachers were in the minority, and were not pervasive like at Thorpe. One teacher was particularly problematic for many of the pupils and having him three times a week presented them with an ongoing issue. But in general, teachers were perceived of as being kind, friendly and helpful. In term one several pupils mentioned the importance of knowing your teachers well in order to be on their good side and to avoid punishment. By term two, several pupils said that relationships had changed for the better as they had gotten to know the teachers well. When asked whether teachers were like parents or peers, most responses placed them somewhere in the middle.

Table 31. Relationships with teachers

> Altered environment
>
> Ruby: You get the good teachers and they're more nice but they're more strict because once I fell down and I whacked my head against the window and this teacher that I have – I don't like him at all – he just looked at me and goes 'if you can get up then get up' and he just walked off. I needed a bit of help in getting up, but in primary school they'd be rushing over to you like they're your mum, helping you up, but now they're not like that. (T1)
>
> Sam: I don't think they'll be friends with you, but they'll be there for you. They won't be like, 'oh lets go to the park and play ball!' They won't do that kind of thing. They won't be like your best friend, they won't even be your friends sometimes. They'll just look at you and say, 'well done' and that's it. They're just there to do their job, they're not there to be like your best friend. (T2)
>
> JS: What do you need at school to feel happy?
> Ruby: More friendly teachers, who give us a chance to talk and be kind to us. (T2)
>
> Constant environment
>
> Gus: At the start of the year we didn't really talk to teachers that much but now we do cause we know them better. (T2)
>
> JS: What kind of relationship do they have? Is it the same as a friend, or a parent or is it different?
> Ayesha: Well, it's like a parent. Like, uhm, you can tell them if someone's troubling you, you could say. You know you can trust them. And like a friend but you don't really talk about the things that you do with your friends. (T2)

Despite the differences in open perceptions of teachers, there were no significant differences in measured perceptions between schools (Mann-Whitney U). Perceptions of teachers were fairly stable over time within schools (Wilcoxon's T = ns). Around 10% of pupils disliked their teachers and a slight increase in those feeling unnoticed by teachers occurred in term three, rising from around 10/15% to 20% in both schools.

Table 32. 'I like my teachers'

	Term One		Term Three	
	Thorpe	Butterton	Thorpe	Butterton
	n. 146	n. 46	n. 146	n. 46
Strongly disagree	1%	4%	1%	2%
Don't agree much	6%	2%	10%	9%
Agree quite a bit	75%	76%	70%	67%
Strongly agree	19%	17%	19%	22%

Table 33. 'I think my teachers take notice of what I need'

	Term One		Term Three	
	Thorpe n. 146	Butterton n. 46	Thorpe n. 146	Butterton n. 46
Strongly disagree	6%	0%	4%	4%
Don't agree much	12%	11%	20%	15%
Agree quite a bit	55%	52%	58%	52%
Strongly agree	28%	37%	19%	28%

Lessons and learning.

A common theme in both schools was enjoyment of practical, physical lessons. Subjects that involved sitting and writing were actively disliked by many pupils. This love of practical activities was true for both boys and girls. Observations of pupils at Thorpe found that boys were physically agitated in seated lessons such as learning skills and maths. Examples of burning physical energy were fiddling with objects, slapping and punching each other and making popping noises with faces and tongues. Girls were not observed to be as physically agitated. Pupils who enjoyed academic subjects were those who excelled at them (e.g. Matthew, Thorpe) or who liked a quiet work environment (e.g. James, Butterton) Across schools, pupils liked having variety in their activities, and being able to choose what they wanted to do. Ruby and Sam (Thorpe) explained that having autonomy in drama felt fun, and that this made it their favourite subject. However freedom in learning was not commonly perceived across subjects. When interviewed about their perceptions of fun, Deirdre and Bobby in the middle school noted that doing physical activities in physical education gave them instant gratification whereas they only got this 'buzz' if achieving in a test in English or maths. Several Thorpe pupils were initially excited about the better facilities for practical subjects, especially in science and design technology.

At Thorpe, several pupils remarked on their enjoyment of having harder school work and better facilities than at primary school. No Butterton pupils complained about the work, nor mentioned liking the Y7 work in comparison to other years. Bobby observed a gradual progression in work demands throughout middle school years.

Table 34. Lessons and learning

Altered environment

JS: What subjects do you find that you get the most out of – that you enjoy the most?
Ruby: I love drama.
Sam: Yeah drama.
JS: Why do you like drama?
Ruby: They say in the class…when you want to be all loud they say quiet down, don't wanna hear my shout. But in drama they're like speak your mind and have a real argument so then they…you just get to do what you like to do best. (T1)

JS: Which subjects do you enjoy the most?
Billy: Food, drama, and PE.
JS: Okay, and why those subjects?
Billy: Well, it's because I get to move around. (T1)

Matthew: In Year 6 I thought 'all the lessons – nothing could be better than this' but now I've got to secondary school I just think 'oh it was all awful then' because in Science the most sort of dangerous practical we did was with yeast and sugar and that was all but now we're using Bunsen burners and dangerous chemicals! (T1)

Constant Environment

James: I prefer going to clubs because you can do different things. Like computer club, you can go onto different websites and computers. Athletics club you can practice your running, throwing, and all different sports…. (T1)

Gus: Cause they're like the most physical and ones where you can do practicals and go out and move instead of sitting at the desk and just writing (T1)

Bobby: I think between Y5 to 6 there's around the same, you just get one more piece of homework in Y6 than inY5 but from Y6 to Y7 it changes because we're going up to KS3 and from Y7 to Y8 I don't think there is much apart from just in athletics the weights might go up a bit more and get harder like in shot put but apart from that, nothing. (T1)

At the end of the year, pupils' perceptions of enjoyment, freedom in learning and the importance of individual subjects were measured using four point scales. The following table and figure show the percentage of pupils with positive perceptions (those who responded to the two highest points on the scale) across seven subjects.

Table 35. Perceptions of subjects

%		N.	DT	PE	Music	ICT	English	Maths	Science
Enjoy it 'a lot'	Thorpe	227	94	90	68	85	63	65	81
or 'quite a bit'	Butterton	95	91	85	84	81	78	78	73
'Very' or 'quite' important	Thorpe	227	77	84	57	69	82	88	85
to me personally	Butterton	95	83	85	67	78	91	90	86
Experience 'a lot' or 'some'	Thorpe	227	89	90	76	78	69	70	83
freedom in learning	Butterton	95	86	90	91	71	79	78	76

NB PE=physical education, DT=design technology

Figure 30. Perceptions of subjects at Thorpe (chart 1) and Butterton (chart 2)
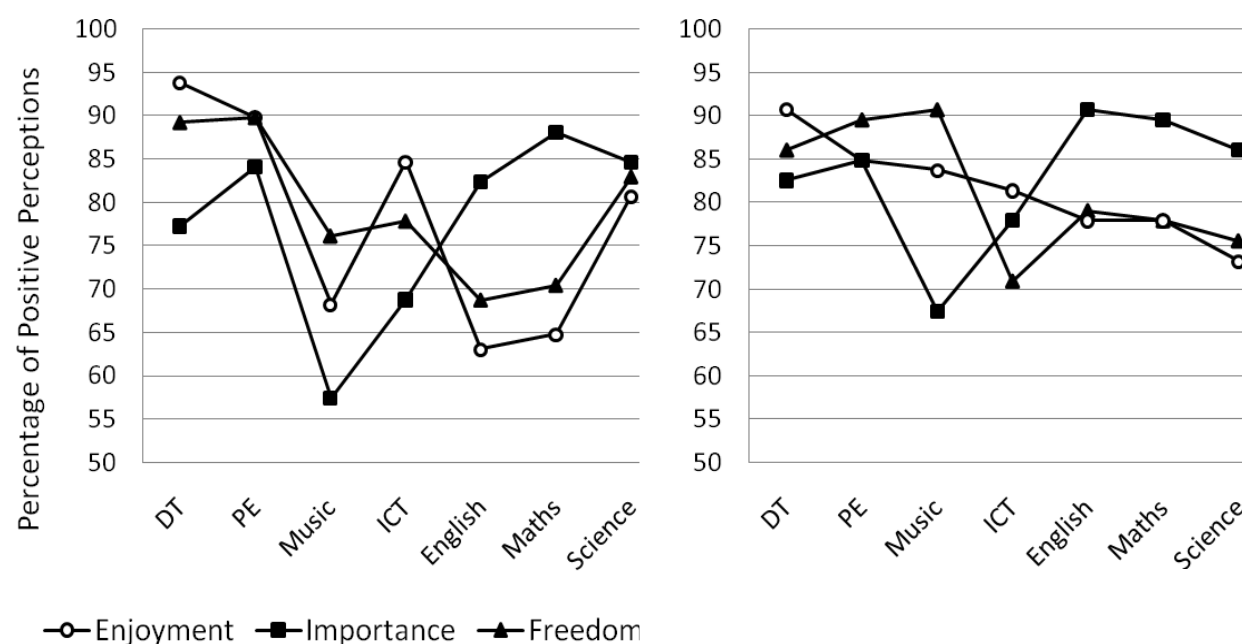
In both schools, design technology was enjoyed by the most pupils, followed by physical education. Pupils valued these subjects fairly highly and experienced plenty of freedom in these lessons. Perceptions of music and ICT were quite different with Thorpe pupils enjoying music less and ICT more than Butterton pupils. Relatedly they perceived less freedom in music and more freedom in ICT than at Butterton. However, pupils in both schools had similar attitudes by valuing ICT and music less than other subjects. Despite English and maths being of particular importance to pupils, these were enjoyed less than other subjects, especially at Thorpe. Butterton pupils had a similar pattern for science, yet Thorpe pupils rated science highly in all areas, experiencing freedom and enjoyment, and embuing it with great value. This may have been due to the good quality of science practials noted by Matthew. When observing a science lesson in Thorpe, pupils were

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actively involved in diffracting light rays using different types of prisms and speciality torches with the classroom curtains drawn. Everybody seemed excited and there was a lot of conversation in groupwork. In comparison, science lessons at Butterton in the second and third term involved sitting quietly and measuring rocks and liquids respectively.

Achievement motivation

There was a range of rationales for working hard given by pupils in both schools. The one most commonly given was that they needed good grades to facilitate a future job. This was a particular issue for Gus (Butterton) and Billy (Thorpe) who both strove to do well despite constantly getting into trouble with teachers on account of their poor behaviour. Alex (Butterton) and Matthew (Thorpe) found themselves enjoying subjects that they were good at, and worked hard in these. At Butterton, Bobby and Deirdre were motivated by competition, striving to beat their peers. However, being competitive meant that failure was demotivating for Jacob (Thorpe) who was struggling to keep up with his high achieving class, and for Indiana (Butterton) who was in bottom set for all core subjects and found work in general very difficult. In both schools, pupils didn't work as hard in class when other pupils distracted them and when relationships with teachers were poor.

Transfer seemed to encourage Stacy and Billy's motivation, as they put in more work effort on account of Thorpe being the school where they would sit their school leaving examinations. At Butterton, several pupils mentioned that the time for hard work would come when they changed into high school in Y9.

Table 36. Achievement motivation

Altered environment
Jacob: I don't want to do things that are hard JS: Why not? Jacob: Cause I hate getting things wrong – I'm really competitive. Stacy: You have to work harder, and try and get better marks and it's not messing about time anymore. JS: And why is that? Stacy: Because you've moving up schools, and after you need to get a job, and it you need to get a good job, and you need to get the grades to be able to get into whatever college you need to get into to be able to get that job. (T3) Constant environment

> Indiana: I never really hand in my science homework, because they're always two-week big projects and I don't really like them very much.
> JS: Why not?
> Indiana: Because they're difficult
>
> Joanna: I suppose middle school is as important as primary school, because you're learning it, and then learning more, but I suppose high school is the main one because you've got to really study hard for your GCSEs.

The number of Thorpe pupils' perceiving positive work progress and enjoyment was stable throughout the year (Mann-Whitney U = ns), in contrast to what one might expect after school transfer. In term one, the Butterton pupils had significantly higher perceptions of work progress than pupils at Thorpe (Mann-Whitney U = 2273.5, Z = -3.763, p<.000). However these differences did not remain in term three due to the Butterton pupils reporting less satisfaction with work progress than they had in term one (Wilcoxon's T = 7.5, Z = -2.134, p <.033). Despite their decline in perceived progress, Butterton pupils liked their school work significantly more than Thorpe pupils in term three (Mann-Whitney U = 2623, Z = -2.457, p<.014). The Butterton pupils' increase in enjoyment but decrease in progress is perhaps expected in Y7 in middle schools where no major examinations or change of scene pressurise the work environment nor stimulate it.

Table 37. 'I am making good progress with my work'

	Term One		Term Three	
	Thorpe n. 146	Butterton n. 46	Thorpe n. 146	Butterton n. 46
Strongly agree	40%	72%	49%	59%
Agree quite a bit	56%	28%	40%	35%
Don't agree much	3%	-	10%	4%
Strongly disagree	-	-	1%	2%

Table 38. 'I am quite pleased with how school work is going'

	Term One		Term Three	
	Thorpe n. 146	Butterton n. 46	Thorpe n. 146	Butterton n. 46
Strongly agree	40%	44%	37%	61%
Agree quite a bit	49%	52%	51%	28%
Don't agree much	9%	4%	10%	9%
Strongly disagree	2%	0%	3%	2%

Analyses of two more items for the entire sample in term three showed little difference in enjoyment of learning between schools (Mann-Whitney U = ns). The majority of pupils in both liked learning 'quite a bit'. Only around 10% of pupils had low enjoyment of learning.

Table 39. Enjoyment of learning – term three

How much do you like learning at school?		
	Thorpe n. 175	Butterton n. 84
A lot	20%	23%
Quite a bit	51%	41%
Sometimes	20%	25%
Not that much	4%	10%
Not at all	5%	2%

Behaviour

In both schools, (perhaps more so in Butterton) the pupils had a clear idea of which types of behaviour were acceptable and which were 'bad'. Several pupils deliberated on the bad behaviour of others, trying to understand it. They often attributed this to social disadvantage, family problems and boredom. Across schools pupils found themselves led off-task when conversations with friends were struck up about out of school issues. Pupils who consistently behaved well attributed this to their desire to be good in general, and to do well at school. Gus from Butterton and Billy from Thorpe had moderate behaviour problems and both commented several times throughout the year about trying to control themselves in order to keep out of trouble. Both had mothers who supported them in behaving better, and both wanted to behave well in order to help them succeed academically so that they could get a good job once they finished school.

There were a few differences between the schools in observed behaviour. The Butterton pupils appeared to be better behaved in general in their lessons. This may relate to their increased knowledge of teachers and of each other, created in part by being at a smaller school and by transfer points making anonymity in Y7 unlikely. At the start of the year in Thorpe, the atmosphere in the lower achievement classes was fairly boisterous and dismissive of learning. The pupils appeared more interested in getting to know one another than in doing the work, again relating to transfer points and anonymity. In Billy's first interview he explained that "the detentions that I've had is cause I, the teachers haven't helped me with my work". At the end of the year he admitted that "I was really anxious, and I never asked for help because I felt stupid. But now I

always ask when I get stuck". Not knowing teachers and self-consciousness in front of new peers was an obvious problem for Billy at the start of the year. By midyear, some of the lower achieving pupils (Billy, Sam) were observed to be working with more solidarity. However, Chloe and Stacy who were in a mid-achieving class appeared to be increasingly off-task. Neither girl talked about liking school by the end of the year. Ruby commented that moving to the bigger school and feeling more grown up had given her more confidence to misbehave: something which was not an issue at primary school. She also observed this in other pupils' behaviour.

Table 40. Behaviour

Altered environment
Billy: If I'm really naughty then I probably won't get good A levels cause then I'll be like naughty and my behaviour won't be good in jobs and stuff... they might think oh let's not give him good A levels because he's just going to be stupid. (T1)
JS: Can you please sum up if anything what has changed for you this year since you started secondary school?
Ruby: I'm more naughty.
JS: Can you tell me a bit about that?
Ruby: When I was in primary school I was always used to be like too scared to shout things out, but now I'm just shouting things out all over the place.
JS: Why do you think you're doing that?
Ruby: I don't know, it's difficult to explain. You feel more grown up and that. (T3)
Constant environment
Gus: You don't really wanna be working as a cleaner...You want to get a proper job...
JS: And where have those ideas come from for you?
Gus: My mum talks to me because I used to get in trouble at school... I've been really thinking about getting better at school and getting better at different subjects. (T1)
JS: so what is bad behaviour at school?
Deirdre: Get on the wrong side of teachers cause that's never a good thing, and being late for lessons because then you get in trouble.

Analysis of survey data shows that Billy's problem with self-consciousness and inhibition was common for around 30% of his peers at Thorpe. However this is not restricted to a transfer environment as around the same percentage of pupils were embarrassed in class at Butterton. There were no significant differences between schools (Mann-Whitney U) nor differences within schools across time (Wilcoxon's T).

Table 41. 'I'm afraid that I'll make a fool of myself in class'

| | Term One | | Term Three | |
	Thorpe	Butterton	Thorpe	Butterton
Strongly agree	11%	9%	10%	7%
Agree quite a bit	19%	17%	18%	22%
Don't agree much	42%	39%	39%	30%
Strongly disagree	28%	35%	33%	41%

Table 42. 'I'm afraid to tell teachers when I don't understand'

| | Term One | | Term Three | |
	Thorpe	Butterton	Thorpe	Butterton
Strongly agree	6%	4%	8%	9%
Agree quite a bit	20%	17%	12%	17%
Don't agree much	34%	44%	36%	35%
Strongly disagree	40%	35%	45%	39%

Lesson organisation

The arrangement of lessons in school timetables was not brought up as a matter of concern by pupils in either school. In Butterton, the placement of breaktime and of a single lesson between lunch and home time was regarded as being good for concentration. The change to moving between classes instead of sitting in a single classroom all day in primary school was praised by Thorpe pupils (Stacy, Jacob).

Setting at Butterton for the core subjects was seen as a good way to meet new people, as different form classes merged in these lessons. Pupils at Thorpe had not yet been set and were highly anxious about it as it began in Y8. For Charlie, this was exacerbated by family pressure. "Yeah I'm actually terrified of it cause my mum has said that um…she really didn't help me and I actually burst into tears about this. She said if you're not in the highest group then you're not gonna get the best job and you're gonna be a dustbin man. (T3). Similar findings come from the ORACLE study of school transfer (Galton & Wilcocks, 1983) where anxiety levels decreased in all schools in the study except for two that retained a primary style system in the first year post-transfer. Here, pupils were set for the first time in Y8 and respectively their anxiety levels peaked at the end of the post-transfer year instead of declining. In the current study, Butterton pupils were unconcerned about moving into Y8 as they were to have the same form class and similar set groups. They had been allowed to choose two friends to move into their Y7 form classes with, to ease the transition.

Form classes were only discussed at Thorpe, brought up by pupils who enjoyed the vertical tutoring system where 'tutor groups' were comprised of around three students from each year group. This was said to increase relatedness between pupils and the form teacher, and provided an important source of support from older children (Matthew).

Table 43. Lesson organisation

Stacy: I can't just sit in a chair and just stay there. I have to get up and just move around. Here after the lesson you can get up, walk to your next lesson. It's like free space.

Kevin: People all over the school really - they are just a bit worried about going into sets…Cause if they are in the bottom set then they are gonna look thick and that they are not gonna be as good, or come up to the marks that their parents set or something. (T3)

Matthew: because of the vertical grouping, the form tutor gets to know you better. And because only four people come up each year, the form tutor has time to get to know you better, so feel you've already got someone you can look up to. (T3)

Constant environment

Bobby: I think they're good because you've got two lessons then a break and then another two lessons. (T3)

James: There's different amount of people in different classes. I think they're organised pretty well. When you go from year six to year seven you can choose two friends to go with into your next year group. (T3)

Organisational perceptions

Break and lunchtime

Pupils in both schools enjoyed having breaks between lessons. Breaks were seen as good for catching up with friends and generally having a rest. There was little complaint from the Butterton pupils who had an hour for lunch. However the Thorpe pupils felt rushed by their 35 minute lunchtime which just gave them enough time to eat lunch and have a quick play. Kevin and Charlie were particularly unhappy about the lack of lunchtime facilities at Thorpe. At Thorpe, there was no provision for sport other than a back field, and nowhere to sit down other than on tarmac ground for Y7 pupils. Kevin and Charlie also missed the long lunchtimes at primary school for their facilitation of socialising and playing sport with friends. Having a shorter lunchtime in secondary school is a common

occurrence in the UK and is disliked by the majority of pupils (Blatchford & Baines, 2008). The length of secondary school lunchtimes has shortened over the past two decades due in part to teachers' desire to finish earlier and to reduce playground management requirements (see Griggs & Griggs, 1993, as a case study).

Interestingly, Charlie attributed the lack of lunchtime facilities at Thorpe (and perhaps also the changing social expectations) to the reduction of childlike play, which he engaged in during primary school lunchtimes. This made him feel more grown up. In Norway, Kvalsund (2000) also noticed that play amongst newly transferred pupils was deterred by the presence of older children and rumours of being teased. "Pupil: No, you're afraid of making a fool of yourself, because among the 8th and 9th formers, of course there's nobody who brings a skipping rope with them and starts skipping in the playground - that would have been a total catastrophe" (p.416). At Thorpe, pupils were also worried about moving into Y8 where they would have to lunch with the scary Y9s as presently they had lunch just in their year group. This was not a problem for Butterton pupils who had a split KS2/3 dinner sitting and separate KS2/3 play areas. They had been on an equal 'lunch time' footing with Y8 pupils throughout Y7, and had shared a lunch time previously with them in Y5.

At Thorpe, Charlie was particularly concerned about social issues at lunchtime regarding the Y7 cliques. He showed me around the Y7 lunch area in the second and third terms, helpfully pointing out and naming the different cliques that had quickly formed following transfer. These cliques are discussed more in the following chapter. I observed that the lack of facilities and restricted social area for Y7 pupils meant they had little choice but to stand around and do nothing but talk at lunch. Small, tightly formed groups either huddled in different corners or stood boldly in central locations. A few 'loose cannons' ran around disrupting the cliques and drawing attention to themselves. In comparison, lunchtime observations of Butterton pupils found most Y7 boys playing 'football tennis' on the Astroturf court (like Gus and Bobby), or milling around in pairs (Alex and Indiana). Only James occasionally spent lunch times indoors, whenever there was a club to go to. The girls at Butterton would stand outside the Astroturf court to watch the boys, or move around in moderate sized groups to chat with a range of Y7s. Sometimes they sat in a wooden pagoda to have more secluded conversations. Overall, the Butterton social groupings appeared to be more inclusive (anybody who wished to

play sport could join in), unilateral and fluid, than at Thorpe where groups were exclusive and evidently stratified.

Table 44. Break and lunchtime

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<u>Altered environment</u>

<u>Sam:</u> when we get to year 8 it will be like really bad because we have to share a lunch with some other year. And that will be really annoying, because some people can't even sit down.

<u>JS</u>: has how you feel about school changed since we last talked?
<u>Charlie</u>: Nothing else has really changed, apart from more grown up.
<u>JS</u>: So in what ways would that be?
<u>Charlie</u>: Well cause there's not much of a playground here, they've only got a few basketball hoops and then it's all concrete, so you don't really get much time to, you don't get much time to play and there's nothing really to do. So you just kind of like don't play at all.

<u>Constant environment</u>

<u>Deirdre</u>: We normally hang around in groups and chat and catch up on all the gossip and like have, we have fun in a fun way… I love having break times because we can refresh our mind for the next lesson and concentrate more

<u>James</u>: We get half an hour I think at break time and an hour at lunch, which is good because you can run around.

</div>

The school commute

All the Butterton target pupils either walked or biked to school, as did several of the Thorpe pupils. Butterton middle was situated in the heart of a small town and was easy walking distance from most pupils' homes. But because Thorpe was a village college serving the surrounding villages and a small town, most pupils needed to be bussed in. Several pupils found these trips frightening due to noise and aggression from older children. Sam had particular problems with being bullied by older pupils during her bus trips in the first two terms. This stopped by term three. At both schools, girls who walked did so in pairs or small groups. Some structured their route to ensure personal safety (e.g. away from isolated alleyways) and most were motivated to get home before dark in winter with respect for their parents' concerns. However boys appeared to have less restrictions as Alex walked to Butterton and back home alone, as did Jacob from Thorpe even when it was dark.

Table 45. School commute

<div style="border:1px solid black; padding:10px;">

Altered environment

Sam: Sometimes there's a few boys that get on my bus and are a bit nasty to us and say rude words. (T1)

Kevin: people throw stuff around, like banana skins and stuff. And people blow up balloons in the back and pop them, and litter – they leave loads of litter on the bus. (T3)

Jacob: I walk through thistle green and that – its much quicker than my route to school. I walk home alone in the dark.

Constant environment

JS: If somebody just like you was to come to this school, what would you tell them that they would enjoy about this school?
Joanna: If they moved here I would say it's easy to get to, easy to find. (T1)

JS: Would you be allowed to walk to school alone?
Deirdre: Well, I'd probably be okay with it. Because me and my friend, we usually walk through, well it's not really an alley way but it's just like, enclosed space, you just walk through. If I was on my own, I wouldn't walk through it.
JS: But would you be allowed to?
Deirdre: Well, I would but my mum doesn't like me doing it. (T3)

</div>

Buildings and grounds

Finding their way around Thorpe's larger and more complex environment was initially problematic for a few pupils (Jacob, Ruby and Charlie). As discussed, several Thorpe pupils wished for more facilities and a better outdoor environment at lunchtime otherwise they generally had good things to say about the built environment. The built environments of Butterton and Thorpe were fairly similar– they had brick outer walls, plastered classrooms decorated with students' work, fairly large playing fields and tennis courts. The gym and Astroturf facilities were larger and more expensive at Thorpe and this was probably why the pupils couldn't use them. The range of facilities in the smaller school (Butterton) were praised by the pupils, especially Gus who favourably compared Butterton to another primary school he could have gone to when he first moved to England in Y5.

Table 46. Buildings and grounds

> Altered environment
>
> JS: So when you first got here, what were your overall impressions?
> Jacob : Woah, this is big, how am I going to get around it! We kept on getting lost. The problem was, on the first set of planners they didn't have a map on the back, and on the second set they did, which is kind of annoying, cause the likelihood of you being lost in the second and the third term are less than you being lost in the first.
>
> Billy: I just like the school and it's a nice place, there's nice buildings. (T1)
>
> Constant environment
>
> Deirdre: it's a nice surrounding and nice grounds and it's a nice place to be basically. (T1)
>
> JS: What might you tell them that they had to look forward to?
> Indiana: Uh like the amazing qualities like they have in the playground like we have basketball nets, we have tennis courts and we have a big field (T1)
>
> Gus: I looked at another school and I didn't really like it and then I came to this school and it was different – because it's a middle school and it had more facilities and it had lots of stuff. (T1)

School uniform

Feelings about wearing school uniform were similar in both schools. There were several pupils who didn't mind this, as it made you feel like an official part of the school. Kevin from Thorpe even mentioned its benefits for impressing Ofsted inspectors! However uniforms didn't suit everybody and many pupils wanted the freedom to choose what to wear. This was particularly so for Sam at Thorpe who attributed her overall negative feelings about school to her dislike of wearing uniform.

Table 47. School uniform

> Altered environment
>
> Sam: it's not really fun coming here cause like the uniform you don't really feel like the uniform's part of it, it just makes you feel, like to me personally, that you're in prison because I have to wear all sorts of clothes that I'm not really comfortable with. (T1)
>
> Kevin: Inspectors who come in, they're more likely to be impressed if everyone's in nice, neat school uniform than if they're in trackies and hoodies and trainers. Cause even if it isn't a brilliant school then they wouldn't get a very good impression. (T3)

> Constant environment
>
> Deirdre: I think it's okay, because you look at your badge and say, 'I'm part of [*Butterton*] school so. It's just, I don't mind wearing it really. It makes me feel like I belong. (T3)
>
> Alex: There's nothing wrong with it, except when it gets really hot. But it would be better if you could wear what you want. (T1)

School size

Despite the different sizes of the schools (Butterton n. 465 with 100 in Y7; Thorpe n. 1173 with 243 in Y7), target pupils in both rationalised that having a larger year group would be bad as it would incur overcrowding, and that having any less pupils would be bad as it would reduce their potential number of friends. There were no complaints about the number of pupils in Butterton. However, several Thorpe pupils wished for a smaller school in general. They thought this would improve the amount of attention they got from teachers, and be less overwhelming. An EPPI-Centre systematic review of the research on school size found a consistent negative association between increased school size and school connectedness and engagement that across 31 international studies (Garrett et al., 2004). Although arguments for larger schools have included better extracurricular activities, wider curricular opportunities and better teacher specialisation (reviewed in Newman, 2008), this may not be the case as the Butterton pupils had more extracurricular activities than those at Thorpe, due to the opportunity for some to occur in lunchtime as well as after school. Also the teachers at Butterton were subject specialists, just like at Thorpe. Even though the facilities for science were not as good, this is more likely due to financial influence, not to school size. Therefore smaller schools with a more homogenous age span, like Butterton, can also present the benefits of good quality facilities plus have the advantages of being smaller, such as increased personalisation and opportunity for participation in school life (Newman, 2008).

Table 48. School size

<table>
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Altered environment

JS: So what do you think about the size of the school then in terms of having 200 people in your year group?
Ruby: It's a good size because you don't want too much in here.
Chloe: You don't want too less cause then you won't have many friends to play with and stuff.

Charlie: I don't really like it. It's scary how big it is, and then all of the Y11s and 10s are huge and you're just thinking 'wow' and so you get a bit worried.

JS: What do you think about the amount of pupils in the school?
Kevin: Um...slightly too many. Because in each teaching group everyone tends to get tended to by the teachers but there's always one or two people who are already too shy to put their hand up, and they just sit there at the back of the classroom, just carrying away.

Constant environment

Deirdre: it's just right really. There's enough space for everyone.

JS: Would you prefer there to be more year seven pupils? Like let's say 200?
Calllum: No
JS: Why?
Gus: Cos then there'd be far too many and everything would be packed in the school cos there's 200 year sevens and it'd be really annoying to have everyone around you.
JS: What about any less? Would you prefer to have a smaller school?
Gus: Umm, not really no
JS: Why not?
Gus: If it's smaller then like it will seem more cramped with all the people.

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</table>

School tiers

In term three, pupils who chose to discuss school transfer in interview were asked whether they would prefer to attend a three tier or a two tier system. This was also measured in the final survey. The pupils were told nothing about the other system except for the ages at which transfer occurred. Target pupils in Thorpe were divided about which system would be better for them. Jacob and Matthew would rather go to a three tier system to avoid older pupils and to feel less young and vulnerable. Kevin preferred the two tier system to avoid having to transfer again. Charlie didn't have a stable opinion and saw benefit in both systems. At Butterton, all pupils asked were in favour of a three tier system. They gave a range of reasons for this. Gus (who had previously compared a primary school to a middle school) had independently decided that Butterton was good

for providing a smooth progression between primary and secondary styles of education. Bobby and Yasmin liked not being the youngest at Butterton and like Gus had heard horror stories about Y7s being picked on in secondary school. Lauren and Joanna liked the idea of changing schools three times in order to meet new people. This may relate to both girls' experiences of having problematic changes in friendship groups over the year. However, Joanna was unclear in her rationale and chose a three tier system based only on what she was familiar with. This type of unconsidered decision making is also evident in pupils' opinions on whether they would prefer to be taught in mixed or set achievement groups, many of whom might simply be echoing the voices of their parents and teachers or trying to justify their immediate situations (Abraham, 2008). This may explain why around three quarters of the Y7 pupils surveyed in each school preferred their own system (Chi-Square = 42.395, df = 1, p<.000).

Table 49. Preference for a three or two tier system

In England there are two types of schooling.				
1) Lower schools (Years 1-4), middle schools (Years 5-8), upper schools (Years 9-11)				
2) Primary schools (Years 1-6), secondary schools (Years 7-11)				
Which type of schooling system would you most like to go to (if you had the choice)?				
		Thorpe n.69	Butterton n.116	Total n.185
Prefer Three Tier	Count	26	49	75
	% Within School	22%	71%	41%
Prefer Two Tier	Count	90	20	110
	% Within School	78%	29%	60%

Table 50. School tiers

Altered environment

Matthew: I would probably prefer middle school because you feel a hell of lot older for a start, and with [*Thorpe*] the only downside is that you've got all those year 11s twice as high as you, and it makes you feel like the youngest. (T3)

Charlie: The latter one *[two tier system]*… Because some of the year 11's can be really nice and help you with your homework, if you like get stuck in form time, they will help you…Then, I suppose the other one *[three tier system]* would be kinda good because everyone's the same height, you can see where you're going for once. (T3)

Constant environment

Gus: I reckon it's *[two tier system]* not as good as we do now because middle school gives you the chance to … like it's half primary school and half secondary school so like you'll get into the flow of like going into high school so umm, it's just easier.(T3)

Information in parenthesis added by the researcher

School transfer

Transfer and adjustment

The process of adjusting to a new school does not necessarily occur within a set period of time. Just like adjusting to a new job and workplace environment, pupils transferring schools may experience a 'transition cycle' (Nicholson, 1987). This theory, originally derived for human resources management, separates the transition process into four phases. Phase 1: *preparation,* achieving a state of readiness; Phase 2: *encounter,* exploring and processing the stimulus of the new environment; Phase 3: *adjustment,* assimilating to the environment to achieve a constant relationship between this and oneself; Phase 4: *stabilisation,* achieve effectiveness and the conditions to realise ones' potential in the environment. Experiences at one stage are thought to strongly influence the next, adding to a cycle of success or failure. Each pupil interviewed at Thorpe had a unique experience of settling in to their new school. The following analysis uses Nicholson's categories to review the transition experiences of those pupils with the least positive attitudes to school (Sam and Charlie, Charlie in particular can be thought of as vulnerable); and of Matthew who had a high stable attitude.

Table 51. Phase 1: preparation

Sam: In Year 6 it was kind of like I was more stressful because I didn't know what [*Thorpe*] was going to be like and in the summer holidays it was even worse because when I got my timetable it was like what are these lessons because they were only in three letters. (T1)

Charlie: Well the last day of going to primary school, and you know you're going to leave, is kind of the hardest. Cause you're thinking about your friends and stuff and…I cried, I know it sounds stupid. When you change schools it's just you're mainly nervous and you're anxious about other people and nervous that you're not going to settle in and stuff like that. (T3)

Matthew: I was really looking forward to it because I went on a summer discovery school for science and maths and I met a couple of the teachers and I made a couple

> of friends there so I had quite a steady foundation for coming to [*Thorpe*] anyway cause I'd been in the induction days and I'd done that. (T1)

*Information in parenthesis added by the researcher

The build up to changing schools was a nerve-wracking experience for Sam and Charlie, both of whom had been bullied at their primary schools. Charlie was friends with a younger group at primary school having not got on with anyone in his Y6 class. Therefore he faced transferring alone, and leaving his friends behind. Sam had been wound up by her older sister who teased her about how horrible school would be. In comparison, Matthew had already transferred schools three times. His mother was a primary school teacher and many children at Thorpe knew of her, and her son. His familiarity with the school was increased through participation in a science summer school where he got to meet teachers and other pupils. Matthew had an apparent state of readiness pre-transfer, whereas Sam and Charlie remembered being in a state of frightful anticipation.

Table 52. Phase 2: encounter

> Charlie: When you come for your induction day everyone was like massively tall and you're just like "I'm going to get trampled on". Everyone has their collars tucked in and the first time I came I had my collar tucked out and so everyone started laughing at me. You can get picked on by the older people and they all have their threats like they are gonna chuck your head down the toilet. (T3)
>
> Matthew: First day I got here I was really pleased that I had a really nice form tutor and I had quite a nice form and a couple of not desperately good friends but people I'd talk to in form and then once I was put in a teaching group I made a whole lot of new friends… after about the first week once we'd had every single lesson possible I was really pleased with it. (T1)
>
> Sam: My nan was telling me 'oh Sam, you should now be old enough to know that you're going to secondary school for a reason', cause one night I was really upset about it – so then she told me 'if you want to fly, go with the flow, if you want to sink, stay as you are' and so now I'm trying to learn how to fly. It sounds really silly but to me it's a thing, a question that keeps me going. (T1)

These pre-formed perceptions of school were realised in Matthews and Charlie's first encounters. Matthew saw the bright side of transfer. He liked the vertical tutoring arrangement and felt cared for and secure. Having one or two peers to talk to boded well for making friends generally in future. Throughout his interviews, Matthew placed great emphasis on doing well academically and therefore his first impressions were raised by his positive experience in lessons. In comparison, Charlie was hugely concerned about

social issues on arrival at Thorpe. He felt intimidated by older children and was scared by typical transfer 'myths' such as having his head put down the toilet. During the first few weeks he was bullied by a gypsy boy outside of school who had been 'put up to it' by one of the older pupils at Thorpe. Charlie spoke about going to hospital to have his arm doctored, then was removed from school for a week by his mother so that he could get over the stress. Sam did not have such a difficult time in her first few weeks at Thorpe, and despite feeling afraid of the new environment used some advice from her Nan to help her put aside her fears.

Table 53. Phase 3: adjustment

<u>JS</u>: So has how you feel about school changed since we last talked? <u>Sam</u>: Um [pause] well I think I feel more responsible now because like, I feel now that I'm part of the school. (T2) <u>Charlie</u>: You start to relax after a while and just get a bit more used to it but then you just kind of adjust. Like at dark your eyes need time to adjust, you need to adjust to your surroundings and that's what you need to do here. And to understand where you are and just to watch out. (T1) <u>JS</u>: How long did it take you to settle in? <u>Charlie</u>: Erm [pause] a month…bit more than that… Well I don't even feel that I have now *really*…but roughly [pause] a few weeks ago… Well, it was my birthday on May and that's when I thought I'd really settled in because, everyone else, I was like the youngest in my class and so everyone picked on me for being 11 still. But now I'm 12 everyone was kind of treating me a bit more older than I am. (T3) <u>JS</u>: Has how you feel about school changed since we last talked? <u>Matthew</u>: When I first came to secondary school, it was sort of, *Whoo, really it's a big school and lots of big people!* But now it seems like I'm a bit more settled in and I'm feeling a bit more positive about it now… it just makes you feel like you've really settled in, and tied in there, and I think that's just confidence for me. (T2)

Information in parenthesis added by the researcher

By term two, Sam had an increased self-perception of responsibility as she felt membership in the school community. In comparison, Charlie sustained his negative perceptions of school all year. Instead of altering these as his circumstances changed, he grew more accustomed to seeing the environment through a negative lens. Observations of Charlie in class and at lunch found him rubbing along well with Kevin and other boys by term two. In fact, he and a few others had formed a small group who played army type games at lunch time on the back field and enjoyed listening to rock music in their spare time. Charlie appeared well liked by pupils in his class. I did not observe him being bullied

but such occurrences would be unlikely enacted in front of an adult researcher. His experiences of settling in followed a pattern perhaps similar for many pupils: that of an initial acclimatisation then a longer term flux of adjustment. In comparison, Matthew felt settled after the first two weeks and did not mention needing any further adjustment. By term two he felt a sense of school belonging and this enhanced his self-esteem.

Table 54. Phase 4: stabilisation

> Matthew: I like [*Thorpe*] it, it's good. I've made a few friends, and I'm quite pleased with how I'm doing. I'm not worried about anything, because you've got your form tutor, and she sorted everything out, not that I've had many problems, but she's sorted out any that've come up. And, erm, I just feel its [pause] the right school for me really.
> JS: And why do you say that you think that?
> Matthew: Well, because I settled in quite well, and all my friends come here, or most of them anyway. And, erm, I think I'm quite clever… not boasting, but I am. And it's the best school academically for me, and looking around at the other schools in year 6, looking back now, this school would've been the best one. (T3)
>
> JS: What did you feel about changing schools, coming here to [*Thorpe*]?
> Sam: Well, I was quite excited because I got quite bullied in my old school. now I've come to [*Thorpe*] I've got new friends and they can kind of trust me. There has been a few dramas but I mean that's not as bad as what I've seen. (T3)

Information in parenthesis added by the researcher

In his description of turning 12 (phase 3 table), Charlie indicated how important it was for him to reach a social plateau of acceptance before he felt well adjusted to the new environment. Sam also focused on social adjustment in her overarching perception of how well the school year had gone. Matthew, who as mentioned was fixated on achieving, had a broader conception of what had passed in relation to his end of year overall adjustment. His experiences of good quality pastoral care, having a solid group of friends, and of Thorpe as a provider of high quality academic lessons in comparison to other schools he had visited in Y6 all supported his view that transfer had gone well.

Summary of Perceptions of Transfer. The pre-transfer expectations of Sam, Charlie and Matthew had a large impact on their initial experiences of school, as they sought to identity their expectations in the environment. Sam learned the benefit of having a flexible attitude in order to make the best of things, whilst Charlie retained a negative perception of school despite experiencing some positive changes in the environment. Matthew, whose needs were fairly simply, found that these were met by the post-transfer

lessons and pastoral arrangements. He rose above his occasional negative experiences (in further interview data) by focusing on the things that suited him well. Therefore, expectations, ideals and biases are found to play a significant role in how pupils shape their perceptions of their new environment, and manage their ability to cope. Although this activity is agentic, it is also moderated by the pupils' levels of self-awareness. Sam was aware of striving to interpret events in a balanced manner whereas Charlie appeared completely unaware that his negative bias affected all his perceptions of school.

Transfer and maturity self-perceptions

Pupils in Thorpe had many reflections of how their lives had changed since changing schools. Many of these altered experiences linked with how they felt about themselves. Perhaps the most salient change that they experienced was the feeling of being older at Thorpe than they did at primary school. This 'maturity self-perception' was brought up without prompting by 7/10 pupils at Thorpe. An analysis of perceptions finds that girls commonly mentioned these in relation to social expectations and influences, whereas boys discussed feeling older with regards to group membership. Historically this is not a recent phenomenon, as feeling older at transfer is also observed by Bryan (1980) in an analysis of the essays of 310 English pupils moving from primary school to secondary school.

Billy considered himself to be more mature at secondary school as he was a member of a community of older pupils, in comparison to the younger community of pupils at primary school. Matthew mentioned feeling like a teenager at Thorpe, in comparison to feeling like a child before transfer. He also mentioned that his maturity self-perception changed with each year as another marker of progress went by such as being the oldest at primary school. He expressed relief at coming to Thorpe as he was uncomfortable being at primary school with "thousands of young kids underneath you" (T2). Like Matthew, Kevin remarked that he felt socially and personally separate from the younger children at primary school as he had "moved on" to another "level". This discussion about age-graded group membership was common amongst the boys.

Table 55. Transfer and boys' maturity self-perceptions

Altered environment

Billy: I was excited that I was moving and growing up and stuff…cause it's secondary school and there's more older people. I think that as there's older people, I'm more older as well. So I just thought I was getting older as well. (T3)

Matthew: I feel a lot more grown up. I feel that I'm more half adult rather than just a child and I feel a lot older, and just going to secondary school really you tend to feel a lot older and at primary school you feel like a little child and at [*Thorpe*] you feel like, sort of a teenage person. (T1)

Kevin: I think when you move up you feel more mature, even though you might not be. You just feel more mature because you feel like you've left everyone else behind.

*Information in parenthesis added by the researcher

Ruby's maturity self-perception was influenced by the opinions of adults and their treatment of her. Her grandmother had told her that with transfer came more social maturity. Ruby looked for this and expected it in the behaviour of her peers. When a teacher didn't help Ruby up when she fell, Ruby interpreted this as having more self-responsibility at Thorpe. The influence of pre-formed expectations transmitted from adults changed Ruby's perceptions of herself, through her conscious management of her views. In turn this affected her behaviour and she had the confidence to be more "gobby" and talk back to teachers. Chloe translated her experience of having respect from younger peers when she was in Y6 to her maturity self-perception in Y7. She expected primary school pupils to look up to her, as they would want to be in her place and feel older themselves. Stacy (in the same interview) agreed with Chloe's comments and added that she observed more mature social behaviour at Thorpe in comparison to primary school. As she engaged in this behaviour, she felt more grown up.

Table 56. Transfer and girls' maturity self-perceptions

Altered environment

Ruby: …[*speaking about being teased*] they're in Y7 now, they shouldn't be acting like they're in reception, they should be acting like they're part of grownups and they're becoming younger when they do that…. cause in Y6 they are still young and when they come to Y7 it's like a big step. Growing up. (T1)

Ruby: When you was in primary school, if you fell over and grazed your knee, a little bit bleeding they'd come rushing to you like they're your mum. But in here they're just like, 'get up and go first aid'. (T3)

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> Chloe: Well, when you're in Year 6 you get respected by everyone else, below you but it's still better when you're older. People in primary school they look up, they think 'wow I want to be in secondary school'. Because you're in secondary school you feel more grown up and you're not childish like you normally are at primary school. (T1)
>
> *Information in parenthesis added by the researcher*

Both boys and girls felt older at Thorpe, and mentioned this during all three terms without much change in their rationales for why they felt older. This may indicate that their psychological patterns of establishing their maturity self-perceptions were already in place and were fairly stable with several boys using physical group membership and girls using expectations from others to manifest these perceptions.

Summary

Each type of perception of schooling and the influences on this identified through the preceding analysis are summarised in Table 58. This and the following chapters' summary tables use a notation system to represent influences on outcomes, and the valence of this relationship (Table 57). Each summary table is used in Chapter X to form a 'Network of Perceptions' that maps the direct and indirect links on overarching attitudes to school.

Table 57. Key to summary tables

=>	Influences a…
-	Reduction in
+	Increase in
i	Biological development
ii	Individual psychology and behaviour
iii	Familial influences
iv	Peer influences
v	School environment
vi	Neighbourhood
D	Dependent variable: Attitude to school

Table 58. Perceptions of schooling findings

TEACHERS	
Similarities between schools	**Interaction of Forces**
Strict teachers who restrict freedom encourage boredom	(v) teacher strictness =>
Getting to know teachers well helps pupils to cope in class	- (ii) need for engagement
90% of pupils like their teachers quite a bit or a lot	- (ii) need for support
The number of pupils feeling noticed by teachers declines from around	- (ii) desire for autonomy
90% to 80% by the end of the year	-(D) attitude to school
Differences between schools	
Teachers are stricter at Thorpe	(v) teacher expectations =>
Teachers are perceived more impersonally at Thorpe	+ (ii)/(iv) maturity
Teachers aid maturity perceptions	perceptions
	(v) teacher friendliness =>
	+(D) attitude to school
LESSONS AND LEARNING	
Similarities between schools	**Interaction of Forces**
Most pupils preferred physical, practical lessons	(v) practical lessons =>
Many pupils disliked sitting down and writing	+ (ii) desire for activity
Pupils liked a variety of activities and some free choice in learning	+ (ii) competitiveness
Core academic subjects are personally important yet not readily liked	+ (ii) desire for challenge
Physical, practical subjects are most enjoyed and enable autonomy	+ (ii) desire for autonomy
Differences between schools	=>
Enjoyment of harder and better equipped subjects at Thorpe	(ii) enjoyment of learning
Facilities for science were better at Thorpe	
Pupils liked science more at Thorpe	(iii) adult values =>
No salient changes in work at Butterton	+ (ii) value of core skills
ACHIEVEMENT MOTIVATION	
Similarities between schools	**Interaction of Forces**
Range of motivational strategies across individuals	(v) assessed skills =>
Competition and social comparison motivates and demotivates	-/+ (iv) social comparison
depending on individual psychology	-/+ (ii) competitiveness
Most pupils try to achieve to facilitate future career	
Differences between schools	(v) work pressure =>
Transfer to secondary school encourages career related achievement	+ (ii) achievement
Pupils in middle school declined in perceptions of work progress	- (ii) work enjoyment
	(ii) identity & (v) assessed
	skills & (iii)/(v) adult values
	=>
	+ (D) instrumental value of
	school

BEHAVIOUR	
Similarities between schools	**Interaction of Forces**
Clear behaviour protocols transmitted by both schools	(v) less teacher relatedness
Pupils try to work out why others behave very badly	(v) school size
Good behaviour motivated by desire to do well at school	(v) anonymity at school
Bad behaviour influenced by bullying and boredom	(v) transfer
30% of pupils feel self-conscious in class	(ii) maturity perceptions
30% of pupils are afraid to tell teachers when they don't understand	(ii) self-consciousness
Differences between schools	=>
Transfer aids maturity and confidence –hence one girls' bad behaviour	+ (ii) antisocial behaviour
Transfer creates anonymity – hence one boy's bad behaviour	for <u>some</u> pupils
More cases of extreme bad behaviour in class at Thorpe	
Less overall concentration in class at Thorpe	(ii) identity & (v) assessed
	skills & (iii)/(v) adult values
	=>
	+ (ii) prosocial behaviour for
	<u>many</u> pupils
LESSON ORGANISATION	
Differences between schools	**Interaction of Forces**
Thorpe pupils are anxious about setting in Y8, as this may disrupt	(v) delay of setting =>
friendships and impact future career chances	- (iv) peer orientation
Vertical tutoring supports relationships with teachers and older children.	- (ii) identity
	+ (ii) anxiety
	(v) vertical tutoring =>
	+ (ii) access to role models
	+ (ii) access to adult support
	+ (iv) older pupils
BREAK AND LUNCHTIME	
Differences between schools	**Interaction of Forces**
Some Thorpe pupils dislike the short lunch (35 mins) as there is little	(v) length of lunchtime =>
time to socialise and a lack of lunchtime facilities. This enforces loss of	+ (iv) prosocial socialising
play & encourages maturity perceptions.	
Thorpe pupils worry about lunch with Y9 pupils once in Y8	(v) no facilities for play =>
Butterton pupils like the length of lunch (1 hour)	+ (ii)/(iv) maturity
Cliques are less inclusive and more stratified at Thorpe	perception
	- (iv) social inclusion
SCHOOL COMMUTE	
Similarities between schools	**Interaction of Forces**
Girls walked to school in pairs or small groups	(iii) adult expectations =>
Boys more likely to walk to school alone	+ (vi) safety consciousness
Girls less likely to walk to school in the dark	
Differences between schools	(v) school busses =>
Thorpe pupils experience noise & older pupil aggression on busses	+ (iv) bullying
	+ (ii) anxiety

BUILDINGS AND GROUNDS	
Similarities between schools	**Interaction of Forces**
Pupils liked the school buildings and grounds	(v) range of facilities =>
Differences between schools	+ (ii) need for activity
Thorpe had more expensive and larger facilities for sport and drama	
Thorpe pupils wished for better facilities at lunchtime	
SCHOOL UNIFORM	
Similarities between schools	**Interaction of Forces**
Pupils were divided in opinion on school uniform	(v) school uniform =>
Some liked it as it enhanced feelings of school belonging	+ (ii) school belonging
Some disliked it as they wished to wear their own clothes for comfort	- (ii) desire for comfort
SCHOOL SIZE	
Similarities between schools	**Interaction of Forces**
Many pupils rationalised that the size of the school was just right	(v) school size =>
<u>despite</u> the schools' different sizes (Thorpe = n.1173, Butterton = n.465)	- (ii) personalisation
Pupils thought that having more pupils would incur overcrowding, thus	
were agreed in perceiving larger schools (than theirs) negatively	(i) mental equilibration
Differences between schools	& (v) school size =>
Some Thorpe pupils wished for a smaller school for personalisation	+ (D) attitude to school
SCHOOL TIERS	
Similarities between schools	**Interaction of Forces**
Many pupils preferred the three tier system to avoid older pupils	(v) older pupils =>
Similarity/Difference between schools	- (D) attitude to two-tier
At both schools, 75% of pupils preferred their own system	(i) mental equilibration =>
Pupils' rationalisations were more often based on previous experiences	+ (D) satisfaction in system
TRANSFER AND ADJUSTMENT	
Similarities between Thorpe pupils	**Interaction of Forces**
Each pupil had an individual reaction to school transfer	(v) transfer & (ii)
Pupils' positive or negative biases towards school environment and	psychological bias =>
change held <u>before transfer</u> accordingly affected their pre-transfer	+/- (ii) anxiety
anxiety and post-transfer interpretations of experiences.	+/- (D) attitude to school
Pupils perceive social and academic 'settling in' separately	
Pupils feel initially settled in after a few weeks	(v) pastoral support
Older children are intimidating both purposefully and passively	(v) positive adult advice =>
Differences between Thorpe pupils	+ (D) attitude to school
Form teacher provides good quality pastoral support to Matthew	
Adult advice enables Sam to have more coping flexibility	(iv) prior bullying &
Negative prior experiences of bullying bias Charlie's perceptions	(v) transfer =>
Charlie takes longer to feel comfortable at school (i.e. finally settled)	- (D) attitude to school
TRANSFER AND MATURITY SELF-PERCEPTION	
Similarities between Thorpe pupils	**Interaction of Forces**
Most pupils feel transfer has facilitated their maturity self-perceptions	(iii) family expectations
Girls' perceptions are fed by expectations from adults and peers	(v) teacher expectations
Boys' perceptions rely on physical and age-graded markers like age,	(v) stricter teachers
height & social groups	(v) lack of facilities for play
Girls mention more reasons for why transfer aids maturity than boys	(v) older pupils
Differences between Thorpe pupils	=>
Harsh treatment by teachers aids one girls' maturity self-perception	+ (ii) maturity perception
Two girls expect to feel more respected by younger peers post-transfer	=>
One girl and one boy observe less childish behaviour post-transfer	+/- (iv) social behaviour

Ch. 6) Perceptions of Peers

Introduction

The next developmental context examined across the target sample is that of peer interaction in home and school environments. This and the following chapters follow the same format at that of perceptions of schooling: areas of perceptions are coded and compared between schools and gender to search for environmental and individual differences that have an effect on psychological and behavioural outcomes. Like the preceding chapter this one is finished by a summary table that is used to inform the network of perceptions in chapter 10.

Friendships in school

Making friends

A range of friendship making processes are documented by school transfer research, and many of the findings are replicated here. Commonly when transferring from a small to a larger school, pupils look forward to finding a better matched group of friends from a wider pool, and leaving behind old enemies (Lucey & Reay, 2000; Weller, 2007). Matthew had only one friend at primary school due to the small size of his class which restricted his number of potential friends, and emphasised his negative relationships with others. Throughout Y7 he mentioned that the larger year group at Thorpe allowed him to choose better matched friends, on whom he could "fall back to" to prevent being bullied. Kevin consciously evaluated potential friends then built a secure group who he could turn to for support. He met boys from another village by playing football at lunchtime, and, like Billy, made friends through "snowballing" (Weller, 2007, p. 348), where old friends introduced the pupils to new peers. At the end of term one, Billy left his village friends and hung around with a group of bullies but chose to return to his old friends by the end of term two. Both Billy and Ruby made friends with older children (discussed later) which appeared to boost their popularity and self-esteem. Chloe and Charlie (like Matthew) transferred with no friends. For Chloe this was because her primary school was outside Thorpe's catchment area. Chloe soon met Stacy through a mutual acquaintance and the struck up a firm friendship which appeared to increase in closeness over the year. Charlie was friends with Y5 pupils at primary school as he was bullied by the Y6 boys, and was upset at leaving his younger friends behind to come to Thorpe. He perceived little support

or closeness from peers in term one, but became friends with Kevin by term two and with Jacob by term three. Charlie attributed this to their joint involvement in the research group (they also were in the same class). This marked a change in friendship groups for Jacob, who transferred with a firm set of friends from his village. In term one, Jacob mentioned fearing growing up faster than his village friends and found himself developing separate interests to them (discussed more in chapter 9). The slow development of his friendship with Charlie marked the coming together of two cynical, snappy minds that did not easily fit in with a crowd. However, not all Thorpe pupils experienced changing friendship groups in Y7. Brian hung out with his village friends all year and noted no changes in his social life, in or outside of school. They formed a large lunchtime group which soon became known to others as 'the thugs'.

Despite the common changes in friendships documented by this and other transfer research, pupils *without* transfer also experienced shifts in dyads and groups. This was particularly notable for the Butterton girls. Although they retained close friendship pairs (Yasmin and Deirdre, Joanna and Lauren) by term three, all five girls (including Ayesha) had integrated into one friendship group (potentially influenced by the research) whereas before the dyads were separate despite being in the same form class. Lauren lost a group of friends who transferred out of Butterton to secondary school in Y6 but made better friends as a result in Y7. The boys also had tight friendship pairs. Indiana was a vulnerable pupil who experienced a rough separation between his parents during the research. His best friend, Alex, was academically gifted (whereas Indiana had special educational needs) and the two were inseparable despite their intellectual differences, Alex supporting Indiana through thick and thin. Indiana was a class clown and that year made a new friend– Darren – who joined him in more disruptive activities that Alex wouldn't enter. Sport was a main mechanism of social grouping for Butterton pupils and many spoke of their social identity in this manner, either in terms of football teams (the boys) or simply just being part of the 'sporty' group. Gus and Bobby mentioned a division between Y7 boys in relation to sport and bullying, and noted the difficulties inherent in socialising with one group of boys then another, depending on sporting context. Gus was bullied by boys in 'the other' group. Although Bobby and Gus were close friends, Bobby spent most of his time outside of school with Robert who lived nearby. Robert introduced Bobby to his older sister and their friends and during Y7 Bobby became increasingly involved in a social scene that had little to do with school.

The findings replicate other transfer research in documenting the methods of snowballing, leaving old enemies, finding a better matched group of friends and the difficulties of transferring alone. Thorpe pupils either remained with previous friends, found good friends straight away or 'tried out' different people over the year to see who fitted best with their personal attributes and need for support. However, Butterton pupils also experienced changes in friendships over Y7, although the changes themselves and the mechanisms of change were less salient than at Thorpe. At both schools the ability to change friends was facilitated by the year groups' size– only pupils previously at primary schools spoke of friendships being limited by a lack of pupils. Interestingly, involvement in the research project also seems to have influenced friendship processes, helping a vulnerable boy (Charlie) make social ties despite his worries about bullying. Pupils across schools used similar methods of making friends yet had complex individual stories, revealing far more variation in this domain than in their previously described perceptions of educational environments.

Table 59. Making friends

<div style="border:1px solid">

Altered environment

Matthew: Now that I've come to secondary school - it's a much bigger school - you find that there are more people with a similar personality to you, and who find the same things funny and who you can actually really get on with (T1).

Charlie: I don't really have many friends. I have a few, but then they're not real friends, they're just people I tend to play with (T1). Well when we started this thing, Kevin and I, we've got more friends, he just came over mine on Thursday now I'm going over his on Friday ever since this thing we've become more closer together. (T3)

Chloe: I think it was harder for me cause I went to Hemingford Grey and it's not a catchment school so I had no friends when I came up. But you just get used to it and you have to make friends. (T3)

Constant environment

JS: Has there been any change in the pattern of the friendship groups?
Gus: Yeah, like once I tried the other side, they don't both like each other. Like, I'm in the football team with the other side as well though. See, you have to get along with them but only when we're playing football. They hate you otherwise. (T2)

Bobby: Well I'm like in the middle of two groups. I've got Gus, David and James, and now I've got another group; Brian, Lewis and Robert. I'm quite friendly with Robert. But I'm like stuck in the middle [*laughs*] of both of them. I mostly spend time with this group at the school. But when I go out, I mostly spend time with Robert who's in the other group.

JS: Can you sum up what things have changed for you, this year?

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> Lauren: Um [pause], like the whole of my friend list has changed.
> Joanna: My friendship lists, like Lauren and Bethany's still on there, but the rest of its changed. (T3)

In the Y7 cohorts, around 80% of pupils felt that they had enough friends at school. This did not vary much between schools (Mann-Whitney U test) or across time within schools (Wilcoxon signed ranks test). Although statistically insignificant, 8% more Butterton pupils were satisfied with friendships in term three than in term one.

Table 60. 'I don't have as many friends as I'd like at school'

| | Term One | | Term Three | |
	Thorpe n. 146	Butterton n. 46	Thorpe n. 146	Butterton n. 46
Strongly agree	8.2%	8.7%	8.2%	6.5%
Agree quite a bit	15.8%	13.0%	15.1%	8.7%
Don't agree much	35.6%	26.1%	32.2%	37.0%
Strongly disagree	40.4%	52.2%	44.5%	47.8%

Cliques

The Thorpe boys commonly mentioned gangs or groups of pupils in response to being questioned about how people hung out and treated each other in term two. In comparison, girls talked about personal friendship groups. The boys noted that groups of pupils had quickly formed following transfer and had a social hierarchy. This is similar to Norwegian research where pupils were observed to have "a system of cliques" post-transfer in comparison to a "broad community or fellowship of pupils" when at primary school (Kvalsund, 2000, p. 420). At lunchtime in term one, Charlie pointed out two large groups who stood boldly in the middle of the tarmac playground (available to Y7s), and other smaller peripheral groups that were scattered around the surrounding area. The large groups were 'the highest' in the pecking order (Charlie), and in Matthew's perspective, their central position was a deliberate statement of dominance. I observed these large groups being of mixed gender and low to moderate ability (all being from the 'lower' teaching groups), whereas the smaller groups and dyads were of the same sex. One of these larger groups was dubbed 'the thugs' in term one and included Brian and Sam (who dated briefly in term two). When questioned about this group, Brian admitted that they were 'cooler' than other pupils, and in relation that they wore cool jackets. He experienced no change in his group membership across the year. In term three I took another tour of the playground with Charlie and Jacob who then named the other large

group the "chavs" (sporty looking boys with very short hair) and a small peripheral group as the "emos" (a modern version of the 80s 'goth' stereotype). This rapid and tight knit formation of cliques may result from the pupils' ability to meet more 'similar' people at the larger school whereas they may have only found one or two people who suited them well at primary school.

At Butterton, pupils generally perceived themselves as 'sporty' or not and were closer friends with those who were in the same category although girls' friendships commonly overlapped. There was some discrimination against pupils who didn't play sport, like from Bobby who thought that playing computer games at lunchtime was "weird" and "childish". As the pupils had known each other for much longer they were not thrust into a position of needing to align with tight knit groups.

Table 61. Cliques

Altered environment
Matthew: Some groups just sort of stay back, out of the scenery and hang about in discreet little places, they just don't make a big thing of showing themselves like some groups do. Those groups stand right in the middle of the playground or school hall and chat and are completely oblivious to whatever else is happening around them. (T2)
Charlie: In year 7 it's basically a rank of people. You've seen it haven't you? Outside the playground, where the basketball court is, everyone is hanging around each other. Them two are like the highest notch. Then you go lower, lower, until the bottom. I'm in like, the middle. Sometimes, different days I kind of go higher and lower. (T3)
Constant environment
Deirdre: In Year 7, it's like us are the sporty lot. Then, there's the geeky lot. Then, there's the boys of the geeky lot and then there's the boys of the sport lot.
JS: Can you tell me a bit about the boys that don't play sport at lunch time? Bobby: I think they like muck about playing star wars and stuff – they're a bit more weirder than the ones who play sports. JS: When you say weird, what do you mean? Bobby: Childish! Well, I think it's childish. That's what I think.

In term one, 89% of Butterton pupils were strongly ensconced in a friendship group whereas this was true of around 80% of Thorpe pupils (Mann-Whitney U = ns). The figures were more similar by term three with less Butterton pupils and more Thorpe pupils perceiving group membership (Wilcoxon T = ns).

Table 62. 'I don't belong to many friendship groups at school'

	Term One		Term Three	
	Thorpe	Butterton	Thorpe	Butterton
	n. 146	n. 46	n. 146	n. 46
Strongly agree	3.4%	6.5%	5.5%	10.9%
Agree quite a bit	17.1%	4.3%	11.0%	4.3%
Don't agree much	30.8%	28.3%	28.8%	23.9%
Strongly disagree	48.6%	60.9%	54.8%	60.9%

Conversations with friends

The general topics of conversations between friends were similar in both schools. Both genders talked about heterosexual relationships and the opposite sex. Jacob (Thorpe) and Indiana and Alex (Butterton) mentioned that conversations about girls had only begun in Y7. There were gender differences with boys talking about sport, electronic gaming and practical possessions more often than girls. Girls frequently mentioned talking about themselves and other members of their friendship groups, in a process of critically analysing each other's personalities. Ayesha noted that this marked a change from more childlike conversations that had occurred in Y6. Talking with friends was important for supporting concerns about growing up. For Lauren, talking with good friends in private, away from adults, was what made her most happy. Jacob mentioned discussing career plans and coping with growing up, with his long term village friends. Both genders preferred to discuss social interaction or what they would be doing on the weekend over school work. When educational topics were mentioned, these were in relation to work stress or negative experiences with teachers and other pupils. What the brief analysis suggests is that becoming more sexually aware and having more freedom to spend in unsupervised play opened a new set of discussion topics for the early adolescents. Girls also engaged in what Erikson (1968) would see as identity formation through peer feedback, although here it was aimed specifically at personality characteristics. The topics were mainly social, personal and materialistic, with little discussion on what they had learned at school.

Table 63. Conversations with friends

In response to "What do you talk about most with your friends?"
Altered environment
Jacob: We chat about how we get through things and stuff and what jobs we might get when we're older, what's likely to come up with us...[*and*] girls, girls, girls and more girls. (T1)

> Kevin: Um [pause], football and TV.
> JS: Do you guys ever talk about social interaction? [*describes it*]
> Kevin: Sometimes….quite often. Err [pause]. Like a nerd who really fancies this girl and he hasn't got a hope in hell. (T3)
>
> Chloe: Just like going out on the weekend or something (T1)
>
> Ruby: What's happened in school and like who they fancy and stuff like that. (T1)
>
> Constant environment
>
> Bobby: Uh football, uh it depends if we're having a sleep over probably girls. But when we're out and about, football, boots, basketball all sorts. (T1)
>
> Deirdre: Um, I know it sounds really bad, but each other probably [laughs]. And we talk about interests; where we're going at the weekend…and boys mainly. (T1)
>
> Ayesha: we talk about different things like we're growing up and everything now cause like most people have started to change, so, we're talking about more adult things than we used to in Year 6. Not what's on the telly or anything but about school and everyone. (T2)
>
> Lauren: Like outside school and stuff – like if they want to go out somewhere.
> JS: And do you ever talk about things that happen in school?
> Lauren: Yeah if the teacher's had a go at us if we've done something they don't like.
> JS: Do you ever talk about the work?
> Lauren: No. (T1)

Falling out

Over the year, girls from both schools noticed an increase in the sophistication of their peer interaction. This included fights. At Thorpe, Stacy noted a loss of hot-headed, sometimes meaningless spats between friends that had occurred at primary school and attributed this to spending less direct social contact with friends in a specialist teaching system. But by term three, the effect of fights, when they did occur, seemed more serious as this made Stacy not want to go to school. Butterton girls also perceived an increase in peer support (between Deirdre and Yasmin) and noticed fights becoming more serious in Y7. They attributed the latter to growing up with Joanna mentioning that when you're younger you don't know what falling out 'really is'. This social and conceptual development could potentially be spurred by the change in discussion topics occurring in early adolescence (especially when girls analysed themselves and others), perhaps also relating to their increased potential for abstract thought.

Table 64. Falling out

<table>
<tr><td>
Altered environment

JS: When you have lunchtime with your friends, is that different from when you were in primary school?
Stacy: Yeah. At primary school we're all smaller, and you have arguments and fights and break-ups all the time, and here because you don't see your friends as much, because you've got all the different routine, it makes it better because when you do see them you're all happy and smiling and it's really good. (T2)

JS: Are there any times when you Stacy and school don't match very well?
Stacy: When I'm having arguments with my friends it just isn't a fun place to be. You just want to be at home, watching Tele, eating popcorn. (T3)

Constant environment

Lauren: Making up with people was so easy, like one day you're not friends and the next you forget all about it. And that's not like it now
JS: And what's it like now? [*in Y7*]
Lauren; Well, we've had fall outs recently, and once because of this girl, and I hate her.
Joanna: It's because when you're younger you don't really fall out. Because you don't know what it is.(T3)

Yasmin: I think it's cause we're getting older and we start like being a bit bitchy towards each other. (T3)
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Peer support

In both schools, pupils also noted an increase in friendliness and peer support across the year, in relation to getting to know each other better. Gus (Butterton) attributed these changes to growing up, as Joanna had for fallouts. Peer support was particularly important at Thorpe, with both genders mentioning that it was crucial to have friends to avoid feeling alone and unpopular in class and at lunch. Stacy worried about not having friends in her class due to Y8 setting. Matthew explicitly linked having friends and feeling popular to having more self-confidence. Several Thorpe boys mentioned the value of having friends for protection in the event of bullying or fights. Bobby from Butterton also thought this in relation to Y9 transfer. Other forms of peer support included not abandoning each other and sticking up for each other.

Table 65. Peer support

<table>
<tr><td>
Altered environment

JS: And why do you like having friends?
</td></tr>
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> Jacob: Because they make me feel slightly safer (T2)
>
> Kevin: As soon as people start to get more friendly with you, than it's easier to have something to do. It's easier to keep yourself occupied at breaks (T2)
>
> Matthew: Having more friends boosts me up in confidence and stuff, so it feels like you're a bit more popular and you feel a bit better about yourself. (T3)
>
> Constant environment
>
> Indiana: Well they're really nice to me and they don't just walk off with other people, they actually stick with me. My best friend in this school is really kind cause he always looks after me. (T1)
>
> JS: What is it like, growing up and getting older?
> Gus: Well it's like it's better cos like when you get older you get more friends and that's good. You get to know people better. (T3)
>
> Deirdre: I've been getting along with friends a lot more…me and Yasmin stick up for each other all the time. (T2)

When surveyed, around 10% more Butterton pupils felt supported by their peers than Thorpe pupils in term one (91% vs. 78%) and in term three (94% vs. 83%). This meant that relatively 41 Thorpe pupils felt lost and alone throughout the year compared to 5 Butterton pupils (although this difference would be smaller if Butterton had a larger population). These differences were statistically insignificant (Mann-Whitney U and Wilcoxon's T).

Table 66. 'Sometimes I feel lost and alone at school'

| | Term One | | Term Three | |
	Thorpe n. 146	Butterton n. 46	Thorpe n. 146	Butterton n. 46
Strongly agree	4.8%	2.2%	4.1%	0.0%
Agree quite a bit	18.5%	6.5%	13.0%	6.5%
Don't agree much	27.4%	30.4%	31.5%	32.6%
Strongly disagree	49.3%	60.9%	51.4%	60.9%

Heterosexual relationships

Girls were generally more enthusiastic about talking about the opposite sex than were boys. Only three pupils stated that they had no interest in heterosexual relationships – Charlie from Thorpe, and James and Joanna from Butterton. Each may have had their own reasons. Charlie didn't see the point in being in a couple "they just stand around there looking like lemons, and that's it". James didn't socialise at all with girls. After school he

liked to read, and in school he engaged in role playing games with his male friends. Joanna was very interested in caring for her pony and thought about this a lot of the time. For James and Joanna, a lack of interest in relationships may relate to interest in other activities.

However, the remaining 9/10 Thorpe pupils and 8/10 Butterton pupils expressed keen interest in heterosexual relationships. Out of these, three Thorpe pupils and one Butterton pupil regularly engaged in some form of sexual behaviour. Although many pupils had had relationships before Y7, this was for many the first time that sexuality and romantic love became intertwined. Several boys including Jacob (Thorpe) and Indiana and Alex (Butterton) admitted becoming very interested in girls in Y7 and thinking about them all of the time. This marked a change from Y6 when they didn't think about girls at all. The shift in their thinking was potentially related to pubertal development.

In both schools, meeting partners was facilitated by getting to know people between and during lessons. Both girls and boys asked each other out, although girls often had their friends do this on their behalf. Similarly, relationships could be ended by communication through friends. Relationships lasted for between a day (Sam and Brian) to over a year (Gus and Yasmin). Sometimes boys were too shy to talk to their girlfriends and couples could date for weeks without talking to each other despite being at school together. At Thorpe, this type of relationship was called "not serious" (Chloe) in a sense that it seemed less grown up than an active relationship.

The girls at Thorpe were all interested in pursuing heterosexual relationships and in talking about boys. Ruby and Sam had each had several boyfriends at Thorpe by term three. The girls thought that appropriate behaviours were hugging, holding hands and kissing and they observed this occurring in their year group both in and out of school. Sex was okay for when you reached Y10/age 15 (Chloe). In comparison, only one girl at Butterton thought it permissible to hug and kiss her boyfriend (Ayesha) whilst others (Yasmin and Deirdre) thought this type of behaviour unacceptable at their age. Kissing was for "when you're really in love" (Yasmin) and a relationship was "only like a little young school fling kind of thing. It's not big" (Deirdre). Although Yasmin and Gus from Butterton had been dating for over a year, they had not spoken to each other properly in months. Gus was very unhappy about this and was concerned about Yasmin's frequent communication with other boys. Yasmin put it down to her not being ready to be in a

relationship. Like Deirdre, she didn't think it was appropriate to text or call a boy, or to be seen with him outside of school.

Although there was a difference in the girls' endorsement of sexual behaviour between schools, this had less to do with school structures than with the characteristics of individual pupils. At Butterton, the Y8 pupils were sexually explicit in their behaviour and had apparently been like that in Y7. Bobby saw them as "just a different bunch of people" and he with Yasmin and Deirdre were definite about the current Y7s not becoming like that in Y8. My observations of Y8s at lunchtime over three terms were that the behaviours were traceable to a few well developed boys and their girlfriends. It is likely that the behaviours of these pupils influenced the wider Y8 group, and might also be possible that Yasmin and Deirdre's restrictive attitudes influenced the behaviours of girls in their form class. Yasmin was what one might call an 'alpha female', being pretty, sporty and perhaps the most popular girl in her form class. Deirdre was her counterpart and the two had considerable social influence over the form. As pointed out by one of my research colleagues, the behaviour of boys often depends on what the females will allow. If sexual behaviours were particularly restricted in this Y7 group it may have stemmed from Yasmin and her influence over the other girls, in particular those she was friendly with including all the girls in the research group by term three. As discussed later in this chapter, Yasmin was one of the only pupils who was not allowed to socialise unsupervised: a restriction imposed by her mother who probably also advised her not to become sexually involved with boys. Therefore the attitudes of one parent and one child may have considerable influence over the socialisation of a far larger group of early adolescents than one might expect. Regardless of the accuracy of this interpretation it is clear that school structures have a limited influence over the development of sexual behaviour in early adolescence in comparison to individual socialisation.

Table 67. Heterosexual relationships

<u>Altered environment</u> <u>Sam</u>: He asked me out at lunch, and then I dumped him on Thursday night was it? Yes that's it. I wanted to tell him in a way that I want to be his friend but I don't want to be like that you know? Now I've got another one. (T3) <u>JS</u>: What's the level of what's acceptable for you and your friends in a relationship? <u>Chloe</u>: Second base [laughs]. <u>JS</u>: So, what's that? <u>Chloe</u>: Well um some people kiss; some people snog and some people don't talk. But I

don't think anyone has apart from that, I don't think anyone has had sex.

Ruby: It's like if a girl asks a boy out they'll get their friend to do it. Where as a boy will just come up to you and go "will you go out with me?" but a girl will get their friend to do it cause they're too scared. (T2)

Constant environment

Bobby: [*The Y8s are*] really different….Cause they've got a lot more relationships – it's a bit weird. They feel each other a lot more – the girls and boys, and it's a lot more touchy feely and things like that. (T2)

Indiana: We just lost contact and she said, um, that, 'you hang around with your friends too much and not me' and then we just lost contact. And she just came up to me one day, no she gets her friends to dump me.
Alex: 'Women'. (T3)

Yasmin: All I do is hug [*Gus*] really but I don't really do that either that much. It's just like say hi and talk about things. I don't know.
Gus: Well because like, she never speaks to me anymore. And she keeps like flirting with David. (T3)

Bullying

In term one when asked "what would you warn other people about if they were coming to this school?" most pupils said bullying. At Thorpe there were many reports of harassment from older children (explored in the next section) and of a gang of Y7s who acted 'hard' and who were threatening to other pupils. Some of the Thorpe target group were bullied sporadically (Billy, Kevin, Charlie) but none had any ongoing problems. Billy joined a gang of bullies in term two but left them for his old friends by term three (as mentioned). His initial gang membership may have been influenced by school transfer encouraging pupils to find others similar to themselves. Charlie was bullied at primary school and was extremely anxious about further bullying at Thorpe. This may have influenced his perceptions of older children and his peers as threatening and he became very upset over any signs of harassment. At the start of the year he was beaten up by a gypsy boy who lived in his village and had to go to hospital for treatment on his arm. Charlie was extremely socially anxious and had low self esteem through the first two terms of school, perhaps due to these reciprocal interactions between his prior experiences and his negative perceptual bias, and between this and his current experiences.

However, not all Thorpe pupils who were previously bullied had the same negative experience as Charlie. Ruby, Sam and Matthew (Thorpe) were pleased to have left behind

a cycle of being bullied at primary school. Not only did transfer appear to have interrupted long term bullying patterns, but it may also add to the reduction of certain types of bullying. The boys from Ruby's primary school who used to call her a cruel name stopped this, and by term three were calling her "angel fish" instead. Ruby put this down to Y7s growing up and not acting like children. Stacy also found herself not teasing other pupils like she had done at primary school as she felt more grown up.

At Butterton, Gus and Indiana experienced persistent bullying. Both boys were easily led into fights. Gus had almost daily problems with a group of boys in another form class who had picked on him since Y6. He had talked to teachers about his but they apparently had done nothing. In terms two and three I offered to speak to somebody at school on his behalf, but he declined. An observation of Gus in science found him being nasty to James when he was forced to work with James and James's friends. One interpretation of Gus's behaviour is that he was trying to avoid negative stereotyping that might occur when he interacted with 'nerdy' boys, by utilising the defensive, bullying behaviour that he was familiar with. Gus in this case is a 'victim-bully'. In term three he began avoiding the bullies at lunch and had made friends with some of them at football after school. As a result he had less problems.

Table 68. Bullying

Altered environment
Brian: There's some people who aren't very nice here. They go in gangs and stuff and walk around and they try and be cool. And like if you want to play football or something they won't let you cause you're not part of their gang.
Charlie: Well probably you just got to watch out for bullies. Be careful with some people because some people can turn nasty really quick, the Y11s can be quite cruel even though they're supposed to help. (T1)
JS: What did you feel about changing schools, coming here to [*Thorpe*]?   Sam: Well, I was quite excited because I got quite bullied in my old school.
Constant environment
Gus: Well there's four of them and they both don't like me and they take the Mick out of me every day. Like at break and lunch. I hate it. Like sometimes they're just fighting over a tennis ball and they like force me to do stuff and they always make fun of me (T1).   Gus: People are like still like bullying me and stuff and not much has changed. (T2)   Gus: Well like I only get it like every now and then, I used to get it like every week… because I've made friends with some of them but I stay away from them more now… that's why. (T3)

Indiana: Some of the Year 8s are quite, they can be quite angry and they can push you about and stuff. Yesterday this boy, cause he was playing tennis and I kicked the ball away and he pushed me cause I kicked the ball away. (T1)

Deirdre: I don't like bullies at all. I hate being around bullies. Like, if somebody takes the mickey out of someone else, I'll try and get out of the scene because I don't wanna get into trouble for it cause I just hate it. (T2)

Older pupils

Older pupils (Y8) occasionally picked on the Y7s at Butterton. They engaged in more adult behaviours such as kissing, hugging, smoking and wearing makeup outside of school, which the Y7s disapproved of. These behaviours were said to be attempts to make themselves look older, as being older carried a sense of superiority. Gus noted that even pupils in Y7 tried to make themselves look older by acting tough. Bobby thought that the process of older pupils teasing younger pupils was normal as part of age hierarchy. This situation was exemplified at Thorpe where older pupils were in the majority. Matthew and Charlie observed older pupils teasing the Y7s at the start of the year, for being small and young. This made Charlie extremely anxious and Matthew feel embarrassed. Older pupils were also known to throw food at younger pupils on school busses. Less incidences were observed by term two as older pupils 'got used' to the Y7s.

This cycle of age, social status and harassment at the larger school contributed to a second process where knowing older pupils well was beneficial for younger pupils as this offered them protection from the negative effects of older pupils. Billy met older pupils through his sister, Matthew met them in vertical tutoring and Ruby met them on the school bus. Although Matthew was not close friends with older pupils, he knew them enough to say 'hi' when he walked down the corridors and this made him feel more popular and safe which contributed to his self-confidence. Ruby became friends with a Y9 girl from her village in term one, was integrated into friendship groups in Y7, 8 and 9 by term three. This also made her feel confident. Older pupils assisting social status is also observed in Norway where new secondary school pupils perceived having an older friend or relative at school as "lucky" (Kvalsund, 2000, p. 415). It may be that having older friends at school not only increases pupils' social status, but also their own maturity status through the association.

Table 69. Older pupils

Altered environment

Charlie: I don't really like it. It's scary how big it is, and then all of the Y11s and 10s are huge and you're just thinking 'wow' and so you get a bit worried... the Y11s can be quite cruel even though they're supposed to help. (T1)

Matthew: Um well, the vertical form grouping is good because you have a couple of friends higher up in the school and it makes you feel a bit more important if you say hi to some Year 11 while they're walking down the corridor with all their mates. (T1)

Ruby: They just think of you as a younger person but a really cool younger person cos mostly when I first came to the school they was like "have you been here before?" and that cos I looked like I was year eight but yeh they thought I was older than I was. I've got nicer friends, not just year sevens I've got year eights and nines and that (T2)

Constant environment

Gus: Well some people act older than they actually are but they're still children.
JS: Can you tell me how they act older?
Gus: Because they try and act hard say like "come on then I'll beat you up if you don't do this or do that" (T3)

Bobby: Well sometimes if you're older than the year below you're a bit more horrible to them – and you're like 'we're top of the school and you can't do anything to us'. (T1)

Yasmin: Some of them in year eight, act like they're like fifteen.
Deirdre: Some of them smoke.
Yasmin: They just think they are a bit older than they are. (T3)

Friendships outside of school

Unsupervised play

All children interviewed engaged in some form of unsupervised play, although some did so more than others. Indiana and Alex (Butterton) lived too far apart to easily see each other on weekends and both were content with staying home and playing computer games instead of going out. Matthew (Thorpe) saw his male friends at Scouts and on weekends occasionally hung around with two older girls from his village. James did not talk much about unsupervised play. However, the remaining 16 pupils generally played out with friends after school and on weekends until tea time, or until dark "when the teenagers come out drunk" (Ruby).

Thorpe was a village college that had a wider catchment area of other villages and small towns. Many pupils from villages hung out after school with their village friends,

playing in parks, wandering around and going to the village shop. For Brian whose friendship group stayed the same throughout Y7, these activities did not change. Charlie hung around his village with a 'crazy' boy and as the year passed he had several run ins with a gypsy boy who lived near school. Word of this passed to other boys in Y7 who began to 'call' on Charlie to go out after school. In this way, unsupervised play contributed to Charlie's social status within school. Other pupils made friends from different parts of the catchment area which encouraged new activities such as bussing to neighbouring villages to visit friends or commuting together to go shopping or to the movies in a nearby town. In this, transfer encouraged more independent behaviours by geographically extending pupils' friendship networks. The distance of travel was upheld as a maturity marker, for example not all pupils were allowed to travel unaccompanied to a city 10 miles from school. Chloe finally made it there in term three, as a guest of Stacy who was the only target pupil whom regularly travelled to the city with friends. For Chloe, going out with friends was an indicator of growing up. Chloe, Ruby and Stacy all looked forward to growing up so that they could do more with their friends independently. By term three, Stacy preferred going shopping in the city with friends to anything else and school seemed dull in comparison.

Table 70. Unsupervised play at Thorpe

<u>Brian</u>: Go down the skate park, play football, play rugby, cricket, and we bike round the village quite a lot and go down the post office [*to*] buy loads of sweets. (T1)
<u>Brian:</u> We go get some fish and chips, play football, play on game consoles, and play cricket, stuff like that. (T3)

<u>JS</u>: Has [*unsupervised play*] changed at all since the start of the year?
<u>Kevin</u> Um, yeah, because you play out more with the people since you get to know them… you play with different people more often and the same people more often.
<u>JS</u>: So who are these new people?
<u>Kevin:</u> Erm, like boys from different villages. On Friday I went to Bar Hill to go to my mate's house and took the bus there. That didn't happen too much in Y6 because about 99% of the people of our school lived in [*my village*]. (T3)

<u>JS</u>: Is there anything that you're looking forward to about growing up?
<u>Stacy</u>: Yeah. Going out more later going shopping later my mum not having to be worried all the time about my safety. (T3)

<u>JS</u>: At what age are you no longer a child?
<u>Chloe</u>: If you would rather stay at home playing babies or go out with your friends. (T3)

The activities of Butterton pupils were less diverse as they knew each other from the same small town and there was no need for friends to meet over long distances. Pupils often went to the park (to play or watch sport) or into town (to hang around the shops) in small same sex groups. Spending time in unsupervised play was seen as a marker of maturity and those who did not engage in it were perceived by others as being younger. This was perhaps more of an issue for Butterton pupils than those at Thorpe, for at Butterton everybody knew who was allowed out and who was not. This was very frustrating for Yasmin who in term one was still not allowed to go out with her friends. She had been fighting with her mother over this and put it down to her parents being nervous to give their first child freedom. In term three, Yasmin was allowed out alone on her father's recommendation whilst her mother was away. Although this caused a fight when her mother returned, she was then regularly allowed to play unsupervised a couple of hours a week (under strict conditions). In comparison, Bobby had been allowed out to the local park since Y6, and in term two his mother allowed him to frequent a park on the other side of town. This second park was considered to be more dangerous due to the prevalence of older adolescents who spent time there in mixed gender groups. Bobby favoured this park as he enjoyed interacting with older peers whom he had been introduced to by Robert's older sister. Spending time unsupervised with friends became the thing Bobby most liked to do by term three, and like Stacy (at Thorpe) he found school boring in comparison.

Table 71. Unsupervised play at Butterton

> Ayesha: Some people aren't allowed down town yet and I respect that cause their mums don't think that they're ready. Some people say like, I dunno, they're different somehow because they're not allowed down town. They act younger than us, they're immature, stuff like that. (T1)
>
> JS: In the past 12 months, have there been any things happening that have meant you've grown up more?
> Bobby: When I go up the town the older ones let me play with them a bit more than they did before. I'm allowed in most places now than I was last year. Last year I was around the town which was quite close to where I live. Now I'm allowed all the way down to [*Throwley*] and other places….there's another park and there's other mates down there. There's a lot of naughtier people there than up where I live…. there's more punch-ups and stuff down there. The other week I saw fireworks being lit…(T2)
>
> JS: What are the most important things to you in life right now?
> Bobby: Um [pause] going out with my mates, playing football, going down the park, having a good time. (T3)

> Yasmin: My mum's quite overprotective and I'm not allowed to go up to town on my own yet which is really annoying, unless she's up there. (T1)
> It sounds a bit sad but my mum and dad have only just let me out in town on my own. It's not that they don't think I'm sensible enough. I think it's just that I'm their first child and they're not used to letting someone out. (T3)

The prevalence of unsupervised play in the pupils' conversations, and its link to maturity status led to a measurement of time spent in unsupervised play being taken in the second survey (N. 259). Figure 31 shows that around 77% of pupils spent between one and ten hours a week engaged in unsupervised play. This did not differ between the schools.

Figure 31. Amount of unsupervised play
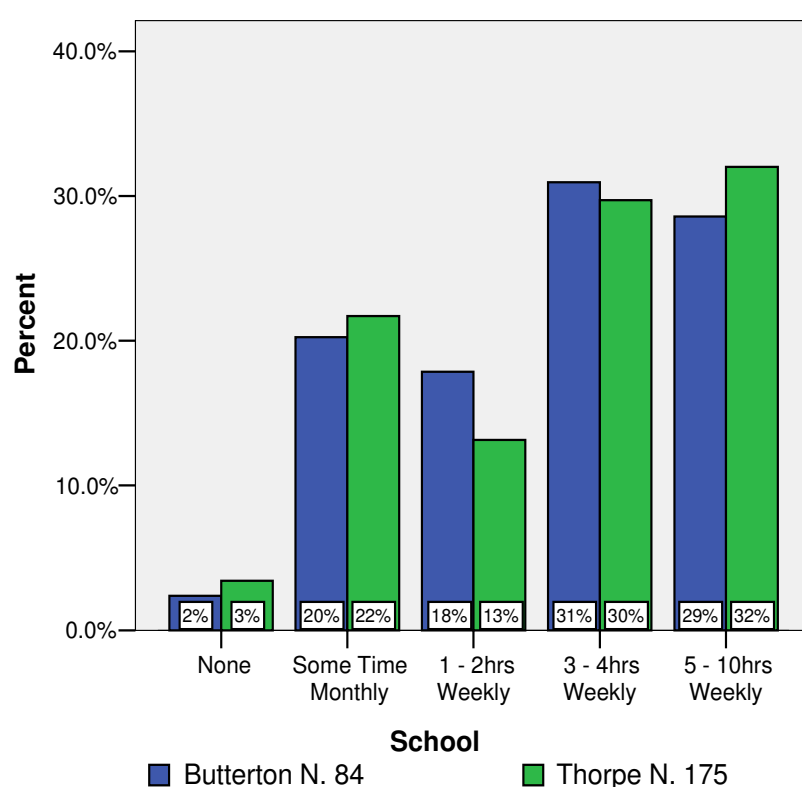
Table 72. Enjoyment of time with friends

How much do you like spending time with friends…					
At school?			*Outside of school?*		
	Thorpe n. 227	Butterton n. 95		Thorpe n. 227	Butterton n. 95
Not at All	.6%	1.2%	Not at All	.6%	1.2%
Not That Much	.6%	0.0%	Not That Much	2.9%	1.2%
Sometimes	2.9%	4.8%	Sometimes	2.3%	4.8%
Quite a Bit	18.9%	16.7%	Quite a Bit	13.7%	10.7%
A Lot	77.1%	77.4%	A Lot	80.6%	82.1%

Although pupils enjoyed spending time with friends outside of school slightly more than they did in school (by around 6%) this was not statistically significant.

Summary

Key to summary table

=>	Influences a…
-	Reduction in
+	Increase in
i	Biological development
ii	Individual psychology and behaviour
iii	Familial influences
iv	Peer influences
v	School environment
vi	Neighbourhood

Table 73. Perceptions of peers findings

MAKING FRIENDS	
Similarities between schools Around 80% of pupils felt they had enough friends at school Having a moderate sized year group helped friendship selection. Friendships changed throughout the year for most pupils Wide individual differences in friendship patterns **Differences between schools** Thorpe pupils used a wider range of mechanisms to make friends due to transfer (snowballing etc). They were more actively propelled to find a better matched group of friends.	**Interaction of Forces** (v) transfer & (v) size of year group => + (iv) friendship selection + (iv) finding similar friends + (iv) leaving behind enemies
CLIQUES	
Similarities between schools 80-90% of pupils were members of peer groups by term three **Differences between schools** Tight knit hierarchical cliques quickly formed at Thorpe – in relation to a lack of lunchtime facilities and perhaps to pupils' increased capability to select friends similar to themselves. Sporty and non-sporty groups at Butterton with moderate social hierarchy. No tight knit cliques.	**Interaction of Forces** (v) transfer & (v) peer selection => + (iv) cliques + (iv) social hierarchy - (iv) social integration (iv) long term exposure to peers => + (iv) fluid friendship groups - (iv) social hierarchy + (iv) social integration

CONVERSATIONS WITH FRIENDS	
Similarities between schools	**Interaction of Forces**
Boys talk about sport, gaming, girls	(i) sexuality & (ii) identity & (i) abstract
Girls talk about each other and boys	thought =>
Little discussion about school work	+ (iv) discuss opposite sex
Talk about school mainly about interactional events in class	+ (iv) analyse peers
Differences between schools	- (iv) discuss education
One Thorpe boys discusses future career with friends	
FALLING OUT	
Similarities between schools	**Interaction of Forces**
Fights between girls increase in sophistication	(iv) analyse peers & (i) female gender =>
	+ (iv) peer conflict
PEER SUPPORT	
Similarities between schools	**Interaction of Forces**
Friendliness and support increase with familiarity	(iv) discuss opposite sex & (iv) analyse
Differences between schools	peers =>
Peer support particularly important at Thorpe for	+ (iv) sophisticated interaction
protection against loneliness, unpopularity and bullying	+ (iv) peer familiarity =>
	+ (iv) peer support
	(iv) analyse peers & (iv) female gender =>
	+ (iv) peer conflict =>
	+ (iv) importance of peer support
	(v) transfer & (v) school size =>
	+ (iv) negative stakes of being alone =>
	+ (iv) importance of peer support
	(iv) peer support =>
	+ (ii) confidence
HETEROSEXUAL RELATIONSHIPS	
Similarities between schools	**Interaction of Forces**
Girls talk about heterosexual relationships more than boys	(i) sexuality & (i) romantic love =>
3/20 pupils not interested in heterosexual relationships	+ (iv) heterosexual relationships
(involvement in other activities)	+ (ii)/(iv) sexual behaviours
Several boys begin to think about girls at age 11, not	for most pupils
before	
Relationships last from one day to over a year	(ii)/(iv) maturity expectations =>
Behaviour ranges from not talking (childlike) to kissing	+/- (ii)/(iv) sexual behaviours
(more adult)	
Friends assist meeting and leaving partners	(v) transfer =>
Differences between schools	+ (ii)/(iv) sexual behaviours
More acceptance of 'advanced' sexual behaviours at	
Thorpe possibly in relation to school transfer	
Less acceptance of 'advanced' sexual behaviours at	
Butterton mostly due to year group characteristics	

BULLYING	
Similarities between schools	**Interaction of Forces**
Bullying commonly observed at both schools More boys report being bullied than girls Older children intimidate and bully younger children	(iv) prior victimisation & (v) transfer => + (ii) anxiety - (iv) long term bullying
Differences between schools	
Long term bullying patterns persist at Butterton Transfer interrupts long term bullying at Thorpe Transfer encourages maturity status which discourages childish taunting Gangs of bullies form after transfer to Thorpe Prior victimisation creates a negative perceptual bias for one boy at Thorpe – this encourages post-transfer anxiety and the observation of threats	(v) transfer & (ii)/(iv) maturity status => - (iv) childish taunting (v) transfer & (v) school size & (iv) peer selection => + (iv) gangs of bullies
OLDER PUPILS	
Similarities between schools	**Interaction of Forces**
Bully and intimidate younger pupils Have more advanced sexual behaviours	(v) wide age range at school => + (iv) older pupils =>
Differences between schools	+ (iv) youth intimidation
More fear of older pupils at Thorpe More reports of older pupils intimidating younger pupils at Thorpe Knowing older pupils good for self-esteem at Thorpe	+ (ii) anxiety *Or* + (iv) having older friends + (iv) peer support + (ii) confidence *And* + (iv) exposure to sexual behaviours
UNSUPERVISED PLAY	
Similarities between schools	**Interaction of Forces**
Parents control amount of unsupervised play 16/20 pupils interviewed (80%) and 77% of the sample spent time unsupervised with friends in evenings and weekends every week Most unsupervised play involves sport (for boys), visiting shops and generally walking around. Having older friends and siblings encourages more independent activities. This can involve good or bad behaviour. Amount and type of unsupervised play used by many pupils to determine maturity status	(iii) parental allowances (vi) location safety (iv) older friends & siblings (v)/(vi) catchment area & (v) transfer & (iv) making friends => + (iv) unsupervised play => + (ii)/(iv) maturity status
Differences between schools	
Visiting cities and towns away from home more common for Thorpe pupils due to friends living in wider catchment area than at Butterton	

Introduction

This chapter explores the target pupils' perceptions of families using survey and interview data. The interview data of pupils' perceptions were gathered by asking pupils to tell me about their families in general. A few specific questions were asked, for example about bedtimes and communication with family members. One area that is unexplored is the pupils' perceptions of their families' perceptions of education and schooling. This question is recommended to be included in future studies of attitude to school and the family context.

Socioeconomic and family status

The target pupils came from a range of family backgrounds. Their parents' jobs (partially anonymised) and their family status as belonging to biological, step parent (one biological and one step parent) or single parent families are given in Table 74. This is ordered by school, then by family status and socioeconomic status as a way to indicate which pupils had more stable, financially supportive environments than others, although this ordering does contain assumptions about family income, family status and support. Those who lived with a single parent were coded as being of that person's socioeconomic status (e.g. Billy who lived with his single mother who was an animal carer and saw his father, who was a banker, only on weekends).

Table 74. Target pupils' family backgrounds

THORPE

Matthew	Biological	School Teacher	Real Estate Agent	Medium High
Chloe	Biological	Council Worker	Designer	Medium High
Kevin	Biological	Officer Worker	Army Lieutenant	Medium High
Jacob	Biological	Beautician	Electrician	Medium Low
Ruby	Biological	Administration	Furniture Removal	Medium Low
Stacy	Biological	Office Job	Publican	Medium Low
Sam	Biological	Social Worker	Postman	Medium Low
Billy	Step Parent	Animal Carer	Banker	Medium Low
Brian	Single Parent	Child Minder	Mechanic	Medium Low
Charlie	Single Parent	Personal Assistant	NA	Low

BUTTERTON

Bobby	Biological	Schools Coordinator	Engineer	High
James	Biological	Dinner Lady	Engineer	Medium High
Yasmin	Biological	Social Worker	Manager	Medium High
Joanna	Biological	Animal Carer	Landscape Gardener	Medium Low
Deirdre	Biological	Supermarket Worker	Lorry Driver	Low
Alex	Biological	Supermarket Worker	Bus Driver	Low
Lauren	Step Parent	Retail Sales Assistant	Teacher	Medium Low
Ayesha	Single Parent	Physiotherapist	Manager	Medium High
Gus	Single Parent	Personal Assistant	Independent Caterer	Medium High
Indiana	Single Parent	Teaching Assistant	Taxi Driver	Medium Low

There were no significant differences (Mann-Whitney U) in socioeconomic status, nor in family status (Chi-Square) between schools for the target pupils nor for their year groups. Around 70% of pupils came from biological families and about 10% lived with single parents. Around one fifth of pupils had low socioeconomic status with families from manual and low paying service jobs, whilst the majority (around 80%) had families whose jobs ranged from administrative to managerial in a range of work sectors. Another similarity is the number of target pupils' mothers who were in some type of education or social work employment (Thorpe N = 3/10, Butterton N = 4/10).

Table 75. Y7 cohorts and target pupils' socioeconomic status

Socioeconomic Status	Thorpe Y7 Cohort n. 152	Thorpe Targets n. 10	Butterton Y7 Cohort n. 52	Butterton Targets n. 9
High	7%	10%	4%	11%
Medium High	32%	60%	44%	22%
Medium Low	38%	30%	35%	56%
Low	23%	-	17%	11%

Table 76. Y7 cohorts and target pupils' family status

Family Status	Thorpe Y7 Cohort n. 152	Thorpe Targets n. 10	Butterton Y7 Cohort n. 52	Butterton Targets n. 9
Biological Parents	75%	70%	69%	56%
Step Parent Family	5%	10%	8%	11%
Single Parent	21%	20%	23%	33%

Amount of time with parents

Pupils in both schools spent around two hours in the morning with parents, then several more hours at night before going to sleep around 9pm. The time spent with parents in the evening differed across occupations. Mothers who saw their children the least (around two hours) were those who worked after school caring for children (Thorpe = Sam and Brian, Butterton = Deirdre whose mother had a second job). This left Sam caring for her five year old brother as her father was reputedly not good at looking after children. Both Matthew and Kevin wished for more time with their fathers. For Matthew this was because his father worked long hours. At the start of the year, Kevin's father was stationed overseas but by term three he had returned and was not engaged as much in military service which Kevin seemed very happy about. Pupils living in single or step parent families lived with their mothers (Thorpe = Billy, Brian, Charlie; Butterton = Lauren, Ayesha, Gus, Indiana) and all but Charlie whose father had never identified himself to the family, saw their fathers on occasional weekends. Stacy and Billy (from Thorpe) had parents who worked long hours in practical occupations (as a publican and animal carer) and both pupils sometimes made up for lost time with their parent at home by joining them and helping them at work. Several parents worked early shifts (Thorpe = Ruby, Butterton = Deirdre) which meant they had plenty of time to see their children after school. Mothers who worked in daytime education (Thorpe = Matthew, Butterton = Bobby) were also around in the afternoons and evenings.

Table 77. Time that parents spend at home

Altered environment
Sam: people are doing classes like after school clubs and she's got to run, like see how people are doing in the clubs and that takes her to about 6ish, 7ish in the night, but she comes back at about 8.30 so on Tuesdays my dad has to look after us and quite frankly my dad does not do looking after children well. (T1)

> Billy: She's hard working and she works long hours and when we get home from school she's there but she works at the farm with horses and um so on Mondays she works 9-6 so we go home and we go up there and help. (T1)
>
> Constant environment
>
> Bobby: At home I have my mum whose nice. She works at the HS, she's a schools' coordinator, and she finishes at the time when we finish and she picks up my sister [*at school*]. And my dad works full time and he gets back at the same time every day. (T1)
>
> Deirdre: And my mum works late or early which is annoying. She works quite a bit usually at the weekends but it's sometimes because she works with disabled children age 12 to 18 in [*nearby town*]. I think she works 8 till 3 and then she'll usually come back around half 4 on Sundays which is a bit annoying and I'll get mad at her because I don't like her going out and I like it to be like family but she always says 'well if you want to go on nice holidays and if you want to have nice things and have a nice Christmas then you need to work' and she always says that! (T1)

Talking to parents

None of the pupils mentioned having difficulty talking to their parents, although a few didn't approach the subject (Charlie and Brian). The pupils mainly felt very comfortable talking to their mothers about a range of subjects. Sam (Thorpe) and Deirdre (Butterton) pointed out that although they would talk to their mothers about dating this was not in as much detail as with friends, as mothers didn't know who the people were. Somewhat inversely, mothers were seen as people who would keep secrets about body changes unlike friends at school. Billy (Thorpe) and Gus' (Butterton) mothers talked to them about their schooling and education: something that the boys seemed to appreciate and that had a positive effect on their behaviour (also discussed in Chapters 6 and 9). At Butterton, Ayesha was less able to talk to her father due to her parents' divorce, whilst Yasmin (biological family) found herself talking more to her father with age as she grew in confidence. As described, Yasmin's father gave her more freedom than her "overprotective" mother, and this may have encouraged their relationship to grow. Grandparents were also supportive of Matthew (Thorpe) when he needed to talk about things that made him anxious. In general, pupils discussed many of their social and pubertal concerns with family members, yet the distance between family members and their children's everyday lives inhibited the conversations they could have.

Table 78. Talking to parents

<div style="border:1px solid black;">

Altered environment

Matthew: I feel like I can talk to them about anything – my family. My grandma's just, if I'm just talking to her she's very good at making me happy, if I'm a bit nervous about something say I just go and talk to her about it and she'll just sort of cheer me up a bit. She'll know how to deal with it. (T1)

Sam: Friends are like there for you, they know the guy, or they know the person or whatever. But if I started my period, I'd have to tell my mum first just cause I always ask my mum about big things first and then if I feel confident I'll tell my friends.(T2)

Billy: It's good to be at home sometimes, away from, when I get home from school it's like I sit down and my mum asks me like what have I done at school and stuff. (T1)

Constant environment

JS: Are there things that you talk about with your friends that you wouldn't talk about with your parents?
Deirdre: Uhm, probably like, just like who is going out with who and well sometimes I talk to my mum but she doesn't really know who these people are. (T2)

JS: Do you think that communication would have been different if your mum and dad hadn't split up?
Ayesha: I think I'll be able to talk to my dad more cause I don't' see him that often. He would know what's going on with everyone in the family and everything. (T2)

Yasmin: I still talk to my mum and I talk to my dad a bit more now sometimes.
JS: So how did that change come about?
Yasmin: Um [pause] I dunno. I think I got more older and I didn't get embarrassed in front of them. (T3)

</div>

Family support and happiness

When asked what made them happiest in the entire world, several pupils at Thorpe (Stacy, Sam and Charlie) and at Butterton (Lauren, Gus and Indiana) said their family. Sam needed her mother in particular for comfort and support but didn't get to see her much (as described). She saw the types of support that her mother, father and grandparents provided as being fairly exclusive to each other. Gus valued his mother for emotional support and for doing jobs to take care of him around the home. Indiana viewed his relationships with his mother as more important for growing up than school, as she supported him through pubertal changes whilst adults at school did not give this type of support. No pupils mentioned their fathers as the most important source of support in their lives, perhaps in relation to the lesser time that fathers spent caring for them in comparison to mothers.

Table 79. Family support and happiness

Altered environment

Sam: I need my mum because when I don't feel well she always hugs me and I feel better. At home my mum, she helps me. But I have my dad, to help me on all the rides in parks because my mum doesn't like half the rides. But yeah I have him as well to like comfort me and be there for me. And my Nan and Granddad to take me out for dinner and stuff. (T2)

JS: What do you need at home to feel happy?
Charlie: Umm, dunno. A nice mum but you can't really buy one of them can you. (T2)

Constant environment

JS: What do you think is more important for growing up, home or school?
Indiana: Home
JS: And can you explain why you've said that?
Indiana: Because your mum's got to look after you when you're growing up, because you might change a bit, so she has to see how you change and how to work around it.
JS: Okay, so why not school?
Indiana: Because teachers don't really look after you as much as your mum does. (T3)

JS: In life, in general, what's the thing that makes you the most happy?
Gus: My family and friends cause like they make you happy.
JS: How?
Gus: My mum takes care of me, does like loads of stuff for me like washing and cooking. (T2)

Family conflict

Several pupils mentioned that they had annoying younger brothers (Thorpe = Charlie, Kevin; Butterton = Yasmin) and Alex appeared to have fairly serious problems with his older brothers. Ruby and Stacy (Thorpe) reported a lack of tolerance and closeness (respectively) in their relationships with their adult siblings. Pupils who had good relationships with their families still reported some conflict, such as Lauren whose mother shouted at the children a lot, and Deirdre who had a sometimes inflammatory relationship with her older brother. He would tease her about being hormonally moody and she would laugh at his voice breaking. Yasmin found that growing up gave her the confidence to challenge (and argue with) her mother over how she was treated.

Family conflict was perhaps the worst for two vulnerable pupils, Charlie (Thorpe) and Indiana (Butterton) who were experiencing a family breakup during the year of study. Charlie was the eldest of three brothers who each had a different father. His mother

was currently divorcing her third husband. This caused major conflict within the family across the year. Charlie didn't like his stepdad whom apparently treated him like a servant, was opposing the divorce and was trying to take Charlie's youngest brother away from the family. Indiana was a middle brother of three. His father and mother split up just before the research began and this caused him major psychosocial trauma across the year. Firstly his father began seeing another woman and moved into her house, taking the youngest brother with him. He left her in term two, returned the brother, and stayed sporadically with friends or slept in his car. Indiana didn't see his father often and even on father's day their interaction was rushed and unsatisfying.

Table 80. Family conflict

Altered environment

Charlie: My younger brother is 3 years old, mischievous and naughty. We have a step dad and my mum and my step dad are getting divorced. And my younger brother is shared weekly and we're having problems with my step dad because he's not exactly being nice, he doesn't want to do the divorce, he wants to keep [*younger brother*], he's supposed to have given half the furniture to us but he didn't. (T1)

Stacy: My brother, we haven't seen him in ages because he just forgets about when everyone's birthday is and everything because he has another child now and they just forget everything and they don't come to family things anymore, they don't even try. (T2)

Kevin: it seems like I genuinely have the most annoying brother in the world. (T3)

Constant environment

JS: So do you get on with your brothers?
Alex: Not really (T1)
JS: What do you need at home to feel happy?
Alex: Peace and quiet--without my brothers. (T2)

Indiana: Ages ago I didn't used to see him that much, and I didn't really like that. But it was good to see him yesterday, because it was father's day yesterday. But he came round and we gave him cards, and then he forgot his cards and he dropped us off and went...He lives with his friends, he sometimes sleeps on the sofa with his friends or in the car. (T3)

Deirdre: My brother - when I get really moody with him he's goes "oh god if she's moody now I'd hate to see what she's like when she's started her period". (T3)

Activities with families

All pupils asked enjoyed doing things with their families both in and outside of home. As described, Billy and Stacy sometimes joined their parents who worked long hours at work and helped them with their jobs. Several girls enjoyed going shopping with their mothers. Deirdre from Butterton talked with the most enthusiasm about her family out of all of the pupils: she loved spending time with them together on the weekends and after school. This involved watching her brother and father play football (her father managed a local football team) or going shopping with them and her mother in a nearby city. Although she was spending more time with friends alone, she kept up close mother-daughter relations by engaging in activities at home such as watching a movie on TV together. Gus also noted that he was spending less time with family due to increasing unsupervised play and his parents' recent divorce. Pupils whose parents were divorced and who saw their fathers infrequently didn't get to partake in many father-child activities, except for Billy who had a regular pattern of visiting and whose father dedicated every second weekend to activities such as gardening and fishing with Billy and his sister.

Table 81. Activities with families

Altered environment

Billy: if I'm at my dad's at the weekend I'll be in the garden with my little brother and sister, my big sister and my dad, helping him do gardening or stuff, or we'll go fishing. And if I'm with my mum we'll sometimes play golf. (T3).

Constant environment

Deirdre: I'm growing up now so she knows that I'm getting different minds for different things; like going out with my friends and going to the farm and going to see things. But we still do get together sometimes and sit by the sofa and watch one of those soppy old movies and be all lovey-dovey and everything. (T3)

Gus: I think I'm spending less time with my parents than I did a year ago. Cause I go down the park and my mum doesn't work as much now. And now I don't really see my dad [*because of the divorce*], I see my dad like Saturday and Sunday. (T2)

Personal activities and interests

The activities that pupils did at home, and their opinions of spending time at home alone were similar across schools but with some gender differences. Boys mentioned enjoying

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playing electronic games at home alone (Thorpe = Jacob, Butterton = Indiana, Alex). In term one Alex enjoyed gaming far more than his school lessons but by term three he noticed a decrease in his gaming and an increase in his interest in learning at school. He attributed this to wanting to get the best out of life. Lauren was the only girl who mentioned playing electronic games at home, the others enjoyed watching television and spending time with their pets. Joanna especially was dedicated to animals and spent most of her time after school and on weekends with her horse. By term three Stacy (Thorpe) had given up her piano lessons despite parental opposition to spend more time in unsupervised play, and Gus (Butterton) in term two also mentioned that he would rather play out with his friends than stay home and play electronic games. Gus, with Ruby and Chloe (Thorpe) all mentioned being bored at home when there was no social interaction.

Table 82. Personal activities and interests

<u>Altered environment</u> Ruby: It's kind of boring because you have no-one to play with, like you just sit there watching TV trying to find something to do [*her brothers and sisters are ten years older than she is*]. I always play with my cat. (T1) Stacy: And I, I gave up music, well, piano, uh, cause I don't, I didn't find it fun and I'd prefer to play out with my friends at home. Uh, I don't really like playing the piano, hmm, but my mum want still wants me to do it but I don't want to. (T3) <u>Constant environment</u> JS: So if you can imagine a scale of 1 to 10 with 10 being the maximum amount of interest that you could have in something [*explains scale*] Alex: Well playing computer games [*at home*]would be about 9 or 10 and sitting in lessons probably about 4. (T1) Gus: Well, I don't really like spending time at home by myself because it just feels boring and if my mum says like, *Oh, you can't go to the park*, it gets really boring. And you sit in front of the TV and watch TV or play on the PSP but that gets a bit boring. I'd rather go out with my mates. (T2)

Bedtimes

There was no significant difference in bedtimes between schools for target pupils or for their wider year group. Pupils in both schools mostly went to bed between 9 and 10pm. Out of the target pupils, Sam was allowed up the latest: until 11pm on weeknights and until 12pm on weekends. Sam and Jacob (Thorpe) often stayed up late alone in their

bedrooms playing games or watching TV. At Butterton, Yasmin and Deirdre were involved in extracurricular activities nearly every night of the week and both girls commented that they would come home with high energy, which would prevent them from falling asleep quickly when they went to bed a couple of hours later. Lying in bed unable to sleep made both girls anxious which had not happened before Y7. Yasmin continued to row with her mother over a strict early bedtime, in place partially to appease her younger brother who went to bed at 8.30pm. Yasmin (Butterton) and Ruby (Thorpe) were allowed to go to bed later by term three.

Table 83. Bedtimes

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Altered environment

Sam: On the weekend I'm allowed to stay up till 12 but after 12 I've got to go. If something's on the telly then we'll watch it till 9 but if something isn't then I'll go at 8 and then I'll play on my Nintendo until about 10ish but if I get carried away with that I'll play it until around 11 so it kind of depends. (T1)

JS: you've highlighted that in the first transcript you said that you used to go to bed at nine. What's changed about that?
Ruby: I turned twelve [*so*] if I'm tired I go to bed half nine… Or I go into nine to watch 'Serena the teenage witch'. I watch East Enders again at ten because I love it and then it will be half ten and then yeah. (T3)

Constant environment

Yasmin: But I'm always having a go at my mum and dad because I'm in Year 7 and most of my friends go to bed at half 9, 10, and I'm usually allowed to watch telly until quarter to 8 and then just read for 15 minutes or try to get to sleep at 9 o'clock because my mum says it's good to get enough sleep instead of coming to school really tired and you've got bags under your eyes. (T1)

Deirdre: If I've been doing activities, say like I've had football training, sometimes I'll be tired but sometimes I'll be all excited. When I like jump around and I get really woken up and it comes to bedtime, 8 o'clock "oh my god I've got like another hour and a half before I have to go to bed". Sometimes I lay in bed and think "oh my God it's 10 o'clock" and then I go 10, 11, 12, 1 , 2, 3, 4, 5, 6, 7 – I'm only gonna have 9 hours sleep and get really worried. (T3)

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Figure 32. Bedtimes

Figure 32. Bedtimes

Table 84. Bedtimes between schools

Bedtimes (Count)	Thorpe n. 8	Thorpe n. 161	Butterton n. 74	Butterton n. 8
7 - 8pm	-	3	1	-
8 - 9pm	1	34	17	3
9 - 10pm	5	93	40	4
10 - 11pm	2	31	16	1

Responsibilities at home

There was a major difference between schools in the amount of responsibilities given to pupils by their parents. Transfer to Thorpe marked a status passage where for the first time, many parents issued a set of chores to do at home. These included doing dishes, tidying bedrooms, vacuuming the house, tidying the living room and doing gardening. Along with chores came increases in pocket money, with some parents (of Stacy and Billy) giving this in direct return for work done. Doing more housework was related to being treated more like an adult and being given more freedoms "you can do a lot more things but you have to play your part" (Stacy, T3). Ruby even agentically decided to pitch in and

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help her parents around the house. She attributed these actions to feeling more mature. As described, Sam regularly looked after her younger brother (age 5) in the evenings. This role grew as she and her brother became older, and her mother allowed her more responsibility over him.

At Butterton, no pupils mentioned having an increase in chores when they moved into Y7. Only Lauren mentioned that she regularly did chores at home and had done so since Y6. However, it was noticed that parents expected their children to generally be more responsible for themselves with age. Bobby and Ayesha were allowed to stay home alone for longer by term three, and Ayesha was gradually allowed to supervise her younger brother (age 9). Lauren had more pressure from her mother to keep her room clean, and Joanna was expected to be more responsible for her possessions across the year.

The difference between schools in relation to transfer contradicts Benedict's suggestion (1938) that western societies are not structured to allow young people to have increasing responsibility as they get older in comparison to traditional societies that do. At Thorpe we see pupils being put to work around the house, and being given more freedom in return. At Butterton, pupils were trusted more to look after themselves. Sam (Thorpe) and Ayesha (Butterton) were both charged with looking after younger siblings as they got older. These types of responsibilities are perhaps similar to those in traditional societies although the overall level of responsibility may be lower in the western world.

Table 85. Responsibilities at home

<u>Altered environment</u> <u>JS</u>: What kinds of things have changed since you came here [*to Thorpe*]? <u>Chloe</u>: My mum treats me different. <u>JS</u>: How does she do that? <u>Chloe</u>: I think she just expects me to be more responsible and to do more housework. (T3) <u>JS</u>: Have other people's expectations of your behaviour changed over the year? <u>Stacy</u>: Got more mature, and my mum and dad always ask me to do chores and work more, as I'm getting older I need to labour more. (T3) <u>Constant environment</u> <u>Ayesha</u>: My mum treats me a bit older, a bit more responsible, so I can stay at home with my brother so it's a bit more responsible, so like I can look after myself

| sometimes. (T1)

JS: What about responsibilities, things that you're expected to do at home and at school are they any different?
Lauren: Well, like not since year six (T3) |

Summary

Key to Summary Table

=>	Influences a…
-	Reduction in
+	Increase in
i	Biological development
ii	Individual psychology and behaviour
iii	Familial influences
iv	Peer influences
v	School environment
vi	Neighbourhood

Table 86. Perceptions of home findings

SOCIOECONOMIC STATUS	
Similarities between schools No measured differences between schools or differences between groups of target pupils Around 70% of pupils lived with both biological parents, 10% with a biological and step parent couple, and 20% with a single parent.	
FAMILY STATUS	
Similarities between schools No measured differences between schools or differences between groups of target pupils Around 80% of pupils came from families with moderate SES, 5% with high SES and 15% with low SES	
AMOUNT OF TIMES WITH PARENTS	
Similarities between schools Most pupils spent a couple of hours with parents before and after school. Pupils who saw mothers the least had mothers who cared for children after school (N= 3). This necessitated Sam to care for her younger brother Pupils whose fathers worked long hours wished to see them more (N= 2). Pupils in step or single parent families saw their mothers more than their fathers. Pupils made up for parents' long work hours in practical jobs by joining them at work (N= 2)	**Interaction of Forces** - (iii) evening shift work - (iii) divorce (for fathers) + (iii) morning shift work + (iii) work in daytime education + (iii) practical jobs pupils can help with => (iii) time spent with parents (iii) evening shift work => + (iv) caring for younger siblings

Parents who worked early shifts (N=2) and mothers who worked in day time education (N=2) had plenty of time with their children (N= 2)	

TALKING TO PARENTS

Similarities between schools	**Interaction of Forces**
No problems reported in talking to family members Girls talked to mothers about dating and puberty Girls withheld some details on peer relationships from mothers, as mothers were not privy to peer interactions Mothers encouraged sons to behave and do well at school, positively influencing their sons' behaviour at school Talked to father less after parents' divorce (Ayesha) Talked to parents more as confidence increased (Yasmin)	+ (ii) increased confidence + (ii) need to discuss puberty + (ii) desire to discuss dating + (ii) desire to discuss relationships - (iii) parents separate from peer context - (iii) fathers removed due to divorce => (iii) talking to parents (iii) talking to parents => + (ii) achievement motivation + (ii) behaviour management

FAMILY SUPPORT AND HAPPINESS

Similarities between schools	**Interaction of Forces**
In life, family makes many pupils the happiest (N= 6) Mothers are a particularly important source of support as they physically and emotionally care for children (perhaps more than fathers)	(iii) family relationships => + (ii) overall happiness (iii) physical and emotional care => + (ii) feeling supported

FAMILY CONFLICT

Similarities between schools	**Interaction of Forces**
Younger brothers can be annoying (N= 3) Relationships with adult siblings (N= 2) and older brothers can be upsetting (N= 1) Divorce causes everyday conflict in pupils' life (N= 2) Divorce separates siblings from each other (N= 2) Divorce reduces support from father (N= 1)	(iii) age of sibling => - (ii) annoyance +(ii) upset (iii) divorce => - (ii) feeling supported (by father) - (iii) family cohesion - (iii) family relationships + (ii) daily hassles

ACTIVITIES WITH FAMILIES

Similarities between schools	**Interaction of Forces**
Pupils enjoy doing activities with families Girls enjoy shopping and watching television with mothers Deirdre enjoys watching sport with brother and father Recent divorce reduces father-child activities (N= 2) Established and well managed divorce enables regular father-child activities (N= 1)	+ (iv) shared hobbies + (iii) regular time with father (divorce) - (iii) lack of time with father (divorce) => (iii) activities with families

PERSONAL ACTIVITIES AND INTERESTS

Similarities between schools	**Interaction of Forces**
Boys spend most time playing electronic games Electronic gaming is more fun than lessons Girls watch television and spend time with pets Increasing unsupervised play decreases interest in activities at home	(iii) necessitation of independent activity => + (ii) individual hobbies/leisure interests (iv) unsupervised play => - (ii) individual hobbies/leisure interests

BEDTIMES	
Similarities between schools	**Interaction of Forces**
Just over half of all pupils go to bed between 9 & 10pm.	(iii) normative bedtime (in relation to peers) =>
Around 25% of pupils go to bed each at 8-9pm and 10-11pm.	- (iii) parent-child conflict
TV and electronic gaming equipment in bedrooms encourages pupils to stay up later than actual bedtime.	(iii) gaming and televisions in bedrooms
Lack of time between extracurricular activities (ECA) and bedtimes reduces ability to fall asleep easily (N= 2).	(iii) lack of time between ECA & bedtimes =>
Early bedtimes cause parent-child conflict (N= 1)	- (ii) ability to sleep at normative bedtime
RESPONSIBILITIES AT HOME	
Similarities between schools	**Interaction of Forces**
Pupils expected to generally be more responsible for themselves with age.	(i) age & (v) transfer =>
Pupils allowed to stay at home alone longer with age.	+ (iii) parents' expectations of responsibility
Differences between schools	+ (iii) being treated like an adult
Thorpe pupils are given specific chores to mark their increased responsibility at transfer.	+ (ii) maturity self-perception
Increased chores for Thorpe pupils also increases pocket money (N= 2).	
Increased chores relates to being treated more like an adult by parents and increases maturity self-perception.	

Ch. 8) Perceptions of Self

Introduction

This chapter completes the four chapter set of pupils' perceptions of their lives across different contexts. It explores their perceptions of physical and cognitive changes and of their self-oriented psychology. The end of the chapter looks in depth at whether the pubertal transition caused stress to the pupils. This is operationalised through their perspectives of thinking about puberty and discussing it in home and school environments.

The physiological environment

Pubertal changes

Pupils were asked to report whether they had experienced pubertal changes yet, and if they had, what school year and part of that year the changes first occurred in. There were no significant differences between schools or gender (Chi-Square) for reports of having experienced pubertal changes, being uncertain or not having experienced these. Around 70% of pupils reported pubertal changes and just under a fifth of pupils had not noticed any changes yet occurring.

Table 87. Pubertal changes

	Thorpe n. 197	Butterton n. 55	Thorpe Valid %	Butterton Valid %
Changes Experienced	134	36	68%	67%
No Changes Yet	25	10	13%	19%
Unsure	38	8	19%	15%
Missing	0	1		

Most of the pupils who had noticed changes reported these as first occurring in Y6. This was similar between schools.

Table 88. Pubertal timing

	Thorpe n. 146	Butterton n. 46	Thorpe Valid %	Butterton Valid %
Year 5	13	11	8%	27%
Year 6	82	20	53%	49%
Year 7	26	4	17%	10%
Year 8	1	0	1%	-
Unsure	34	6	22%	15%
Missing	41	14		

The year and term of pubertal onset were ranked to form a scale of pubertal onset (range 1-13, Thorpe N= 88, Butterton N= 27). This showed that Butterton pupils reported earlier pubertal onset than Thorpe pupils (Mann-Whitney U= 1583.5, Z= -2.750, p= <0.006). Figure 33 reveals that the major difference between schools was from those pupils who reported first changes immediately after transfer to Butterton (Y5).

Figure 33. Pubertal onset
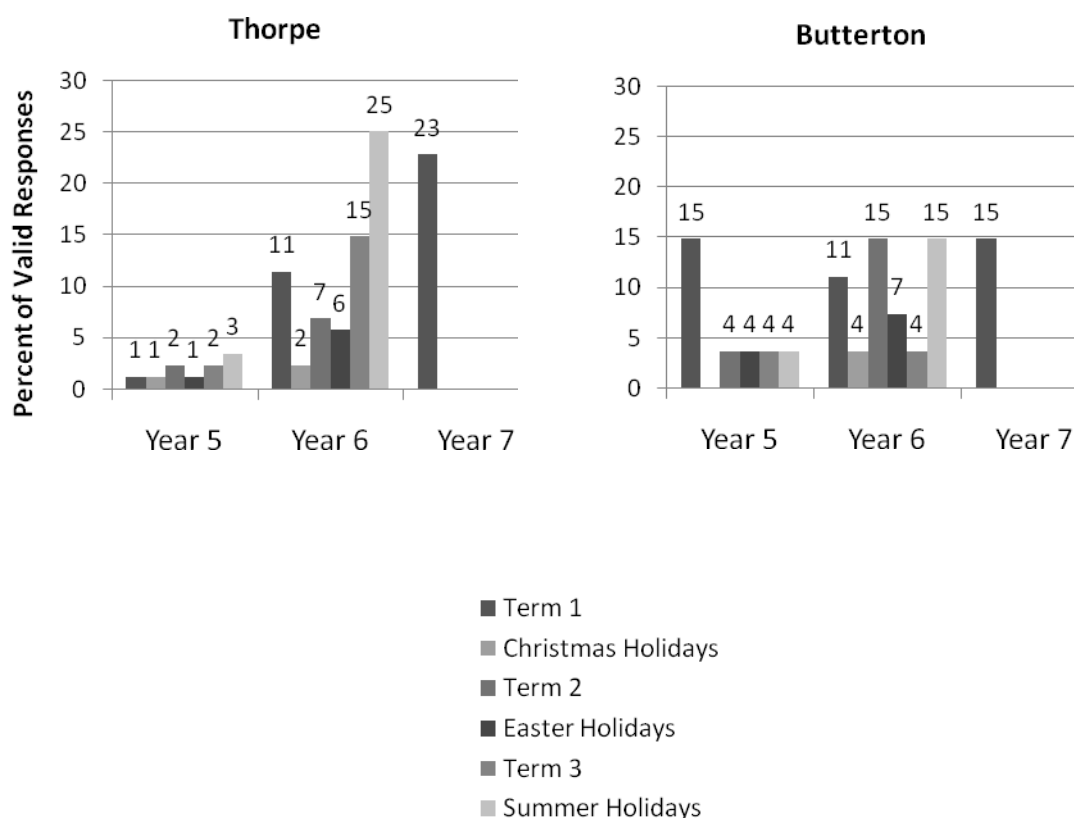
Table 89. Year of pubertal onset by gender

	Thorpe		Butterton	
	Female	Male	Female	Male
	n. 99	n. 97	n. 35	n. 20
Year 5	6%	7%	23%	15%
Year 6	37%	46%	46%	20%
Year 7	13%	13%	6%	10%
Unsure	23%	11%	11%	10%
Missing	20%	22%	14%	45%
Total	100%	100%	100%	100%

More girls than boys at Butterton gave details of pubertal onset (N= 26 vs. 9), and this difference was apparent for onset at Y5 (N= 8 vs. 3). Just under half the boys at Butterton were unsure when they had first experienced pubertal changes (45%) in comparison to three quarters of girls at Butterton, and a fifth of boys and girls at Thorpe. Therefore, the earlier onset of Butterton pupils was mainly attributable to a group of early maturing girls.

Although there were no age differences between schools generally (Student's t-test= ns), on average, Thorpe pupils were three months older at pubertal onset than Butterton pupils (Thorpe M= 11.19, sd= .478, Butterton M= 10.90, sd= .735). This level just escaped significance (T= 1.959, df= 33, p= <0.059). Across schools, age at first onset was 11.12 years (sd= .560). This is consistent with other studies (four US and one UK), that measured pubertal onset in girls using the Tanner Stage pictures for breast bud development and pubic hair (Coleman & Coleman, 2002). The mean age of pubertal onset across these studies was 11.06 years old. This is a good indication of the reliability of the doctorate's pubertal measure.

If comparing age at pubertal onset between year of onset, a significant difference emerges for the early maturing pupils (Table 90) who were around six months younger at onset in Y5 at Butterton than at Thorpe (Mann-Whitney U= 12.500, Z= -2.281, p= <0.021).

Table 90. Age at pubertal onset

Average total months old	Thorpe n. 87	Butterton n. 27
Onset Year 5	124	119
N	9	8
Onset Year 6	134	134
N	58	15
Onset Year 7	139	140
N	20	4

The pattern of pubertal onset (Figure 33) clearly shows a clustering of reports around school transfer at Thorpe (Y6-7) and at Butterton (Y5). Although the Butterton sample is small, statistically significant differences emerged between schools which points to an interaction between transfer into Y5 and early pubertal onset for girls. In comparison, girls at Thorpe reporting early onset were significantly older than their counterparts at Butterton, suggesting that for them, early maturation was linked to age.

The target pupils represented a range of pubertal development with no relation to age or to school. Those who experienced changes reported getting spots and pubic hair, growing taller and having larger muscles. Deirdre from Butterton was in the group of early maturing girls (changes at Y5). Her first noted changes did not include menarche as she was still waiting for this to occur at the end of Y7. Deirdre commented throughout the year on getting spots and on being taller than other girls. Other early maturers included Jacob and Kevin from Thorpe (first changes in Y5). However they did not discuss this in interview. Lauren (Butterton) and Stacy (Thorpe) did not report any pubertal changes in the survey, or throughout the year. Sam from Thorpe reported getting her period for the first time in Y7, after noticing first changes in Y6. Ruby noted how she was more pubertal now she had reached Y7 as was most of her year group: a perception that may be associated with transfer.

Table 91. Pubertal perceptions

<u>Altered environment</u>

<u>Sam:</u> Now because since I've started my period, I think, I'm not sure yet, it's kind of a new step, and I thought I don't really want a period. (T1)

<u>JS</u>: have you noticed anything changing from a year ago or are things the same?
<u>Billy:</u> I'm sort of getting hairs now but, and I'm getting taller and more staunch (T1)

<u>Ruby</u>: Like when you're in Y6 you don't really have much puberty but when you go into Y7 you start puberty. When I was in Y6 I was getting spots and I've had more spots in Y7. (T1)

<u>Constant environment</u>

<u>Deirdre:</u> I don't really want to grow up that much but I do kind of like I'm quite tall, I'm taller than loads of people and I'm looking down on people and like I'm 'I'm growing up before you'. (T1)

<u>JS</u>: Has there been anything that's happened in the last 12 months that you feel has

meant that you are now more grown up?
Lauren: Well, uh, I have started to get taller and stuff. Hmm…. That's all really. (T2)

JS: So have you experienced any physical changes?
Indiana: Yeah your muscles get bigger. (T3)

Emotional changes

There were gender differences in emotional changes noted by the pupils. Chloe, Deirdre and Yasmin (3/9 girls studied) reported more irritability and rudeness with others (interpreted by them as grumpiness). Chloe did not observe this in herself first hand, but identified it through her mothers' perceptions of her rude behaviour at home. Yasmin found that she was becoming more "stroppy" with her parents as she got older. As discussed in the family chapter, Yasmin's confidence in arguing with her restrictive mother increased which may be the precursor of her stroppiness rather than puberty. Clear reports of increased moodiness came from Deirdre (the early maturer from Butterton) and she struggled to understand her sudden and somewhat prolific irritability with family members and homework. In conversation with Ayesha and Lauren, neither had noticed increased moodiness in themselves but had observed it in others. Like the girls in Brooks-Gunn & Warren's study (1989), Deirdre may have been experiencing an increase in depressed mood relating to the rapid rise in Oestrogen that can occur for girls at the start of adolescence. However, hormones are not the only trigger of depressed mood and are found to account for only 4% of its variance whilst the combined contribution of social factors and negative life events account for up to around 30% of the variance (Brooks-Gunn and Warren 1989).

Another 'female' change was the report of increased anxiety before sleeping. Deirdre (Butterton) had been struggling with this for several years, perhaps relating to her early pubertal development. Her friend Yasmin noticed this for the first time in Y7, and she had reported pubertal onset at the start of that year. Both girls found that they did not have time to unwind properly between coming home late from extracurricular activities and before their early bedtimes. Yasmin described how 'thinking about more things' prevented her from sleeping. However, it is uncertain whether this was prompted by pubertal or by social changes. Recent research has linked negative and authoritarian parenting styles to low sleep quality and increased anxiety in adolescence (Brand et al., 2009), therefore Yasmin's problems with her mother restricting her bedtimes may also have influenced her sleeplessness.

No boys reported moodiness, but 3/11 did report increased anger and aggression. Jacob (Thorpe) remarked on his post-transfer development of sporadic anger outbursts. However these had dissipated by term three. Indiana at Butterton noticed his anger increasing throughout the year, and when questioned if this had anything to do with his parents' divorce he responded no, and that rather it was connected to growing up. In comparison, Billy had persistent anger issues which he had been dealing with through boxing and counselling from his mother since he was in mid-childhood, around the time of his parents' divorce. Research on hormones and emotions finds that increased levels of testosterone in adolescent boys lead to a lower tolerance for frustration which encourages boys to act aggressively in situations that they find frustrating or hard to handle (Olweus, 1986, in Buchanan, Eccles, & Becker, 1992). Divorce and school transfer in this case may be acting as disruptive life events which increase daily hassles, provoking the boys' frustration and anger. Also, Jacob and Billy reported first pubertal changes in Y5 and Y6 respectively. As early maturers, they may be more likely to experience increased aggression in adolescence (as found in Ge, Conger, & Elder Jr, 2001b).

Table 92. Emotional changes

<u>Altered environment</u> Chloe: [*My mum*] wants me to stop being messy and um not be as rude. JS**:** So do you think you were rude when you were younger? Chloe: No. (T3) Jacob: I've got angrier at more stuff, simple stuff like TV, and a wasp, I actually got angry at a wasp! It was in my room and I was just going 'get out!' JS**:** And did you have that when you were in year 5? Jacob: No, I didn't. JS**:** What about anyone in your family, do they get mad at things? Jacob: No. (T3) <u>Constant environment</u> Deirdre: I'm really moody at home all the time cause of my hormones and everything. JS**:** What do you feel at that time? Deirdre: My brother always sets me off like him eating gets on my nerves. Crunching and crunching and crunching, that's what sets me off. Silly little things like that. I tell him to shut up! And…then suddenly I hear him again, and I'll just *Harrr!-stomp-stomp-stomp-stomp-stomp* up the stairs. JS**:** So is it anger that you're feeling, or annoyance, or upset… Deirdre: Annoyance. It's silly really but I just find it so annoying. (T3) JS: Have you changed in the way that you think or feel over the last year?

> Indiana: Well, my attitude just got really bad cause I keep answering back to people.
> JS: Why has it changed?
> Indiana: Cause now when people annoy me I get really mad. (T1)

There were no measurements of irritability nor anger/aggression taken in the survey. However, one item '*are you always worrying about something?*' was asked at both times. Potential responses were *no*(1), *unsure* (2), or *yes* (3). There was no difference in the average anxiety score across time (paired samples T-Test). Nor were there differences in levels of anxiety between schools or gender at each time point (Mann-Whitney U). However, there was movement within the anxiety measure across time, with groups of pupils either becoming more anxious (1-3), less anxious (3-1) or remaining stable at points 1, 2 or 3. No pupils moved from the midpoint. There were no differences in these groups between schools nor gender (chi-square). Anxiety decreased for slightly more pupils than it increased for (10% vs. 4%). By term three, 33% of pupils didn't worry a lot, 47% were unsure and 20% were always worrying about something. This fifth of pupils who were constant worriers seems fairly high and is of some concern.

Table 93. Anxiety status

	Thorpe n. 146	Butterton n. 46	Total n. 192
Decreasing (high to low)	10%	11%	10%
Low stable	25%	15%	23%
Moderate stable	46%	52%	47%
High stable	15%	17%	16%
Increasing (low to high)	3%	4%	4%

Cognitive changes

Six of the target pupils perceived changes in the way they thought over the past twelve months. Sam and Matthew at Thorpe both noticed being more 'forgetful' immediately post-transfer. Matthew related this to the influence of thinking more about other things (potentially as a surge of post-transfer stimulus) and to growing up. At Thorpe, Billy noticed that he was thinking more about things in general. Soon after transfer, Jacob elicited a discussion about how his brain was "going faster" than his friends', and that this caused him anxiety about growing up quicker than them and leaving them behind. He described how he had a "different vision" about things learned in lessons and how he strove to make lessons more challenging. In term one, he described this as having a "giant

impact". However, when prompted to continue the discussion in term two he stated that he had forgotten completely about feeling that way. At Butterton, James felt that he could understand things better in general. Yasmin took time to describe this, as a shift from a childlike simplistic view of social constructs to endowing these with detail and utilising these to construct self-narratives, both potential and actual.

Although the data are scarce, these reports show how increases in complex thinking can occur in both transfer and non-transfer environments in early adolescence. However, there may be some connection with transfer to a more complex and demanding school like Thorpe, as here, Jacob experienced a 'flush' of new thought capabilities in the first term, whereas neither Yasmin nor James described any sudden changes at Butterton. Also the forgetfulness of Sam and Matthew could also relate to the overwhelming stimulus of social changes immediately post-transfer.

Table 94. Cognitive changes

Altered environment JS: Have you noticed anything different in the way that you feel about things over the last year or so? Jacob: Yeah. My mind is going better and my friends is going better as well but mine is going faster. It's like I have a different vision on stuff. I have a different vision in maths and stuff and all my subjects – I have a different way of putting it than them. They do it the simple way but I'm just thinking 'how can I make it harder than it already is?'. (T1) JS: So have you noticed any differences in the way that you think and feel and behave from last year? Matthew: I'm a lot more forgetful than last year…. I'll have forgotten what I was supposed to get and I'll have to go back to Dad and say 'what was I supposed to do?' which I find quite annoying. JS: Have you got any theories about why that might be? Matthew: Brain changing? Um just kind of growing up really and you just, and your body is more focused on other things and, yeah, and well I've, I am a lot more forgetful. (T1) Constant environment JS: Has anything changed the way you think in the last year or so? Yasmin: Um, well now I've got more mature it's like global warming. When you're little you just think "oh my God we're gonna die, the sky's gonna fall down!" but now you actually think of it "if I recycle I can save the planet". Yeah really, like more mature things. You can understand things; like racism is a bigger thing. Because when you're little you think "oh what's the point?" and now you're older you can get involved with stopping it and that. (T3)

Self-awareness

Concern with physical appearances

Changes in self-perceptions are commonly found in prior school transfer research. Girls' body image is often found to decline, in particular that of early maturing girls (Petersen & Crockett, 1985), and their self-consciousness is observed to increase (Jones & Thornburg, 1985). In both studies, girls had higher levels of negative self-perceptions than boys. At Thorpe, Sam and Chloe were both physically well developed in comparison to their peers. Sam was sturdily built and Chloe was fairly tall. By the end of the year, both girls noted feelings of social embarrassment. Sam felt uncomfortable when asked to dance by her music teacher, and when performing in drama. Chloe worried about peer-rejection when she was seen with an adult researcher at school. Certainly her attitude towards spending time with me changed from term one, when she appeared pleased to see me, to term three where she deliberately ignored me in the corridors. Chloe was also concerned about her physical appearance, and wore makeup at school to hide her spots and to generally make herself feel better. She admitted that she didn't like the way her face looked, particularly her nose. At Butterton, Deirdre (another physically well developed girl) also spoke at length about makeup. Deirdre wore foundation to cover spots and to make herself more attractive to boys at school discos. Both Deirdre and Yasmin felt sorry for other pupils who had bad skin and who didn't bother to hide it. However, Deirdre was careful not to let others see that she occasionally wore makeup and dismissed the behaviours of Y8 girls who wore it openly.

I observed pupils having more provocative clothing and hairstyles at Thorpe than at Butterton. In physical education class at Thorpe I counted 10/25 boys who had spiked up their hair with gel, some creating a mini Mohawk effect at the back of their heads. In term two in drama, Chloe and Stacy both wore stripy socks and nail polish and appeared to use these features to draw appearance to themselves. Both kept stretching their legs out and displaying their socks when seated on the floor, and Chloe splayed out her fingers and fiddled with her nail polish whilst sat there, over a ten minute period. Also at Thorpe,

Brian discussed how his group of friends wore "cool jackets" which made them cooler than others. Sam who thought that people might be nicer to her because she was wearing trousers instead of skirts as part of her school uniform. These examples mark an interaction of agentic desire for attention and peer pressure in early adolescence. Parental expectations may also affect appearance, as Deirdre's (from Butterton) mother encouraged her to wear makeup to the school disco but didn't allow her to buy a strapless top. Another marker of appearance was the personal equipment that pupils used in class, such as pens and pencil cases. In both schools, gender stereotyped equipment such as Gus's basketball pencil case and Sam's purple fluffy pen sent out messages about their owners, whether deliberate or not. Sam and her friends used the fluffy pen to attract attention by waving it and fiddling with it provocatively in class during first term, as other pupils looked on.

Table 95. Concern with physical appearances

<u>Altered environment</u>

<u>Sam</u>: Like everybody stares at you when you're actually doing drama. It just, it just… It comes out wrong. (T3)

<u>JS</u>**:** How would you feel about hanging out with an adult in school? Take me as an example, if we were going to go walking down the corridor together or hanging out at lunchtime together, would that be okay?
<u>Chloe</u>: It is uncomfortable cause everyone's like, 'why are you with them, why can't you come talk to me?' Cause your other friends might not want to talk to the adults with you. So it can be embarrassing. (T3)

<u>JS</u>: Why do you wear make-up?
<u>Chloe</u>: Cause I've got spots.
<u>JS</u>: Gosh, ok. Are there any other reasons?
<u>Chloe</u>: I just…I dunno, to cover my skin up.
<u>JS</u>: Why?
<u>Chloe</u>: I just don't like my face. (T3)

<u>Constant environment</u>

<u>Deirdre</u>: For the disco I will put a bit of mascara and lip gloss on and my mum goes 'Deirdre you look too white – come on, let me get a bit of blusher on you'. Before school, if I've got a spot or anything I'll want to cover it up. I would never go out if I looked too washed out with makeup. I want people to know that I've not got any on – but I have. (T2)

<u>Yasmin</u>: I know boys; they have quite a lot of blackheads. There's this boy in our class and it's not very pleasant looking. It's not his fault, but you don't want to say, 'excuse me I think you've got a few round here'. He's covered in black and white. I feel a bit

Self-esteem development

At Thorpe, Sam, Ruby and Matthew mentioned their self-esteem development in relation to school on several occasions. In term one, Sam spoke in a stream of consciousness (characteristic of her reports) about how she perceived herself and how she was perceived by others. She mentioned personality characteristics such as kindness, chattiness and friendliness. She appeared to be struggling with being a 'chatterbox' where she would pour out her thoughts in torrents to her new friends at Thorpe, then suffer rejection when they didn't want to listen. Her mother advised her to always remember "the kind person inside of Sam" when she felt misunderstood. Ruby also noticed that she talked more often to friends and to teachers and was deliberately provocative in class which marked a change from her quiet behaviour at primary school. She directly attributed these changes to school transfer which gave her the confidence to speak up by making her feel more mature. Matthew's personality may have initially suffered a little on transfer, for in term one he was concerned about not being noticed by teachers and being a "nobody". Thorpe was his first experience of being a high achieving student in a class of high achieving peers. He seemed content that others called him a "boff" (somebody who is very interested in learning) in the first term. It appeared that Matthew's identity centred on his ability to achieve, and that his self-esteem provided a direct link between recognition from others such as teachers and peers, with his identity. Interestingly, no Butterton pupils mentioned their self-esteem development during the year.

Table 96. Self-esteem development

Altered environment

Sam: I think people take me for the wrong part. My mother said to me the other day 'if people aren't going to take the right part of you, you need to know that people are taking the wrong part of you, because the kind person inside of Sam is...I'm the first person inside me. (T1)

Matthew: I like to feel that the teachers are actually know I'm there and that they seem interested in me...[*so you*] don't feel you're a nobody and you don't feel like

you're just a normal person you feel like actually the teachers are personally interested in you and I just like to feel like that. (T1)

Ruby: I'm more naughty.
JS: Can you tell me a bit about that?
Ruby: When I was in primary school I was always used to be like too scared to shout things out, but now I'm just shouting things out all over the place.
JS: Why do you think you're doing that?
Ruby: I don't know, it's difficult to explain. You feel more grown up and that. (T3)

Constant environment

No discussion from Butterton pupils

There was no significant mean difference in measured self-esteem between schools or between genders across or within schools (T-Test) at either time point.

Table 97. Self esteem differences between schools

Average	Thorpe	Butterton
Self-Esteem Scores	n. 146	n. 46
T1	28.68	29.48
sd	4.01	4.14
T2	29.31	29.78
sd	3.96	3.36

Identity development

Questions about vocational identity were asked in the first and third terms. These were posed as an initial query into whether the pupils had begun thinking about a future career, and if they replied yes then more questions were asked to elicit this. As discussed in the literature review, early adolescents in the US are found to exhibit all four identity statuses (foreclosure, diffusion, moratorium, achieved) but mostly they are either foreclosed or identity diffused (Allison & Schultz, 2001). This was not the case in the present study, as the majority of target pupils for whom data were available (11/16) were in a state of identity moratorium: actively searching for a suitable career without making a firm commitment. Three pupils (Brian and Chloe from Thorpe, and Joanna from Butterton) were identity diffused: having no career ideas and little interest in searching, whilst two (Stacy from Thorpe and Yasmin from Butterton) were identity achieved: having considered their options and settled on a well-matched career. There were no

visible differences in identity status nor in the general range of jobs considered by school or by stage of pubertal development amongst the target pupils.

Pupils tended to choose a career by matching jobs they were familiar with to what they were good at and/or interested in. For example at Butterton, two boys with high maths achievement wanted to become either a maths teacher (Alex) or a stockbroker (Bobby). Bobby made this decision after finding out about stock broking for the first time at a careers' day in term three. Jacob at Thorpe wanted to become an ICT teacher in second term, after being praised for his achievements by his ICT teacher. The process of self-career matching was evident for the two identity achieved girls who were consistent in their decisions across the year. Stacy, who was good at maths and art, wanted to become an architect or an interior designer, and Yasmin, who enjoyed sport and helping others, dreamed of physical education teaching. Like Bobby, Yasmin found careers' day helpful and for her it helped reaffirm her chosen occupation. The process of matching self to career is commonly observed in vocational psychology, and can be traced theoretically to Parsons (1904, in Chen, 1998). Another popular theory is of individuals matching themselves to career through observing others in specific occupations (Holland, 1985). Matthew provided evidence of this in choosing to be a primary school teacher like his mother, as did Jacob, Alex and Yasmin in their desire to be teachers, following in the footsteps of people they were able to observe. Matthew wanted to teach Y6 pupils at primary school as it appeared to him that secondary school marked the change from being friends with pupils to not being friends with them, if you were a teacher.

The tendency for 11/12 year old pupils in this sample to search for a career and their use of common mechanisms of career decision making, highlights the importance of schools for early adolescents' identity progression. Schools not only provide opportunities for pupils to decide what they are good at, but also influence these decisions through the quality of lessons and through expectations for and recognition of achievement. The careers day offered by Butterton was evidently successful for helping pupils with limited vocational knowledge to discover careers (such as stoke broking) that specifically matched their skills and interests, and to justify choices already made. Teachers can appear as occupational role models and when relationships between teachers and pupils are good (like in at Butterton and at Matthew's primary school), this encourages pupils to have a career in education.

Table 98. Identity development

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Altered environment

JS: So what do you think will happen at the end of all of this [*school*]?
Brian: Dunno
JS: Have you thought about it much?
Brian: No. (T1)

Jacob: I'm thinking about being a musician or a cook but I think that I'll probably be like an IT teacher, probably. Knowing the way that I'm going.
JS: Why do you mean by that?
Jacob: Uhm, cause my teacher says I'm doing really well in IT. So, I'll probably gonna end up as an IT teacher. (T2)

Constant environment

Bobby: We had to find three jobs for this careers day. I would want to be like a stockbroker, P.E. teacher or like a sports professional.
JS: Okay, why do you say stockbroker?
Bobby: Because I quite like maths and I'm quite good at it and you earn a lot of money as well. (T3)

Yasmin: I still want to be a P.E teacher when I'm older cause we just had a…um [pause] career's day it was, and we went through different careers and I thought about being a P.E teacher even more. (T3)

</div>

Growing up

Worrying about growing up

The target pupils in Thorpe thought more often and with more concern about the social implications of growing up than the target pupils at Butterton. Jacob was worried about losing his friends in term one as he felt he was growing up faster than they were. By the end of the year, Sam both wanted and felt under pressure to try more 'things' (unexplained) socially but was scared of actually doing them. Charlie was unhappy about the mounting pressure at school (by term two) to achieve good GCSEs in order to attend a good local sixth form college. In term one, Billy sometimes got angry at consistently having to keep his behaviour in check at school. For both boys, pressure to behave a certain way at Thorpe sometimes made them feel that they didn't want to grow up. Physiological changes for girls were also a concern. Stacy wanted to remain a child to avoid her body changing. "I don't want to get bigger. I wanted to stay nine". She was scared about getting her period "cause something could go wrong". Sam was also

concerned about getting her period until this occurred in term two. Only Matthew, Chloe and Ruby didn't report any worries about growing up.

At Butterton, 8/10 pupils didn't worry about growing up, including all the boys who stated that they didn't really notice it and hardly ever thought about it. Growing up didn't cause Ayesha or Joanna any concerns, nor did it for Lauren (at least in term one). But by term three, Lauren was a little worried about getting her period. Deirdre was the only Butterton target pupil who expressed overt concerns, perhaps as she was an early maturer. In terms one and two she discussed not liking being taller than other girls her age. She didn't want to grow up in order to avoid getting more spots and larger breasts. However by term three she appeared more comfortable and looked forward to getting her period to see what growing up was like. Although Ayesha felt that in order to grow up "you still have things to learn and your body has to change more", she didn't perceive these as tasks to be consciously achieved. "I think they need to happen for you to grow up and be more mature and sensible but they're not like tasks that you have to try and do yourself or anything." Her and Lauren agreed on this point.

Table 99. Thinking about growing up

<u>Altered environment</u> <u>Jacob</u>: I'm just really afraid of some things really. I'm afraid of getting loads of things wrong. I'm afraid of being more grown up than all of my friends, I'm really, I'm just more scared than I was at primary school. (T1) <u>Charlie</u>: And at first you think growing up is going to be really cool but now you're thinking but what about everything I'm going to go through, like year nine SATs, GCSEs oh am I going to pass - Ooo I'm going to [*local college*] I mean why do I have to do this? Why can't we just stay young and free? (T2) <u>Sam</u>: Well [*growing up's*] quite scary actually cause there's things that you might, all your friends are doing and you wanna do it, and then when you get up to it you're like "oh my god I really don't want to do this. Oh my goodness, oh my goodness". (T3) <u>Constant environment</u> <u>JS</u>: And what is it like, growing up? <u>Alex</u>: I dunno, I don't really feel much. <u>JS</u>: Do you think about it often? <u>Alex</u>: No (T3) <u>JS</u>: What is growing up like? <u>Bobby</u>: Uh, don't know. You don't really feel it [laughs]. (T3)

> Deirdre: I don't wanna grow up because I don't wanna go all through them changes like my mum goes, "Deirdre, everybody gets spots, at least, a few spots". I'm like, "I don't want them!" And like growing up like your boobs getting bigger and everything. I just don't wanna do it. (T2)

Talking about growing up at home

There were no differences between schools in the patterns of communication pupils had with their parents, on the topic of growing up. However there were significant individual differences in who the pupils spoke to and how often, and in what they spoke about. Data on these discussions was mainly gathered during term one. Most pupils (12/20) spoke to their mothers: more so girls (N=8) than boys (N=4). Several, girls were embarrassed to speak with their fathers due to gender differences (Stacy, Yasmin and Deirdre), and boys also mentioned being hesitant to have conversations with their fathers (Gus and Bobby). Sometimes mothers took the lead in instigating discussions about growing up whilst sometimes pupils instigated these. In both schools, pupils had an entire day of sex and relationships education as one of their termly Personal Hygiene and Social Education (PHSE) 'days'. The occurrence of these days sparked conversations between pupils and mothers. Pupils with older sisters also talked to their sisters about growing up (Chloe, Billy, Lauren) whilst Alex sometimes talked to his eldest brother. Billy, Ayesha and Jacob often spoke with their close friends about growing up, and this was probably true of more pupils in the sample. Jacob didn't talk to anyone at home about growing up, therefore his friends were an vital source of support. With them he spoke about girls and about future careers. Five target pupils didn't talk about growing up at home, nor to anyone (Joanna, Brian, Indiana, James, Alex).

What constituted 'growing up' appeared different between families. Most pupil-parent discussion focused on growing up as being physical and emotional changes. Only a couple of pupils (Gus and Matthew) mentioned discussing the wider area of psychological and relationship development with their parents. This type of discussion was more likely to happen between friends (Ayesha, Jacob). "If people are having problems at home, they bring it up in the conversation, say 'can anyone help' or 'is anyone else having this problem' or we just lead from one topic to the next" (Ayesha, T2). The limited parameter of many pupils' conversations (i.e. growing up meaning physical changes) made pupils embarrassed to have these talks with their parents (Chloe, Ruby, Stacy) and by term three, some pupils reported a decline from talking about growing up in term one, to not

having these conversations at all (Chloe, Ruby, Bobby). In comparison, Lauren reported an increase in discussions about moodiness and periods with her older sister and mother between terms one and three, probably relating to her emergence of concern about growing up in term three. The following table matches pupils' discussions about growing up to their concerns about it, and to their anxiety status. This reveals that girls at both schools had concerns about puberty whilst only the transfer pupils had concerns about social development. The social concerns are also linked to having high anxiety across the year. This finding relates to the difficulties of multiple transitions (puberty and school transfer). As in the focal theory (Coleman, 1974), the close proximity of the tasks of dealing with physical and social changes appear to have ill effect, but only for those pupils whose anxiety levels are high.

Table 100. Talking and worrying about growing up by level of anxiety

	Talks about growing up	Worries about growing up	Anxiety status
THORPE			
Jacob	Yes - friends	Yes – cognitive & social	High stable
Sam	Yes - mother	Yes – physical & social	High stable
Charlie	-	Yes – achievement pressure	High stable
Billy	Yes – mother/friends	Yes – good conduct pressure	Moderate stable
Stacy	Yes - mother	Yes – physical	Low stable
Matthew	Yes – mother	No	-
Chloe	No	No	-
Ruby	No	No	Moderate stable
Brian	No	No	Moderate stable
Kevin	-	-	High stable
BUTTERTON			
Deirdre	Yes - mother	Yes – physical	Moderate stable
Lauren	Yes – mother/sister	Yes – physical	Decreasing
Yasmin	Yes - mother	No	Moderate stable
Gus	Yes - mother	No	Moderate stable
Ayesha	Yes – mother/friends	No	Decreasing
Indiana	No	No	High stable
Joanna	No	No	Moderate stable
Bobby	No	No	Moderate stable
James	No	No	-
Alex	No	No	-

Table 101. Talking about growing up at home

<u>Altered environment</u>
<u>JS</u>: Do you talk to anyone at home about growing up?
<u>Jacob</u>: No – not really. Kind of keep it to myself and try to work it out by myself. I talk to my friends but that's it. (T1)
<u>Stacy</u>: I don't really talk to my dad about it because he doesn't know what it's like, being a girl, and so I talk to my mum about it. (T1)
<u>Billy</u>: I talk to my really close friend, my best friend. And sometimes he tells me stuff about him growing up. And um, and my family as well, my mum and dad. (T3)
<u>Constant environment</u>
<u>Deirdre</u>: I never discuss things with my dad.
<u>Yasmin</u>: But my dad gets a bit upset when my mum says that to him because he wants to be there for me just as much as my mum but because she's a woman she kind of knows what it's like she's been through it herself. (T1)
<u>JS</u>: How do you feel now about growing up? Is this the same or different from when we last chatted?
<u>Lauren</u>: Well, I think it's a bit different actually. Because my sister has told me a lot more and so has my mum. My mum has recently come in and sat on my bed and talked me through a bit more. (T3)

Learning about growing up at school

Most pupils relied on PHSE days at school to teach them about puberty, and this was especially important for those who didn't talk to anyone about growing up. Extra support came from Butterton where four weeks of science lessons were given on reproduction and puberty in term two. Ayesha said this eased her concerns about growing up, perhaps explaining why there were no links for her between talking about growing up and worrying about it. The role of schools in supporting growing up was clear for several pupils in that it had none outside of these PHSE days. In term one at Thorpe, Sam described how she relied on her mother to give personal advice on physical changes, on her friends to give personalised support on peer relationships and how teachers didn't contribute anything to supporting you in 'growing up'. In term three, Indiana (Butterton) also spoke of how support from home was essential to help you through growing up, whereas teachers wouldn't support you in this.

Table 102. Learning about growing up at school

Altered environment

Sam: Well you can like tell friends anything. Teachers you can't really say much about teachers, cause you can't go 'oh look I've got a new boyfriend' to teachers. Imagine saying to Mr. Caruthers 'oh I've got a new boyfriend!' He probably wouldn't care and comfort you. He'll probably say, 'what the hell are you talking about?' But my mum, I can tell anything to my mum. If I started my period, I'd have to tell my mum first just cause I always ask my mum about big things first and then if I feel confident I'll tell my friends. Teachers would be like out of bounds for that. (T2)

JS: Where do you get your information on growing up from?
Jacob: We had this 'conference day' a little while ago about growing up and we were just learning about it and I took notice and that's all I really want to know really. We had sex education at PS, I'm glad it was cartoons! (T1)

Constant environment

JS: What do you think is more important for growing up, home or school?
Indiana: Home
JS: And can you explain why you've said that?
Indiana: Because teachers don't really look after you as much as your mum does. Like when you're changing you've got to tell your mum. (T3)

JS: How do you feel now about growing up? Is it the same or different from when we last talked?
Ayesha: Uhm, I think it's….kinda different because we had four weeks of lessons in science about growing up and how our bodies change in reproduction and everything. So, I feel more relaxed now and I know what's coming and everything. Yeah, and because some of my friends have started I can talk to them if I start saying to them what I've been going through. (T2)

End of childhood

In terms one and three, most pupils were asked to discuss at what age they felt they were no longer a child. Their answers show considerable differences between schools. At Thorpe, there was a wider range of responses than at Butterton and several pupils were confused about whether they were a child or not. Chloe and Sam were uncertain whether childhood ended when you got your period, or whether it ended when you were a teenager (age 13). Many pupils spoke of legal rights and responsibilities such as driving, and placed the end of childhood at 16-18 for these reasons. Brian had no idea and just guessed age 14, whereas Kevin attributed the end of childhood to becoming more adult during the GCSE years where you went on work experience. From those who gave a firm answer, only Kevin and Charlie still classed themselves as children whilst Matthew and Jacob considered themselves to be half adult/half child, and Sam thought of herself as a

"younger older person" (T1). Matthew directly related this to feeling older at school transfer. The pupils' views on whether they enjoyed feeling older were mixed. Matthew and Charlie liked to feel older as this boosted their self-esteem (although Charlie also wanted to stay a child to avoid work pressure, as discussed). In term one, Chloe and Stacy also thought that being a child was better than being a teenager as then you didn't have the work stress that was apparent at Thorpe.

In comparison, most pupils asked at Butterton (6/9) placed the end of childhood at age 13 when you became a teenager. The exceptions were Bobby who thought age 12 when you finished middle school, Alex who thought 18 based on his older brother's physical maturity, and Yasmin who thought around age 14/15. Both Yasmin and James thought that it was up to individuals to choose when they felt no longer a child. Nearly all pupils asked (7/8) thought they were still children. Only Gus felt like a younger teenager based on his observations of Y7 and Y8 pupils engaged in teenage behaviours.

Butterton pupils may have had more homogeneous opinions than pupils at Thorpe due to the smaller size and more similar schooling experiences of their year group, and to the middle school ethos of not encouraging children to 'grow up' too quickly. Their consistent placement of the end of childhood at 13 may relate to transfer to upper school in Y9. Transfer into Thorpe as described increased pupils' maturity self-perceptions and this, along with the greater availability of older role models at Thorpe appears to have spurred several pupils to think of themselves as no longer being children.

Table 103. End of childhood

Altered environment
Matthew: And I do find that I'm a lot sort of, I feel a lot more grown up. I feel that I'm more half adult rather than just a child and I feel a lot older, and just going to secondary school really you tend to feel a lot older and at primary school you feel like a little child. (T1)
JS: At what age are you no longer a child?
Chloe: Um [pause] well don't you when you're a teenager? But when you like start your period…Um don't know. (T3)
Stacy: Well, a child is still a teenager, cause you're still a child, I would say 20 but it might be 19, or 18. Actually no, I've changed my mind, 17, because you're allowed to drive, and because your mum always takes you around in her car and when you get to 17 you can have a license. (T3)
Constant environment

> Gus: Well I'm sort of in the middle of like a child and a teenager because I'm like everyone in our school acts like a teenager – they think they're really hot and that. Because if you're a Y7 you act like a Y7, if you're in Y6 it doesn't matter what age you are but you're still in Y6 and you act like one. (T1)
>
> Yasmin: I don't know. It's quite hard because even when you're a teenager like thirteen you're still a child really even though it's called different. It depends when you don't want to be a child really. (T3)
>
> James: It's different for everybody, but it's the age you no longer feel like you're a child. Thirteen, the age that you become a teenager probably. (T3)

Summary

Key to Summary Table

=>	Influences a…
-	Reduction in
+	Increase in
i	Biological development
ii	Individual psychology and behaviour
iii	Familial influences
iv	Peer influences
v	School environment
vi	Neighbourhood

Table 104. Perceptions of self findings

PUBERTY	
Similarities between schools	**Interaction of Forces**
Around 70% of pupils have experienced first pubertal changes	(v) transfer in early adolescence =>
	+ (i) on time pubertal onset
15-20% of pupils have not experienced changes	
15-20% of pupils are unsure	(v) transfer in late childhood =>
First changes mostly noticed in Y6 (age 10/11)	+ (i) early pubertal onset for girls
Average age of pubertal onset is 11.12 years old	
Changes notices around the point of school transfer	
Common changes include pimples, public hair, muscle increases (boys), breast development (girls)	
Differences between schools	
At Butterton a greater percentage of pupils (mainly girls) report pubertal onset in Y5	
EMOTIONAL CHANGES	
Similarities between schools	**Interaction of Forces**
Pubertal girls experience increased irritability with parents and siblings, in relation to increased confidence and physiological mood swings (N= 3)	(i) puberty & (i) female =>
	+ (ii) irritability with parents & siblings
	+ (ii) anxiety before sleeping
Pubertal girls experience increased anxiety before sleeping (N= 2)	
Pubertal boys experience anger management issues in	(i) child or early adolescent male & (v) transfer &/or (iii) divorce =>

relation to disruptive life events (transfer and divorce)	+ (ii) anger and aggression
Around 50% of all pupils have moderate, stable anxiety	
Around 20% of pupils have low anxiety	(i) puberty & (i) male =>
Around 20% of pupils have high anxiety	+ (ii) anger and aggression
Around 10% of pupils have decreasing anxiety	

COGNITIVE CHANGES

Similarities between schools	**Interaction of Forces**
Pupils notice an increase in thought complexity with age	(i) age =>
Differences between schools	+ (i) complex thought
Thorpe pupils notice sudden shifts in complex thought and in memory loss post-transfer	(v) transfer =>
	+ (i) complex thought
	+ (i) general forgetfulness (?)

CONCERN WITH PHYSICAL APPEARANCES

Similarities between schools	**Interaction of Forces**
Well developed girls wear makeup to hide pimples and to increase attractiveness (N=2)	(i) puberty + (i) female + (v) transfer =>
	- (ii) body image
Boys spike hair with gel (around 50% at Thorpe)	
Personal work equipment used to 'advertise' pupil to others	(i) puberty + (v) transfer =>
Differences between schools	+ (iv) teenage clothing & accessories
Thorpe well developed girls feel social embarrassment (N=2) and low self-body image (N=1)	+ (iv) concern about appearances
Thorpe pupils wear more teenage style clothes, hairstyles and accessories	

SELF-ESTEEM DEVELOPMENT

Differences between schools	**Interaction of Forces**
Thorpe pupils discuss personality and self-esteem more	(v) transfer => (iv) peer rejection =>
Sam feels insecure about her ability to make friends and suffers from peer rejection	- (ii) self-esteem
Matthew needs for his achievements to be noticed to have confidence in himself	(v) transfer => (v) loss of praise from teachers
Ruby notices increases in social confidence as she feels more mature post-transfer	- (ii) self-esteem
	(v) transfer => (ii) maturity self-perceptions =>
	+ (ii) self-esteem

IDENTITY DEVELOPMENT

Similarities between schools	**Interaction of Forces**
Just over half of target pupils were in identity moratorium.	(v) encouragement from teachers
3/16 target pupils were identity diffused (no searching).	(v) careers education and guidance =>
2/16 target pupils were identity achieved (girls).	+ (i) identity moratorium & achievement
No pupils were foreclosed.	
All pupils of moratorium or achievement statuses used processes of matching self to career by evaluating own skills, evaluating career requirements and by observing others in occupations .	(v) positive experiences with teachers =>
	+ (i) desire for career in education
Positive experiences with teachers encouraged pupils to want a career in education (N= 4).	
Encouragement from teachers influenced career decisions.	
Differences between schools	
Butterton provided a careers day which enabled pupils to	

evaluate own skills and career requirements and to discover new jobs that they had no role models for.	
WORRYING ABOUT GROWING UP	
Similarities between schools	**Interaction of Forces**
Girls worried about physical implications of growing up	(i) puberty & (i) female =>
Differences between schools	- (ii) concerns about physical changes
Thorpe pupils worried about social pressures of growing up	
8/10 Butterton pupils didn't worry about growing up	(iii)/(iv) talking about growing up <=>
TALKING AND LEARNING ABOUT GROWING UP	+ (ii) concerns about growing up
Similarities between schools	
Most pupils (12/20) spoke to mothers about growing up.	(v) sex & relationships education (iii) =>
Most pupils did not talk to fathers about growing up.	+ (ii) knowledge about growing up
Pupils talked to older siblings about growing up.	
Conversations with family were mainly about puberty.	(iii) conversations with parents =>
Pupils were often embarrassed to talk about puberty.	+ (ii) knowledge about growing up
Five pupils didn't speak to anyone about growing up, and	+ (ii) support for pubertal changes
by term three a further three pupils had stopped having	+ (iv) support for peer relationships
conversations at home.	
PHSE day provided the only source of information about	(iv) conversations with peers =>
growing up for the five pupils who didn't speak to anyone.	+ (ii) support for pubertal changes
PHSE day at school sparked parent-child conversations	+ (iv) support for peer relationships
Pupils talked to friends about pubertal and relationship	+ (iii) support for problems with family
development.	
Friends provided support for pupils' changing parent-child	(v) transfer & (ii) anxiety =>
relationships.	+ (iv) concerns about social development
Increases in talking about puberty at home increased one	
pupils' worries about puberty.	
Talking with parents about puberty and worrying about	
puberty were positively related.	
Differences between schools	
Science lessons on growing up at Butterton relieved fears	
END OF CHILDHOOD	
Similarities between schools	**Interaction of Forces**
Social age markers such as being a teenager (age 13+),	(vi) social age markers =>
learning to drive (age 17), being a legal adult (age 18) were	+ (ii) conception of age status
used to determine the end of childhood	
Differences between schools	(v) transfer =>
Thorpe pupils either thought they were half child, half	- (ii) conception of age status
young adult (N= 3), were uncertain about their age status	+ (ii) maturity status
(N= 3), or thought they were children (N= 2).	
7/8 Butterton pupils thought of themselves as children.	
6/9 Butterton pupils placed end of childhood at age 13	
when becoming a teenager (relating to transfer ?).	
Thorpe pupils used a range of social markers to determine	
end of childhood, including GCSE exams & work	
experience.	

Ch. 9) Attitude and Development Intertwined: Interview Responses

"It's like it's a good thing but it's not, that you come here to do education" (Sam T1).

Introduction

This chapter is the central piece of the qualitative puzzle of pupils' attitudes to school. It reviews their overarching attitudes and identifies direct links between these and specific features of school environment and development in school and peer contexts. These direct links are tabled, as are the influences on perceptions in the previous four chapters. A 'network of perceptions' is then constructed by joining together the influences and outcomes of all the tables in a single diagram providing a 'psychological ethnography' with attitude to school located in the centre. This network allows researchers to view how development in home, school and peer contexts can influence the psychology and behaviour of early adolescents. Specifically, it allows for direct influences on attitude to school to be clearly identified as part of a wider developmental network. Individual pathways through this network are traced by means of two paired case studies. The first pair are chosen to show what occurs when risk factors on attitudes are borne out in different home and school environments, and the second pair demonstrate how social and agentic influences on development spur attitudinal declines when school mismatches with adolescents' basic and developmental needs. The chapter findings both stand alone and provide clear direction on choice of variables for the following chapter's multivariate analyses.

Overarching attitudes to school

Pupils were asked how they felt about school throughout the year. Sometimes they volunteered the information when discussing specific dimensions of schooling. Their views were considered as 'overarching' if they mentioned school as a singular construct (i.e. I think school is… I like/dislike school because…). Data on the instrumental value of schooling was gathered in term one through asking pupils *'what things are important to you about school?*. Both types of information (attitudes and ascribed value) were coded into an overarching dimension of attitude to school. Each snippet of coded information was then given a quality of *positive, negative* or *instrumental.* The following three tables each cover one of these qualities.

Pupils usually causally linked their overarching perception of school to a more specific dimension of school, peer or home contexts (e.g. I like school *because* I enjoy physical education). Accordingly, each snippet coded into overarching attitudes was also assigned to a more specific dimension existing within the coding scheme (e.g. *school lessons*). These dimensions can be seen in the second column of the following tables. Each contains multiple codes, for example, the dimension of school lessons includes the codes of *lessons: like, lessons: dislike, freedom in learning.* A full list of codes and tree nodes is in the Appendix. The following three tables reveal which dimensions most strongly link to the pupils' overarching attitudes to school. Below each is an analysis of the ways in which this occurs. This section of the chapter is concluded with a summary table of the forces of influence on attitudes.

Positive attitudes to school

Table 105. Positive attitudes to school snippets

Positive Attitudes		Thorpe	Butterton	Thorpe	Butterton	
Context	Dimension	Count		Percent		Total %
Schooling	School Transfer	6	1	16	3	9
	School Behaviours & Emotions	2	4	5	10	8
	School Activities	2	8	5	20	13
	School Lessons	8	9	21	23	22
	School Social Structure	6	1	16	3	9
	School Physical Environment	2	4	5	10	8
	School Teachers	4	2	11	5	8
Peers	School Peers	6	4	16	10	13
	Unsupervised Play	0	1	0	3	1
Home	Home Life	0	0	0	0	0
Self	Identity Development	0	5	0	13	6
	Physical & Emotional Changes	0	0	0	0	0
	Puberty as an Issue	0	0	0	0	0
	Maturity Status	2	1	5	3	4
	Total	32	39	100	100	100

Pupils mainly expressed positive overall views of school in relation to enjoying lessons and activities, and to being able to spend time with friends at school. At Thorpe, several pupils also liked school in relation to school transfer (several comments here are double coded as social structure). There was little mention of liking school in relation to puberty or experiences at home. The frequency of positive perceptions in the table above was spurred by interview prompts such as '*if somebody exactly like you was to come to this*

school, what would you tell them they had to look forward to?' (T1) and '*does school give you what you need*'? (T3). Generally, pupils didn't bring up liking school as a discussion topic. Many pupils who didn't like school overall still identified some aspects of it which they liked (e.g. Jacob liked certain lessons at school).

The informal activities that positively influenced pupils' overall views of school at Thorpe and Butterton were lunch and break times, and extracurricular sporting activities. Pupils also liked both schools for their attractive and well facilitated built environments. Lessons that were practical (such as physical education, design technology and art) and that directly related to their future career plans were enjoyed. At Thorpe, several pupils were delighted that lessons were harder, more interesting and better equipped than at their primary schools. School transfer also encouraged positive perceptions of schooling for those who wished for and were happy about feeling more psychosocially mature in the secondary school environment. Peers were another major factor in pupils' liking of school and for some were given as the only element of going to school that pupils enjoyed.

Table 106. Positive attitudes to school

<u>Altered environment</u> Jacob:[*School's*] good. It's high standard, there's a lot of things to learn, with like Spanish and German you never learnt that at primary school you only learned French. And there's new things like food – I never used to do that at my primary school, like tech stuff. (T1) JS: So has how you feel about school changed between last term and now? Chloe: No. I still like it. JS: What do you like about it? Chloe: Um, my friends, not really the teachers. Um, so friends really. (T2) <u>Constant environment</u> JS: Does school give you what you need? Yasmin: Yeah I think so, it gives you the opportunity to do things you want to do and there's loads of clubs; like there's athletics club and there's young sports leaders which is good if you want to be P.E teachers. (T3) Ayesha: It's a nice surrounding and nice grounds and it's a nice place to be basically. (T1)

Negative attitudes to school

Table 107. Negative attitude to school snippets

Negative Attitudes		Count		Percent		
		Thorpe	**Butterton**	**Thorpe**	**Butterton**	**Total %**
Schooling	School Transfer	3	0	11	0	6
	School Behaviours & Emotions	1	3	4	13	8
	School Activities	1	1	4	4	4
	School Lessons	6	5	22	22	22
	School Social Structure	4	0	15	0	7
	School Physical Environment	1	0	4	0	2
	School Teachers	3	4	11	17	14
Peers	School Peers	4	4	15	17	16
	Unsupervised Play	1	1	4	4	4
Home	Home Life	0	4	0	17	9
Self	Identity Development	1	0	4	0	2
	Physical & Emotional Changes	1	0	4	0	2
	Puberty as an Issue	0	0	0	0	0
	Maturity Status	1	1	4	4	4
	Total	24	23	100	100	100

There was not a lot that pupils didn't like about their schools' built environment or informal activities such as lunchtimes and break. The things that most actively encouraged disliking of school were boring and irrelevant lessons, strict teachers and being bullied by peers and older children. Pupils also didn't like it when school crossed over into home and out-of-school peer contexts by means of behaviour sanctions. Like the positive perceptions, prompts were used to elicit negative perceptions '*if somebody exactly like you was to come to this school, what would you warn them about*?' (T1) and '*does school give you what you need*'? (T3). However, pupils spoke freely and often about disliking lessons and mentioned disliking school in relation to bullying and not getting on with peers in the wider contexts of social influences at school, without prompting.

The lessons that were most disliked were academic subjects with no practical learning. Geography was mentioned as being particularly disliked at both schools. At Butterton this was mainly due to the strictness of the geography teacher. Several pupils didn't like restrictions on learning and desired more freedom in lessons. Teachers were another common source of dissatisfaction, mainly due to their strictness and harsh management of behaviour. Comparisons of school and home also gave some pupils reason to dislike school. Alex and Joanna preferred to be engaged in individual leisure activities at home (computer games and horse riding respectively) than to be at school and Sam

wanted to do more of her learning at home where she had "more free time to be you" (Sam, T3).

Peers were also a cause of unhappiness about school, mainly for pupils who were bullied or who had fights with their friends. Charlie was terrified of Thorpe at first, because of nasty older pupils. At the end of the year he simply stated "I don't like school. You get bullied too much" (T3). Joanna and Stacy didn't like being at school when arguments broke out within their friendship groups, which might relate to increased sophistication in peer interaction as a result of social forces and puberty, as discussed. Pupils mentioned a few more things that they disliked about Thorpe: feeling pressurized to achieve, to remember classroom equipment and to be on time for class with a rushed school timetable. Billy and Brian remarked how Thorpe had seemed exciting in the first term post-transfer, but how by term three it had lost that quality as they had gotten used to it. In term three, Bobby (Butterton) and Stacy (Thorpe) reported not liking school as they would rather be spending time in unsupervised play: going to the park or shopping with their friends. These changes in social context represent developmental influences on declining attitudes to school and are explored further in the case study section of this chapter.

Table 108. Negative attitudes to school

Altered environment Charlie: I don't really like it. It's scary how big it is, and then all of the Y11s and 10s are huge and you're just thinking 'wow' and so you get a bit worried. (T1) Sam: I kind of think school quite sucks really. Well you don't really want to be here but you have too, which makes me annoyed because I don't really want to be here. Jenny: Why not? Sam: I mean what's the point in coming here when you can maybe do it at home and have free time to be you. I would like to actually relax, and not worry about, 'oh God I've forget that, or oh goodness I've got this' or something like that. I just want to be like, 'oh hi! You've come through the door we can now do English. After lunch we'll do Maths'. Be calm about it and just feel like you're relaxed in your own home. It does make life a lot easier if it would be at home. You haven't really got the right stuff to bring. (T3) Constant environment JS: Do you like school? Indiana: No. Lessons, and teachers, they get on my nerves JS: Why? Indiana: I don't like them shouting at me and they're giving me detentions, because once I got an after school detention, and I started crying because I hate disappointing

my mum. (T3)

Joanna: I don't wanna come to school, but then I suppose I have to. And then, when I first get here I think 'what' – I don't actually want to come to school in the morning, but then when it's halfway through the day it's not so bad really, because you see all your friends, but then sometimes you have arguments. Or there's arguments between friends and their boyfriend and something, and you get left out, like me and Lauren do. (T3)

Instrumental attitudes to school

Table 109. Instrumental attitudes to school snippets

Instrumental Attitudes		Count		Percent		
		Thorpe	Butterton	Thorpe	Butterton	Total %
Schooling	School Transfer	1	0	5	0	2
	School Behaviours & Emotions	1	2	5	9	7
	School Activities	0	0	0	0	0
	School Lessons	1	1	5	5	5
	School Social Structure	1	0	5	0	2
	School Physical Environment	0	0	0	0	0
	School Teachers	0	1	0	5	2
Peers	School Peers	7	7	32	32	32
	Unsupervised Play	1	0	5	0	2
Home	Home Life	0	1	0	5	2
Self	Identity Development	9	10	41	45	43
	Physical & Emotional Changes	0	0	0	0	0
	Puberty as an Issue	0	0	0	0	0
	Maturity Status	1	0	5	0	2
	Total	21	22	100	100	100

When pupils were asked '*what things do you think are important about school?*' in term one, a second 'instrumental' level of attitudinal psychology was revealed that was conceptually separate from that of overarching perceptual valence (e.g. like and dislike). Pupils discussed school as being something that was useful for attaining a goal, or for facilitating social circumstances.

The majority of pupils interviewed (16/20), immediately responded that school was important for education for a future career. There were no gender nor school differences in this. This was something that parents and schools told the pupils, and possibly that they discussed amongst themselves. For those with longitudinal data on the topic, the theme was either continuous across the year (Alex, James, Stacy) or became more explicit by the third term (Brian, Lauren). In these latter cases, the pupils initially ascribed a generalised importance to doing well at school then later justified this as job related (perhaps as this 'value' became further socialised, and/or as identity became more

salient to them). The importance of school for facilitating friendships was the second most common instrumental perception. This was true mainly for Thorpe pupils as it was mentioned by three girls (Sam, Ruby, Chloe) and two boys (Jacob, Brian) in comparison to one girl (Joanna) from Butterton. The value placed on friendships by Thorpe pupils may relate to the importance of peers at school transfer.

Throughout the year, pupils kept referring to school as useful for getting a job even though many of them didn't enjoy going to school. Similarly, in the ORACLE replication study of school transfer, some pupils disliked school but were motivated to do well in order to achieve the grades necessary for a future career (Galton, Hargreaves, & Pell, 2003b). This and the current study reveal the commonality of instrumental attitudes to school in the UK. These are likely to be predominant also in the US where the transfer into junior high school has, for at least several decades, predicated a shift in perception where early adolescents see school as "a training centre for their future adult role" (Higgins & Eccles Parsons, 1983, p. 26). The decline of many localised manual occupations in the UK over the last half century and the popularity of GCSE qualifications for job entry amongst employers means that few pupils nowadays are in the position of those in Willis' *Learning to Labour* (1977), where qualifications didn't matter in the lower echelons of local job markets. As discussed, pupils in this study were predominantly in a state of identity moratorium, searching for and considering potential career matches. This may be a protective developmental phenomenon that helps early adolescents make sense of their environments and enables them to feel that they have a purpose in life (Yeager & Bundick, 2009). The importance of school qualifications for career may interact with this, increasing the value of schools and making them into pressure cookers for success or failure of future career plans. Increasing the value of schools for survival in today's job world can therefore have positive and negative developmental effects depending on the individual and on the attitudes of those around them.

Table 110. Instrumental attitudes to school

Altered environment
JS: Can you tell me what things are important to you about school? Billy: My education and my behaviour and stuff. JS: Can you describe to me a bit about why those things? Billy: Because I want to get a good job and get paid well and so I want to get good A levels and stuff, and so I get respected. (T1) JS: So what do you think about school in general?

> Brian: It's a very, um, happy school
> JS: Do you think it's important?
> Brian: Yeah, cause we have to learn so we get better jobs. (T3)
>
> Constant environment
>
> Gus: You don't really wanna be working as a cleaner. You want to get a proper job and you don't want to have a rubbish job when you're older.
> JS: And where have those ideas come from for you?
> Gus: My mum talks to me because I used to get in trouble at school and I've been getting better and I've been really thinking about getting better at school and getting better at different subjects. (T1)
>
> JS: And does school give you what you need?
> Joanna: In some ways it does, you need to have education to get a good job when you're older, and you see friends there. (T3)

The homogeneity of pupils' instrumental attitudes was tested in relation to the entire sample by the inclusion of two items in the end of term survey. The first measured asked pupils to type in up to three things that they felt school was important for (open ended). The second asked how important they thought education was for their future career. There was no significant difference in responses to this second item between schools nor genders (Mann-Whitney U). An overwhelming majority of pupils thought their current education was either very (59%) or quite (35%) important to their future careers. Only 7% of pupils thought that education was not important for a future job.

Table 111. Importance of education to future career – term three

How important is the education that you are currently getting at school for your future career?	Thorpe n. 175	Butterton n. 84	Total n. 259
Very important	54%	64%	59%
Quite important	37%	33%	35%
Not that important	7%	2%	5%
Not at all important	2%	1%	2%
Missing			N=12

The open ended responses were coded into a scheme that was developed from a detailed appraisal of the first 25 respondents, then was tailored as needed to find a best fit with the emergent data (Table 112). There was remarkably little variation in the responses across the entire sample (N=271) and there were no differences in responses either by school or gender (Chi-Square).

Table 112. Instrumental attitudes codes

Number	Context	Code	Common Examples
1	Schooling	Education & Learning	"Education", "Learning"
2	Schooling	Grades, Achievement, Skills	"Getting grades", "To make you smart"
3	Peers	Friendships, Meeting People	"Friendship", "Meeting people"
4	Peers	Social Skills (communication)	"Communicate with other people"
5	Self	Preparing for a Future Job	"Getting a good job"
6	Self	Preparing for Future in General	"Getting ready for your future"
7	Self	Confidence	"Confidence"
8	Self	Sport, Keeping Healthy	"Keeps you healthy"
9	Self	Enjoyment	"Fun"
10		Other	"Discipline", "Nothing", "Everything"

The responses are displayed in 113 in the order that they were reported (first, second and third open ended answer). A second analysis considered all responses together to give a total frequency (Figure 32).

Table 113. Instrumental attitudes survey responses

		Answer 1	Answer 2	Answer 3
	N=	258	250	220
	Missing	13	21	51
		Valid %	Valid %	Valid %
Schooling	Education & Learning	69	16	10
Schooling	Grades, Achievement, Skills	5	12	11
Peers	Friendships, Meeting People	8	44	31
Peers	Social Skills (communication)	0	4	3
Self	Preparing for a Future Job	8	8	7
Self	Preparing for Future in General	4	4	6
Self	Confidence	0	2	6
Self	Sport, Keeping Healthy	3	3	5
Self	Enjoyment	1	5	13
	Other	2	1	10
	Total %	100	100	100

Figure 34. Instrumental attitudes combined responses (N=728: 2/3 per pupil)

<u>What things are school important for?</u>
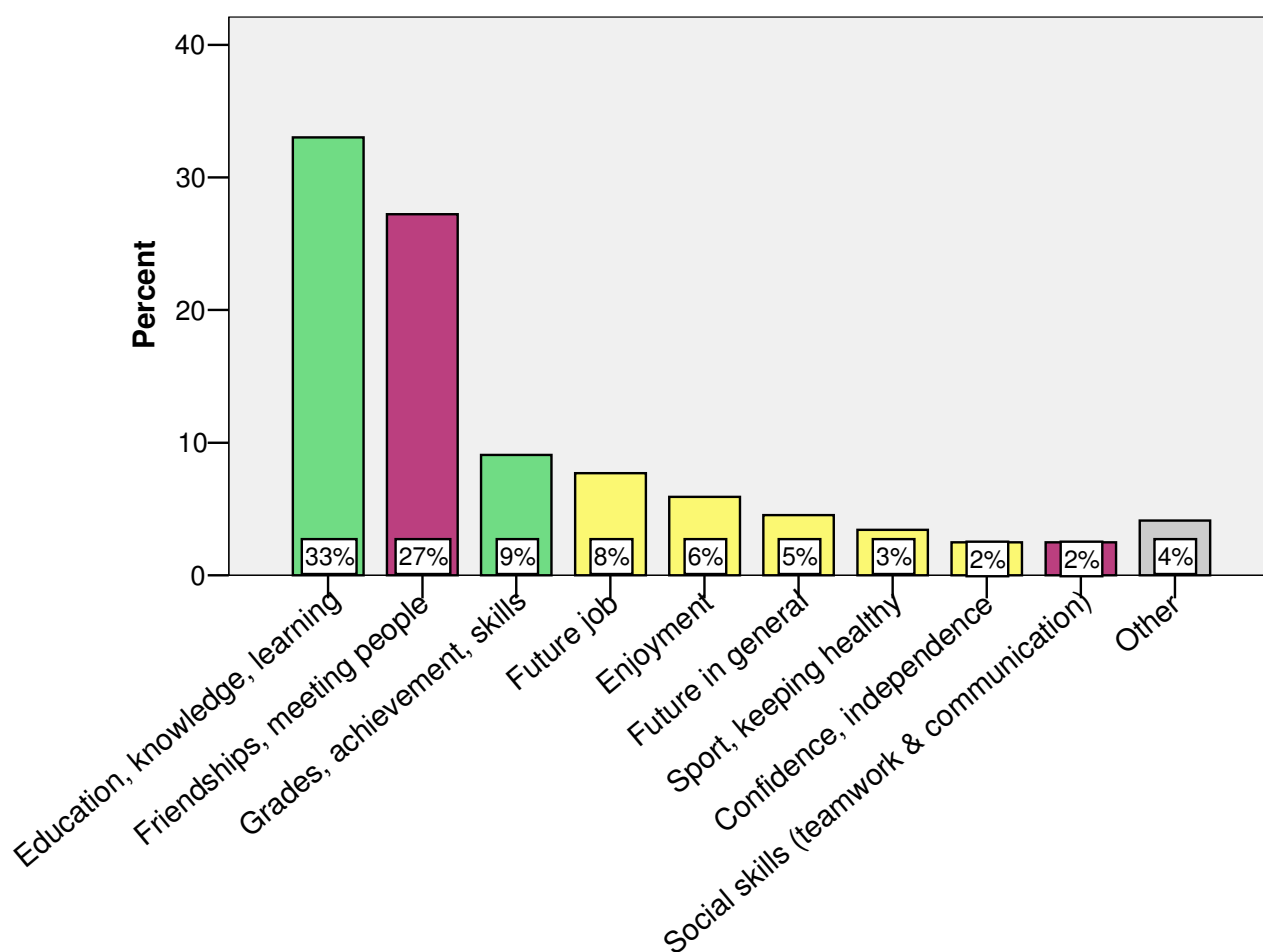
Table 113 demonstrates that around 70% of pupils when first queried replied that 'education' was most important about school. Their second answer was commonly to do with friendships, followed by a third answer that was either about friendships, education, skills or enjoyment. Figure 34 shows that of all the responses given (across three answers), education and learning was most commonly mentioned (33%) then friendships (28%). Although only 8% of responses were direct links between the importance of school for career, this does not necessarily confound the interview responses. Many target pupils also answered 'education' when first asked what school was important for. It was only in their qualifying statements that they mentioned education was specifically important for their future careers. Therefore 'getting a good job' is probably the also the rationale behind many pupils' surveyed responses for why school is important for education, achievement and skills and for their futures in general.

Summary of Overarching Attitudes

Key to Summary Table

=>	Influences a…
-	Reduction in
+	Increase in
i	Biological development
ii	Individual psychology and behaviour
iii	Familial influences
iv	Peer influences
v	School environment
vi	Neighbourhood

Table 114. Overarching attitude to school findings

POSITIVE ATTITUDES	
Similarities between schools	**Interaction of Forces**
Pupils liked their school's built environment and facilities	(v) quality of built environment
Pupils liked school at break and lunchtimes	(v) break and lunchtimes
Pupils liked school when lessons were practical and directly related to their future careers	(v) practical learning
	(v) lessons relevant to (i) identity
Pupils liked being at school in order to see their friends	(iv) socialising with peers
Differences between schools	(v) transfer => (i)/(iv) psychosocial maturity
Thorpe pupils appreciated an increase in academic provision in comparison to their primary schools.	=>
Thorpe pupils liked feeling more psychosocially mature at transfer.	+ (D) attitude to school
Pupils liked Butterton for its extracurricular activities	
NEGATIVE ATTITUDES	
Similarities between schools	**Interaction of Forces**
Pupils didn't like school when lessons were boring, non-practical, irrelevant to their future careers and when there was no freedom in learning.	(v) non-practical lessons
	(v) lessons irrelevant to (i) identity
Pupils didn't like school when teachers were strict and unfriendly	(v) teacher strictness
	(v) teacher unfriendliness
Pupils didn't like school when they were bullied by peers or/and by older pupils.	(iv) bullying & (iv) older pupils
Pupils didn't like school when they argued with their friends	(iv) peer conflict
Pupils didn't like school interfering in their conduct outside of school, or when school informed parents of misbehaviour at school.	(v) behaviour sanctions & (iii) family relationships
	(iv) unsupervised play
Pupils didn't like going to school in comparison to spending time in individual leisure activities and unsupervised play. This differential increased throughout the year for some.	(ii) individual hobbies/leisure interests
	=>
Differences between schools	- (D) attitude to school
Strict teachers were prevalent at Thorpe	
Some pupils became bored of Thorpe as their post-transfer excitement wore off.	

INSTRUMENTAL ATTITUDES	
Similarities between schools	**Interaction of Forces**
School was seen as important for education for a future career by the majority of target pupils. School was seen as important for education and learning (probably in order to facilitate future career) by a majority of pupils across the entire sample in term three. A significant minority of target pupils and pupils across the entire sample also saw school as important for facilitating friendships with peers.	(iii) family expectations (v) teacher expectations (v) examinations (iv) socialising with peers => + (D) instrumental value of school

Network of perceptions

The following diagram locates attitude to school in the centre of a broader network of psychosocial development that emerged in the previous four chapters of analysis: schooling, peer, home and self contexts. The network was complied directly from the summary tables in each of these chapters and from the summary table above on overarching attitude to school. Therefore the dimensions within the network and the links between them are directly induced from the analysis of interview data; and represent the pupils' given perceptions of their lives.

The network is arranged in five overlapping sections which can be read clockwise from the top left: school, peers, mental health and parents. The effects of pubertal and school transitions, the role of pupils' maturity self-perceptions and pupils' self-esteem are nested in multiple sections, hence these dimensions are duplicated when necessary to allow for the model to be cosmetically viable. All other dimensions are plotted only once to ensure maximum clarity. There are probably more links between dimensions than given, but to retain ecological validity with the interview data, only those that are directly reported by pupils/induced through close analysis of responses are shown.

Table 115. Key to the network of perceptions

Dimensions	
School Transition	Purple
Pubertal Transition and Age	Blue
School Environment	White
Individual Psychology/Behaviour	Yellow
Family	Green
Peers	Pink
Arrowed Lines	
Affects an increase in…	Green
Affects a decrease in…	Red
Affects either an increase or decrease in…	Blue
Affects a few pupils	Solid
Affects the majority of pupils	Dashed

Figure 35. Network of perceptions
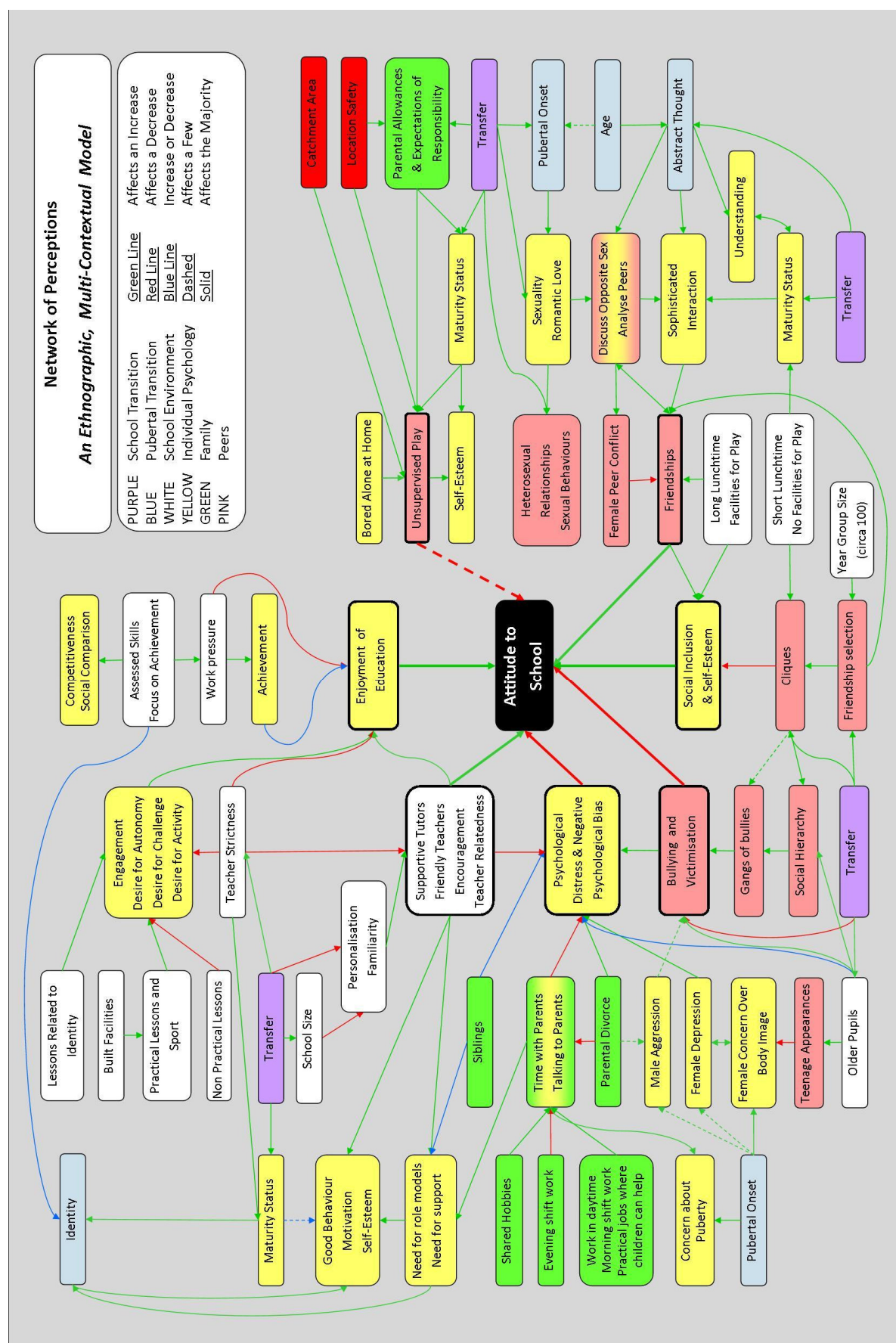
Table 116. Direct influences on attitude to school

Influence	Effect	Developmental Origin	Environmental Origin
Enjoyment of Lessons	Positive *for all*	Desire for autonomy & challenge, need for activity, identity development	Type of lessons, facilities for learning, relevance to identity, teacher strictness
Good Relationships with Teachers	Positive *for all*	Need for developmental support including having a positive adult role model	Teacher friendliness, teacher strictness, transfer, school size
Social Inclusion & Self-Esteem	Positive *for all*	Need to maintain a positive self-concept	Support from adults and peers, provision of positive feedback
Friendships	Positive *for all*	Need to develop skills in sophisticated interaction and support networks	Opportunities for peer interaction, quality of peer interaction, puberty
Bullying & Victimisation	Negative *for all*	Need to maintain a positive self-concept	Aggression, age differential, lack of social integration, transfer, size of year group
Psychological Distress & Negative Bias	Negative *for all*	Need to maintain a positive self-concept	Victimisation, intimidation, chastisement, lack of support
Unsupervised Play	Negative *for some*	Desire for autonomous co-dependence with peers, age, 'activity comparison'	Parental allowances, catchment area, peer group expectations

By plotting influences on perceptions in a network, the direct influences on attitude to school can be identified (Table 116). These are tabled alongside the proposed developmental origins of why the influences are important (i.e. how the influences effect developmental systems) and the influences' environmental causal origins (from the network). The distinction made between the terms needs and desires in Table 116 assumes that desires can be socially moderated to some extent without having detrimental effects on mental health whereas needs are fundamental and if thwarted result in negative outcomes, such as anxiety, depression and identity maladjustment. For example, social pressure to remain childlike may reduce some early adolescents' desires for autonomy and autonomous co-dependence with peers without immediate ill effect, yet removing peer interaction entirely would be a risk factor for depression.

The influences on attitude to school can be easily summarised. If pupils do not enjoy their lessons, if they feel insecure, frightened and socially isolated at school, if they have negative relationships with teachers and peers, and if the things they do outside of school make them feel happier than they do at school then their attitudes to school are likely to be poor. On the other hand, if their lessons are challenging and allow them

freedom in learning, if being at school supports their self-esteem and enables positive and rewarding social interaction with teachers and peers, then pupils are likely to have good attitudes towards school. In these circumstances, having a good time outside of school may be less likely to tip the attitudinal scales towards negative valence when making home-school comparisons.

The direct influences on attitude to school are created and moderated by a broader network of 'indirect' influences that stride the contexts of home, peers, schooling and physiological development. Some groupings of direct and indirect influences are rooted in particular contexts whilst others are more of a jumble. Each group contains elements of both developmental and environmental origin, and in several cases the developmental elements (such as identity) are also shaped by the environmental elements (i.e. school tutors and friendly teachers encourage identity and act as role models) within that group. Therefore school environment both contributes to development as well as interacts with it to create attitudinal outcomes.

It is suggested that in both schools, enjoyment of schooling was facilitated by having relaxed and friendly teachers, practical lessons and subjects that related to pupils' identity. When tutors and teachers were friendly they acted as role models. When pupils received praise from teachers for their achievements in a particular subject they were encouraged to consider that subject as one of their skills and matched this to a career relating to that subject, in turn increasing the importance of the subject. At Thorpe, teacher strictness was a major inhibitor of enjoyment by discouraging freedom in learning and communication with peers. In both schools, lessons without a regular practical element (such as English, maths and geography) were disliked by most pupils and were only liked by those who excelled in them, or by those whose future career choice directly linked to the subject matter. Managing practical tasks enabled pupils to have an immediate sense of achievement as well as meeting their need for physical activity. They perceived more freedom in practical tasks than in 'academic' ones, and were often more able to tailor their learning to their personal interests and identity (e.g. inventing a business and designing a set of advertising materials for this), as the academic tasks were more restricted in topic and format (e.g. answering specific reading comprehension questions, writing a story to strict guidelines or doing a set of sums). Therefore the data suggest that the educational environment is the primary influence over pupils' attitudes to school.

A second important influence is whether pupils are bullied at school. The indirect influences on bullying appear to be male aggression, gangs of bullies, older pupils and school transfer. Why pupils bully others is outside of the scope of this thesis. However some clues from this research are that family disruption in childhood and resulting psychological distress are likely influencers of male aggression, and that for some males pubertal onset adds to this chemically. School transfer is found to have positive and negative effects on bullying. It can interrupt long term bullying patterns and encourage pupils to be respectful of others by increasing their maturity self-perceptions. But by providing a setting for rapid formation of cliques where pupils have been able to locate others like themselves, it can also encourage bullies and thugs to join into gangs. Here the size of the year group is an issue as the percentage of bullies who entered secondary school is evidently enough to form gangs in a year group of around 200. The hierarchy inherent in the age differential between the older pupils and the Y7s also encourages older pupils to bully and intimidate younger pupils. This was a particular problem for those who had transferred to Thorpe. The other main contribution of school environment to bullying is the lack of provision of time and equipment for integrative social interaction at lunch and breaktimes, further encouraging cliques and social hierarchies to develop and inhibiting the development of a wide range of friendships.

The third important influence is friendships. School environment acts as a setting for friendships, and can promote diversity of friendships and social integration as described. However, the inner quality of friendship dyads and groups is perhaps more related to pubertal transition and age than to school. As pupils age their capabilities in abstract thought and hence their understanding are reported to increase. This enables them to develop their personalities and have more sophisticated friendship interactions and this in turn is likely to facilitate the quality of friendships. Pubertal onset encourages thoughts and discussion about the opposite sex and heterosexual relationships in both genders. Females in particular begin to analyse themselves and others in depth. These changes in behaviour occasionally lead to fallouts between friends when one offends the other with their analysis or actions. However they are also central to early adolescent development (if assuming that a central task of adolescence is to move towards a state of autonomous co-dependence with peers, in a sexually reproductive environment). As at this stage, pupils' unsupervised play is limited by parental restrictions, and schools still provide a major source of contact with peers. The developmental importance of

friendships and the facilitation of these by time spent at school explains why pupils in the study cited school as being crucial for seeing friends, and disliked being at school when they had friendship conflicts.

The significance of friendships is surely a key component of the powerful influence of unsupervised play on attitudes to school. However, developing friendships is not the only reason why some pupils prefer time outside of school to that within it. Unsupervised play activities reported by pupils included going shopping, going to the movies, going swimming and playing sport. Learning to manage these activities independently of parents matters for the development of skills necessary for autonomous co-dependence in society. This may link to why there is pressure for pupils to engage in a minimum amount of unsupervised play for them to be considered 'normal' by their peers. In basing their maturity status on the amount of unsupervised play that pupils engage in, unsupervised play becomes an important signal for self and others, that the individual is autonomously skilled: encouraging respect within the social environment. Without allowing pupils to develop skills independently of adult supervision, time spent at school plays only a minor role in the construction of pupils' maturity status. Perhaps schools could be more facilitative of allowing pupils to manage projects and activities completely independently, from early adolescence.

The final direct influences on attitudes are the interrelated mental health dimensions of psychological distress and psychological bias, and social inclusion and self-esteem. Both groups of influences are contributed to by significant others in school, home and peer contexts. Teachers can either increase self-esteem by noticing achievements and through encouragement, or decrease it by issuing behaviour sanctions and by being impersonal with pupils (i.e. pupils are not worth noticing). Although not studied in depth, parental attention and support from siblings appear to have similar effects. Being socially included at school both as part of the community and within friendship groups is also found to be important for self-esteem. Pupils in the study who were confident and happy tended to have a positive psychological outlook on things in general. However, the more vulnerable target pupils (those who were bullied, who came from disruptive or broken homes and who were constantly anxious) generally had negative perceptions of the school experience. For example, vulnerable pupils saw older pupils as a threat, whereas other pupils did not worry about them and some even saw them as potential friends who would aid popularity and protect you. This presents a cycle of harmful experiences and

interpreting environment negatively in return. These pupils had the most negative attitudes amongst the target sample. Although school environment contributes to these 'rock bottom' perceptions by facilitating bullying and further 'attacks' on self-esteem such as behaviour sanction it is not the underlying cause of unusually low attitudes. More likely it is serious and ongoing disruptions in the family or peer context, or the emergence of hormonal depression, that have the most harmful effects on vulnerable pupils' attitudes to school and to life in general.

Pathways of effect on attitudinal trajectories: paired case studies

The following table gives the total score on the attitude to school measure for each target pupil at the start and end of the school year. Each item on the measure (N=24) was qualified by a four point scale of disagree to agree. Choosing the lowest or point on the scale (i.e. 'my teachers are friendly' = *strongly disagree*) meant that pupils had entirely negative attitudes to school. The highest point represented entirely positive attitudes, whilst the intermediate points were representative of mostly positive or negative attitudes accordingly. Thus by assessing the mean item score for each target pupil across time we can see not only whether their attitudes changed during the year but also the general valence of their attitudes.

The table is ordered into groups of pupils with increasing, stable and declining attitudes. Stable attitudes are taken to be those with not more than two units of change. The table reveals further subgroups of pupils e.g. increasing negative attitudes and decreasing positive attitudes.

Table 117. Trajectories of measured attitude for the target pupils

School	Name	AS1	AS2	Dif.	Change	Beginning of Year	End of Year
Butterton	Indiana	51	64	13	Increase	Mostly negative	Mostly negative
Thorpe	Kevin	74	86	12	Increase	Mostly positive	Positive
Thorpe	Jacob	48	57	9	Increase	Mostly negative	Mostly negative
Butterton	Joanna	63	71	8	Increase	Mostly positive	Mostly positive
Butterton	Yasmin	81	88	7	Increase	Positive	Positive
Butterton	Gus	79	85	6	Increase	Positive	Positive
Butterton	Ayesha	84	87	3	Increase	Positive	Positive
Thorpe	Brian	83	85	2	Stable	Positive	Positive
Thorpe	Ruby	86	85	-1	Stable	Positive	Positive
Butterton	Lauren	77	75	-2	Stable	Mostly positive	Mostly positive
Butterton	Deirdre	92	90	-2	Stable	Positive	Positive
Thorpe	Sam	53	48	-5	Decrease	Mostly negative	Mostly negative
Thorpe	Billy	90	83	-7	Decrease	Positive	Positive

Thorpe	Charlie	50	42	-8	Decrease	Mostly negative	Negative
Thorpe	Stacy	82	71	-11	Decrease	Positive	Mostly positive
Butterton	Bobby	86	74	-12	Decrease	Positive	Mostly positive
Butterton	James	85				Positive	Missing data
Thorpe	Matthew	84				Positive	Missing data
Thorpe	Chloe	83				Positive	Missing data

The following analysis explores attitudinal trajectories in depth through two paired case studies. The first pair contrasts Gus and Charlie who both were subject to the risk factors of bullying and parental divorce, but had completely different levels of attitude and attitudinal trajectories over the year. The second pair parallels Bobby and Stacy whose initially high attitudes declined the most out of the target sample. This illustrates the power of maturity self-perceptions and unsupervised play on attitudes.

Although the development of each pupils' attitude can be mapped as an individual pathway on the network of perceptions, the frequent reproduction of the complex image is not conducive to easy reading. Therefore the influential factors on the case study pupils' attitudes are plotted on basic column charts, to give individual psychological profiles. The level of each factor on the charts (e.g. positive or negative) is obtained where possible from the survey data or else estimated from interview responses.

Paired case study of home and peer risk factors

The first case study is a 'treasured exception' of a pupil who was bullied and came from a broken home yet who had a positive and increasing attitude to school (at Butterton). Gus's parents divorced at the end of Y6 and he saw his father on weekends only. However, Gus thought the situation was "fine now" (T1), and had an excellent relationship with his mother, "I talk to my mum a lot and she supports me and helps me" (T1). Gus's mother encouraged him to do well at school and control his behaviour, in order to have success in life. This was a lesson that Gus took to heart. "You don't really wanna be working as a cleaner or anything like that. You want to get a proper job so that you can have a proper life when you're older." (T1). Gus was one of the few pupils who enjoyed most of his subjects as he did well both practically and academically. "It's weird because I like physical education, maths and D&T which are all different" (T2). He appreciated being tested so that he could know how to improve. He spoke warmly about the teachers at Butterton and felt that their relationships with Y7 pupils improved over the year. "At the

start of the year we didn't really talk to teachers that much but now we do cause we know them better" (T2).

Gus began the year with a supportive peer network and made more friends by term three. He regularly spent time with his male friends after school and this increased throughout the year. He also had a steady girlfriend at school. However Gus had been bullied since Y6, by boys in another form class. There was little change in this during term one but by term two he managed to restrain himself from fighting with them and by term three the bullying had lessened. "I've made friends with some of them but I stay away from them more now... that's why" (T3). Perhaps in relation to this, Gus was the only Butterton pupil who saw older pupils as threatening. "They sometimes pick on the Y7s because they're younger and they're easier to bully and stuff" (T2).

However, Gus was not anxious about growing up nor about school transfer. He looked forward to both because of the opportunities they gave for friendships. "It's better cause when you get older you get more friends and that's good. You get to know people better" (T3). He also looked forward to having harder work at the high school. In term one, Gus reported holding Butterton in high regard as he was able to compare this to other smaller and less well equipped schools that he had been in and visited. "The facilities around here are brilliant" (T1). His positive outlook persisted throughout the year and his overall opinion was that school was "pretty good" (T3).

In comparison, Charlie (at Thorpe) also was subject to the risk factors of divorce and bullying, yet had a low and declining attitude to school. Charlie lived with his mother. He was one of three brothers and all had different fathers. "I don't know my dad, he didn't even come to my first birthday, he just left me one day". The middle brother's father was problematic "mum had to get a restraining order because he hits her" and the youngest brother's father was currently being divorced by the mother. "he's not exactly being nice, he doesn't want to share out, he doesn't want to do the divorce, he wants to keep [*my brother*]" (T1).

Charlie had moved to a new primary school in Y6 where he had problems with making friends and was bullied. He became friends with boys in the year below (Y5) and was upset at having to leave them when transferring to Thorpe. Charlie had considerable problems with social anxiety at transfer. "You're just so scared, you think 'I'm tiny here, I'm like reception all over again" (T1). He was afraid of meeting new people and was intimidated by older pupils. "All of the Y11s and 10s are huge... so you get a bit worried"

(T1). He was severely bullied in the first term at Thorpe. "He's really tall for a Y7…he thinks he's so hard, and he got the gypsy boy to hurt me.[*The gypsy boy*] gave me a walloping for no reason, and I had to go into hospital because I had this huge black arm and I couldn't go into school for about 4 days" (T1). This was detrimental to Charlie's mental health and self-image. "It really annoys me and at one point I broke down at home, I actually collapsed on the floor crying and it can be quite upsetting with all these people being really cruel to you…I just get picked on because I'm the quiet small feeble one" (T1).

Charlie initially felt socially isolated "I don't really have many friends. I have a few, but then they're not real friends, they're just people I tend to play with." (T1), and had no friends outside of school. However by term two he made friends with a group of boys from his primary school, and became friends with Kevin "ever since this thing [*the research*] we've become more closer together" (T2). By term three, Charlie reported being "best friends" with Jacob, another research participant. Despite fitting in with the "boffs" at school ("the boffs are actually fun because that's who we play guitar with" T3), Charlie felt that he had a fairly high out of school status. This was mainly due to his association with Michael who was a "complete psycho", and to the large amount of time that they spent in unsupervised play around Thorpe village. Charlie had a vivid imagination and played war games with his friends on the school field during lunchtime, instead of standing around chatting in cliques like most pupils.

Charlie valued learning for its importance for his future career. By term three had started thinking about potential jobs as an actor, an engineer or a soldier. He was academically able and intrinsically enjoyed learning "I like English…I read a lot…and history is really fun" but received little support for this from home "my mum doesn't understand why I like it [*learning*] so much" (T1). Although he thought the quality of lessons at Thorpe were good, he felt that teachers had "very weak" (T2) relationships with pupils. He described teachers as non-interactive and nice only to pupils who did well. When asked what he needed in order to be happy at Thorpe he replied "teachers to be nicer…that's about it" (T2). Charlie's experiences of bullying and perceived lack of support from teachers appears to have influenced his very low attitude to school. "Um… it can be boring and kids can be really nasty, the teachers don't seem to notice much" (T1). "I don't like school at all, you get bullied too much." (T3). By term three he still didn't feel well settled in to school.

Comparison of Cases. Although both Charlie and Gus came from broken homes and were bullied in the first half of Y7, Gus experienced more support from parents and teachers, and had longer term support from friends. Gus had a good relationship with his mother who encouraged him to do well at school. He perceived his teachers as being friendly and had positive perceptions of the Butterton environment. In comparison, Charlie's mother was unsupportive of his learning and he perceived his teachers as being unfriendly and aloof. Charlie began Y7 as a social isolate (due to school transfer) and although he gained friendship support by term two, he was constantly worried about being bullied and saw the world through unhappy eyes. Gus tended to have a positive perspective on things in general, perhaps due to the pervasive quality of support in his life compared to Charlie's. These differential experiences of support and related psychological biases may have contributed to the boys' very different attitudes to school.

Paired case study of 'typical' adolescent development

Bobby was the only Butterton pupil whose positive attitude declined considerably. He came from an affluent and supportive family of professionals. Bobby admitted being 'sports mad' and had been involved in sport since he was in reception. In term one, he perceived school as being important for "doing sports and going out to help your school win football matches and things like that". In term two he enjoyed school more with the onset of basketball in the physical education curriculum.

However Bobby didn't like listening and writing and was bored by his academic lessons asides from maths (which he did well at). He preferred doing physical education, design technology and drama. "Cause they're like the most physical and ones where you can like do practicals" (T1). He explained how academic lessons did not give him the same sense of achievement that sports did, "when I do physical things, like running and everything I kind of enjoy it because I like competition. I like thinking about what's going to happen when I finish, what's it going to look like. I think that's what makes it more enjoyable, cause you want to know something after you've done it. It makes you enjoy it as you go along." (T3).

Bobby didn't perceive there to be enough freedom in learning at school "cause like we always have teachers there all the time....we always have to do what they say, we never actually get to do stuff, what we want" (T1). He generally liked his teachers and got on well with them "when you are with teachers, you are making jokes all the time" (T2) yet noted that they became stricter with pupils across the year. Bobby did note however

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that they had done the same in Y6. By term three he complained a little about being told off for talking in class.

In comparison to being at school, Bobby's freedom at home had increased over the past year "if I just say what area I'll be in she [*my mother*] doesn't mind and I go later to bed" (T1). He was now allowed to a park over the other side of town "There's a lot of naughtier people there than up where I live." (T2). At the park, Bobby hung out with older pupils whom he had been introduced to by his friend Robert's older sister. When asked if anything had happened over the past year to make him feel more grown up he responded that "when I go up the town the older ones let me play with them a bit more than they did before." (T2). Bobby valued this contact with older pupils. "I like being with older people more than younger people... They're kind to you, they joke. You feel a bit more special, when you're hanging around with older kids rather than hanging around with younger ones." (T3). He looked forward to school transfer so that he could meet more older pupils.

At school, Bobby was conscious of his maturity status "you're like one of the top ones in the school. People are just getting a bit older and you're not a child." (T3). He perceived there to be two "separate groups" of sporty and non sporty people in Y7. For him, membership in the sporty group was a sign of psychosocial maturity. "I think they [*the non-sporty boys*] like muck about playing star wars and stuff... Childish! That's what I think" (T2). Over the year, Bobby began to engage in more adult consumer habits. "Cause I'd spend all my pocket money on play station games or something, but now I'd spend it on more like things I wanted to get like, I'd spend it on a train, going down to town for lunch, or buying hot chocolate with someone" (T3).

Although Bobby felt that doing well at school was crucial for his future career success (by term three he wanted to become a stoke broker to earn good money and capitalise on his skills in maths), he found school increasingly boring in comparison to sport and unsupervised play.

> JS: What are the most important things to you in life right now?
> Bobby: Um [pause] going out with my mates, playing football, going down the park, having a good time.
> JS: Does any of that have anything to do with school?
> Bobby: Err not really, school's a bit boring.
> JS: Can you tell me about that?
> Bobby: Well I don't really find Maths or Science or English fun, cause I just don't like writing a lot. (T3).

Stacy was the other pupil in the small sample whose previously high attitude declined considerably over the year. She lived with her parents and had two older half-siblings (her father's children) who lived with her occasionally. Her father was a publican and her

mother worked in an office. Stacy reported no problems with transferring to Thorpe as she moved with a large group of friends from primary school. "If you were with them you could always make friends easily" (T1). By term two she had completely settled in. "I belong in this school. That's what I'm feeling now" (T2). Transfer came with a new set of maturity expectations from parents and peers. Stacy was given chores to do at home in return for pocket money and more freedom "you can do a lot more things but you have to play your part" (T1). She noticed relationships with peers becoming more sophisticated "because you're in secondary school you feel more grown up and you're not childish like you normally are at primary school." (T1). "At primary school we're all smaller, and you have arguments and fights and break-ups all the time" (T3). She also said that transfer made her feel older as she was required to work harder at Thorpe to attain grades that would be important for a future career. "When it comes to big school it's not messing about time anymore" (T3).

Stacy appeared to be identity achieved as she retained her ambition of being an architect throughout the year. This linked to her enjoyment of art and ICT. Physical education was another practical subject that she enjoyed. However Stacy did not really enjoy academic subjects. She had a pragmatic attitude to these subjects "maths is okay because if I was meant to be an architect I would have to do some maths" (T1) and to school in general "It's [school] not fun but you need to learn cause that's what schools are for. They are not just for seeing your mates and talking." (T2). Like other pupils at Thorpe, she noted an increase in teacher strictness across the year and felt that teachers were fairly impersonal with pupils. "They're just teachers, they just teach you what you need to know. It's not really friends. They just teach us. And there is nothing else they can be" (T2).

School was important to Stacy for seeing her friends. "I like school cause when it's holidays and you're not going away, it's a bit boring and you'd like to be at school with all your friends, see all of your friends. And family can get a bit annoying." (T2). She wanted to grow up in order to develop better friendships. "I don't [want to stay a baby]. Because then you wouldn't get to know your friends." (T2)

Spending time with friends was the most important thing in Stacy's life. "Friends are more important than anything else…. because, then you'll not be on your own in anything" (T2). She especially enjoyed seeing friends outside of school. "I gave up music, well, piano, I didn't find it fun and I'd prefer to play out with my friends at home" (T2).

Stacy hung out with friends from her village and with her new friend Chloe whom she met post-transfer. Stacy was the only girl in the target sample to regularly go shopping with her friends in a nearby city without any adult present. "Now I'm allowed to go anywhere only if I have a phone. I just have to be back in time for tea and then I often go back out." (T3). She looked forward to having the freedoms that would come with growing up: "Going out later, going shopping later, my mum not having to be worried all the time about my safety" (T2). Owning nice things made her happy "like clothes. I have pairs of shoes and expensive things." (T2) and being able to purchase these was important to her. JS: "Is money something you ever think about?" Stacy: "Yes, all the time. I love money, it's my thing. I love shopping, I love shopping". (T3).

By term three, Stacy retained her pragmatic attitude to school but was not completely enjoying her time there.

> Stacy: Education is important for your future. Friends are important. I don't know why friends are important, they just are. To have a good childhood and to have a fun life.
> JS: Does school meets those needs for you?
> Stacy: Nearly.
> JS: Tell me why you've said nearly.
> Stacy: Because they have boring stuff in school and it doesn't make it as fun. School brings education, school does bring friends. It's not as fun as you could have when you're outside the school with your friends… outside of school you can chat all the time. Go to the shops, go shopping and all this. In school you can't go shopping apart from in the cafeteria, which you don't really get shopping do you? (T3)

Comparison of Cases: Both Bobby and Stacy highly valued school as a place to gain skills for a future career but found themselves bored during most lessons except those that were practical or directly related to their future careers. Bobby perceived a lack of freedom in learning generally. Both noticed an increase in teacher strictness across the year although Bobby had more of a friendship with teachers whereas Stacy observed them as just somebody who was there to do a job. In comparison to school, both pupils were awarded a great deal of freedom to engage in independent activity by their parents. Their levels of unsupervised play increased over the year. For Bobby, this was important for his maturity self-perception as hanging out with older pupils made him feel older. For Stacy, transfer had already enhanced her maturity status through increased parental allowances and responsibilities, harder work and more sophisticated peer relationships. However, she too placed great importance on unsupervised play as here she could do the things she enjoyed which were shopping and spending time with friends. By term three, both pupils reported school being boring in comparison to spending time with friends.

Both desired and received a great deal of autonomy outside of school and disliked the restrictions of classroom learning.

Summary of case studies

The four paired cases of Gus and Charlie, and Bobby and Stacy, serve as demonstrations of non-normal and normative influences on attitude to school. The first pair shows how the risk factors of bullying and divorce can be offset by support from parents, teachers and peers, when the school environment is constant and the pupil has a good attitude to school. It also shows how transfer to a less supportive school environment can be the 'nail in the coffin' of attitudes of vulnerable pupils who are suffering from familial disruption and victimisation. The second pair of pupils had no fundamental risk factors and were perhaps 'models' of typical adolescent development in this period. Their desire for independent practical experience mismatched with restrictions on freedom at school. This desire was instead met by their experiences of unsupervised play and as they engaged in more of this during the year their dissatisfaction with school environment increased.

Summary

This chapter has identified key influences on the target pupils' attitudes to school. These are enjoyment of subjects, relationships with teachers, social inclusion and self-esteem, friendships, bullying, psychological distress and unsupervised play. Most pupils studied preferred practical lessons over academic subjects as these met many of their fundamental needs for engagement. Those who enjoyed academia did so mainly if the subjects related to their future careers. Both cases of enjoyment hinged on pupils gaining the practical and career based skills that were important for autonomous behaviour yet these experiences filled a minority of their time at school. Pupils generally desired to have more control over their learning and some wanted to have learning experiences without close adult supervision. As pupils grew older they spent more time in unsupervised play and for many this provided the freedom for advancing their independent activity that schools did not give. Thus enjoyment of time with friends and of leisure activities was compared unfavourably to time spent at school. This was particularly notable for pupils at the secondary school. Here, transfer acted as a spur for maturity self-perceptions by creating an ecological transition across home, peer and school contexts. Parents issued their children with more responsibility, peer relationships became more sophisticated

and doing well at school became more closely linked to pupils' future careers. Also, most pupils experienced pubertal onset around the time of transfer. These changes had an inverse effect on attitude to school by encouraging pupils to desire more autonomy and responsibility, and relevance of learning to careers, yet they did not receive this in the school environment. Transfer into the harsher secondary school environment was also detrimental for vulnerable pupils who were most in need of teacher and peer support to counteract their general anxieties and difficulties at home. The smaller and more personalised environment of the middle school, and in particular good teacher-pupil relationships, appeared to support the vulnerable pupils through the transitions of puberty and parental divorce.

Ch. 10) Levels and Profiles of Attitude to School

Introduction

Firstly this chapter examines pupils' multidimensional attitudes to school that were measured with Pell's attitude to school scale. Overarching attitude to school is compared between schools as are three emergent factors that are conceptually similar to Pell's factors of *school enjoyment, work satisfaction* and *misery/loneliness.* Then a second analysis builds on the ethnographic work by translating the direct influences on attitude to school from the network of perceptions into quantitative measurements that are evaluated alongside background and biological variables in a regression analysis. This identifies the most significant predictors of attitude to school across the sample. These predictors are used to cluster pupils into groups that conceptually align with the profiles of target pupils assigned within.

Measured attitude to school

Attitude to school was gathered with a 24 item measure designed by Pell for use in the 1996-1997 ORACLE replication study (Hargreaves & Galton, 2002).

Table 118. Items on the attitude to school scale

	Item		
1	I think my teachers are friendly.	13	When we do tests I feel confident I'll do well.
2	I think most school work is just to keep us busy.	14	I don't have as many friends as I'd like at school.
3	Nobody at school seems to take any notice of me.	15	I'm afraid that I'll make a fool of myself in class.
4	I think that my teachers take notice of what I need.	16	In class I'm often able to work with people I like.
5	People like me will never do well at school.	17	I'm quite pleased with how school work is going .
6	I usually feel relaxed about school.	18	I wish we did things we like instead of being told.
7	I look forward to coming to school most days.	19	People like me don't have much luck at school.
8	I don't really enjoy anything about school.	20	I am liked by most of the other children in my class.
9	I like school better than most other children.	21	I am afraid to tell teachers when I don't understand.
10	Sometimes I feel lost and alone at school.	22	Others in class include me in what they are doing.
11	I am making good progress with my work.	23	I like my teachers.
12	I don't belong to many friendship groups at school.	24	I have trouble keeping up with my work.

Analysis one: overarching attitude to school

Performing a mean values analysis requires a normal distribution of scores within compared groups. The data's normality was investigated by looking at skew and kurtosis, using histograms and by performing Kolmogorov-Smirnov tests. Both logarithmic and (reversed score) square root transformations were applied to improve the distributions of the attitude to school data. However these had the inverse effect of increasing skew. Instead, the original scales were used and 1-4 outliers were removed from each group to validate the mean value. This both reduced skew and made the standard deviations more comparable.

Table 119. Distribution statistics for attitude to school scale

	Attitude to School (Overarching)			
	MS one	SS one	MS two	SS two
Valid Number	46	143	45	142
Removed (missing)	0	3	1	4
Skewness	-0.757	-.401	-0.436	-.182
Std. Error	0.357	.205	0.357	.205
Kurtosis	0.618	.725	-0.738	-.420
Std. Error	0.702	.407	0.702	.407
K-S Test	0.086	.064	0.118	0.69
sig	0.200	.200	0.145	.100
df	44	140	44	140

Figure 36. Distribution graphs for attitude to school scale.
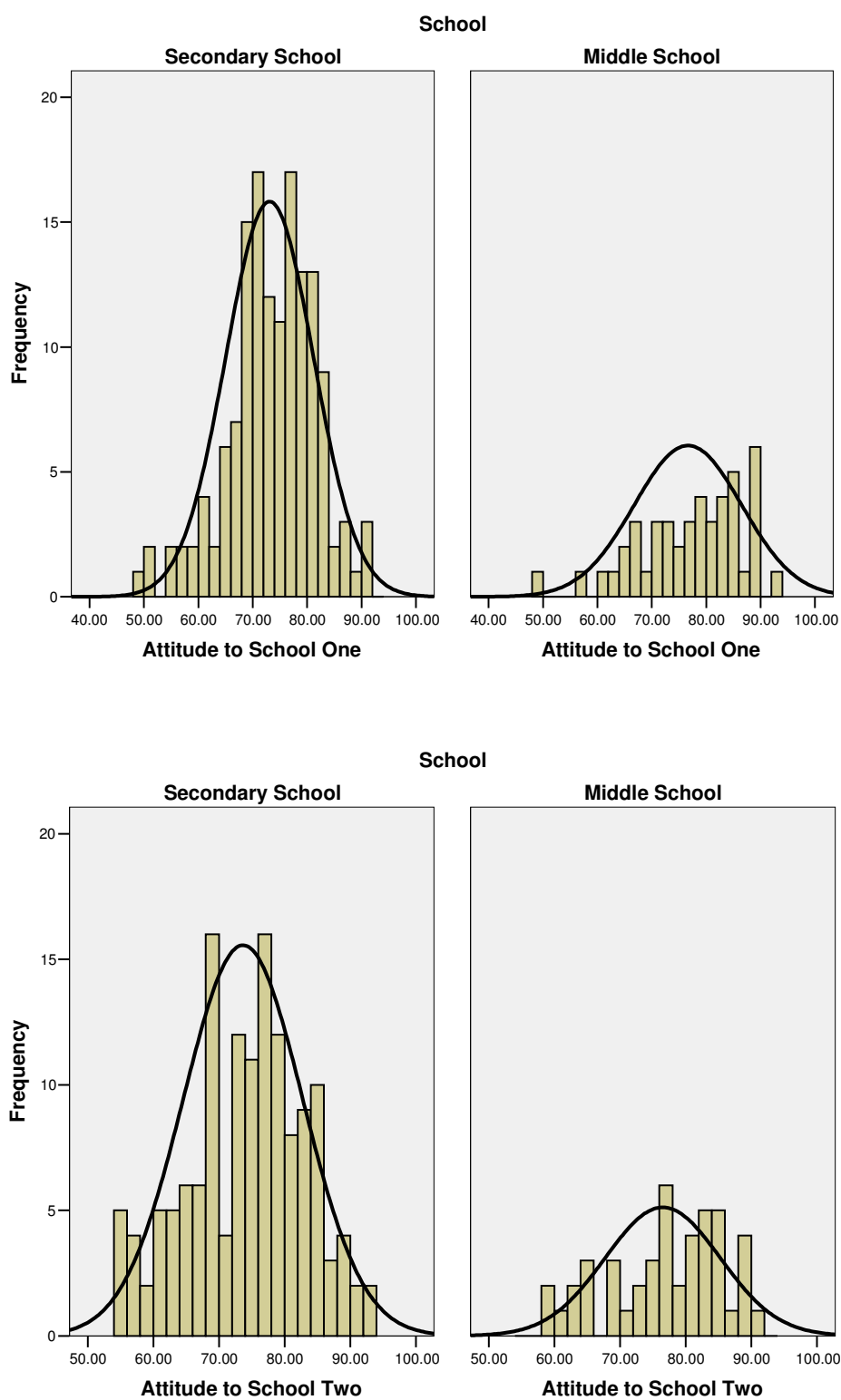
Table 120. Central tendency measures of attitude to school scale

| | Attitude to School | | | |
	MS one	SS one	MS two	SS two
Valid Number	45	144	45	142
Removed (missing)	1	2	1	4
Mean	76.64	73.10	76.51	73.66
sd	9.48	7.57	8.45	8.85
Median	78.00	73.50	77.00	75.00
Mode	71.00	69.00	76.00	68.00

Figure 37. Overarching attitude to school across time
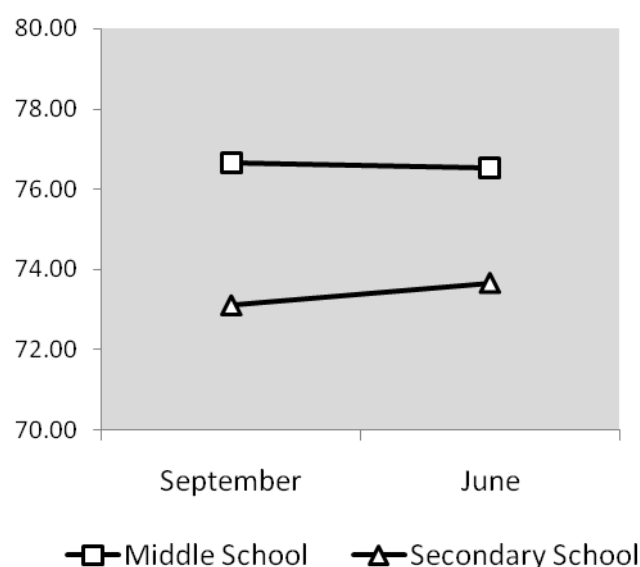
There was no significant change in attitude across time for either school (paired t-test). However, attitudes were significantly higher in the middle school compared to the secondary school in September (t=2.435, df 187, p<0.016) and in June although this latter value just escaped significance (t=1.846, df 185, P<0.067). Levene's Test showed that the variance in attitudes was comparable between schools at both times.

To judge whether these attitudes are favourable, the mean value was divided by 24 to assume an average score on the four point scale. The average point score for each school across time was close to 3 (*agree quite a bit*), meaning that attitudes were mostly positive.

Analysis two: within attitude factors

Comparison to previous factors

Factor analysis of the measure in preparation for the ORACLE replication study yielded three constructs which Pell entitled *enjoyment, satisfaction with the work environment* and *misery and loneliness.* All items on the latter subscale are of negative valence (i.e. *sometimes I feel lost and alone at school*). To obtain a total attitude to school score, Pell advises to reverse the misery and loneliness scores before adding these to the enjoyment and satisfaction subscales. The internal consistency of the subscales and overall measure is reported in Hargreaves and Galton (2002) and in the online version of the measures prepared by Pell for the Suffolk County Council. These are displayed on the table below in comparison to the Cronbach's alphas of these exact scales from the present study using the through sample ('SEF' times one and two).

Table 121. Internal consistency of attitude to school scale

	ORACLE 2002 α	Suffolk Online α	SEF Time 1 α	SEF Time 2 α
Attitude to School	0.70	0.84	0.72	0.73
Work Satisfaction[19]	0.79	0.70	0.66	0.72
School Enjoyment	0.79	0.75	0.78	0.77
Misery/Loneliness	Not Reported	0.78	0.78	0.82

In an attempt to improve construct validity, all negative items were reverse coded so that the measure was unidirectional (positive). Repeat validity analysis showed a much improved Cronbach's alpha (Time 1=0.83 and Time 2=0.85) for overarching attitude to school. From this point, all analyses were conducted with positive coding.

Exploratory factor analysis

Exploratory factor analysis was conducted to investigate the formation of adolescents' attitudes across time, and to provide constructs that are comparable between schools[20].

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[19] The original name of this subscale is 'satisfaction with the work environment' – it is shortened in this table for cosmetic purposes.

[20] A preliminary analysis was conducted separately for each school across time, to see if such an overarching analysis would be appropriate. Similar factors emerged in both schools across time. There were

Principal axis factoring and direct oblimin rotation were used on the basis that emergent factors would represent latent constructs and that these would likely be correlated. Firstly, an unlimited set of factors were requested. Then a set number of factors were chosen according to the number that were located above the point of inflection on the curve of the scree plot (Cattell 1966 in Field, 2005). Analyses at time one and two each yielded three factors. These contained the same items across time yet had marginally different factor loadings. The exception was two items that loaded into factor one at time two, that were previously in factor three (*I like my teachers, I think my teachers are friendly*). To keep factor three at a moderate size (six items), to retain a focus on teachers for this factor, and to ensure direct comparability across times, these items were kept in factor three and removed from factor one at time two.

Reliability analysis tested the alpha of each factor overall and by school. The 'scale if item deleted' function was used to test the contribution of each item to internal validity. In each factor, a single item was found to reduce the alphas by up to 10%. These were: *I wish we did things we like instead of being told* (factor one), *I am afraid to tell teachers when I don't understand* (factor two) and *In class I'm often able to work with people I like* (factor three). Each item was removed. Only one of these had a low factor loading. Other low loading items in the scale had more important contributions to validity and thus were kept although they were roughly around .364 which is the recommended minimal loading for items with a sample size of 200 or above (Stevens, 1992 in Field 2005).

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slight differences, with the middle school pupils' attitudes becoming more similar to those in the secondary school by time two. These results are reported in the Appendix.

Figure 38. Attitude to school time one scree plot
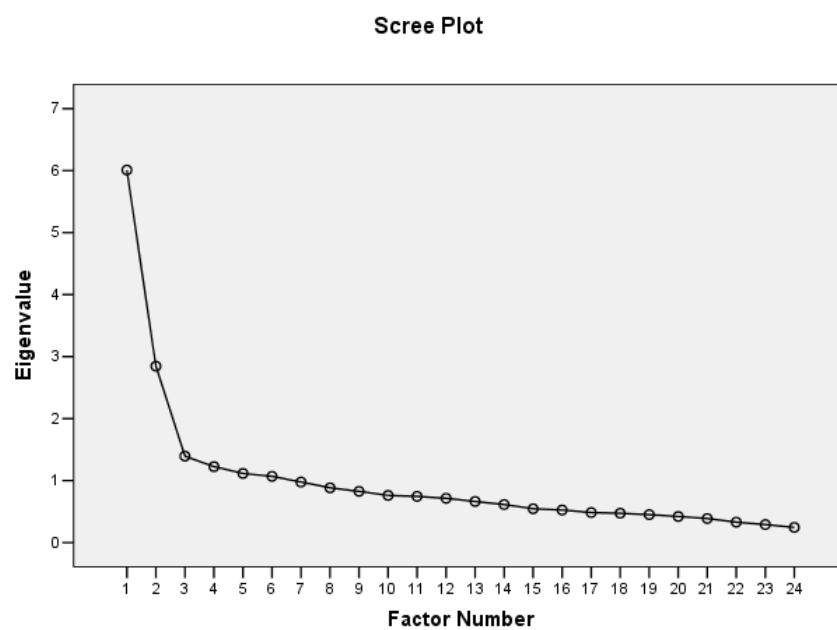
Figure 39. Attitude to school time two scree plot
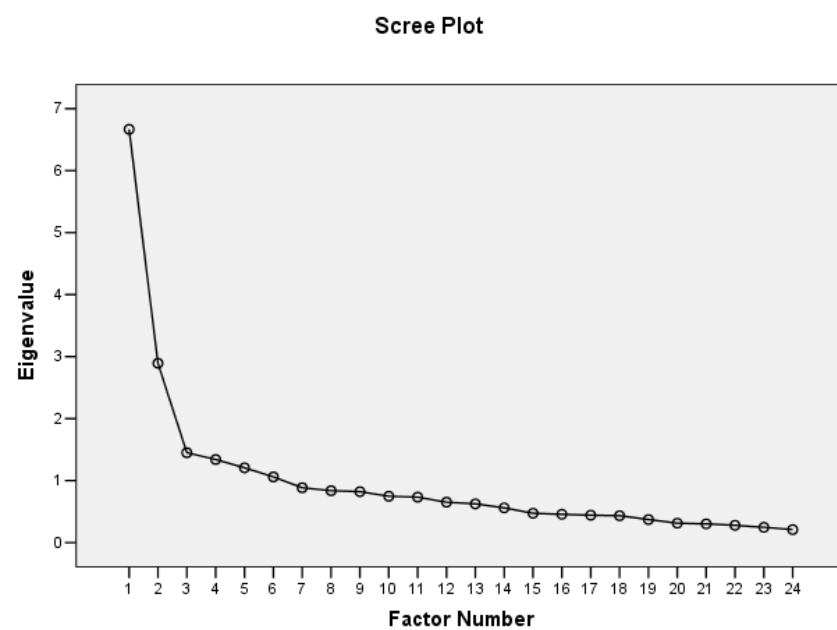
The items are ordered below by their time two factor loadings, to show how attitudes were formed by the end of the year.

Table 122. Attitude to school factors

School Enjoyment			
Item	**Time 1**	**Time 2**	**Item Wording**
7	0.729	0.713	I look forward to coming to school most days.
8	0.733	0.670	I don't really enjoy anything about school.
6	0.731	0.662	I usually feel relaxed about school.
24	0.604	0.660	I have trouble keeping up with my work.
5	0.442	0.635	People like me will never do well at school.
13	0.485	0.559	When we do tests I feel confident I'll do well.
9	0.595	0.498	I like school better than most other children.
2	0.435	0.413	I think most school work is just to keep us busy.
Work Satisfaction			
Item	**Time 1**	**Time 2**	**Item Wording**
17	0.691	0.808	I'm quite pleased with how school work is going.
23	0.741	0.755	I like my teachers.
1	0.749	0.743	I think my teachers are friendly.
11	0.602	0.694	I am making good progress with my work.
4	0.669	0.677	I think that my teachers take notice of what I need.
Social Confidence			
Item	**Time 1**	**Time 2**	**Item Wording**
14	0.741	0.760	I don't have as many friends as I'd like at school.
22	0.709	0.747	Others in class include me in what they are doing.
10	0.656	0.730	Sometimes I feel lost and alone at school.
12	0.669	0.693	I don't belong to many friendship groups at school.
15	0.642	0.660	I'm afraid that I'll make a fool of myself in class.
19	0.602	0.652	People like me don't have much luck at school.
3	0.606	0.644	Nobody at school seems to take any notice of me.
20	0.705	0.610	I am liked by most of the other children in my class.

Table 123. Correlation of attitude to school factors

	Time One				Time Two		
Factor	1	2	3	Factor	1	2	3
1		0.290	0.422	1		0.265	0.382
2	0.290		0.203	2	0.265		0.285

There is no multicollinearity between the factors, although factors one and three are moderately similar at both times. As the factors are measured using the same scale, these similarities may be exaggerated (as in oppose to measuring the constructs of peers, school work and school enjoyment using different scales).

The constructs have similar conceptual meanings to those found by Pell in the SAM studies thus are given the same titles of 'school enjoyment', 'work satisfaction' and the reversed version of misery and loneliness, 'social confidence'. This last factor contains the most similar items to Pell's respective factor (Table 124). School enjoyment is also fairly similar. However, work satisfaction in the current study contains items about teachers (4 & 23) whereas these are part of Pell's school enjoyment scale. Also, the current factor of school enjoyment contains three items relating to academic confidence (*I have trouble keeping up with my work, when we do tests I feel confident I'll do well, people like me will never do well at school*) that are spread across Pell's other factors. Therefore 'school enjoyment' in the current study describes liking school and beliefs about ones' academic self, whereas feelings about teachers and current experiences of work progress are partitioned into 'work satisfaction'.

Table 124. Comparison of SEF factors with Pell's factors

School	Pell	1	2	4	7	8	9	18	23	
Enjoyment	SEF		X		X	X	X	X		
Work	Pell	6	11	13	16	17	20	22		
Satisfaction	SEF		X		X	X				
Social	Pell	3	5	10	12	14	15	19	21	24
Confidence	SEF	X		X		X	X	X	X	

X = contains the same item

The alpha ratings for the SEF factors show marginally improved internal reliability for social confidence and work satisfaction. School enjoyment is marginally less reliable. As there are conceptual differences between these and Pell's factors, and a lack of substantial

difference between alpha ratings (although these are generally improved), the SEF factors are used in further analyses.

Table 125. Validity of attitude to school factors

School Enjoyment		
	Time 1 α	Time 2 α
All	0.74	0.75
Middle	0.84	0.69
Secondary	0.69	0.75
Work Satisfaction		
	Time 1 α	Time 2 α
All	0.72	0.79
Middle	0.71	0.84
Secondary	0.72	0.76
Social Confidence		
	Time 1 α	Time 2 α
All	0.82	0.84
Middle	0.84	0.80
Secondary	0.81	0.85

Comparison of factors to other studies. The factors in the SAM measure of attitude (in this and in prior studies) are conceptually similar to those found in other investigations of UK early adolescents' perceptions of school. Table 126 compares these and finds that the separation of peer and educational constructs within attitude to school measures is a common phenomenon.

Table 126. Attitude to school factors in UK studies of early adolescents

		(Croll et al., 2008)	(Gray & McLellan, 2006)	(Galton et al., 2002)	Symonds, current study
Measure		Feelings About School Scale	Improving School Effectiveness Questionnaire	Pell's Attitude to School Scale	Pell's Attitude to School Scale
N of items		28	30	24	24
Year Group		Y7	Y5	Y7	Y7
N of schools		16	21	6	2
Sample Size		845	1310	609	192
Factors	1	Importance of school	Academic self-esteem	Work satisfaction	Work satisfaction
	2	Enjoyment of school	Engagement with school	School enjoyment	School enjoyment
	3	School and friendships	Relationships with peers	Misery/loneliness	Social confidence
	4	Teacher commitment	Pupil behaviour		
	5	School as a difficult environment			
	6	Rejection of school			

The factors within attitude to school were split by school then checked for normality in order to compare mean values between schools. All distributions were negatively skewed. Square root and logarithmic transformations were applied to attempt to improve the distribution without losing any of the data. However, these had the inadvertent effect of increasing the skew. Therefore the only option was to remove a couple of outliers from each school. These normalised scales are constructed purposefully for this mean values analysis and the removal of outliers does not largely affect the results (Table 127) or affect any other analyses in this report. The removal of outliers is warranted here as it improves statistical validity, rather than detracts from it.

The following tables show the number of outliers removed, and give the measures of central tendency (mode, median and mean) pre-outlier removal. These can be compared to the mean value (also given) after outlier removal. There is little difference between the pre- and post-normalised means. Importantly, the substantive differences between schools (direction of effect across time and pupils in the middle school having higher scores) remain no matter what central tendency figure is considered.

Table 127. Central tendency measures for 'School Enjoyment'

	Middle Time 1	Secondary Time 1	Middle Time 2	Secondary Time 2
Total	46	146	46	146
Missing	43	141	42	143
Valid	3	5	4	3
%	93	97	91	98
Mode	30	23	25	23
Median	25	24	26	24
Original Mean	24.48	23.55	25.15	23.58
sd	4.811	3.705	3.489	4.139
Normalised Mean	25.28	23.93	25.88	23.85
sd	3.832	3.114	2.587	3.738
Skew	-0.216	-0.346	-0.288	-0.202

Table 128. Central tendency measures for 'Work Satisfaction'

	Middle Time 1	Secondary Time 1	Middle Time 2	Secondary Time 2
Total	46	146	46	146
Missing	3	3	4	4
Valid	43	143	42	142
%	93	98	91	97
Mode	16	15	17	16
Median	17	16	17	16
Original Mean	16.70	15.93	16.15	15.56
sd	2.117	2.240	2.789	2.519
Normalised Mean	17.05	16.08	16.74	15.76
sd	1.690	1.988	1.913	2.247
Skew	-0.201	-0.047	-0.198	-0.225

Table 129. Central tendency measures for 'Social Confidence'

	Middle Time 1	Secondary Time 1	Middle Time 2	Secondary Time 2
Total	46	146	46	146
Missing	42	140	44	141
Valid	4	6	2	5
%	91	96	96	97
Mode	30	26	26	26
Median	27	26	26.5	26
Original Mean	26.11	24.75	26.13	25.13
sd	-1.160	4.508	-0.940	4.826
Normalised Mean	27.10	25.28	26.66	25.57
sd	3.406	3.780	3.602	4.256
Skew	-0.342	-0.330	-0.460	-0.490

The skewness for all factors is roughly at .3 or below (an arguable degree of skewness for social sciences research, although under .1 is the desired standard Field 2005). The exception is for social confidence at time two. Reduction of skew to around .3 would have required the removal of more outliers. As there is little difference between skewed and normalised mean values, and as the skew of social confidence time two is almost identical between groups (thus the 'central tendency' is comparable), this skew is left as is. The following histograms show the distribution of the normalised subscales for each time between schools.

Figure 40. Distribution of 'School Enjoyment'
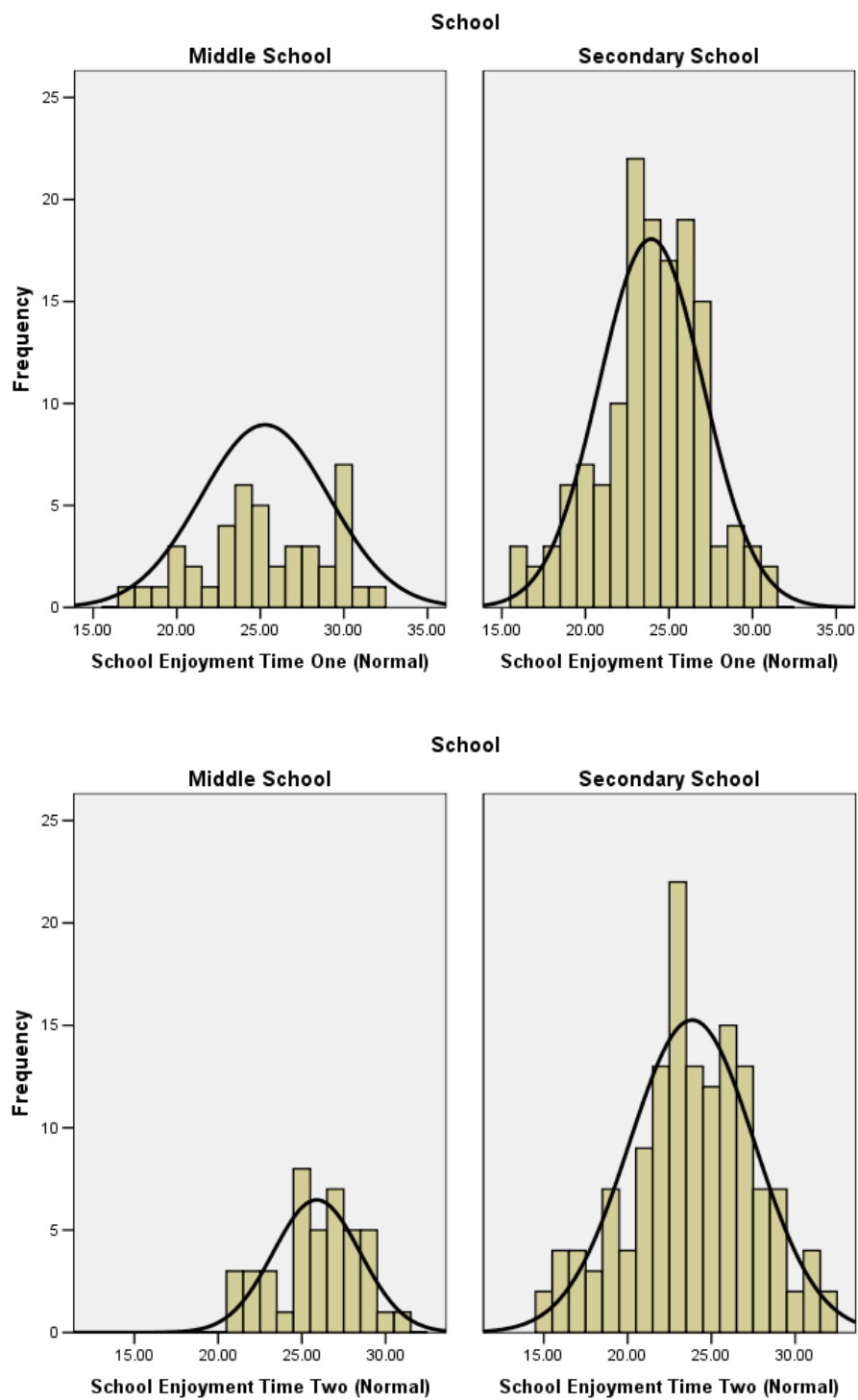
Figure 41. Distribution of 'Work Satisfaction'
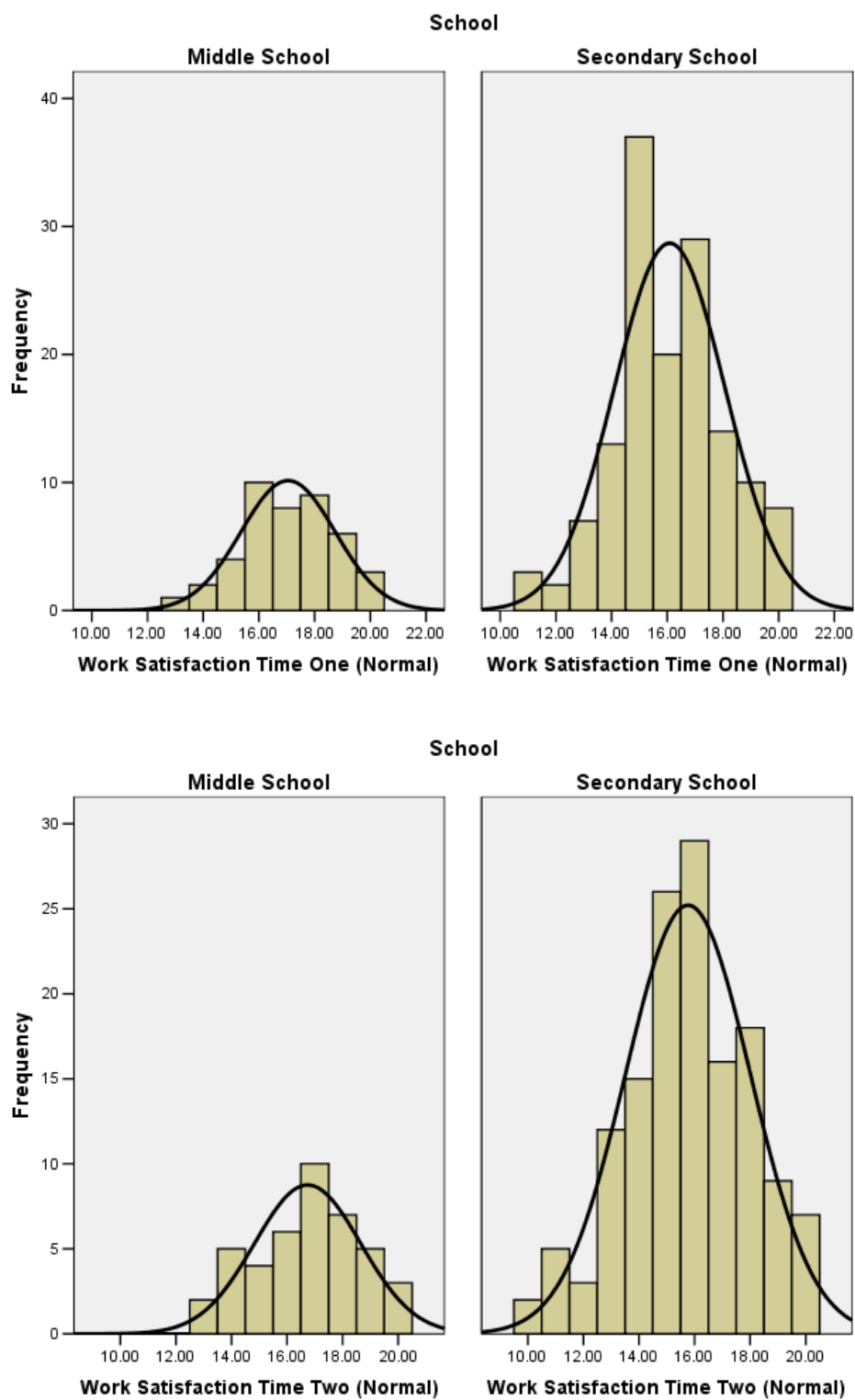
Figure 42. Distribution of 'Social Confidence'
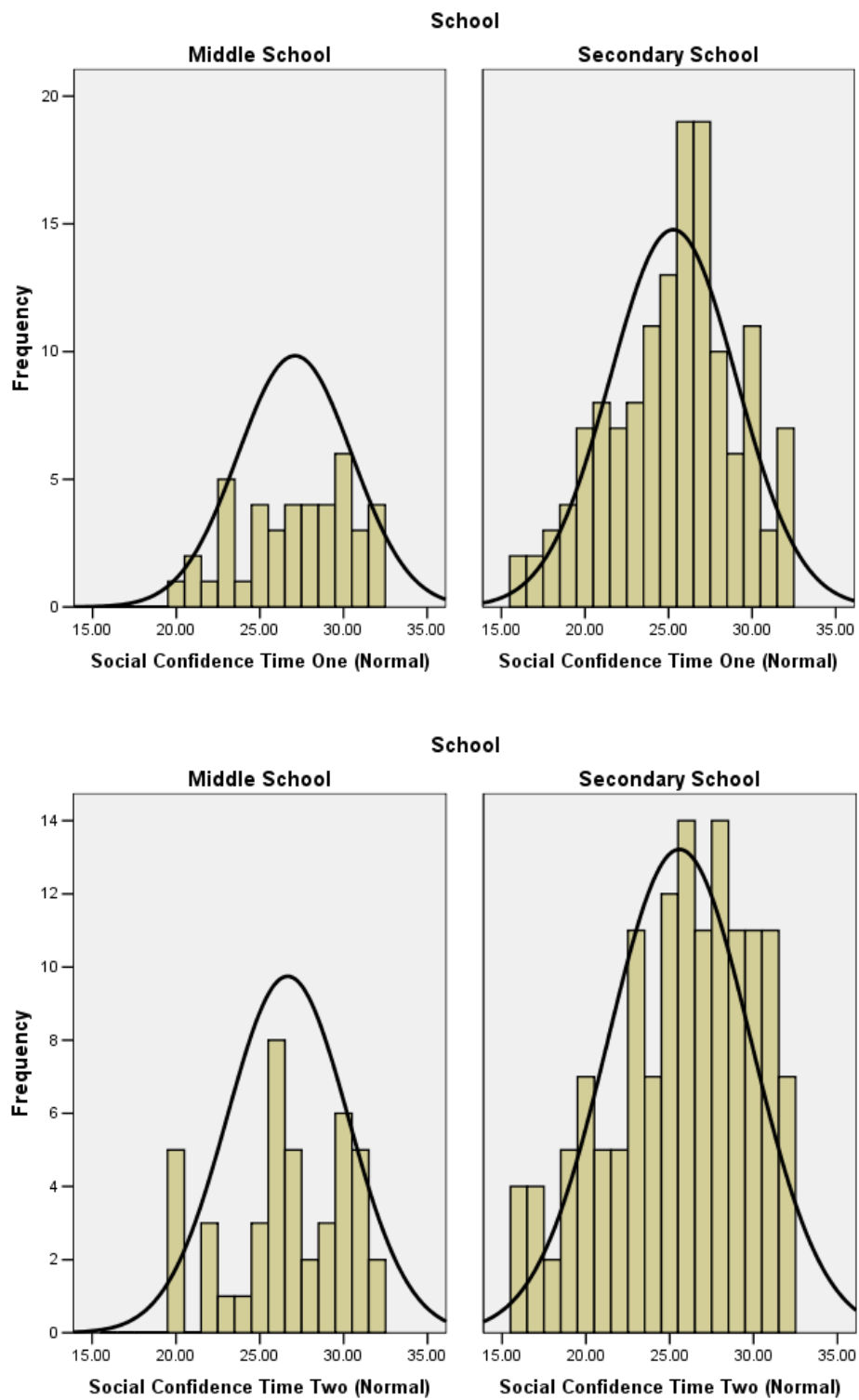
There were no significant differences in the average scores for school enjoyment or social confidence across time, for either group of pupils. Secondary school pupils had significantly declining work satisfaction across time (t = 2.089, df = 139, p = <0.038). Across all measures and times, middle school pupils had significantly higher attitudes than secondary school pupils (Table 130) except for social confidence time two. This single lack of significance may be due to the larger than desired skew for this measure. The following figures are plotted using the average point score for the mean value of each factor for direct visual comparability and to indicate the valence of attitude (2 = *don't agree much,* 3 = *agree quite a bit,* 4 = *strongly agree*).

Table 130. Difference in attitudes between schools

	Test of equality of variances			Comparison of mean values			
	Variances	Levene's F	Sig.	t	df	Sig.	Mean Dif
School Enjoyment Time 1	Unequal	4.501	0.035	2.108	60	0.039	1.35
School Enjoyment Time 2	Unequal	5.458	0.021	4.013	96	0.000	2.03
Work Satisfaction Time 2	Equal	1.421	0.235	2.877	184	0.004	0.96
Work Satisfaction Time 1	Equal	0.938	0.334	2.557	182	0.011	0.98
Social Confidence Time 1	Equal	0.209	0.648	2.792	180	0.006	1.82
Social Confidence Time 2	Equal	2.185	0.141	1.527	183	ns	1.08

Figure 43. School enjoyment
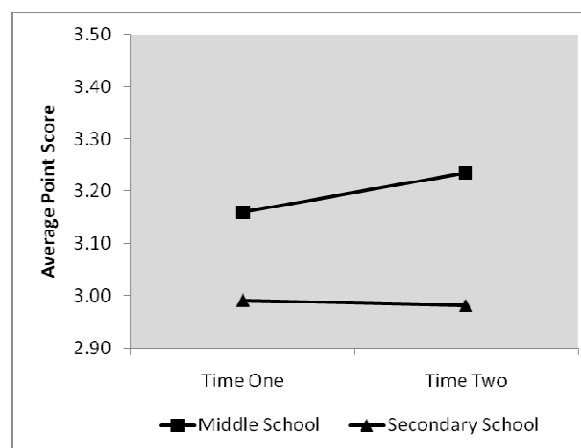
Figure 44. Work satisfaction
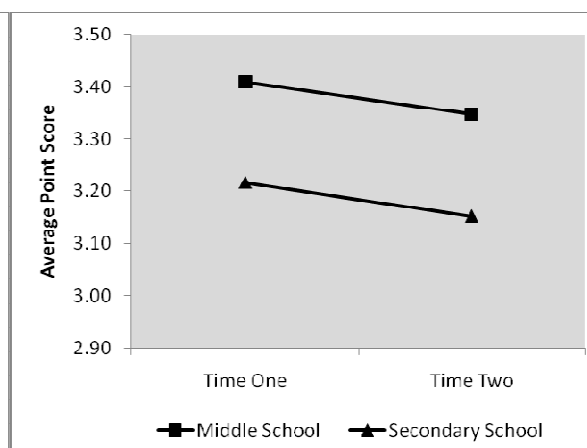
Figure 45. Social confidence
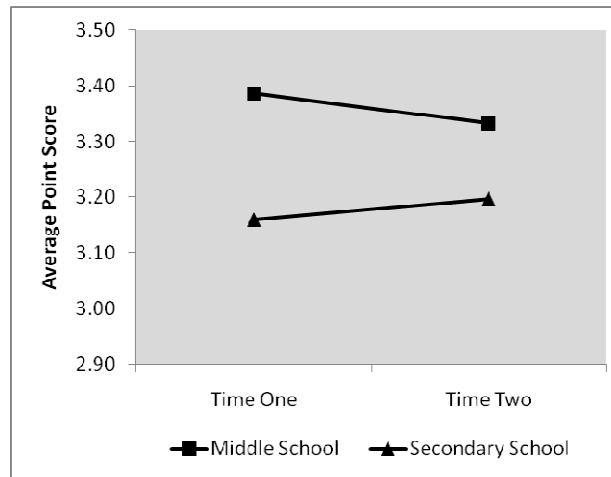
Evaluation of mean values analyses

The lack of quantitative change in overarching and in factorised attitudes across time is surprising considering that the secondary school pupils were adjusting to a new environment. Their attitudes were measured around one month post-transfer, then again a few weeks before the school year ended. It is improbable that two largish groups of pupils retained a similar attitude to school across the year. Therefore the mean values analysis is useful for discovering that middle school attitudes were higher but not for looking at patterns of attitude change across the schools.

Predictors of attitude to school

The second quantitative analysis searches for the strongest influences on attitude to school from those identified in school, home and peer contexts, and within pupils' psychology, by the ethnographic analysis. The ethnographic influences were quantitized by building latent constructs and scales from the existing survey data. It was necessary to build new constructs as the factors within the attitude to school measure and the measure itself are multidimensional therefore subsume the influences of teachers, peers and psychological distress whereas the ethnographic findings identify these as individual influences.

Mono-dimensional constructs were built with the school enjoyment and perceptions of teacher items from the attitude to school measure. The social confidence factor was retained to represent 'social inclusion'. However two items from this factor

(*I'm afraid that I'll make a fool of myself in class* and *people like me don't have much luck at school*) were removed and were used with several items from the self-esteem scale to build a psychological distress factor. These items were removed as their meaning did not hinge on peer relations and they could be taken respectively as signs of anxiety and depression. The latent constructs represent the dependent variable (attitude to school) and the direct influences of perceptions of teachers, social inclusion and psychological distress, and are measured at time one and two.

Two scales were used to form the remaining direct influences on attitudes. Enjoyment of lessons was measured by asking pupils to rate their enjoyment of each of seven subjects (maths, English, science, physical education, music, drama, ICT) on a five point scale (*hardly ever enjoy* to *enjoy a lot*). Their levels of enjoyment for each subject were summed to give a total 'lesson enjoyment' score. This is a scale and not a construct as enjoyment of particular subjects were not always correlated across the sample or for individuals. The 'adolescent' effect was tested by calculating the amount of freedoms awarded to the pupil outside of school. The items of bedtimes and hours of unsupervised play (each measured with a five point scale), were added to get a total score of 'home autonomy'. Both lesson enjoyment and home autonomy were measured only at time two.

The power of biological and background characteristics on attitudes was also examined. The biological influences were age, gender and age at pubertal onset. Pupils' perceived pubertal status in comparison to others and their achievement were also analysed. Most of the secondary influences from the network of perceptions were not measured by the survey. Only family status was available for use in the regression. Other potentially important influences that did not emerge in pupils' perceptions were also tested (age, gender, socioeconomic status and prior achievement). Variables with two or three points of measurement were recoded into dummy variables. These were gender (male = 0, female = 1) and family status (single parent family = 0, biological or biological/step parent family = 1). The testing of these background and biological influences helps to identify whether the direct influences actually do have a direct effect on attitudes in comparison to other factors unidentified in the pupils' perceptions. The biological and background variables were all measured at time one.

Table 131. Quantitization of ethnographic influences

Ethnographic Construct	Survey Data	Type of Measurement	Time Point
Overarching attitude to school	Mono-dimensional attitude to school	Latent construct	T1 & T2
Enjoyment of lessons	Lesson enjoyment	Scale	T2
Good relationships with teachers	Perceptions of teachers	Latent construct	T1 & T2
Social inclusion & self-esteem	Social inclusion	Latent construct	T1 & T2
Friendships	*Included in the above*	*As above*	*As above*
Bullying & victimisation	No measured data		
Psychological distress & negative bias	Distress	Latent construct	T1 & T2
Unsupervised play	Home autonomy	Scale	T2

<u>*Meeting assumptions for regression*</u>

Each latent construct used in the regression was first carefully examined for internal solidarity using confirmatory factor analysis (CFA) and alpha ratings. The method of factor analysis was the same as that in the above section, except for that a single factor was requested for extraction. Table 132 gives the results of the CFA and labels the items as being from either the measure of attitude to school (AS) or self-esteem (SE).

Table 132. Confirmatory factor analysis

	Latent Construct	Factor	Loading
	Liking School (mono-dimensional)	T1	T2
AS7	I look forward to coming to school most days.	0.682	0.908
AS8	I don't really enjoy anything about school.	0.720	0.602
AS6	I usually feel relaxed about school.	0.683	0.557
	Perceptions of Teachers		
AS23	I think my teachers are friendly.	0.782	0.834
AS1	I think that my teachers take notice of what I need.	0.757	0.731
AS4	I like my teachers.	0.443	0.505
	Social Inclusion		
AS14	I don't have as many friends as I'd like at school.	0.717	0.733
AS10	Sometimes I feel lost and alone at school.	0.583	0.703
AS22	Others in class include me in what they are doing.	0.678	0.691
AS12	I don't belong to many friendship groups at school.	0.609	0.656
AS3	Nobody at school seems to take any notice of me.	0.505	0.543
AS20	I am liked by most of the other children in my class.	0.653	0.520

	Latent Construct	Factor	Loading
	Psychological Distress		
AS15	I'm afraid that I'll make a fool of myself in class.	0.674	0.760
SE16	Are you always worrying about something?	0.659	0.614
SE21	Do you think that others often say nasty things about you?	0.493	0.573
SE13	Are you worried if you have to speak out in class?	0.544	0.566
AS19	People like me don't have much luck at school.	0.512	0.506
SE22	Do you worry a lot before you have a test ?	0.319	0.458

Once the final constructs, scales, background and biological variables were established, they were appraised for internal consistency (when applicable), outliers and for homoscedasticity with the dependent variable. The histograms and scatter plots of each independent variable are in the Appendix. Several variables had outliers on the foot of the scale. They did not respond well to either logarithmic or square root transformations therefore a small number of outliers was removed in order to have a continuous distribution of scores. The following tables give details on the independent variables, and include alpha ratings for the latent constructs.

Table 133. Latent constructs used in regression

	Time one			Time two		
	N	Missing	Alpha	N	Missing	Alpha
Attitude to School (mono-dimensional)	192	0	0.74	192	0	0.72
Perceptions of Teachers	192	0	0.67	190	2	0.71
Social Inclusion	187	5	0.79	188	4	0.81
Psychological Distress	192	0	0.70	192	0	0.75

Table 134. Scales used in regression

		N T2	Missing
Home Autonomy	Hours of Unsupervised Play (1-5) added to Bedtimes (1-5)	190	2
Lesson Enjoyment	Sum of enjoyment scores (1-5) for English, maths, science, PE, ICT, music	189	3

Table 135. Measured biological and background variables used in regression

	N T2	Missing
SES	153	39
Family Status	185	7
Age	192	0
Gender	192	0
Age at Onset	85	107
Perceived Puberty	144	48
Achievement	153	39

Although there is considerable missing data for several of the background variables, this does not go against the assumptions for regression as the missing cases are simply not used to predict a change in the dependent variable. Missing values analysis revealed that there were no visible patterns for the cases with missing data versus those with scores (i.e. Table 136), therefore the effects of variables with missing data are representative of the effects of a sample with complete data.

Table 136. Missing values analysis by gender

			Total	Girls	Boys
Age at Onset	Present	%	46	47	45
	Missing	%	54	53	55
Perceived Puberty	Present	%	75	77	72
	Missing	%	25	23	28
SES	Present	%	80	77	83
	Missing	%	20	23	17
Achievement	Present	%	80	79	80
	Missing	%	20	21	20

Correlational analysis of regression variables

The relationships between each independent variable (IV) and the dependent variable (DV) and to each other were tested using Pearson's correlation statistics. The results of this analysis ruled out multicollinearity amongst the variables and provided useful information on shared variance. The most highly related IVs were psychological distress and social inclusion. This is unsurprising seeing as two items from the original factor of social confidence (renamed as 'inclusion' for the regression) were used to create the distress construct. A confounding shared variance appeared between gender and family status but this did not affect the multiple regression as family status was not used in the modelling due to its low predictive power.

Table 137. Correlation of background/biological variables

	Liking School 1	Liking School 2	SES	Family Status	Female Gender	Age
SES	0.20*	0.18+				
Family Status	0.05	0.03	0.01			
Female Gender	0.21*	0.29***	-0.02	0.21*		
Age	0.19*	0.10	0.04	-0.14	0.14	
Achievement	0.13	0.15	0.37***	0.02	0.00	0.03

***	Correlation is significant at the 0.000 level
**	Correlation is significant at the 0.005 level
*	Correlation is significant at the 0.02 level
+	Correlation is significant at the 0.05 level

Table 138. Correlation of adolescent transition variables

	Liking School 1	Liking School 2	Female Gender	Age at Onset	Changes vs. Others
Female Gender	0.21**	0.29***			
Age at Onset	0.02	-0.11	0		
Perceived Puberty	0.1	0.15	0.15	0.27*	
Home Autonomy	-0.09	-0.23**	-0.1	0.18	-0.07

***	Correlation is significant at the 0.000 level
**	Correlation is significant at the 0.005 level
*	Correlation is significant at the 0.02 level

Table 139. Correlation of school environment, social inclusion and anxiety variables

	Liking School 1	Liking School 2	Lesson Enjoy	Teachers 1	Teachers 2	Inclusion 1	Inclusion 2	Distress 1
School 2	0.42***							
Lesson Enjoyment	0.38***	0.45***						
Teachers 1	0.53***	0.15+	0.25***					
Teachers 2	0.49***	0.51***	0.26***	0.39***				
Inclusion 1	0.21**	0.22**	0.19*	0.14	0.19*			
Inclusion 2	0.11	0.26***	0.22**	0.07	0.19*	0.44***		
Distress 1	0.26***	0.27***	0.19*	0.09	0.27***	0.56***	0.42***	
Distress 2	0.14+	0.33***	0.43***	0.04	0.25***	0.27***	0.62***	0.54***

***	Correlation is significant at the 0.000 level
**	Correlation is significant at the 0.005 level
+	Correlation is significant at the 0.05 level

Linear regression

Each IV was regressed against liking school at time one and two to look for changing influences across time on attitudes. The longitudinal variables were used only once at each time points. However the biological, background and scale variables were regressed

at both times, despite being measured only one time point. Therefore these influences have either a forwards or a backwards effect in time, depending on when the IV was measured. This is indicated whenever possible in the narrative of findings. The exception is for IVs that are static (gender, age, age at first onset) which did not present a problem.

The following table gives the individual effect of each IV as a predictor of attitudes to school. The total variance explained (r Square), the standardised coefficients (Beta weights) and their significance (Student's t-test) are given for each IV at each time. The IVs are grouped theoretically to represent the effects of background/biological characteristics, the adolescent transition, school environment, and social inclusion and anxiety. Variables of significance (and near significance) are shaded in gray.

Table 140. Individual linear associations with attitude to school across time

	Time	One			Time	Two		
Background/Biological	R Sq	Beta	t	Sig	R Sq	Beta	t	Sig
SES	0.04	0.202	2.540	0.012	0.03	0.189	16.201	0.000
Family Status	0.00	0.047	0.638	0.524	0.00	0.027	0.364	0.717
Gender	0.04	0.205	2.894	0.004	0.10	0.310	4.488	0.000
Age	0.04	0.193	2.715	0.007	0.01	0.073	1.012	0.313
Adolescent Transition	R Sq	Beta	t	Sig	R Sq	Beta	t	Sig
Age at Pubertal Onset	0.00	0.016	0.154	0.878	0.01	-0.108	-1.003	0.319
Perceived Puberty	0.01	0.095	1.139	0.257	0.02	0.155	1.855	0.066
Home Autonomy	0.01	-0.088	-1.214	0.226	0.04	-0.209	-2.936	0.004
Achievement	R Sq	Beta	t	Sig	R Sq	Beta	t	Sig
KS2 Achievement	0.02	0.122	1.513	0.133	0.22	0.114	1.692	0.092
School Environment	R Sq	Beta	t	Sig	R Sq	Beta	t	Sig
Lesson Enjoyment	0.14	0.381	5.629	0.000	0.20	0.448	6.807	0.000
Teachers	0.28	0.527	8.551	0.000	0.26	0.512	8.139	0.000
Social Inclusion & Anxiety	R Sq	Beta	t	Sig	R Sq	Beta	t	Sig
Social Inclusion	0.08	0.275	3.927	0.000	0.11	0.337	4.887	0.000
Psychological Distress	0.07	0.262	3.748	0.000	0.11	0.326	4.732	0.000

Table 140 shows that socioeconomic status, gender, enjoyment of lessons, perceptions of teachers, social inclusion and psychological distress are influential on attitude to school across time. Age is influential at time one then becomes insignificant, whereas perceived puberty and home autonomy become more significant across time. This pattern might be mediated by the adolescents' maturity perceptions which might have been age-related when they were younger and less developed but then became more physical and socially oriented as their pubertal and social changes were emphasised, especially in Thorpe.

The following set of tables regress the IVs in their theoretical groups, to identify the effects of shared variances within categories and also to provide a total amount of variance explained per group. KS2 achievement is omitted in these tables, as this is ungrouped and is has no significant association with the DV.

Table 141. Background & biological associations with attitude to school

Background/Biological	Time One			Time Two		
	Beta	t	Sig	Beta	t	Sig
SES	0.178	2.287	0.024	0.189	2.429	0.016
Family Status	-0.064	-0.814	0.417	-0.028	-0.355	0.723
Gender	-0.187	-2.366	0.019	-0.316	-4.016	0.000
Age	0.215	2.745	0.007	0.095	1.222	0.224
	R	R Sq	Adj. R Sq	R	R Sq	Adj. R Sq
Total Variance	0.35	0.13	0.10	0.39	0.15	0.12
	F	df	Sig	F	df	Sig
Model Fit	5.176	4	0.001	6.192	4	0.000

Table 142. Adolescent transition associations with attitude to school

Adolescent Transitions	Time One			Time Two		
	Beta	t	Sig	Beta	t	Sig
Age at Pubertal Onset	0.005	0.040	0.968	-0.076	-0.667	0.507
Perceived Puberty	0.123	1.081	0.283	0.127	1.129	0.262
Home Autonomy	-0.106	-0.945	0.348	-0.233	-2.103	0.039
	R	R Sq	Adj. R Sq	R	R Sq	Adj. R Sq
Total Variance	0.17	0.03	-0.01	0.29	0.08	0.05
	F	df	Sig	F	df	Sig
Model Fit	0.797	3	0.499	2.428	3	0.071

Table 143. School environment associations with attitude to school

School Environment	Time One			Time Two		
	Beta	t	Sig	Beta	t	Sig
Teachers	0.451	7.433	0.000	0.382	5.691	0.000
Lesson Enjoyment	0.295	4.873	0.000	0.289	4.308	0.000
	R	R Sq	Adj R Sq	R	R Sq	Adj R Sq
Total Variance	0.58	0.34	0.33	0.57	0.32	0.31
	F	df	Sig	F	df	Sig
Model Fit	48.064	2	0.000	43.126	2	0.000

Table 144. Social inclusion & anxiety associations with attitude to school

Social Inclusion & Anxiety	Time One			Time Two		
	Beta	t	Sig	Beta	t	Sig
Social Inclusion 1	0.219	2.435	0.016	0.215	2.376	0.019
Psychological Distress 1	0.091	1.012	0.313	0.186	2.058	0.041
	R	R Sq	Adj. R Sq	R	R Sq	Adj. R Sq
Total Variance	0.28	0.08	0.07	0.37	0.13	0.12
	F	df	Sig	F	df	Sig
Model Fit	8.223	2	0.000	14.267	2	0.000

From comparing the results in Table 140 with the thematic models we can observe several incidences of shared variance. Pubertal status in comparison to others (perceived puberty) reduces in effect (Beta = 0.155 to 0.127) when modelled with home autonomy at time two. Likewise, psychological distress has no significant effect when modelled with social inclusion at time one (Beta = 0.091) but develops an independent effect by time two (Beta = 0.186). This growth in unique contribution occurs despite the two variables becoming more similar across time (Pearson's R T1 = 0.56, T2 = 0.62).

Table 145. Summary of total variance explained by thematic models

	R Sq T1	R Sq T2
Background/Biological	0.13	0.15
Adolescent Transitions	0.03	0.08
KS2 Achievement	0.02	0.22
School Environment	0.34	0.32
Social Inclusion & Anxiety	0.08	0.13

Table 145 identifies school environment as having by far the largest independent contribution to attitude to school. This contribution is fairly stable across time. The second greatest contribution is from the pupils' background variables (SES, gender and age), with age becoming less significant across time. Adolescent transitions have very little direct influence on attitudes when measured for the whole sample. However, this may not be true of a minority of adolescents. Prior achievement appears to become more significant to attitudes across time, which may relate to the increased focus on (and therefore value of) achievement in the transfer school. Social inclusion and anxiety has surprisingly little effect on attitudes to school at time one, but increase in predictive power by time two.

Multiple regression

The most powerful influences on attitude to school are modelled in the following multiple regressions. The variables were selected if they were significant in the individual linear association. The order of entry into the regression was determined by beta-weights of the significant variables. Variables that shared variance with others were tested in each step to see if a different order of associations would reveal their individual contribution. At time one, gender and age cancelled out each other's predictive power no matter which was ordered first. Therefore the final model lists both gender and age in the change statistics and retains gender even though this is insignificant, to give a more accurate model specification. The combined effects of variables across contexts eliminated the effect of socioeconomic status at time one and two, no matter where it was placed in the models. Model fit statistics were good with both Durbin-Watsons (D-W) being below 2 and above 1, and overall ANOVAs being highly significant (T1 F= 33.498, df= 13, p <0.000; T2 F=48.793, df= 23, p <0.000).

Table 146. Model one change statistics and model fit

Model	Stepped Variables	R	R Sq	Adj. R Sq	R Sq Change	F Change	df1	df2	Sig	D-W
1	Teachers 1	0.42	0.18	0.17	0.18	31.900	1	147	0.000	
2	Enjoy	0.52	0.27	0.26	0.10	19.402	1	146	0.000	
3	Age/Gender	0.57	0.33	0.31	0.05	5.644	2	144	0.004	
4	Inclusion 1	0.59	0.35	0.33	0.02	5.369	1	143	0.022	1.370

Table 147. Model two change statistics and model fit

Model	Stepped Variables	R	R Sq	Adj. R Sq	R Sq Change	F Change	df1	df2	Sig	D-W
1	Teachers 2	0.53	0.28	0.27	0.28	50.298	1	132	0.000	
2	Enjoy	0.63	0.39	0.38	0.12	24.964	1	131	0.000	
3	Gender	0.69	0.47	0.46	0.08	9.729	2	129	0.000	
4	Inclusion 2	0.70	0.49	0.47	0.02	4.435	1	128	0.037	
5	Home Autonomy	0.72	0.52	0.50	0.03	8.731	1	127	0.004	1.091

Table 148. Influential predictors of attitude to school time one and two

Time One	B	t	Sig	Time Two	B	t	Sig
Teachers 1	0.356	5.210	0.000	Teachers 2	0.310	4.561	0.000
Enjoy	0.237	3.333	0.001	Enjoy	0.315	4.635	0.000
Age	0.155	2.268	0.025	Gender	0.206	3.210	0.002
Gender	*0.119*	*1.753*	*0.082*	Inclusion 2	0.204	2.918	0.004
Inclusion 1	0.153	2.189	0.030	Home Autonomy	-0.193	-2.955	0.004

The final models (Table 148) explain 35% and 52% of the variance in attitude to school across time. Most of the variance is explained by pupils' perceptions of their teachers and their enjoyment of subjects. Being female contributes to better attitudes throughout the year. Being older contributes to having a better attitude at time one but by time two this effect disappears. Having more time to play with friends outside of school and going to bed later has a significantly negative contribution to attitudes by the end of the school year. The contribution of social inclusion increases across the year (as does the effect of psychological distress in the single regression model).

Cluster analysis

The regression analysis helped identify which variables were most important for pupils' mono-dimensional attitude to school at the start and end of the school year. It also showed that the contribution of age diminished across time whilst the contribution of home autonomy grew. However it did not show how the significant predictors were displayed within the population of study, in relation to attitude to school. This investigation requires a cluster analysis. As age and autonomy changed in effect across time they would confound groupings if contained in a single cluster analysis. Alternatively it would be possible to perform two separate clustering procedures, one each for the time one and time two predictors, however this would not inductively identify groups of pupils whose attitudes declined across time (being the focus of study). To cluster longitudinally requires software for latent class analysis, which was not available for use in this project due to cost requirements. This left three options. The first, to cluster with just the longitudinal constructs (liking school, teachers, inclusion), neglected the importance of the other significant predictors which would undoubtedly have a strong impact on the groupings. The second would be to use the longitudinal constructs/predictors and then the time two predictors in analysis, (e.g. liking school T1 & T2, teachers T1 & T2, inclusion T1 & T2, enjoy T2, autonomy T2). The hierarchical nature of clustering would require the

longitudinal variables to be entered in pairs and in time order before entering the single time two predictors otherwise the grouping would be pulled back and forwards in time without reason. However, here the contribution of enjoyment and autonomy on attitude to school would then be subject to the groups already semi-formed using the longitudinal predictors and therefore their actual effect within the set of predictors of time two attitudes would be diminished. The third and most viable option was to look at the development of liking school across time in relation to just the time two predictors (teachers, enjoyment, inclusion and autonomy). This has a clear conceptual basis: to search for the most significant similarities in groups of pupils with specific attitudinal trajectories by the end of the year.

Clustering procedure

The data set was randomly ordered in preparation for clustering. The latent constructs were standardised using factor scores obtained using the Bartlett method. This method provides each case with the sum of squares of the factor loadings for each factor in the analysis (Bartlett, 1937) and gives a distribution score that is the same as a z score. Therefore it can be used in combination with z scores of other variables that are not able to be turned into factor scores. As cluster analysis is very sensitive to outliers, normalised data were used (as presented in the section on regression). Table 149 describes the variables used in the analysis. Gender was not used as the most effective clustering techniques for small samples (<N 200), which are preferred for this analysis, cannot handle nominal data.

Table 149. Data used in the cluster analysis

Variable	Survey	Standardisation
Liking School	T1	Factor scores
Liking School	T2	Factor scores
Perceptions of Teachers	T2	Factor scores
Lesson Enjoyment	T2	Z scores
Social Inclusion	T2	Factor scores
Home Autonomy	T2	Z scores

Firstly, a hierarchical cluster analysis was run using Ward's method and squared Euclidean distance. Hierarchical clustering gives a visual display of how cases are combined into progressive sets of clusters, in a dendogram. It also gives an agglomeration schedule that lists the coefficients between each subsequent cluster. If there is a sharp increase between one coefficient and the others already listed then this indicates a

'natural' cut off point for the number of clusters to be chosen. In this study, the agglomeration schedule coefficients showed a steady increase across all clustering stages (Table 150) therefore each additional cluster was as quantitatively different as the next. The dendogram showed sets of 11, 5 and 2 clusters with five perceived as the only viable option for subsequent clustering as two clusters are too robust and 11 too refined for detailed yet economical analysis.

Table 150. Agglomeration schedule for hierarchical cluster analysis

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	47	70	0.046	0	0	51
2	62	106	0.110	0	0	45
3	132	177	0.177	0	0	7
4	25	38	0.253	0	0	78
5	54	122	0.359	0	0	18
6	46	118	0.479	0	0	55
7	107	132	0.602	0	3	12
8	3	121	0.743	0	0	56
9	20	166	0.894	0	0	24
10	8	81	1.050	0	0	132

The hierarchical clustering gave some clues as to how many clusters were viable. This informed the K-means cluster analysis. This is more preferable for final output than hierarchical clustering as it provides summary scores of each variable within clusters and an ANOVA table detailing the usefulness of each variable within the procedure. It also saves cluster membership for each case. K-means analysis requires the researcher to set the number of clusters before proceeding. As the hierarchical analysis gave a good result for five clusters, it was taken that a final solution of around this many clusters would be used. However K-means produces slightly different results from the hierarchical procedure therefore several solutions (requesting 4, 5, 6 and 7 clusters) were compared to test the viability of the five cluster solution.

Researchers use a range of methods to help them decide which number of clusters to use. Sometimes the iteration tables in K-means (this shows how many times the data were rotated in order to settle on the given solution) are compared across a number of solutions to see which settled in the least iterations. As described, researchers can rely on the hierarchical results to decide on the number of clusters used in K-means. However,

using quantitative 'signalling' methods alone can obscure the theoretical importance of emergent groups and miss the implications for analysis of the merging of these groups into broader categories. Therefore for this study, the range of cluster solutions (4-7) were compared in depth. This comparison comprises the main results of the cluster analysis and leaves the door open for a choice of solution for further analysis.

Emergent clusters: a comparative analysis across solutions

Four solutions were requested from the K-means analysis, for 4, 5, 6 & 7 clusters respectively. All variables used for clustering (Table 149) were highly significant in each solution (tested with ANOVA). The solutions converged in between 7 and 12 iterations (Figure 44) with the 6 cluster solution having the lowest number of iterations (7), rather than the 5 cluster solution as would be inferred from the results of the hierarchical analysis.

The first four types of clusters to emerge were retained in each of the subsequent 5, 6 and 7 cluster solutions (however the number of cases in each group varied as new clusters were requested). The first was the *well adjusted* group (initial N=43) who had high scores on school variables and inclusion and who had normative autonomy. Many of the target pupils were included in this group, and all had positive attitudes to school. Next were the *autonomy seekers* (N=40) who had declining attitudes to school, normal inclusion and high autonomy. Both Stacy and Bobby whose cases were compared in Chapter 10 for their increased like of unsupervised play and decreased attitude to school were classed in this group. The third group was the *social isolates* (N=38) who had moderate school scores but low inclusion and autonomy scores. No target pupils were put into this group, so the experiences of a typical *social isolate* pupil are likely to be underrepresented in the ethnographic analysis. Finally there was the *maladjusted* group (N=18) who had low school and inclusion scores and normative autonomy. This group included Indiana, Charlie, Jacob and Sam, all of whom were selected for study because of their low attitudes to school. All had high anxiety and the first two had considerable problems at home. The appearance of these target pupils in these groups validates the cluster analysis and, with the retention of these groups throughout the solutions, is good evidence of their ecological authenticity.

The five cluster solution saw the emergence of a small *working class youth* group (N=8) who were predominantly medium-low SES males (6/8) and whose exceptionally low attitudes to school at time one became normative by time two. Six of these pupils

were drawn from the initial *maladjusted* group, and one each came from the *well adjusted* and *autonomy seekers* groups. They were of moderate (N=6) or high (N=2) achievement and were mainly from biological families (N=6/8). They all liked family time a lot. It is possible that these pupils' steady family backgrounds and achievement capabilities were supportive of their transition to enjoying school by term three.
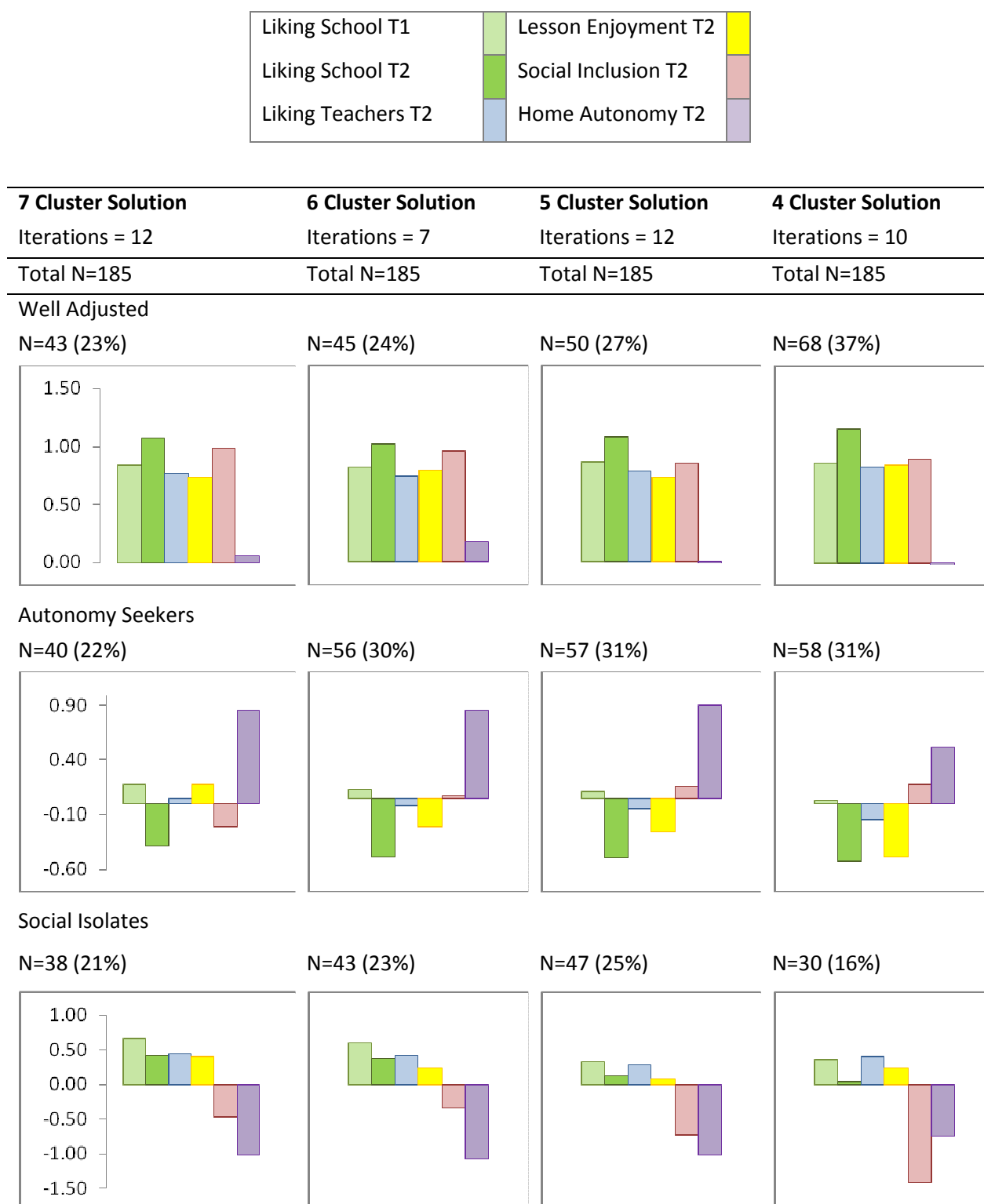
The sixth cluster to emerge (N=10) was dubbed *individual differences* as the pupils were of mixed SES, gender, family status and achievement yet for some reason they were not getting on very well socially and didn't like school much, in particular at time one. Seven of these pupils had moved across from the *social isolates* group. Three had previously been classed as *maladjusted,* including Jacob who was moved into this group. This made sense as Jacob was the only maladjusted pupil not to have problems at home or with himself and although he experienced a social transition after transferring to Thorpe, he was never completely without friendship support.

The final solution of seven clusters formed a surprising new group (N=29) of mainly Thorpe females (21/29) who were predominantly drawn from the *autonomy seekers* group (extracted N=25) in the four cluster solution. This included Stacy. The remaining four pupils in the group had been classed as *maladjusted.* These pupils had good relationships with their family and friends, were on time pubertal developers and were mainly moderate achievers. They had a range of SES and normative family status (from around 70% biological families and 20% single parent families). The outstanding characteristic of these (mainly) girls was their low enjoyment of lessons. Further analysis revealed that in general they ascribed less personal value to subjects (M=19.9) than any other cluster (M ranges from 20.7 to 24.2). Their positive development in all other areas suggests that they simply didn't like learning at school and perhaps preferred other activities of a social and individual nature. Therefore this group was named *girls just wanna have fun.*

The following table shows the mean values of each variable used for clustering, for each cluster across solutions. For cosmetic purposes the 7 cluster solution is listed first. The table allows for examination of slight alterations in mean value as some pupils move groups across solutions. As the four main clusters become less exhaustive (i.e. towards the 7 cluster solution) changes within three clusters are notable. Firstly the *autonomy seekers'* average level of home autonomy is greater once pupils are reassigned to more specialised groups in the 5, 6 and 7 cluster solutions. Also their attitude to school is a tiny
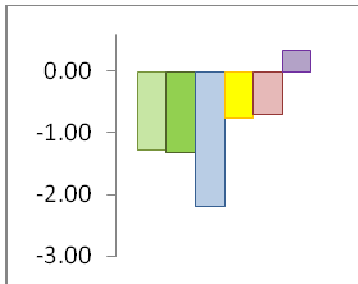
bit higher in the 7 cluster solution. Secondly the *social isolates'* inclusion levels grow once pupils are assigned elsewhere. Thirdly, *maladjusted* pupils have less negative school attitudes on average, in solutions 5, 6 and 7. *Working Class Youth* and *Individual Differences* have no changes in group membership so their mean values remain stable.

Figure 46. Comparative cluster solutions

Liking School T1		Lesson Enjoyment T2	
Liking School T2		Social Inclusion T2	
Liking Teachers T2		Home Autonomy T2	

7 Cluster Solution	6 Cluster Solution	5 Cluster Solution	4 Cluster Solution
Iterations = 12	Iterations = 7	Iterations = 12	Iterations = 10
Total N=185	Total N=185	Total N=185	Total N=185

Well Adjusted

N=43 (23%)	N=45 (24%)	N=50 (27%)	N=68 (37%)

Autonomy Seekers

N=40 (22%)	N=56 (30%)	N=57 (31%)	N=58 (31%)

Social Isolates

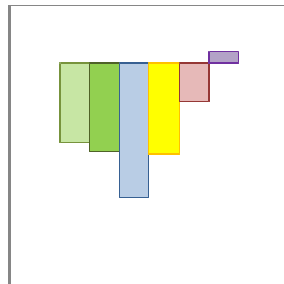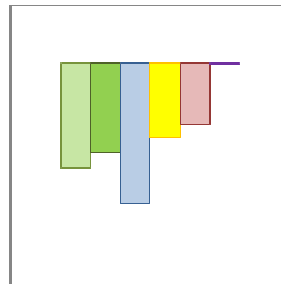| N=38 (21%)	N=43 (23%)	N=47 (25%)	N=30 (16%)

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Maladjusted

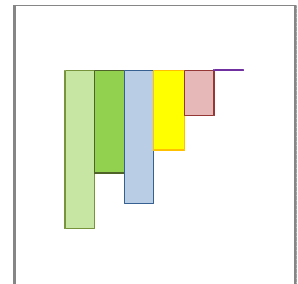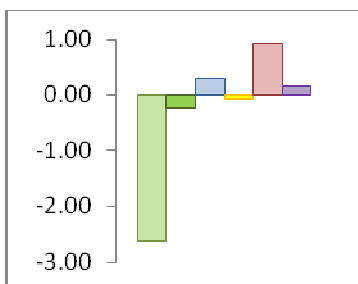N=18 (10%)   N=23 (12%)   N=23 (12%)   N=29 (16%)
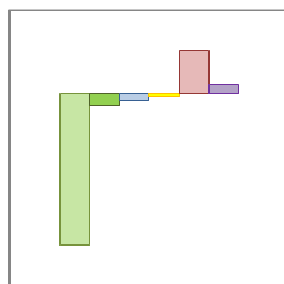

Working Class Youth
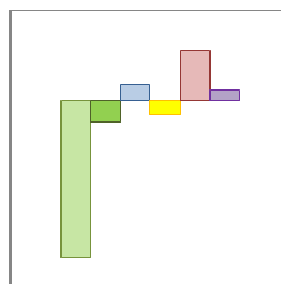
N=7 (4%)   N=8 (4%)   N=8 (4%)   NA
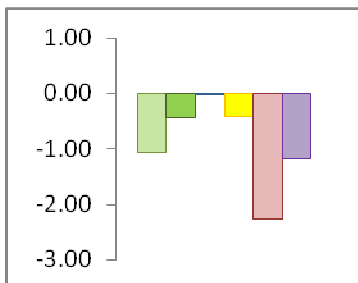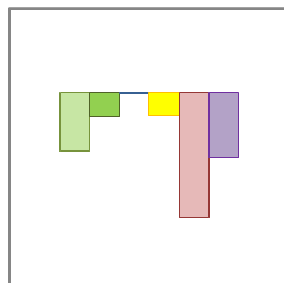

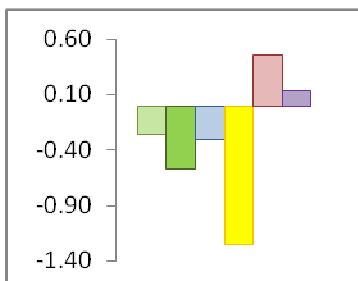
Individual Differences

N=10 (5%)   N=10 (5%)   NA (5%)   NA

Girls Just Wanna Have Fun

N=29 (16%)   NA   NA   NA

Detailed analysis of the four main clusters

The following analysis looks in more detail at the four main groups retained throughout the solutions. As the four main groups became better defined by the siphoning of pupils into other groups in the 5, 6, and 7 cluster solutions –the groups as they were in the four cluster solution was not analysed in detail. The retention of specific cases in the *working class youth* and *individual differences* groups throughout the solutions signifies that these pupils are best considered separately and not as part of the four main groups. The emergent *girls just wanna have fun* group, although interesting, has many similarities with (and is drawn from) the *autonomy seekers* group. Therefore, the most efficient comparative analysis of the four main groups is to use those in the 6 cluster solution. Here, more unique cases are partitioned as described, and the *autonomy seekers* group is more comprehensive. Also the 6 cluster solution converged in the fewest iterations, making it the most quantitatively stable set.

The four main clusters were tested for group differences in a range of variables representative of home, school and peer contexts. Nominal variables were tested with chi-square, four and five point categorical variables were tested with the Kruskal Wallis (K-S) test which gives a chi-square based on rank order, and continuous data were tested with ANOVA. Post hoc tests were performed to identify exactly where the significant differences lay between groups for the categorical and continuous data. There were no significant differences between groups for age, gender, ethnicity or family status. There were visible but insignificant (Chi-Square 0.071, p <0.071) differences between schools, with a greater percentage of Butterton pupils being members of the *well adjusted* group and more Thorpe pupils being *autonomy seekers*.

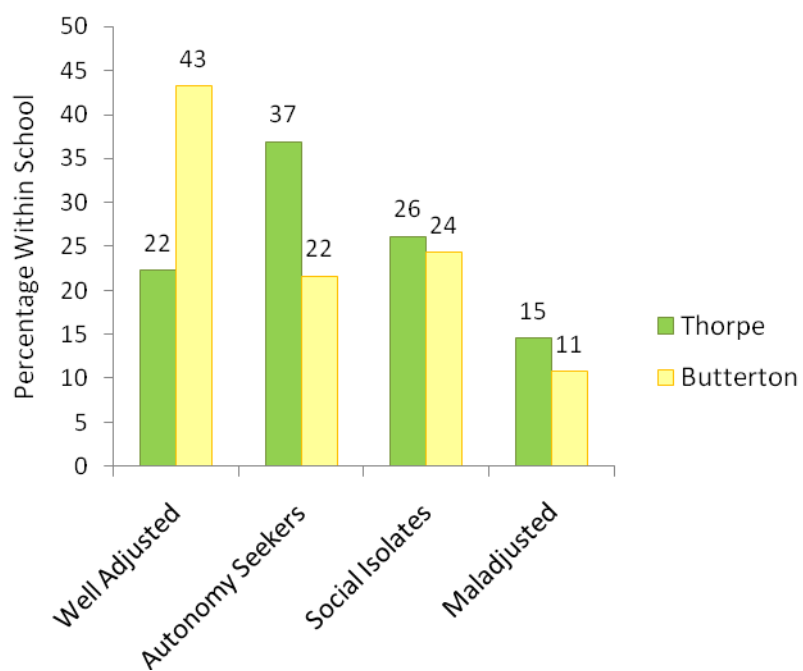*Figure 47. Cluster similarities between schools*

Figure 48. Cluster similarities between genders
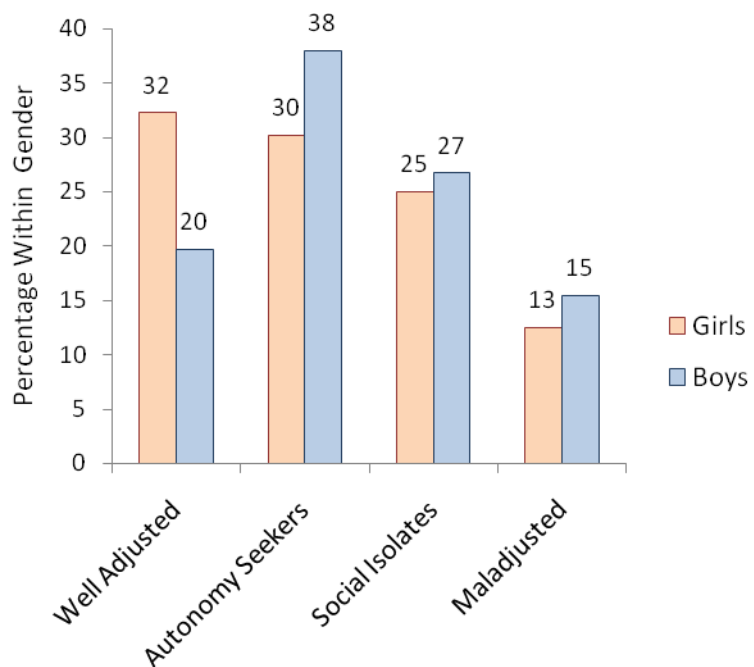
Many of the remaining variables tested showed clear differences between groups. The descriptives for these results are given in the Appendix. When plotted on charts and graphs, these differences tended to follow one of three patterns.

The first was a declining pattern across groups for KS2 English scores (K-S Test = 7.956, df = 3, p <0.047) and socioeconomic status (K-S Test = 8.956, df = 3, p <0.030). There were no significant differences in scores for total achievement (also plotted for comparison), KS2 maths and science scores but these followed the same pattern.

Figure 49. Socioeconomic status and achievement across clusters
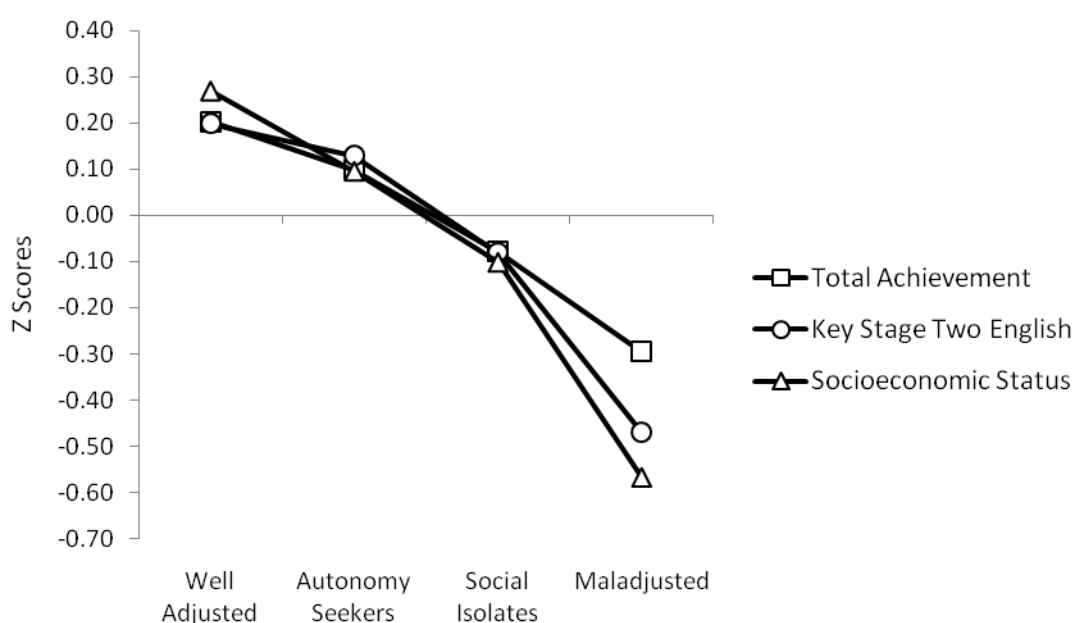
The second pattern was a low-high zigzag with well adjusted and social isolate pupils having lower scores than the autonomy seekers and maladjusted groups. This was true for the amount of autonomy allowed in home contexts and for the age that pupils reported their first pubertal changes occurring at. Here, autonomy seekers had the highest levels of home autonomy and reported their first changes as occurring later than other groups (Figure 50). Social isolates generally reported earlier changes than other pupils.

Figure 50. Autonomy and pubertal onset across clusters
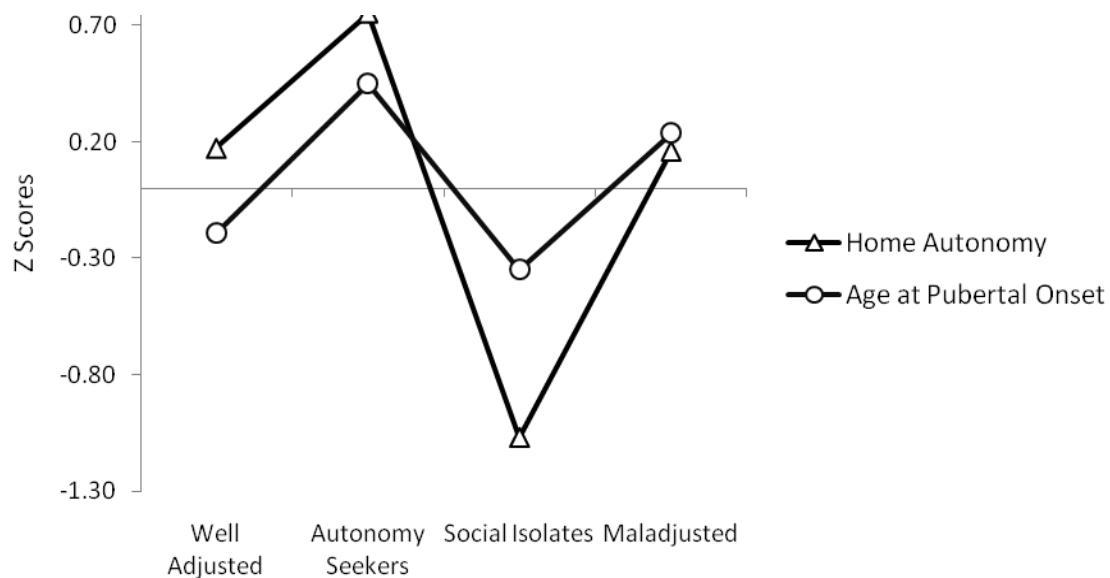
An inverse pattern (a high-low zigzag) appeared for perceptions of schooling variables. Well adjusted and social isolate pupils had a higher academic self-concept, were more likely to like learning, enjoy their lessons and perceive freedom in learning. They attributed greater personal importance to their subjects and thought of education as more important for their future careers than did the other groups. They also more enjoyed spending time with their families.

Figure 51. Educational and social perceptions across clusters
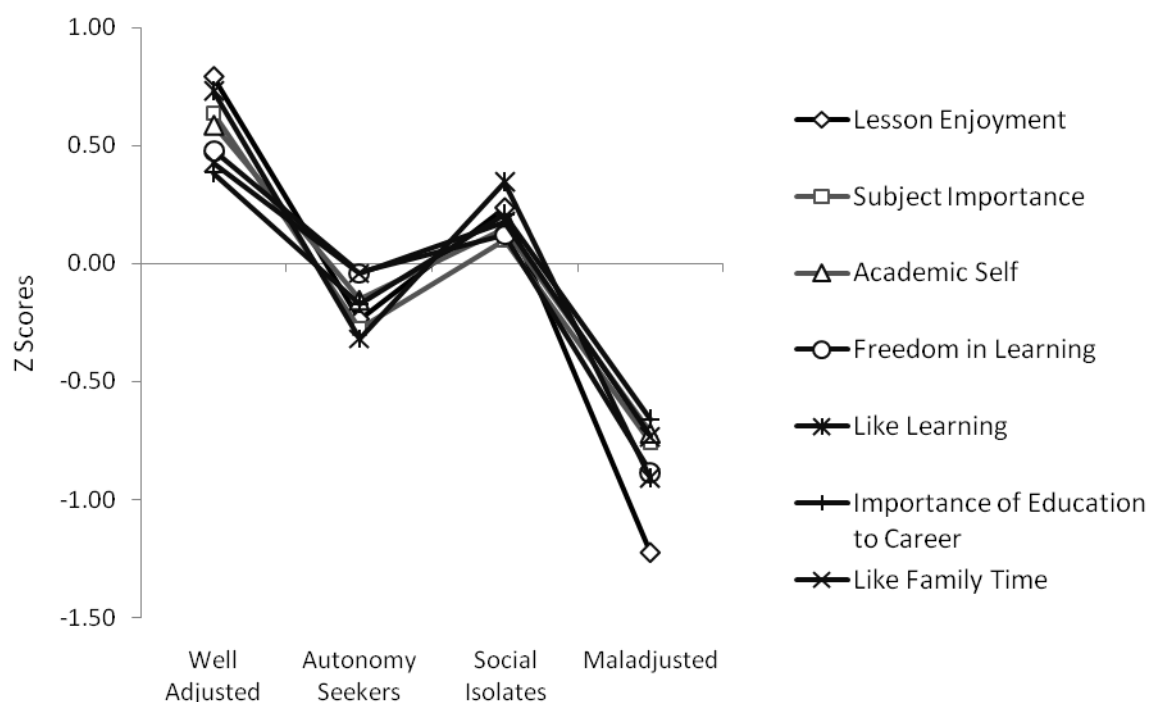
Finally, the longitudinal variables were compared between groups to see whether patterns at time one were consistent with results for the time two variables that were used in the clustering. Psychological distress (reversed) was also tested here. Figure 52 shows that the well adjusted group increased in liking school and teachers, and in inclusion between time points, whilst their distress decreased. Autonomy seekers had stable profiles across all longitudinal variables except for their decreasing attitudes to school. Social isolates had slightly more negative profiles for all variables between time points. This was also true for the maladjusted group for the variables of liking school, inclusion and distress. However this group was marked by the severity of their declining perceptions of teachers across time. This sharp drop is interesting considering that pupils in this group were evenly dispersed between schools (therefore these declines do not necessarily relate to increased teacher strictness at Thorpe).

Figure 52. Longitudinal constructs across groups
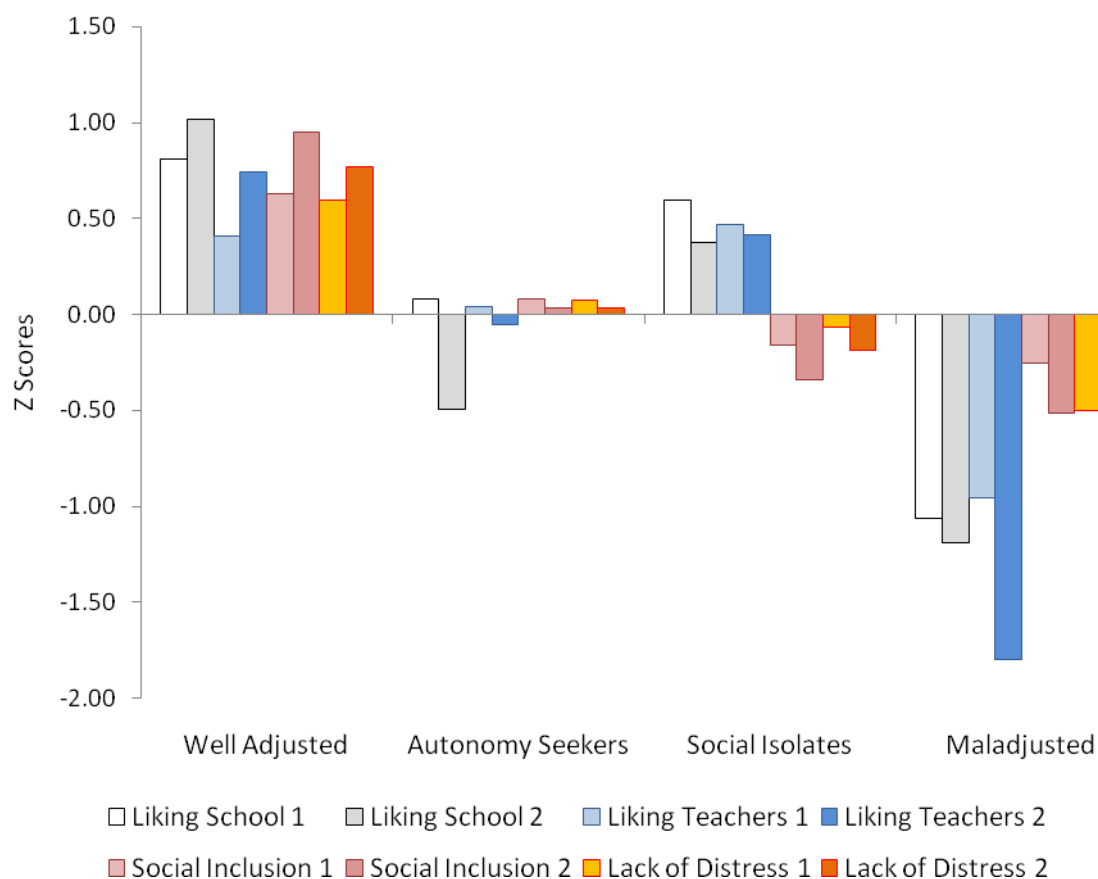
Summary of cluster analysis and comparison with prior research

The clusters mark the final analysis within the thesis. They were grouped using variables that were identified to have the most significant contribution to attitudes to school by both regression and ethnographic analysis. The clusters have good and statistical validity and the congruent assignment of target pupils to clusters allows for inference of good ecological validity. Four main clusters were found that were retained in 4, 5, 6 and 7 cluster solutions. These were *well adjusted, autonomy seekers, social isolates* and *maladjusted.* The more refined solutions brought forth further small clusters from these groups (*working class youth* and *individual differences*), and the final solution separated out the moderate achieving girls from Thorpe from the *autonomy seekers* group, perhaps because of their particularly low enjoyment of lessons.

The analysis of the four main clusters revealed that the *well adjusted* group had slightly more girls than boys, and a higher percentage of total Butterton than Thorpe pupils. They were more likely to do well at school and had higher overall SES than other

groups. At home they had a normal autonomy allowance and they reported first pubertal changes occurring on time. These pupils had high perceptions of all areas of school including relationships with teachers, importance of subjects and education and enjoyed spending time with their families and friends. The *maladjusted* group also had average autonomy at home and on time pubertal development. However they had the lowest average score for all other variables described. This group had worryingly low perceptions of teacher support by term three. *Social isolates* were quite keen on school but had fairly low social perceptions and the earliest average pubertal onset of any group. They were mainly moderate achievers from modest family backgrounds who enjoyed spending time with their families despite having insecurities about peer relationships.

Finally the group of most interest to this research (due to their declining attitudes) is the *autonomy seekers.* These pupils came from moderate to privileged backgrounds and were awarded high amounts of freedom by their parents. They had average perceptions of inclusion and enjoyed family time slightly less than many other pupils. Their achievement was generally high yet their perceptions of school were moderate and they exhibited the greatest decline in attitude to school across the year across groups. Ethnographic analysis suggests that these pupils both sought and were freely given autonomy at home, in response to their desire to find stimulation in non-restrictive environments as part of a maturity transition towards independence. The increased preference of activity in peer and 'individualised' contexts to school experiences shown by target pupils in this group, is perhaps the most powerful influence over why their attitudes to school declined by term three. As a greater percentage of Thorpe than Butterton pupils were classified in this group, it can be inferred that this process is more likely to occur at school transfer in early adolescence than if no transfer occurs. This agentic movement towards a preferred developmental context is most likely a result of increased maturity self-perceptions and independent activity, propelled by altered social expectations and changing behaviour patterns in home, school and peer environments occurring as a result of school transition.

Only a few published studies have identified clusters of pupils in relation to school transfer. These include MacIver et al.'s SEF clusters as reviewed in chapter one (1986), Hargreaves & Pell's analysis of systematic observation data of pupils' behaviour in post-transfer classrooms (2002), and two studies that used achievement and personality measures to cluster pupils (Youngman, 1978; Summerfield, 1986). Comparing the clusters

in these studies with my four main groups is a subjective task, given that the measurements used to cluster are different from those in the current study. However, each analysis uses some type of school 'outcome' variable: the first has the congruence between desired for and expected decision making in class, the second observes 'on task' performance, the third includes school adjustment and the fourth has achievement motivation. A first basic step therefore is to compare clusters with positively/negatively adjusted states in relation to school 'outcomes'.

Both Youngman (1978) and Summerfield (1986) found clusters of pupils who had positive scores on all or most measures, similar to my *well adjusted* group. Both researchers used ability to define their clusters and received groups of high achieving well adjusted pupils (Youngman's *academic* and Summerfield's *aspiring*) and low achieving well adjusted pupils (Youngman's *contented* and Summerfield's *striving*) as a result, whereas my group was mixed in ability. These groups might be comparable to Hargreaves and Pell's (2002) *hard grinders* who were mainly on task in class, having moderate interactions with peers and little interaction with their teachers and *group toilers* who were also on task but who had more interaction with their peers. The nature of these groups to be contented with their environments is similar to MacIver and Reuman's *constrained congruent* who experienced and desired low levels of decision making and their *relinquishers* who desired less and less autonomy over the year to fit with the restrictions of their environment. In all studies, these well adjusted pupils represented a third or more of the sample.

My next group of *social isolates* who enjoyed school but who had low social inclusion are a good match Youngman's *capable* group who had low social and personal self-concepts but moderate attitudes to school. The in class behaviour of Hargreaves and Pell's *passive participants* is also similar as here were children who paid close attention to the teacher and followed tasks keenly but who had low levels of interaction with their peers.

The tendency for capable pupils to increasingly dislike school across time, like my *autonomy seekers,* is also apparent in the prior analyses. Youngman found a *disenchanted* group whose achievement was high but whose school and social attitudes were low. Similarly, Summerfield identified a group of *detached* pupils whose school perceptions declined despite their high achievement and stable academic self-image. Although nether researcher measured pupils' activities outside of the school environment, if they had done

they too might have found that these pupils were more interested in out of school contexts than in school. The obvious matches with MacIver and Reuman's analysis is with the *aspirants* who experienced incongruence by increasing their desire for autonomy and the *stable constrained discrepant* group who experienced lower levels of autonomy than desired throughout the year. In the behaviour clusters, two groups of pupils managed to serve their own purposes in class by either organising equipment and not doing much work (*routine helpers*) and by talking for most of the lesson with their friends (*distracted ghosts*) (Hargreaves & Pell 2002). For these pupils, schooling is evidently not meeting their needs for engagement, perhaps as the work is too restrictive in class.

The last group of *maladjusted* pupils who had negative scores on all variables are not consistent with the findings from the prior four studies. Although negatively oriented profiles were found, these were not entirely maladjusted. For example, Youngman found two negatively oriented profiles with low ability and motivation: the first *disinterested* group also having low attitude to school but average personality scores, and the second *worried* group having high anxiety and low self-concept but moderate attitudes to school. Summerfield found a *disaffected* group who had negative relationships with teachers but stable academic self-concepts and above average ability. Hargreaves and Pell observed a small group of children who were mainly off task and who were often noticed by teachers perhaps for their distinguishing physical features such as hair colouring and loud voices and disruptive behaviour. These *attention getters* may have been socially maladjusted but without a personality measure it is impossible to tell. The pervasive maladjustment in my fourth cluster across achievement, educational, social and family related variables is worrying and brings to mind the changing nature of society wherein early adolescents may have more cause for psychosocial distress than in previous years, including the increased likelihood for their parents to be divorced and have mood disorders in the lowest socioeconomic quartile (Hagell, 2009).

Summary

This chapter has compared overall levels of attitude to school between schools, examined the contribution of a range of latent and measured constructs on attitude to school and identified groups of pupils with specific attitudinal profiles in a cluster analysis. It finds that Butterton pupils have more positive attitudes to school in general, teachers, learning and friendships at both time points. When considering Butterton and Thorpe pupils together, the most important influences on their attitudes come from within school environment and are perceptions of teachers and enjoyment of lessons. Gender and social inclusion are secondary powerful influences. Age is predictive at time one but its positive effect diminishes and by time two, freedom in out of school contexts has a powerful negative effect on attitudes. This indicates a growing influence of adolescent social development on attitudes to school. In the cluster analysis, both *well adjusted* and *maladjusted* groups are found whose profiles are entirely positive or negative accordingly. The *social isolates* are characterised by their early pubertal onset and low social confidence. Most interestingly, the *autonomy seekers* exhibit the greatest decline in attitudes to school by the end of the year, perhaps in relation to their high levels of freedom awarded in home contexts. This marks the end of the analysis and reporting of empirical findings. Chapter 11 then draws on both the ethnographic and quantitative findings to construct a theoretical framework of early adolescent development in relation to Stage-Environment Fit.

Ch. 11) Stage-Environment Fit Revisited

Developmental characteristics and needs

Stage-Environment Fit theory proposes that adolescent developmental needs are a primary mover of fit between psychology and school environment. However the Michigan study was unable to directly link incongruence between desired for and experienced classroom autonomy with declining attitudes to maths (Mac Iver et al., 1986). Nor do my clusters directly link increased home autonomy to declining attitude to school. Such direct links are beyond the current technologies of quantitative research. But they can be observed on the individual level when analysing interview statements. "It's [*school*] not as fun as you could have when you're outside the school with your friends" (Stacy, T3). Here Stacy defines *for* us a direct link between dissatisfaction with school environment and desire to engage in unsupervised play.

All that remains then is to decipher which psychosocial observables are developmental needs, and to search for links between these and attitude to school. Taking the example of autonomy, it may be true that the pupils' desire for unsupervised activities was expressed throughout the study, but is this a developmental need? The findings in Chapter 6: that unsupervised activities facilitate independent skills building, and maturity status which is used to guide self-directed development, suggest that it might be. Without the freedom to develop in unsupervised environments, this progress might be hampered or too strictly conditioned for healthy development. Therefore as far as can be inferred theoretically, the data support the matching/mismatching element of Stage-Environment Fit theory, and the proposition of developmental needs.

However for Stacy and Bobby, and for other participants, school environment also appeared to mismatch with needs that were not directly related to age specific processes such as the need to experience competence (in lessons), autonomy (in learning) and relatedness (with teachers). These constructs are outlined in Self-Determination Theory as core human needs (Deci & Ryan, 1985; Ryan & Deci, 2000). There were also mismatches between school environment and many pupils' needs for immediate emotional and physical fulfilment, reported as boredom in academic lessons and preference for the active and immediately rewarding environments of physical education and design technology. Although these 'core' and personal needs are likely to persist across the lifespan, it might be that they have age specific manifestations. For example,

adults might have more self-regulatory control over the need for physical activity than early adolescents. Early adolescents might have a greater need for competence affirmation in comparison to adults who may feel more secure about their skills base. However, does this then mean that all needs can be entitled 'developmental'?

The summary tables in chapters five to nine and the Network of Perceptions outline the interactions between influences from within multiple contexts (schooling, home, peer and body/mind) with adolescent psychology and behaviour. These resources provide an exciting opportunity to compare the similarities found between adolescents in this study (early adolescent characteristics in context) with those identified in the literature (as reviewed in Chapter two) to evaluate both and to potentially extend the list. Four tables follow (biological, emotional, psychosocial, social). Their left hand side columns list commonalities of early adolescents, both pre-established and as found in this study. These are labelled '1989 category' (as listed in Eccles et al., 1989) 'updated category' (given in the Chapter 2 table to fill a gap in the 1989 list in relation to current literature) or as an 'emergent finding' that was not identified in the literature review but was found in the study. Empirical evidence for these characteristics from the present study is listed in the right hand side columns.

Table 151. Biological characteristics of early adolescents

Early Adolescent Characteristics *NB any 'new' titles and categories as suggested in Ch. 2 are used.*	Supporting Evidence from the Present Study
UPDATED CATEGORY - Shifts in cognitive functioning	*Not observable with method.*
1989 CATEGORY - Increased executive functioning and powers of abstraction	Noted increase in thought complexity and in knowledge (esp. post-transfer) (Ch. 8)
EMERGENT FINDING - Increased analysis of other people (esp. for females)	Females report beginning to analyse their peers as part of friendship behaviour (Ch. 6)
EMERGENT FINDING - Noted reduction in short term memory after environmental disruption	Reports of reduction in memory immediately post-transfer (Ch. 8)
1989 CATEGORY - Physical and hormonal changes associated with pubertal development	Around 70% report first pubertal changes. Average age of pubertal onset is 11.12 years. (Ch. 8)
EMERGENT FINDING - Desire for physical activity	Pupils desire physical activity in lessons (Ch. 5)

Table 152. Emotional characteristics of early adolescents

Early Adolescent Characteristics NB any 'new' titles and categories as suggested in Ch. 2 are used.	Supporting Evidence from the Present Study
UPDATED CATEGORY - Temporary decline in emotional functioning	Boys report difficulty controlling new and existing aggression at puberty (Ch. 8)
UPDATED CATEGORY - Temporary decline in affect	Puberty links to female negative appraisal of body and anxiety about growing up (Ch. 8)
EMERGENT FINDING – relatively high but decreasing anxiety	Variable distribution of anxiety. (Near figures) high = 20%, moderate = 50%, low = 20%, decreasing = 10% (Ch. 8)
EMERGENT FINDING - Puberty moderates existing, and triggers, male aggression.	Boys report difficulty controlling new and existing aggression at puberty (Ch. 8)

Table 153. Psychosocial characteristics of early adolescents

Early Adolescent Characteristics NB any 'new' titles and categories as suggested in Ch. 2 are used.	Supporting Evidence from the Present Study
EMERGENT FINDING - Psychological bias fairly well developed	Pupils' psychological bias moderates their experience of risk factors (e.g. bullying) (Ch. 6)
EMERGENT FINDING – Achievement motivation is linked to identity development	Pupils enjoy and try hard at subjects that relate to their identity (Ch. 5)
1989 CATEGORY - Increased self-focus and self-consciousness	Pubertal female concern about body image (Ch. 8) Use of social comparison (Ch. 5) 30% of pupils feel self-conscious in class (Ch. 8) Some embarrassment of relationships with adults post-transfer (Ch. 8) Increased focus on personality and self-esteem post-transfer (Ch. 8) Focus on physical appearances post-transfer (Ch. 8)
UPDATED CATEGORY - Confidence vulnerability	Self-esteem is vulnerable to experience of victimisation, divorce and pubertal female body changes. (Ch. 8 & 9)
EMERGENT FINDING – Increased social confidence	Pupils report increased social confidence post-transfer and as they grow older in general (Ch. 8)
1989 CATEGORY - Increased focus on autonomy	Desire for independent activity including freedom in learning (Ch. 6 & 5) Desire for unsupervised play (Ch. 6)
1989 CATEGORY - Increased salience of identity issues	Most pupils (13/16) are actively developing their identities (Ch. 8) Identity moderates enjoyment of learning and valuing of schooling (Ch. 5 & 9)
EMERGENT FINDING - Focus on maturity status	Maturity status is identified through a range of markers. These include expectations from adults and peers and age, height & group membership.

	Maturity status is used to guide self-directed development (Ch. 5,6,7,8 & 9)

Table 154. Social interaction characteristics of early adolescents

Early Adolescent Characteristics *NB any 'new' titles and categories as suggested in Ch. 2 are used.*	Supporting Evidence from the Present Study
1989 CATEGORY - Increased focus on sexuality and heterosexual relationships	Increased thinking and talking about the opposite sex (Ch. 6) Shift from childlike to more adult dating behaviours (Ch. 6) Peers assist the development of heterosexual relationships (Ch. 6)
1989 CATEGORY - Increased peer orientation *addition to title?* – and sophistication of peer relationships	Peer support is important for emotional support (Ch. 6) Friendships are constantly better matched and reformed (Ch. 6) Friendship cliques develop in relation to school environment (Ch. 6) Increased analysis of other people (esp. for females) increases the quality of friendships but also the seriousness of fights (Ch. 6) Discussions surround social activity and not academic work (Ch. 6)
EMERGENT FINDING – Continuation of bullying behaviours	Early adolescent pupils bully others in both schools (Ch. 6) Fear of older adolescents (who can bully) (Ch. 6) Peer support is reported by boys as being important for physical safety (Ch. 6)
EMERGENT FINDING – Increased unsupervised play	Pupils report desiring increased unsupervised play (Ch. 6 & 9) Unsupervised play increases in quantity and complexity (Ch. 6 & 9) Unsupervised play moderates maturity status (Ch. 6 & 9) Increased unsupervised play facilitates a reduction in activities at home (Ch. 6)
EMERGENT FINDING - Continued importance of support from adults.	Parents are reported to be the most important thing for emotional and physical support (Ch. 7) Parental advice has strong associations with behaviour (Ch. 6 & 7) Parents jointly construct development with their child through negotiation of independence allowances (Ch. 6 & 7) Parents assist maturity self-perceptions through independence allowances and responsibilities like chores (Ch. 7).
UPDATED CATEGORY - Changes in parental attachment and relationships	Increase in unsupervised play facilitates a reduction of activities with parents (Ch. 7) Disclosure to parents is moderated by the separation of parents from peer context (Ch. 7)

A main finding of these tables is that there is empirical evidence for each of the characteristics of early adolescent development listed in Eccles et al. (1989) and for those identified as more recent findings from within the literature. A number of 'new' categories are listed, based on emergent findings from the current study. There is supporting and/or complementary data for most of these from prior research with adolescents (such as bullying, aggression and age perception) except perhaps for the findings of reduction in short term memory post-transfer and of psychological bias being fairly well established at this age. It must be noted that these emergent categories apply sometimes to a few pupils only (e.g. aggression) and sometimes to all who were interviewed and surveyed (e.g. unsupervised play). The information contained within these tables should assist researchers and educationalists to understand early adolescent development and likely person-environment interactions within developmental contexts in a similar social environment (e.g. western developed nations), in respect of the likelihood for these characteristics to be present in either a few or in many adolescents.

Maturity status markers

The most pervasive emergent theme of this research is that of maturity self-perception, otherwise conceivable as 'maturity status'. Examples of this included pupils' altered conceptions of appropriate behaviour after transfer to Thorpe ("they're in Y7 now… they should be acting like they're part of grownups" Ruby, T1), the link between unsupervised play and perceptions of maturity status (especially at Butterton) and the difference in Y7s' attitudes towards permissible sexual behaviours at Thorpe as in oppose to Butterton.

In each situation, pupils based their perceptions of maturity status on evidence from their environments. This included physical change (e.g. growing taller), social expectations (e.g. being responsible for looking after younger siblings), group membership (e.g. hanging out with older pupils) and social stages (e.g. age and transfer). Changing schools was a major influence on pupils' expectations of self. "When you go to secondary school, it makes you feel more grown up" (Chloe T2). Ruby admitted that her opinions on this were linked to advice from her grandmother. "When I was coming to the end of Y6 my Nana told me that I should stop playing around and that I should be more mature and all cause you're going to be in secondary school" (Ruby T1). Ruby also mentioned how the stricter teachers made her feel more mature, giving the story about

the teacher not helping her up from a fall in class in each term's interview. "If that happened in primary school the teachers would come over like and still treat you like a baby" (Ruby, T2). The example of transfer shows how these pieces of evidence, from this point termed '*maturity status markers',* can originate from a range of developmental contexts.

When pupils used these maturity status markers to construct their self-perceptions and thus to agentically guide their behaviour, they were, as discussed in Chapter two, combining self-awareness with self-regulation. If moving away from a conceptualisation of the self-concept as a measurable domain specific construction (Harter, 1985) and towards one of it as a dynamic collection of self-related "images, schemas, conceptions, prototypes, theories, goals, or tasks" (Markus & Wurf, 1987, p. 201), then we can begin to understand how increased awareness of this 'self' and of its interaction with the environment can facilitate self-directed development. For example, understanding that there is a possible future self who could be more socially mature than the present self may have been a guiding factor in Ruby's drive to construct a more mature social self now. At Butterton, Yasmin and Deirdre's choice to remain in stasis for part of their behaviour (not engaging in sexual activity) but not for other parts (e.g. making new friends), and their use of social comparison to illustrate this to me (comparing their sexual behaviour to that of the Y8s), demonstrates a control and selectivity in managing the development of self that may be more sophisticated than in childhood.

The outcome of this self-directed development in response to environmental stimuli can be maintained stasis (like Yasmin and Deirdre's sexual behaviours) or a new developmental state. In term one at Thorpe, Stacy described how her behaviour had altered based on her increased social maturity. "Because you're in secondary school you feel more grown up and you're not childish like you normally are at primary school. And you don't think about being horrible to anyone, in primary school you just, I don't know. There are just smaller people" (Stacy T1). In not being mean to some of her peers and in feeling more mature, Stacy's development had altered. Being in a new developmental state in turn affected pupils' perceptions of their environment. Matthew demonstrates this in his retrospective perception of Y6 at primary school. "You just feel like 'oh I don't want to be here anymore', you just feel like you're too old, there's thousands of young kids

underneath you" (Matthew T3). For Matthew, the age range of primary school and his maturity self-perception in Y6 did not fit well together.

This description of agency in person-environment interactions and its relationship with development reveals a cyclical process. Within person-environment interactions, the adolescent's interpretation of maturity status markers can help shape their expectations for maturity. These expectations can be used to inform self-directed development which maintains stasis or propels the adolescent into a new developmental state. If in a new developmental state, this can alter perceptions which thus modify further person-environment interactions. An outcome of this process is the 'fit' between the developing adolescent and their environment. This fit is a continuous process of matching which is accentuated by increased self-awareness and self-regulation.

The concept of maturity status markers used in this discussion is not entirely new. School transfer has already been identified as a status passage (Measor & Woods, 1984) that pupils must pass through to get to a new developmental state, similar to the manhood and womanhood rites and rituals administered in early adolescence by tribal societies (Shlegel & Barry, 1991). However in the current study, maturity status markers ranged from universal and permanent markers such as school transfer to informal, proximal evidence that is identified and made personal by the adolescent (such as observing somebody's hairstyle of the same age). As part of person-environment interactions in immediate, proximal and distal environments (levels outlined by Magnusson & Stattin, 2006), it is hypothesised here that maturity status markers are a continuous influence which adolescents use to help guide their developmental transitions. The markers allow individuals to 'know where they are' in development, and perhaps help them act in a manner that allows them to fit in with the age related framework of society. This would explain why Thorpe pupils felt more mature after transfer and why they were confused as to whether or not they were still children, having passed one major marker yet having no direct evidence to link this to transition out of childhood. Butterton pupils were clearer on this fact as their forthcoming transfer to high school coincided with them being 13 years old (i.e. teenagerhood). The range of markers from within the school context (school structures, teacher expectations, examinations etc) gives clear evidence that school environment can affect stage of development, as proposed by Stage-Environment Fit theory.
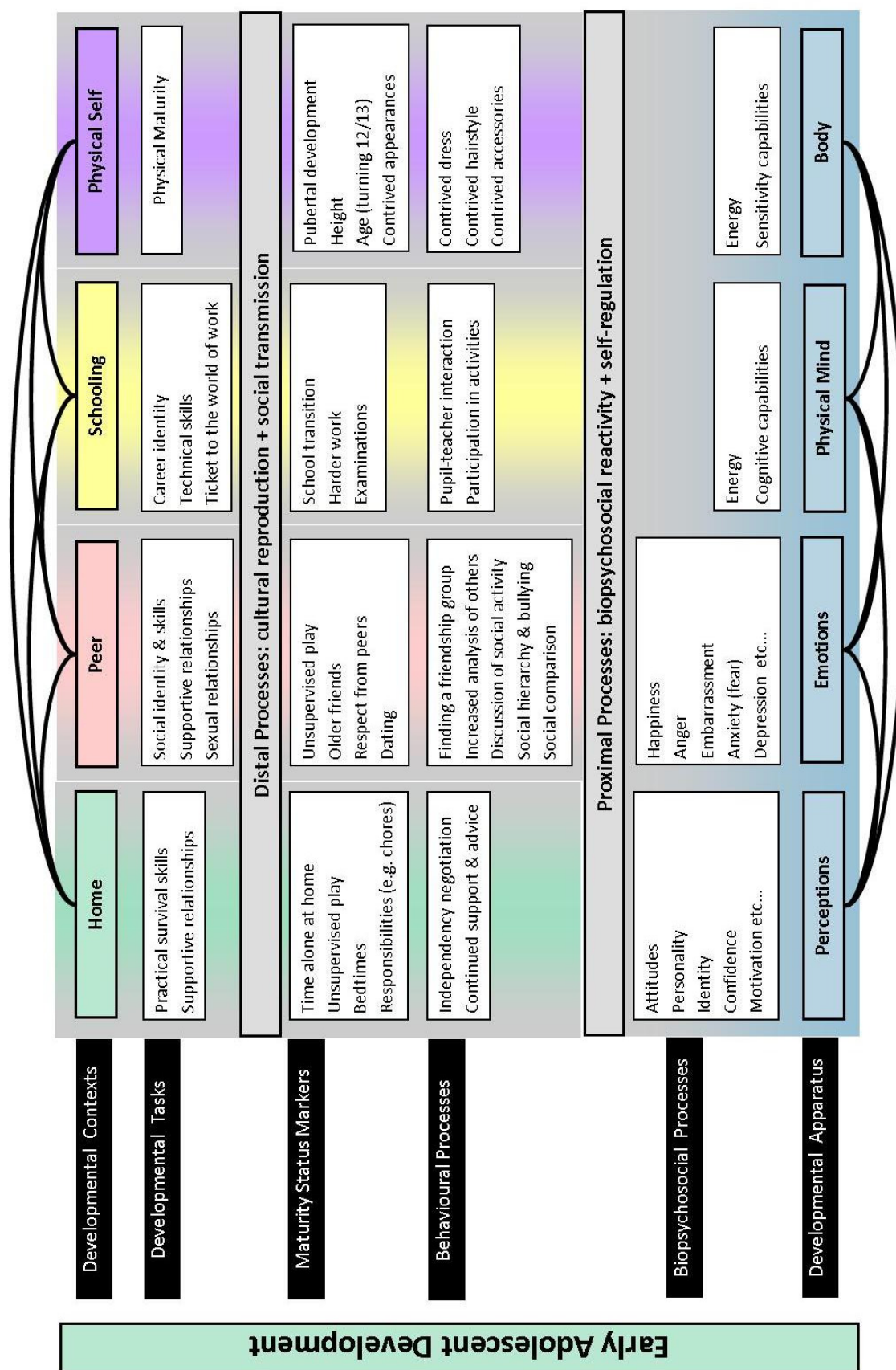
Developmental contexts

This thesis has been structured around the concept of developmental contexts to enable a wide investigation of attitude to school in relation to home and school environments, interactions with peers and changes in the self (body and mind). Within these contexts, a range of influences on development were found such as unsupervised play and chores required by parents. As discussed, many of these aspects were perceived by the pupils as salient and meaningful in guiding their maturity self-perceptions and are referred to in this chapter as 'maturity status markers'. These markers indicate beginnings, endings and points within developmental processes in person-environment chronology and in all instances are related to a specific part of the developmental transition. For example, being allowed out with friends for more than a couple of hours was seen as a sign of increased social maturity, whilst staying at home "playing babies" (Chloe, T3) was a precursor of this developmental activity and a sign of childhood. Maturity as a concept is not easily definable given the range of data in the study. However, the type of maturational process being facilitated by the maturity status markers is potentially discernable given the skills learned in a particular developmental context. For example, engaging in unsupervised play enables adolescents to perform tasks unsupervised (like going shopping), and to operate socially within a bounded hierarchy of peers. Therefore unsupervised play may enable the development of organisational skills necessary for survival and skills in unilateral community participation. Drawing on Havighurst (1968), I choose to conceptualise each of these skills in the form of a goal or developmental task. However, unlike Havighurst, the tasks descriptions generated from this study are contrived directly from maturity status markers salient in pupils' perceptions and not from a theoretical estimation of early adolescence.

To simplify the process of developmental contexts, developmental tasks, maturity status markers and biopsychosocial development within a person-environment interaction framework, I offer the following description in a visual model (Figure 53). The main weakness in this model is that it is linear and bounded whereas in actuality the relationships between variables are multidirectional and the variables themselves are fluid. Therefore the order of variables into columns is suggestive but not determinable. Firstly it identifies four developmental contexts already discussed in this thesis. The interdependency between contexts is signified by black lines linking the variables. Then within each context, developmental tasks are proposed. The chronology of the

development of these tasks within humans is varied and most are moderated historically. The person-environment interactions that have shaped these tasks in the past and that ensure their continuation in the present are distal in time and in space to the individuals concerned. Herein conceptualised as theoretical abstractions their relation to the behaviour and psychology of any one person is distal. Adolescents may become aware of these tasks by observing the world around them (seeing instances of cultural reproduction) and by being subject to the social transmission of expected behaviours. The role of the tasks in guiding development becomes operationalised as an immediate part of the individual's life in the second level which is the domain between distal and proximal processes. Here they are both maturity status markers (thus distal goals) and proximal processes. Operating more fluidly as proximal processes than as distal goals are the everyday behaviours of the individual that surround and support these overarching developmental tasks. (Those in the model were not evidently construed as maturity status markers by pupils in the current study but might be by other adolescents.) Then comes the boundary of the person-environment interaction. Herein the individual operates the proximal processes by self-regulatory activity that responds to (and affects) a range of biopsychosocial processes (e.g. psychological functioning) that are mechanised by using (and effecting) a set of developmental functions or 'apparatus' e.g. self-perceptions. These biopsychosocial processes and apparatus encompass Bronfenbrenner and Morris' (1998) three 'person' characteristics of dispositions, bioecological resources (e.g. ability and experience) and demand characteristics (e.g. immediate reactions to the environment) which are proposed to moderate proximal processes.

Figure 53. Developmental contexts

Early Adolescent Development

Developmental Contexts

	Home	Peer	Schooling	Physical Self
Developmental Tasks	Practical survival skills Supportive relationships	Social identity & skills Supportive relationships Sexual relationships	Career identity Technical skills Ticket to the world of work	Physical Maturity
Maturity Status Markers	Time alone at home Unsupervised play Bedtimes Responsibilities (e.g. chores)	Unsupervised play Older friends Respect from peers Dating	School transition Harder work Examinations	Pubertal development Height Age (turning 12/13) Contrived appearances
Behavioural Processes	Independency negotiation Continued support & advice	Finding a friendship group Increased analysis of others Discussion of social activity Social hierarchy & bullying Social comparison	Pupil-teacher interaction Participation in activities	Contrived dress Contrived hairstyle Contrived accessories

Distal Processes: cultural reproduction + social transmission

Proximal Processes: biopsychosocial reactivity + self-regulation

Biopsychosocial Processes	Perceptions	Emotions	Physical Mind	Body
Developmental Apparatus	Attitudes Personality Identity Confidence Motivation etc...	Happiness Anger Embarrassment Anxiety (fear) Depression etc...	Energy Cognitive capabilities	Energy Sensitivity capabilities

Focal contexts

As in the Network of Perceptions, individual pupils had differential developmental trajectories within this framework of developmental contexts. For example, Matthew appeared to construct much of his social identity around on his achievements at school and experiences in extracurricular activities, whereas Bobby based much of his on his experiences with older pupils in unsupervised play. However there was a general similarity amongst the small sample who reported that home and the family were fundamentally important and that school was instrumental to achieving career goals; but also that the peer context often took precedence in everyday life. Direct links between peer and other contexts were given in reports of the importance of school for seeing friends, and the preference for unsupervised play over school experiences. This phenomenon is observable as a measured outcome for the larger sample who completed the second survey (Table 155).

Table 155. Preference for developmental context

How much do you like…				
N=259	Spending time with family?	Spending time with friends outside school?	Spending time with friends in school?	School in general?
Not at All	1%	1%	1%	5%
Not That Much	3%	2%	0%	8%
Sometimes	8%	3%	3%	22%
Quite a Bit	17%	13%	18%	41%
A Lot	**71%**	**81%**	**77%**	**23%**
TOTAL	100%	100%	100%	100%

Here, spending time with friends outside of school and time with friends in school is liked more than time with family and school in general, with unsupervised play being the most liked experience.

This raises the question of why does the individual engage more willingly in some contexts than others? (I.e. peer context vs. schooling.) Several potential sources of the disparity are tentatively offered in explanation. Firstly, it may be that the proximal processes in the peer versus the school environment offer a greater/more frequent reward for personal perceptual, emotional and physical needs, i.e. self-esteem, happiness, engagement and physical fulfilment. This imbalance may be related to the restrictions inherent in the school environment. A similar theory is found in occupational psychology in relation to transitioning into new work roles.

"When the person is motivated to seek more personal development than the new role allows, absorbsion may be found in the novelty of other roles outside the work setting, e.g., in external educational undertakings and leisure activities. One predictable effect of this will be the lessening of the life-centrality of work roles, in line with the compensatory hypothesis that unfulfilled aspirations in the work sphere can become counterbalanced by investments outside the work sphere" (Nicholson, 1984, p. 185).

Secondly, perhaps the needs are stronger in some contexts and weaker in others at different points in developmental chronology. For example, developing a social identity within a unilateral peer group may be more 'important' in early adolescence than being in school and contributing to tasks that will eventually allow the individual to enter the world of work. The focal structure (following Coleman, 1974) of this second proposal potentially has both biological and social origins. Biologically, the developmental task of self-perception reformation resulting from shifts in cognitive functioning and in physical maturation around the time of puberty may be a more crucial issue to solve (i.e. 'crisis', Erikson, 1968) in early adolescence than acquiring adult skills such as reading and writing. Alternatively, or perhaps complementarily, the social structure surrounding the tasks make them more or less relevant to the individual at the present time. For example, early adolescents do not have to work full time nor personally identify with work in an age-graded westernised society thus developing career skills is a fairly distal goal (and is determined by adult social structures). Yet being with peers allows immediate prolonged experiences in developing and using social identity, and thus is a more proximal task both in relevance and in social hierarchy. This notion of the social modification of tasks as more proximal or distal could be used to help determine early adolescent behaviours.

Table 156. Example of adult influence over developmental tasks

<u>JS</u>: Have you had any thoughts about what you might want to do when you leave school?
<u>Brian</u>: No
<u>JS</u>: When do you think you'll make some decisions on that?
<u>Brian</u>: Year [pause] 9.
<u>JS</u>: Why?
<u>Brian</u>: Cause you've got to pick your subjects (T3)

Thirdly, the preference for peer over school environments may be a product of personality, individual needs, motivations and skills, i.e. the person. In this study, the opposing cases of Matthew who was favourable towards school life, and Bobby who began to reject school in favour of peers, appear to hinge on the components of their

person-environment interactions and on the level of agency within these. For example, Matthew discussed wanting to be noticed at school by teachers and moderated his person-environment interactions towards this goal. Bobby was concerned about social maturation and thus paid close attention to unsupervised play, his possessions and how he behaved with peers at school. As a contrasting example, Brian, did not appear to want a particularly active role in his environment and in his own development. Throughout his interviews, Brian hardly ever voiced an opinion on how things should or shouldn't be, and was mostly content with his lot.

No matter which suggestion has the most merit, all entail a focal structure, whether the mechanisms for this be more closely related to changes in the environment or in the person across time. It may be that the unforgiving proximal experiences of daily life at school soon give way to a work role that may offer more (or less) reward. Time with peers may also become more or less rewarding and thus the balance shifts. The social relevance of these environments may also shift in and out of focus as elements of one become more crucial for survival than the other. Changes in the person can also create foci, for example once the initial rush of social identity formation has slowed (if it does) and the desire to develop career identity increases. Also the agentic desire to manipulate and participate in environments may shift from favouring one environment to another through time. In all of these suggestions, the focal theory of adolescent development (Coleman, 1974) becomes useful for understanding how development can occur across 'focal contexts'.

Developmental transitions

> "Everyone treats you more grown up but then they can treat you as if now you can do everything, you have to do it perfectly and right. You have to help me with the washing up, you have to do this right, you have to answer these questions correctly, you have to spell these words correctly. You're not at primary school where you can just go, 'oh I don't understand' and they'll explain it to you nicely" (Stacy T3).

The observed differences between Thorpe and Butterton pupils clearly showed that some Thorpe pupils, like Stacy, were being bombarded by new maturity status markers (like the adult expectations described above) from all corners of the developmental landscape whilst pupils at Butterton created and were faced with only a few markers across the

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year. The difference between the groups was school transfer: a status passage that set balls rolling distinctively faster within multiple developmental contexts. At home, many Thorpe pupils were given more responsibilities like chores whilst Butterton pupils perceived no change in housework requirements. Both groups of pupils were allowed more unsupervised play across the year yet many Thorpe pupils were in advance of those at Butterton as they visited friends in neighbouring towns and villages, went to the movies without adults and caught busses and trains to go shopping elsewhere. Although both groups of pupils had continuous reformation of friendships across the year this was intensified for Thorpe pupils who struggled to quickly find the supportive friendships necessary for maintaining a positive developmental state. Schooling continued fairly similarly for Butterton pupils yet at Thorpe, new teachers, subject specialism, movement between classrooms, a stricter and more academic environment and older pupils had mixed effects on psychosocial development, changing pupils and their person-environment interactions in turn. Development of the self continued in both environments yet at Thorpe, pupils were more likely to have social anxieties, be aware of their level of confidence and personalities and appeared more concerned about physical appearances than at Butterton. There is also a little evidence that boys with aggression problems and early maturing girls prone to self-concern were more sensitive to these issues if transferring schools, although for girls early maturation prompted fears about body-image regardless of school transfer. The only other developmental factor which appeared to be unmoderated by school transfer was identity formation as both groups were actively thinking about who they were going to be. However it is impossible to tell whether this did shift for Thorpe pupils as they moved out of primary school without pre-transfer data. This summary of changes reveals that puberty (and perhaps cognitive changes) significantly contributed to the pupils' development across the year, mainly by spurring a shift in the body and peer contexts. However this transition was moderated by the powerful social transition of changing schools which also brought about a change in school and home contexts. Therefore both puberty and school transfer incur ecological transitions yet the latter shift affected a wider area of the pupils' lives.

Declining attitude to school: a development-environment interaction

Through questioning pupils about their psychology, this study has identified a variety of person-environment interactions occurring in multiple developmental contexts. Many of these person-environment interactions are found to influence attitudes to school.

The common emergence and strength of some influences in the year groups can be related to similar interactions between features of school environment and individual biopsychosocial processes. For example, experiences in lessons were found to be a strong predictor of pupils' overarching attitudes to school. Many pupils disliked academic lessons as these offered little personalised learning, freedom, physical activity and immediate reward. These were often compared to physical education and design technology which did appear to fulfil those needs. If referring to the diagram of developmental contexts (Figure 53) we might assume that academic lessons were mismatching with many pupils' developing identities, and their immediate needs for emotional and physical fulfilment.

Individual differences moderated these person-environment interactions, as in the cases of Gus and Bobby who attended the same English class yet had opposing experiences and attitudes. Although Gus preferred practical subjects to English, his attitude towards English was fairly high as he found that he did well in lessons. For Gus, achievement seemed to override the other negative interactions he experienced in English class. In comparison, Bobby disliked writing and this in addition to the interactions described above contributed to his negative attitude. A further powerful source of individual differences was observed in pupils' existing overarching psychological bias (whether they tended to be optimistic or pessimistic about things). Gus was a self-confessed optimist whilst Charlie at Thorpe held a negative world view. These examples show how different attitudes can occur due to individual differences.

Comparison of measured influences on attitude to school revealed that by term three, perceptions of teachers had the strongest contribution to attitudes, followed by enjoyment of lessons, being a girl, social inclusion at school and autonomy in the home context. Four main groups of pupils then emerged in cluster analysis: those who had positive scores on all perception variables (*well adjusted*), those who enjoyed lessons and liked their teachers yet had lower social inclusion (*social isolates*), those who had significantly high amounts of autonomy outside of school and who had declining attitudes to school (*autonomy seekers*) and those who were *maladjusted* on all counts. The fairly

even spread of the *well adjusted, social isolate* and *maladjusted* groups across schools in relation to the environmental differences between schools signifies another facet of development-environment interactions that affect attitudes. For example, teachers at Butterton were generally perceived to be friendly whilst those at Thorpe were described as strict and impersonal. However both schools had *well adjusted* pupils who liked their teachers. This could be attributable to a variety of influences that converged in a similar positive attitude. For example the *well adjusted* pupils may have experienced one or several of the following: particularly nice teachers within the school, positive psychological biases, good attitudes towards teachers, teachers who liked them and good social skills in managing their teachers. Thus similar attitudinal profiles can originate from divergent processes.

Why some pupils' attitudes to school declined in this study is a question that can only be estimated given the array of divergent and convergent processes in attitude construction described above. Therefore it is fortunate that the *autonomy seekers* had extremely similar profiles in terms of their high to moderate achievement, school membership (most autonomy seekers went to Thorpe), family background and slightly later reports of pubertal onset as this should minimise external influences on variance in attitude construction. The ethnographic research revealed that involvement in and desire for unsupervised play commonly increased across the school year and that in most cases it was compared favourably to being at school. Reasons given for this included its facilitation of independent activity in comparison to the boredom and lack of physical activity in most lessons. As described, school transfer contributed to increased unsupervised play at Thorpe and also to the pupils' maturity self-perceptions. Hence the *autonomy seekers* may have sought more autonomy to match their developing psychosocial maturity as a result of school transfer. Here, age-graded changes in the school environment have contributed to developmental state which in turn moderates the developmental needs of the individual which are then used in person-environment interactions to form attitudes to school.

Stage-Environment Fit: does it really exist?

The description of Stage-Environment Fit given in the literature from Eccles and colleagues suggests that features of post-transfer school environments mismatch with characteristics of early adolescent development such as desire for autonomy. This basic premise is confirmed in this research. Many domain specific developmental similarities are found across both small and moderate samples of pupils, such as the desire for physical activity, emerging identity formation, concern with appearances and self-consciousness, self-esteem vulnerability, increased social confidence, growing sophistication in peer relationships, need for peer support, orientation towards unsupervised play and desire for autonomy. These confirm and extend the list of developmental characteristics given by Eccles et al. (1989). Typical features of post-transfer schools mismatch with many of these characteristics, for example strict teachers and a lack of freedom in learning mismatches with pupils' desire for autonomy and identity exploration, and lessons without a practical element mismatch with the need for physical activity. However there are also matches such as the increased size of the peer group allowing for a better suited group of friends and the allowance for time with friends at lunch and break contributing to the development of sophisticated peer relationships and support. The definition of 'matching' used in this study was that of interactions which lead to positive attitudes and contributed to wellbeing and prosocial behaviour.

As it has investigated processes in depth, this research enables some of the mechanisms of Stage-Environment fit to be exposed. One of these is the interaction between maturity status markers, maturity self-perceptions and developmental contexts. Social structures (e.g. transfer) and the expectations of other people appear to influence the early adolescents' perceptions of their psychosocial maturity. Often these expectations and structures are interpreted as benchmarks in the developmental process, such as doing chores for the first time within the family home, being allowed out for more than two hours unsupervised with friends, having to take responsibility for oneself in class and having transferred school. These *maturity status markers* are used by early adolescents to guide their perceptions of psychosocial maturity which in turn moderate their psychology and behaviours and affect further development. This mechanism is an example of how age-graded changes in the school context (i.e. school transfer) contribute

to early adolescents' stage of development as proposed in the forerunner to Stage-Environment Fit theory (Higgins & Eccles Parsons, 1983).

It has also been possible to attempt the development of further theory in relation to Stage-Environment Fit, by drawing on the wider field of person-environment interaction theories, developmental tasks and developmental needs to interpret the empirical findings.

- Firstly, the fit between an individual adolescent and school is found to be moderated not just by person-environment interactions within schooling processes but also by those occurring in the contexts of peers and families. Therefore <u>Stage-Environment Fit in one context can be the product of person-environment interactions occurring *across* developmental contexts within an ecological system</u>.

- Secondly, although there is some overlap, there appears to be a sharp differential in the types of person-environment interactions occurring between the contexts of peers, families and schooling. Each type of environmental stimulus (e.g. peer relationships, parental allowances and lessons) may uniquely contribute towards the development of specific social skills needed for survival in a westernised society. Some of these skills are more biologically driven, such as sexual relationships and identity formation. Others are perhaps more socially constructed such as career identity within the world of work. This signifies firstly that <u>developmental needs are both biologically and socially constructed</u> and secondly that <u>specific ecological systems have evolved to accommodate them.</u>

- The third proposition is an important point that deserves more consideration and debate than this thesis can allow. This is the distal nature of developmental needs and tasks. Specifically, adults often appear to provide structured progression towards socially constructed developmental tasks through implementing maturity status markers in the 'design' of developmental contexts such as schools and families. Those tasks which are not guided by adults, such as sexual relationships and social skills, appear to be managed within the peer environment where the adolescents set maturity status markers for themselves. Not only are the tasks set by adults distal *in time* as they have not occurred yet, but they are also distal *in generation* as they are a desired outcome for youth set not by adolescents

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themselves but by those who structure their environments. Therefore <u>developmental needs and tasks are shaped by ecological, chronological *and* generational systems</u>.

- Fourthly, it appears that the fit between adolescent and environment fluctuates depending not only on whether the environment is meeting the adolescents' overall developmental needs, but also depending on <u>individual desire for need fulfilment</u> (such as physical or social fulfilment), i.e. agency.

- Fifthly, this fit is also moderated by proximal interactions with <u>immediate personal needs</u> such as physical and emotional comfort.

- Finally, the individual's preference for one developmental context over another (perhaps relating to the extent that the environment meets needs that are distal or immediate in time and in generation, needs that are developmental and personal, and serves agentic desires) can result in <u>*focal contexts* within developmental chronology</u>, a similar phenomenon perhaps to that described in Coleman's focal theory (1974).

Implications for developmental research

Following this theoretical examination based on empirical results, it is suggested that Stage-Environment Fit is reconceptualised as a continuous, cross-contextual process of reciprocal influence between emerging developmental states and environment that is moderated by a multifaceted equilibrium. There is a range of biopsychosocial processes within the developmental state that help construct this equilibrium/fit. These include agency, perceived maturity status, the personal relevance of maturity status markers, developmental characteristics and age specific manifestations of emotional and physical fulfilment. It is necessary for there to be more in depth experimental social psychological research into how these phenomena construct equilibrium at different points in development in order to understand this process. In particular, the manner in which values and motives contribute to equilibrium needs further investigation.

There appears to be a tension in this study between early adolescents' management of more biologically driven developmental tasks such as identity formation, sexuality and sophisticated peer relationships, and the adult construction of developmental tasks such as managing to run a home independently and career progression through schooling. Although many adolescents agentically assimilate and utilise the maturity status markers set in the contexts maintained by adults, this does not always have the desired developmental effect. It can have side effects such as increasing their maturity status to a level where the environment no longer meets their expectations. There needs to be more research into the adult construction and placement of these markers so that we can manage young people's development knowingly and from an empirical research basis, instead of being led by unquestioned traditions and social transmission of behaviour between generations.

Lastly, the tendency for one environment to be preferred over another is key to understanding adolescent development in context. To investigate this properly requires longitudinal research into focal contexts.

Conclusions on school transfer

The most salient maturity status marker in this study is school transfer. The placement of school transfer in accord with the pubertal transition is observed to create an ecological transition across the developmental contexts of school, peers and families, and the self. Here there is an immense shift in the self-system, social behaviours and expectations. This can lead to undesirable results, such as the negative psychosocial consequences of feeling too mature too quickly, and the risks for mental health when adolescents are under fire from all quarters by the pressure to meet new environmental and social demands. Vulnerable adolescents who are struggling with particular areas of their life may not have the resources to cope with this ecological transition therefore negative developmental processes might ensue in areas where they do not receive extra support. This list of setbacks raises the question of should we do away with school transfer altogether? To answer this requires careful thought, as there are also potential benefits of scheduling a prominent social maturity status marker in adolescence. Pupils at Thorpe were generally pleased with their new maturity status. They liked their school's emphasis on academic achievement and enjoyed the opportunity to make new friends. It is also possible that there are cognitive benefits of scheduling school transfer in early adolescence as when the changes in the social input and in cognitive operations coincide this might prompt a stage-like shift in social cognition (Higgins & Eccles Parsons, 1983). Certainly Jacob experienced something to this effect after he changed schools. Self-regulation might also be aided as the new environment provides opportunities for this to be practiced (Gestsdottir & Lerner, 2008). Both Stacy and Billy mentioned trying harder at school as a result of transfer which partially confirms this suggestion.

These findings indicate that creating shifts in developmental contexts in adolescence can be beneficial providing that the altered context is a good match with the ensuing developmental state and that the shift is well supported. However the extent of the shift is debatable. It may be that a minimum change is required to secure potential benefits such as increased maturity and responsibility and the potential for cognitive enhancement. This does not need to be a complete change in environment like changing schools and could occur within a single school environment by means of changing location within the school, teaching structures and expectations. This would avoid creating an ecological transition which can encourage 'artificial' enhancement of changes

already taking place in the peer and family contexts thus increasing the risk of developmental maladaption. It may be advisable that Local Authorities who are progressing towards 'all through' schools should be aware of these findings in order to inform their decisions about within school transitions.

Recommendations for educational practitioners

When pupils' attitudes to school decline, this is a warning signal that their needs are not being met and/or that harm is occurring: such as when pupils' learning is not personally relevant, when they are being mentored by teachers who do not take a personal interest in them and when they are being victimised by other pupils. If pupils were free to do as they pleased, those who avidly dislike school might moderate their time accordingly and spend more time engaged in peer relationships and in independent activity. This is understandable as both these behaviours contribute to the development of social skills and independence. To keep attitudes high, schools need to meet pupils' immediate physical and emotional needs, strengthen their provision of processes that facilitate career identity and skills and perhaps incorporate opportunities to meet needs that are at present only being met in the peer context (like unsupervised activity) in order to 'compete' with the attraction of the peer environment.

The following tables summarise the interactions between school environment and early adolescent development and make some suggestions for the design of developmentally appropriate schools.

Table 157. Interaction of overarching school processes with adolescent development

Current School Environment	Interaction with Adolescent Development	Suggestion for Redesign of School Environment
Schools in General	Schools can help create pupils' stage of development through careful handling of maturity status markers.	Construct a school plan of current maturity status markers. Review and manage this regularly.
School Transfer	Creates an ecological transition across peer, school and home contexts if occurring at puberty. Speeds up development which increases opportunities for personal enhancement & risk. Transfer to a larger environment with older pupils is a risk factor for social anxiety and lowered self-esteem.	Place transitions before and after early adolescence. Transitions within schools are preferable to those between schools. Provide tailored support for vulnerable pupils at transition points.

Table 158. Interaction of school social structures with adolescent development

Current School Environment	Interaction with Adolescent Development	Suggestion for Redesign of School Environment
Social Structures		
Lunchtimes	Short, rushed lunchtimes with no facilities for play increase stress in the day and facilitate social clustering and hierarchies instead of fluid peer networks. Not being able to avoid friends when arguments ensue is distressing.	Schedule lunch in secondary schools for around one hour for early adolescents. Provide adequate playground facilities. Provide outdoor and indoor chill out areas where pupils can go if they fall out with their friends.
Size of the year group	Having around 100 pupils facilitates friendship matching. Too many pupils encourages cliques and anonymity. Transfer into a large peer group facilitates friendship matching but also creates gangs of bullies.	Maintain year group size at around 150 pupils. Provide opportunities for pupils to know each other well. Have a clear disclosure and follow up policy for bullying.
Older adolescents	Older adolescents (Y9 upwards) can intimidate younger pupils, transmit negative behaviours and raise concern about appearances. Hence their support is valuable.	Design schools within a school. The traditional junior, lower, and upper separation of age groups works well. Provide vertical tutoring within this system to improve cross-age relationships.
Teachers	Too many teachers detracts from teacher-pupil relationships. This encourages misbehaviour and negative attitudes towards teachers which in turn influences teacher strictness (and perhaps burnout). Teacher support is important for self-esteem and identity development.	Break the negative cycle by having a smaller teacher-pupil ratio. Provide opportunities for teachers and pupils to get to know each other well.

Table 159. Interaction of the curriculum with adolescent development

Current School Environment	Interaction with Adolescent Development	Suggestion for Redesign of School Environment
The Curriculum		
Overall	Pupils enjoy subjects that relate to their developing identities.	Strengthen the links between subjects and identity development.
Practical lessons & sport	Fulfil needs for physical activity and immediate reward.	Maintain practical lessons and sport in the curriculum.
Academic lessons	Are personally irrelevant and boring for many pupils.	Incorporate freedom in learning, physical activity and independent peer collaboration in academic lessons.
PHSE	Provides an important source of information about growing up and sparks family conversations.	Maintain PHSE in the curriculum. Incorporate tuition on age perception as pupils are confused about whether they are children or mini adults.
Careers education and guidance (CEG)	Y7 pupils are developing their career identities. CEG assists them to do this healthily and realistically.	Begin CEG in Y7, rather than in Y9.

Table 160. Interaction of the educational structures with adolescent development

Current School Environment	Interaction with Adolescent Development	Suggestion for Redesign of School Environment
Educational Structures		
Setting	Leaving setting until one year post-transfer makes pupils anxious about losing friends and failing in life. Social comparison motivates and demotivates pupils.	If setting, do this consistently from late childhood & ensure the fluidity of sets and mixed ability teaching at school. Try to reduce unhealthy social comparison.
Subject choice	Many pupils wanted to have some choice of their subjects in line with their developing identities.	Enable choice of enrichment subjects at the start of KS3.
Examinations	Examinations provide a ticket to the world of work. These increase the value of core subjects but also incur stress.	Maintain examinations at KS4 and above. Structure end of Y8 progress markers in 9-13 middle schools.

Implications for educational research

The current study describes how early adolescents' developmental characteristics and needs are shaped by a combination of person-environment interactions across ecological contexts and pubertal development. The manner in which these characteristics interact with school environment is established in detail for a small sample and broadly across nearly 300 pupils. In this it provides a fledgling qualitative evidence base on developmentally appropriate schooling for early adolescents. This builds on the work of the US and UK educational practitioners involved in the middle school movement, of Lady Plowden and of Jacquelynne Eccles, Carol Midgley and colleagues. These people rightly are the founders of developmentally appropriate schooling.

The consensus of prior work and of the current study is that schools can effect adolescent development through their design. This justifies further and more specific efforts towards uncovering how different features of school environments meet or do not meet adolescents' developmental and personal needs. These features include school structures, social and physical organisation, curriculum and pedagogy. They also include maturity status markers, for example transfer which has implications outside of the school context and creates a developmental shift. The implications of scheduling maturity status markers (knowingly or unknowingly) through school design, and the effects of these markers on psychosocial development needs to be catalogued and reviewed. Balancing the design of school environments in order to meet both adolescents' needs and the distal goals of adults who wish to socialise those adolescents into healthy, community oriented people is an essential part of school design. This balance needs to be investigated. The developmental implications of school design are important to uncover not only for the general population of early adolescents but also for the most vulnerable whose development can suffer the most in response.

Conclusion

There have been surprisingly few interventions designed to improve schools in line with the empirical evidence on adolescent development. Governmental interventions in the UK that appear to suit development have begun not from this standpoint but instead to address social policy issues. This includes the reorganisation to comprehensive schooling in the 1960s which had the 'side effect' of enabling Local Authorities to provide a three tier system in some or all of their county. Although the Plowden Report sought to advise on school design based on empirical developmental evidence (CACE, 1967), this report was never heeded by government. Once again, historical traditions prevailed and now the majority of pupils in the UK are faced with an ecological transition at age 11/12 when many of them are not ready for it nor able to cope. The more recent change of offering specialised diplomas that enable adolescents to develop their career identities in a chosen educational track from age 14 appears to be developmentally appropriate but again has its origins in policy issues specifically the low staying on rate in education post-16 and the consequences for Britain's skilled working population (Tomlinson, 2004). This study finds that adolescent development is shaped in part by social structures and expectations in peer, home and schooling contexts. Adolescent behaviour and psychology are a product of person-environment interactions *across* these environments and no one environment is entirely to blame for the ills of youth culture or for its successes. The adult contribution to the construction of these environments for adolescents must be informed by developmental science and not simply by tradition and political drives for economic progress. The evidence from this study reveals that when schools are designed without development in mind, educational disengagement is likely to ensue.

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Appendix

Contents

Review of Stage Environment Fit

In the US, differences between pre transfer and transfer school environments were noted in Eccles, Midgley and Alder's (1984) substantial review of achievement motivation research on children and early adolescents that spanned 1967-1983. Studies in the review had found declines in pupils' motivation and self-concept throughout the elementary and junior high school (JnHS) years with sudden drops at 6 and 12/13 years, around the time of transfer. The authors commented on the differences between pre and transfer school environments such as growth in size and bureaucracy, more achievement grouping and instruction of multiple classes by a single teacher. Based on this, JnHS teachers were predicted to spend less time with individual pupils: reducing teacher/pupil relatedness, incurring less trust of pupils and increasing the teachers' desire to control. Accordingly, studies in the review had found that JnHS pupils reported fewer opportunities for input and decision making in class than in elementary school. Social comparison amongst pupils was found to increase in line with greater focus on assessment and grading, and with achievement grouping. Finally, tasks given to pupils were found to be less cognitively demanding than in elementary school. Eccles et al. suggested that it is these "important grade-related changes in the school social environment that might precipitate the decline in children's attitudes" (1984, p.307) following transfer. They hypothesised that greater social comparison and reduced autonomy in JnHS may mismatch with pupils' developmental needs in facilitating positive achievement motivation. The review concludes by proposing an overall "mismatch between the developmental needs and capacities of the early adolescent and the typical junior high school environment" (p.41), later termed as the 'developmental mismatch hypothesis' (Eccles and Midgley 1989).

Drawing on Hunt's (1975) work on person-environment fit, Eccles and colleagues developed a theory within which to situate the developmental mismatch hypothesis. According to Eccles and Midgley (1989), mismatches between environment and adolescent psychology occur when the 'developmental trajectories' of environmental change and adolescence become desynchronised. The degree of synchronisation between trajectories represents the extent to which 'optimal' person-environment fit occurs. A poor fit is hypothesised to incur declines in attitude and achievement. This developmental perspective on person-environment fit is described by Eccles and Midgley (1989) as 'Stage-Environment Fit' (SEF). The following review of SEF theory examines its beginnings as a hypothesis and critiques the empirical testing which led to its establishment as a theory. This account is based on the reading of 45 articles from what can be described as the SEF 'series' of just under 80 articles, a body of work which has not been the focus of any published review. The articles chosen represent SEF at school, at the cost of dismissing SEF in home environments.

SEF was partially tested in the Michigan Study of Life Transitions (MSALT): a two year, four wave longitudinal study of around 1,500 pupils transferring from elementary school (grade 6) to JnHS (grade 7). MSALT was set in maths classrooms and aimed to examine relationships between features of transfer school environments and pupils' motivation, self-perceptions and achievement (Eccles et al 1993). The scales and measures used to gather data were:

A 'student questionnaire' on pupil motivation and achievement in maths, English, social activities and sports, perceptions of classroom climate; and general self worth (measured with Harter's scale, 1982).

A 'teacher questionnaire' of grade 6 and 7 teachers' self-efficacy in teaching, attitudes towards trusting and controlling pupils and belief in ability as a fixed or modifiable trait.

A Classroom Environment Observation Measure (CEOM) of teachers, pupils and observers' perceptions of teacher warmth, friendliness, interest in maths, grading and organisational practices, pupil cooperation, competition and input in class, goal-orientation and task complexity.

A pupil and parent questionnaire on family environment and parent/child levels of decision making at home. Data from this was used by the 'family strand' of research (see Freedman Doan *et al.* 1992, Yee, Jacobs and Eccles 1992, Eccles and Arbreton *et al.* 1992, Barber and Eccles 1992, Yoon, Wigfield and Eccles 1993).

An assessment of SEF which used two measures: (i) pupils and teachers' actual and desired levels of pupil decision-making in class (adapted from Lee 1979), and (ii) pupils' pubertal status; to examine satisfaction with opportunities for autonomy in relation to physical maturity.

MSALT's empirical findings were reported in various articles from 1986-1997. These studies generally found correlations between what Eccles *et al.* (1988) termed as 'prototypical' characteristics of transfer school environments, and pupils' perceptions of school and school-related behaviours. However the correlations were unidirectional and therefore did not reveal the cause of declines. Review articles (synopses) of MSALT were published over the following two decades that initially authenticated SEF through theoretical extension of the MSALT findings, then later referred to SEF as an established theory. The synopses continue in recent book chapters on adolescent development in school context that discuss how pupils' mental health and achievement can be affected by person/Stage-Environment Fit within and between different levels of school organisation (Eccles 2004, Eccles and Roeser 2006).

A table of the MSALT empirical studies and synopses studies is given below. The clear cells are the primary MSALT studies and the shaded cells are reviews or synopses of prior research. Some synopses mix original MSALT data with new and/or external analysis (including the further Michigan Adolescent Development in Context Study: MADICS), and are shaded for the final column only. The large amount of conference papers also available from Eccles and colleagues are not included as this review prefers to base its discussion only on published, peer-reviewed studies. The exceptions to this are Miller (1986) and Mac Iver and Reuman (1986), whose findings are crucial to the argument for SEF.

Timeline of Stage-Environment Fit Studies

Date	Researchers	Measures/Data Sources	Findings/Theory
1984	Eccles, Midgley and Alder	Review of declines Review of JnHS environments	Mismatch between school environment and adolescent development
1986a	Eccles	Symposium introduction	First appearance of MSALT data. Concept of person-environment fit in relation to adolescence
1986a	Miller	MSALT decision-making Measure of puberty	Early maturing girls likely to be incongruent in perceived and actual levels of decision-making from G6-7
1986b	Mac Iver and Reuman	MSALT decision-making MSALT student survey	Decision-making incongruence relates to declines in value of maths
1987	Midgley and Feldlaufer	MSALT decision-making	Incongruence between pupils' actual and preferred levels of decision-making in class.
1988a	Midgley, Feldlaufer and Eccles	MSALT teacher survey	Transfer teachers trust pupils less, want to control them more and have lower efficacy
1988b	Feldlaufer, Midgley and Eccles	MSALT classroom environment observation measure (CEOM)	Multiple declines perceived in transfer schools by teachers, pupils and observers.
1988c	Eccles et al.	MSALT 1986, 1987, 1988	Illustrates mismatches in JnHS environment
1989a	Midgley, Feldlaufer and Eccles	MSALT teacher survey MSALT student survey	Pupils' achievement motivation declines with transfer into low efficacy classrooms
1989b	Eccles and Midgley	MSALT 1987, 1986a, 1986b, 1988b, 1989a	Proposes the theory of SEF
1990a	Buchanan (nee Miller) et al.	MSALT teacher survey MSALT parent survey	Stereotypes of adolescents affect amount of decision-making awarded to pupils in school and at home
1990b	Eccles and Midgley	MSALT 1987, 1986b, 1988b, 1989a	Declines result from JnHS environment. 'Proof' of SEF
1991a	Wigfield et al.	MSALT self-esteem data MSALT student survey	Transfer relates to declines in attitude to subjects Self-esteem declines then rises following transfer
1991b	Eccles et al.	All empirical MSALT	Motivational declines related to environment Decision-making studies evidence SEF
1991c	Eccles et al.	1986a MSALT family data	Desire for autonomy increases at adolescence
1993a	Eccles et al.	All empirical MSALT	Proposes DMH and SEF
1993b	Eccles et al.	All empirical MSALT	SEF in schools and families
1994	Wigfield and Eccles	Wigfield elementary school data Wigfield et al. 1991	Declines occur over G3-7 Declines are more pronounced with transfer

1995	Fuligni *et al.*	MSALT achievement grouping data	Achievement grouping is detrimental to low achievers but not to mid or high achievers
1996a	Eccles *et al.*	All empirical MSALT	Proposes SEF Advice for JnHS environments
1996b	Eccles *et al.*	All empirical MSALT	Discusses adolescent risk factors Proposes SEF Advice for JnHS environments
1997	Roeser and Eccles	MADICS data	Groups of environmental variables relate to declines
1998	Roeser *et al.*	MADICS data All empirical MSALT	Reviews adolescent psychological development in JnHS
1999	Roeser and Eccles	MADICS data All empirical MSALT	Reviews schools as developmental contexts
2000	Roeser *et al.*	MADICS data All empirical MSALT	Groups of environmental variables relate to declines 'At risk' pupil profiles developed
2002	Wigfield and Eccles	Wigfield and Eccles 1994 All empirical MSALT	Declines occur in JnHS – in relation to motivation
2003	Eccles and Roeser	MADICS data All empirical MSALT	Reviews schools as developmental contexts
2004	Eccles	Roeser and Eccles 1999 MADICS data All empirical MSALT	As above
2006	Eccles and Roeser	Roeser and Eccles 1999 MADICS data All empirical MSALT A variety of other studies	As above

Evidence for Stage-Environment Fit

The MSALT teacher survey found that JnHS teachers were less efficacious, less likely to trust pupils, more likely to want to control them and to believe in ability as a fixed trait than their elementary school counterparts (Midgley *et al.* 1988). Accordingly, pupils in JnHS were more likely to be situated in low efficacy classrooms (Midgley, Feldlaufer and Eccles 1989). Further declines were found with the classroom environment observation measure (Feldlaufer, Midgley and Eccles 1988). Pupils reported increased social comparison and competition following transfer and found their teachers to be less friendly and supportive in JnHS. Observers perceived the same declines in teachers' attitudes and reported that teachers seemed to trust pupils less. Teachers and observers reported more whole class task organisation and assessment in JnHS. Despite the lack of a clear pattern of results amongst the three sources (observers, teachers and pupils), this and the above MSALT studies pinpointed that the environmental features of negative teacher attitudes, social comparison, competition between students and increased assessment led to declines.

Only the studies of Miller, (1986), Mac Iver and Reuman (1986) and Midgley and Feldlaufer (1987) directly tested whether declines were a result of mismatches between adolescent traits and school environment, i.e. poor Stage-Environment Fit. The following critique of these reveals that, in some cases, results are selectively reported in order to

support SEF. The remaining primary and synopses studies have been analysed in a previous report (Symonds, 2007b) and may be discussed in the proposed PhD thesis.

Midgley and Feldlaufer, 1987 – pupils and teachers' actual and preferred levels of decision-making in class. The decision-making opportunities perceived by 2210 pupils and 117/137 pre and transfer teachers were measured using five variables: choice of where to sit, choice of homework, choice of class work, making rules and choice of what to do next. Yoked items asked pupils whether they *can/can't* and *should/shouldn't* have decision-making opportunities for the different items. Teachers were asked whether they *did/didn't* and *should/shouldn't* give opportunities for decision-making in class. Agreement between the yoked pairs was summed to give an overall score of congruence/incongruence for each individual. Overall, teachers reported less decision-making incongruence than pupils. Pupils wanted more decision making opportunities than they were awarded at similar levels in elementary and JnHS. Therefore, the article's claim that mismatches between decision making and environment are characteristic (solely) of JnHS is misleading. Pupils' incongruence in 'where to sit', 'homework' and 'what to do next' was slightly greater in JnHS, due to an increase in their preferred levels of decision-making. However, preference for choice of class work was almost identical between grades, whereas preference for making rules actually fell in JnHS. Therefore, the generalisation in this and in further studies, that early-adolescents are characterised by their increase in desire for decision-making opportunities (Eccles *et al.* 1988), is also misleading. The unbalanced pattern across the five variables shows that the decision-making item is not mono-dimensional, and therefore is not as good an overall measure of autonomy as intended (stated in Miller *et al.* 1990).

Miller, 1986 – puberty, autonomy and decision-making fit. Miller compared parental reports of pubertal development for 1661 pupils with results from the decision-making survey in waves one and two (elementary school). She disregarded 'choice of homework' (reason unreported) using four of the aforementioned decision-making variables. Only girls yielded significant results, perhaps as boys' development is difficult for parents to estimate for this age. Puberty for girls was classified into early (7.1%), on time (81.4%) and late (11.5%) statuses. Only early developing girls reported incongruence in preferred and actual levels of decision-making in grades 6 and 7. Their incongruence for two out of four items (classwork and what to do next), grew more rapidly than on time or late developers. Early developers were also more likely to answer '*can't but should*' for these items (48.3% and 19.3%), compared to on time (33.8% and 14.6%) and late developers (19.6% and 9.9%). Miller gives us evidence that puberty influences pupils' perceptions of the classroom environment. However, it may be impossible to separate whether the incongruence is due to changes in the environment, to pupils' *perceptions* of the environment, or to both. Indeed, later synopses question whether these perceptual differences were due to differential treatment of pubertal girls by their classroom teachers (Eccles *et al.* 1996).

Mac Iver and Reuman, 1986 – pupils' decision-making congruence and value of maths. The third study of SEF is a conference paper, available only as an abstract in the main academic search engines[21], perhaps as it 'contains light and broken type which may not reproduce well' (ERIC). The document's absence is surprising considering its frequent use

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[21] ERIC, Psych Info, JSTOR, Blackwell Synergy, Google Scholar, Ingenta Connect, Science Direct.

in support of SEF. Luckily I was able to obtain a copy of this paper from one of the authors. Mac Iver and Reuman tested 1,823 pupils' decision-making congruence against their perceived value of maths (both intrinsic and 'utility', using Eccles' (nee Parsons' measures, 1980), finding that pupils who reported less opportunities for decision-making valued maths the least. They classified groups of pupils by their individual counts of decision making congruence/ incongruence across the five variables at each wave, using Ward's (1963) hierarchical clustering procedure. This revealed that 32% of pupils experienced decision-making incongruence in elementary school compared to 73% in JnHS. MANOVA's were performed to compare the clusters with pupils' valuing of maths. Several patterns were found, including the expected one that pupils who experienced the most incongruence most sharply declined in their evaluation of maths from elementary to JnHS. Importantly, Mac Iver and Reuman revealed that decline in maths value related to a variety of patterns of preferred and actual decision-making, indicating that a 'convergent evolution[22]' in attitudes can occur.

Summary
Pupils' preferred levels of decision-making increased in some but not all items, showing that the decision-making measure is not a mono-dimensional description of autonomy. These findings may reduce the validity of increasing desire for autonomy as a stable adolescent trait. No other adolescent traits were tested by MSALT therefore reference to them in the synopses is always theoretical. Early developing girls were likely to be dissatisfied with their actual amounts of decision-making in class for two items, a trend that increased over time. However whether this is caused by adolescent psychological development or by differential treatment from teachers is uncertain. Mac Iver and Reuman's cluster analysis revealed that categories of pupils differed widely in patterns of decision-making preference. Roughly a third of these patterns correlated with declines in pupils' judgement of subject value, although for different reasons. The multiplicity of potential states and outcomes sits uncomfortably with generalisations that channel the findings into broad categories such as 'autonomy' and 'development'. The selectivity of reporting and variability of findings means that SEF is not empirically proven as an exhaustive structure. Instead, the framework may only be relevant for a subset of individuals within certain contexts. No further direct tests of SEF have been made, hence any extension of the theory past the MSALT sample is purely inductive. However, the lack of empirical data does not imply that SEF is an unusable theory. On the contrary, the usability of a theory may not depend on its grounding in actuality, but rather on its usefulness as a framework.

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[22] The evolution of traits amongst species that are similar yet caused by different patterns of natural selection i.e. from different environmental pressures. Here the notion is extended to the existence of similar psychological traits in individuals, that are caused by notably different processes.

Permission letters

Early-Adolescence and School Environment Research Project

Faculty of Education
University of Cambridge
184 Hills Road
Cambridge
CB2 8PQ

Dear Mr Bacon

As part of an education research project for a PhD at the University of Cambridge, I am looking at how to improve school environments to meet the needs of early-adolescents. During my recent visit to Thorpe College as a supply teacher, I spoke with your deputy head teacher about doing ethnographic research in the school. He advised for me to write you a letter, outlining my research and the implications for school and students. If the proposal is of interest to you, I ask for your permission to conduct my PhD research in Thorpe College.

My study will investigate how pupils experience school as young teenagers, by looking at their experiences in the classroom and playground. In particular, I will be examining how 'adolescent traits' develop in context with the school environment. Examples of these traits are adolescents' developing desires for autonomy and peer-orientation. The research will be conducted in one secondary school and in one middle school, with Year 7 pupils. At present I am conducting a pilot study in a middle school in a different shire to ascertain how to gather information from pupils in the most unobtrusive manner possible, dealing with issues of sensitivity and response.

The main form of investigation will be ethnography, where I would be present in the school for one day per week for up to three school terms (September 2007 – July 2008). Although this is fairly lengthy study, I will do my best to become involved in the school ethos and even in extracurricular activities if required. As a trained English teacher with five years teaching experience, my relationships with staff and pupils would be formed at a companionable level. I would like to observe Year 7 pupils for one day per week, moving with them from class to class. During class, I will sit quietly at the back of the room as a silent observer, and only when the teacher is comfortable with this will I take notes. At times, pupils may be asked to participate in interviews, or to use recording equipment such as MP3 players and video cameras to complete interactive activities as student researchers. These activities will provide pupils with opportunities to develop their skills in research and information production. Any such activities would be conducted during lunch or break time, and the research would not require pupils to miss time from lessons.

The raw data gathered by these methods will be anonymous and will not be revealed to teachers or pupils, except in the case of danger to pupil health where it will be shared with the appropriate persons in the school such as the counsellor or head teacher. Pupils will be

informed of these processes before contributing to the research. At the end of the project, the results will be made available to the school, and as requested to parents, carers and children involved in the research. Throughout, the project will be explained in terms that pupils can understand, and only pupils who volunteer and are willing to participate will be involved. Even if the pupils are given permission to participate, they are free to refuse to participate or to end participation at any time. Letters of permission will be sent to parents of interested pupils, and the study will not progress unless these letters have been signed and returned to the school. At the end of the project, Thorpe College will receive detailed information on how specific features of the schools' environment interact with the development of pupils' psychology, and on which environmental features in both schools are most likely to facilitate positive adolescent development.

I thank you for your time in reading this letter, and if your response is positive in the first instance, perhaps we could meet to discuss the details of the project at a time convenient to you. Please do not hesitate to reply by post or to call me on 0797 0175 925 or email me at jes81@cam.ac.uk.

Yours sincerely,

Jennifer Symonds
PhD Researcher
Faculty of Education
University of Cambridge

ADOLESCENT NEEDS AND SCHOOL ENVIRONMENT RESEARCH PROJECT

Dear Parent or Carer,

I am conducting a project on how to improve school environments so that they better meet the needs of early-adolescents, for my PhD in education research at the University of Cambridge. As part of this research, I have been allowed to conduct a survey of the Year 7 students in Thorpe College. I ask permission for your child to participate in this survey so that their voices can be heard by Thorpe College and by schools nation wide, in the final recommendations given by this project for improving schools.

Children will be surveyed on how they feel about school, once in September and again in June/July. They will be asked about their KS2 SATS results although this question is optional. One question in the survey will ask pupils to answer *yes* or *no* as to whether they have experienced any changes to their bodies. Pupils will not at any stage be asked to give sensitive or specific information about their development. The above information will help us to improve schools for this age group of pupils.

This study has received ethical approval from the psychological ethics committee of the University of Cambridge. The data will not be shown to anyone outside of the immediate project team of education professionals, and your child's anonymity will be protected. At the end of the survey, the results will be made available to the school, and as requested to parents, carers and children involved in the research. Throughout, the survey will be explained in terms that your child can understand.

Your child will be asked in class if they wish to participate. Only children who consent will be involved in the survey. Children who do not wish to participate will be given an alternative worksheet to complete during the survey. Participation is voluntary and your decision whether or not to allow your child to take part will not affect the services normally provided to your child by the school.

If you do allow your child to participate, please ask them to return the completed slip (which you can tear off below). Alternatively you can return the slip to the school by post or give your consent to the school by email. Your time in considering this is greatly appreciated and I would be happy to answer any questions that you may have either by phone on 0797 0175 925 or by email to jes81@cam.ac.uk.

Yours sincerely,

Jennifer Symonds
PhD Researcher

Please indicate if you wish to allow your child to participate in this project by checking the statement below, signing your name and having this letter returned to Thorpe College. This should be done by Tuesday, 25th September although later responses can be accepted.

_____ I grant permission for my child to participate in the Adolescent Needs and School Environment Research Project.

_____   _____
Signature of Parent/Carer   Printed Parent/Carer Name
_____   _____
Printed Name of Child   Date

ADOLESCENT NEEDS AND SCHOOL ENVIRONMENT RESEARCH PROJECT

Dear Parent or Carer,

I am conducting a project on how to improve school environments so that they better meet the needs of Year 7 students, for my PhD in education research at the University of Cambridge. As part of this research, I have conducted a survey of the Year 7 students in Butterton School. Thank you for allowing your child to participate in this survey.

I would ask that your child is allowed to participate further by being part of a group of ten pupils who will help me investigate their feelings about the school environment over the course of the school year. These pupils will be involved in a short participation workshop where they will be educated about the research project, about interview methods and ethics and about their rights. They will be interviewed once per term for thirty minutes, plus have the opportunity to make MP3 diaries about their experiences at school early next year. Also I will make some observations of the group of pupils in class to get a first hand impression of their surroundings.

If you do allow your child to participate in this project, he/she will be given choices about the interview questions and will have full access to their interview transcripts. Part of this study is about better educating pupils involved in research, to improve their rights and give them autonomy and responsibility in school. Following the study, parents or carers and children will receive a written brief about the research findings. Parents and carers and other family members are welcome to contribute to or discuss the project at any time either by email or telephone or by meeting the researcher in person.

This study has received ethical approval from the psychological ethics committee of the University of Cambridge. Within school, only the researcher, headteacher and child's form teacher will know that they are participating, unless your child chooses to disclose their involvement to friends and teachers. The data will not be shown to anyone outside of the immediate project team of education professionals, and your child's anonymity will be protected.

As your child is one of only ten chosen to take part, it would be very helpful if you could let us know as soon as possible, whether they can participate in the research. Your time in considering this is greatly appreciated and I would be happy to answer any questions that you may have either by phone on 0797 0175 925 or by email to jes81@cam.ac.uk.

Yours sincerely,

Jennifer Symonds
PhD Researcher

Please indicate if you wish to allow your child to participate in this project by checking the statement below, signing your name and having this letter returned to your child's form teacher or to reception.
_____ I grant permission for my child to be an active, informed participant in the Adolescent Needs and School Environment Research Project.

_____   _____
Signature of Parent/Carer   Printed Parent/Carer Name
_____   _____

Printed Name of Child   Date

ADOLESCENT NEEDS AND SCHOOL ENVIRONMENT RESEARCH PROJECT

Dear pupil name

Thank you again for being involved in this project and in sharing information about what it is like to be a young person growing up in school. This term we have several chances to meet individually and as a research group so that you can share your views.

Also, at the end of term, most of Year 7 will repeat the computer survey from last September on 'how do you feel?'. Your answers here are of great value.

If you cannot make any of the dates listed below then it is **very important** that you let me or someone at school know so that we can arrange a better time for you.

Interview one
This is set to take place on: [insert date here]
Your form teacher or another person in our research group will let you know the exact time.

Interview two
This is set to take place on: [insert date here]
Your form teacher or another person in our research group will let you know the exact time.

Wrap-up session
Here, everyone in our group will meet to have a quick chat about what it was like to be a participant in the study and about what happens next.
This is set to take place on: : [insert date here]

I look forward to seeing you and to hearing how things have been going.

Best wishes,

Jenny ☺
jes81@cam.ac.uk
Ph. 0797 0175 925

Active participant assembly plan

<u>Assembly Plan</u>

Briefly introduce purposes of the research and the scope of the research.

To make schools better for people of your age group.
You are growing up in school – how can school be a better place for you.
Just your school and another school will be surveyed.
Metaphor (image) of individual information as drops of water being considered as a whole pool of water. That pool will be used to judge what schools should do to be better.

Interactive beginning

Hands up for how many have done a survey or a questionnaire before?
Keep hands up if they have done a magazine questionnaire or quiz to find out things about their personality.
Ask what is different about the information from a magazine questionnaire to the information from a survey given in school

(Answer that the information goes to different places – either for personal use or for someone else to use).

In the second situation – where someone else is using the information, how might this make you feel? In what ways might this affect the information that you give?

What does the word 'anonymity' mean?
You will be asked to give a number instead of your name for the survey. This way I will not know who you are. When giving the results to the school, this number will be deleted so that the school will not know who you are. In this way, your answers will be private, just like you are doing a magazine questionnaire at home. In this way, you can answer how you really feel and be honest.

If you didn't take the survey seriously, what kinds of things might you do with your answers?

What might this do to the overall information – to the quality of the information gathered by the survey?

Discuss the importance of giving honest answers and in asking for help.

Stress the importance of personal information making the bigger pool of information – if the drop is 'poisoned' then it will contaminate the pool – making it an inaccurate representation of what is actually happening at their school.

Hold up cards of

"Anonymity" "Honesty" "Importance"

The important thing is to be honest, and to answer all the questions – and not to worry as your answers will be anonymous. No teacher or other member of staff at this school, including the headteacher, will see them. Do not be distracted by your friends.

Thank you for your time in listening. This is your chance to share how you really feel about school with people outside of school who will listen to your suggestions. You have the power to help change school in your hands – this is your opportunity to he heard.

Field Notes

Butterton
Children were already sat in a carpeted room upstairs in the school by the resource centre. Their form teachers and year group leader were there. The year group leader introduced me and the survey. I ran through importance of the survey, of anonymity, of giving truthful responses (one drop of water will poison the pool) and of their rights. I then asked questions about information. Children were responsive, confident and inquisitive. Their questions and answers displayed a varied range of complex information.

Thorpe
Children were ushered into the sports hall by the vice principal and their head of year. They were organised into straight lines as to the house system (establishing school structures). Pupils were generally well behaved and interested. The vice principal introduced me and the survey. I ran through importance of the survey, of anonymity, of giving truthful responses (one drop of water will poison the pool) and of their rights. I then asked questions about information. Children were slower to respond to questions and there were four to five pupils from around 150 who were keen to answer multiple questions. Once children gained confidence they were more willing to respond. Their questions and responses were varied in complexity, although were simpler than the middle school children. One child asked me a searching question about why I was doing the research. Children were very keen to obtain a letter of permission and several stayed behind to secure this. One child asked me to help him tie up his shoes.

Audio diary standard operating procedure

In order to investigate pupils' attitudes towards school, each pupil is being given a digital voice recorder to take home, on which they will record an 'audio diary' over the course of three or four nights. The format of the diaries is simple – attached to each voice recorder are six laminated cards. The first gives instructions for completing the diaries, the second gives specific instructions for using the machines. The following four cards each have a general question about pupils' attitudes. Pupils can choose any of these four cards to answer, one per night. Responses should be around five minutes long. Pupils will be expected to return the audio diaries and laminated cards to the researcher on the Friday or Thursday following their initial distribution. This final 'drop in' session should give pupils a chance to voice any queries they might have had or sort out any problems with the use or loss of the diaries. The school will not be held responsible for the loss of the diaries unless they have been confiscated by a member of staff.

The use of the audio diaries has been approved by the Ethics Committee of the Cambridge Biological Sciences. The following standard operating procedure for the audio diaries has been developed by the researcher in conjunction with the Ethics Committee. The school is encouraged to read this and use this as a guide for any action taken in the case of misuse, loss or theft of the diaries.

- Pupils should be assessed for their suitability to use audio diaries by being vetted for "about individual factors that might reasonably lead to risk of harm" (BPS, 2006, 3.3, iii) such as inquisitive siblings, parents and friends and school bullies, and their personal organisation skills.

- If found suitable, pupils who consent to participate must be informed about the risks of others gaining unauthorised access to their audio diaries through either their loss or misplacement of the diary or through intrusive action. This will "ensure from the first contact that clients are aware of the limitations of maintaining confidentiality" (BPS, 2006, 1.2, v).

- To assist pupils to avoid risk they will be advised to use code names for themselves, for others and for their school when making the diaries.

- If in the case that a pupils' diary is accessed in an unauthorised manner, the researcher will bring this "immediately to the attention of their guardians or responsible others as appropriate" (BERA, 2004, 18).

- Furthermore, the researcher will seek the assistance of the school or of the parents or guardians in retrieving the diary. Assisted, they will take appropriate action against the person/s responsible for the breach of privacy including the containment of information where possible.

- When this is a young person the actions will include the assisted application of appropriate sanctions and counselling.

- If in the case that the unauthorised person is the parent, guardian or member of school staff, the researcher will act as the sole party in relieving the conflict to avoid potential disruption to the participant's home/school relationship.

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- If the problem cannot be reasonably contained or if knowledge of pupils' audio diaries becomes widespread in school, the researcher will retrieve all the audio diaries, desisting "immediately from any actions, ensuing from the research process, that cause emotional or other harm" (BERA, 2004, 18) to pupils.

- Lastly, if in the case of unauthorised access or loss, the pupil will receive counselling and compensation as held to be appropriate by the parents/guardians, school and researcher.

Example of an observation transcript

<u>Jacob, term two, mathematics</u>
Jacob is sat third row from the back, in a group of four boys. I have just asked him to come and have a look at the observations whenever he wants. He has been chatting to the pupil on his left, who is turned now to the right, chatting to the person on his right. Works for a bit. Now sits back and chats to the pupil in front of him who has turned around. Jacob puts his ruler down the back of his shirt. Writes some more in his maths book. Discusses something with the male pupil sitting in the row in front, two desks along. The boy in front of him turns back around. Jacob says something to the boy sitting next to him, whilst gently hitting his shoulder with an outstretched palm. The pupil beside him does not react. Jacob turns back to his work for a few seconds, then the boy in front turns around again and engages him in conversation. The class is asked to be quieter. Most noise stops immediately. Jacob turns to his work and works quietly for a short while. Looks at me and then up at the ceiling, points upwards at something. Looks at the display board beside him. Looks back at me as he notices that I am observing. Picks up his pen and returns to his work. His friends are play fighting over a pen to his right. He puts his hand out onto the shoulder of the boy beside him, engaging in the activity. He is smiling. Now the two boys from the row in front have turned around again and all five boys are engaged in a conversation, with Jacob mostly listening and smiling. Jacob comments to the boy in front of him.

Notes made with Jacob after the observation. The discussions with his friends included things that they did at their old school. The people he was sitting with are from his old school. Some of his friends from his old school are in this class. They discussed Year 7 camp.

Data protection agreement for transcriptionists

DATA PROTECTION AND TERMS OF EMPLOYMENT
AGREEMENT FOR TRANSCRIPTION SERVICES RENDERED

I, _____ agree to transcribe the audio files given to me by Jennifer Symonds in return for payment at the rate of 4.5x the length of the audio file given at £7.50 per 'man hour'.

Furthermore, I agree to provide the transcriptions to Jennifer Symonds by the date specified for each set of files. A deduction of £1 per transcript will be taken from my payment for each day that these are delayed over the due date, unless some event or situation causes the delay of the return of the files that is deemed as 'reasonable' by Jennifer Symonds.

If any transcription is grossly inaccurate (i.e. contains a large amount of mistakes) then I will not expect any payment for this transcript.

I agree to not to play the audio files to any person or persons, or let any person or persons read the transcriptions of these audio files. I agree not to distribute the audio files and transcriptions or copies of these to any person or persons except for Jennifer Symonds. I agree not to discuss the exact information contained in the audio files with any person or persons except for Jennifer Symonds and the other transcriptionists working on this project. I agree not to use the information from the audio files or transcriptions in any project or activity that I may conduct outside of this project. I understand that the information in these audio files may be sensitive and that the participants and their families may live locally.

Signed……………………………

Date………………………………

Payment will be made to you in cash (should you be able to collect this), by cheque (posted) or by pay pal (electronic payment which you must first have an account for), as and when each file is ready. You are welcome to send me one or more files at a time, or all together on or before the due date.

Welcome on board!

Please return this document by post (or put in the S general pigeon hole in the NFB) to:

Jennifer Symonds
Faculty of Education
184 Hills Road
Cambridge
CB2 2PQ

Payment for transcriptions will be made as due, once this document has been received.

Transcription – A Quick Guide

You will need:
A program that can play audio files (e.g. Windows media player, real player etc)
Microsoft word or another word processing program
A method of listening to the files (computer speakers or earphones)

To transcribe:
Play the file, listen to a few words, pause the file and type the words
Keep the same format (given below) when transcribing all documents
Use spell check

What to include
Umms and ahs
Pauses e.g. [pause]
Occasional slang e.g. *like, you know, cause….* However, if the participant uses slang so much that it completely destroys the readability of the text then you can cut it out so that the text can be read.

For example:

Indiana   Well, you know, it's like, when we, like, found the football, like, the other day and, like, you know, it was sunny and, you know, like, the rain never came, you know.
Becomes…
Indiana   When we found the football the other day it was sunny and the rain never came.

What not to include
Special favour here – can you please leave out any chatter either from me or from the participants that is not part of the question and answer session. E.g. if we chat about the weather before or between questions, about moving the digital recorder, about getting a drink or about fixing the door. This should save you time ☺

Unintelligible words
If you would like to indicate where you just cannot work out a particular word – please put a (?) at the end of the word.

Format
Please use times new roman or Cambria font size 12 and skip a line between speakers. Also please include a header for each transcript like the one below:

File   Indiana Term Two
Duration   19 minutes 35 seconds
Transcriber Jennifer Symonds

Jennifer   So Indiana, how do you feel about school?

Indiana   I like it quite a lot. But there are some issues about my friendships.

File Save
Please save your transcriptions with the same name as the audio files
e.g. MS_Ind_Int2

☺ *Thank you very much for your time in doing the transcriptions* ☺

List of codes and tree nodes

School overarching attitudes
school important for peers
school important for learning
school important for career
Attitude to School

School social structure
school year group structure
school transfer
school size
school organisation

School physical environment
school uniform
school buildings and classrooms

School peers
school important for peers
peers older children
peers negative behaviours
peers managing same sex friendships
peers making friends
peers heterosexual relationships
peers discussions
peers and happiness
peer support
peer popularity
peer group organisation school

Home peers
peers unsupervised play
Maturity status – USP

Growing up physical and emotional
growing up physical energy
growing up physical appearances
growing up observed physical changes
growing up moodiness
growing up embarrassment
growing up competitiveness
growing up cognitive changes
growing up autonomy
growing up anxiety
growing up anger and aggression

growing up - puberty as an issue
Maturity status - end of childhood
growing up thinking about it
growing up lack of change
growing up information - school
growing up information - family & peers

School activities
school dinners
school commute
school break
extracurricular activities

School behaviours and emotions
school belonging
school behaviour split on off task
school behaviour on task
school behaviour off task
school behaviour good
school behaviour bad
school achievement

School lessons
school responsibilities and autonomy
school lessons variety
school lessons like
school lessons dislike
school lesson organisation
school freedom in learning

School teachers
teachers like
teachers dislike
teacher-pupil relatedness
teacher behaviour management

Home life
Maturity status - home responsibilities
home relationships
home fun activities & routines

Maturity status
Maturity status - USP
Maturity status - school peers
Maturity status - school adults & structures
Maturity status - home responsibilities
Maturity status - heterosexual relationships
Maturity status - end of childhood

Growing up identity development
school important for career
Identity - career choice
identity
growing up self confidence
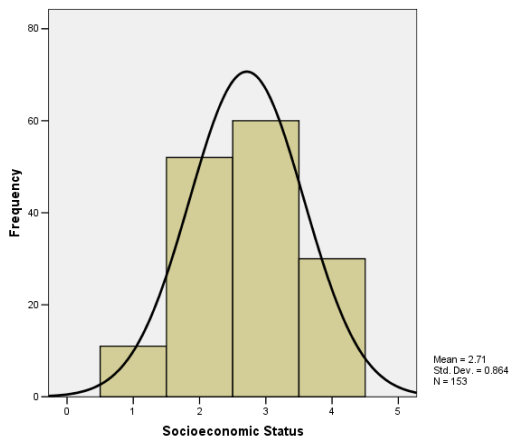
Growing up social perceptions
growing up self development
growing up attitude to adults
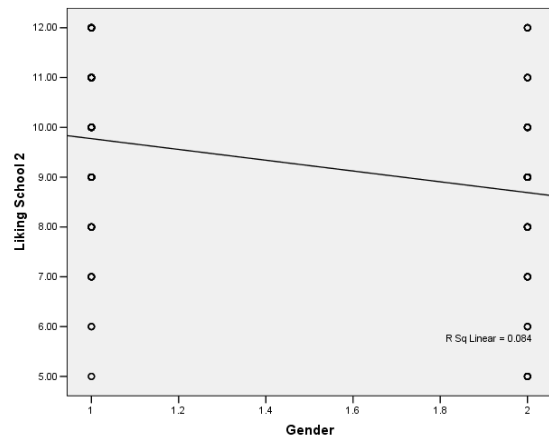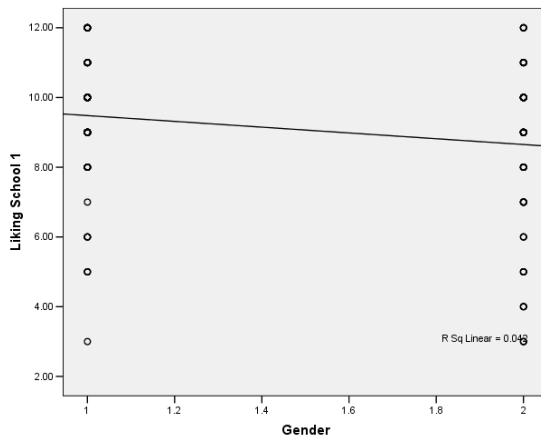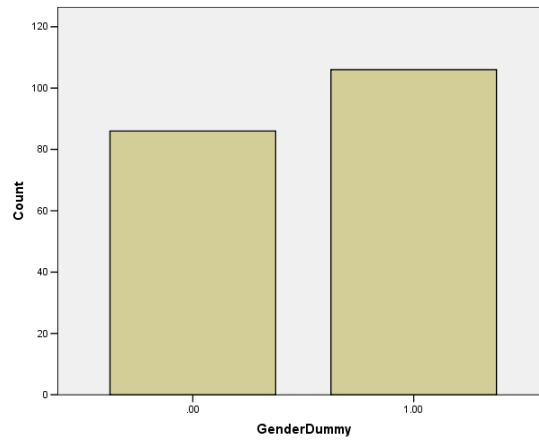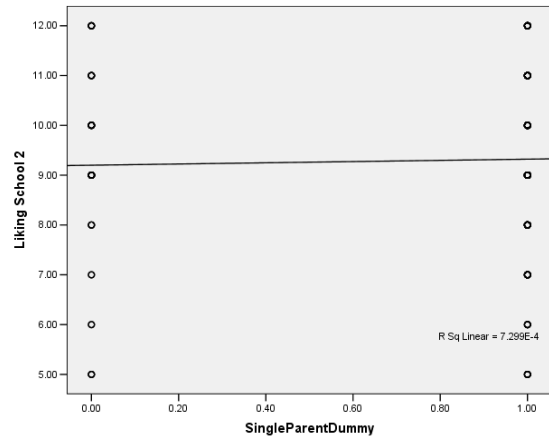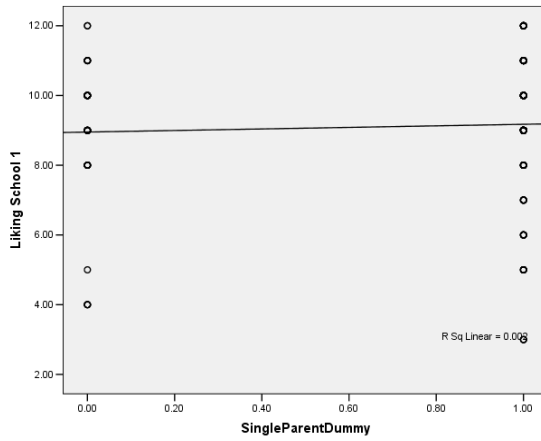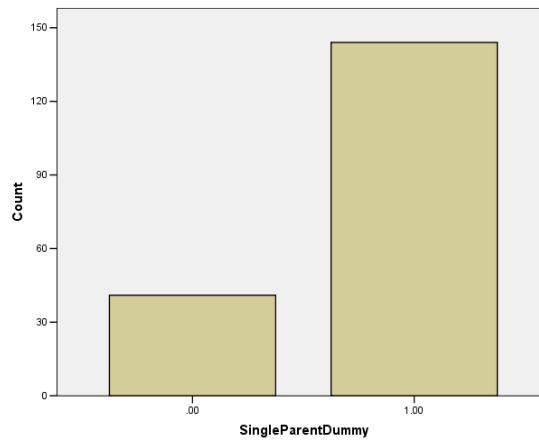growing up affects friendships

Visual descriptives for the regression analysis

<u>Dependent Variable</u>

<u>Independent Variables</u>

Mean = 6.60
Std. Dev. = 1.6291
N = 190

R Sq Linear = 0.008

R Sq Linear = 0.051

Mean = 22.0053
Std. Dev. = 2.64273
N = 189

R Sq Linear = 0.145

R Sq Linear = 0.2

343

Mean = 15.0365
Std. Dev. = 2.96467
N = 192

R Sq Linear = 0.069

Mean = 15.3438
Std. Dev. = 3.15508
N = 192

R Sq Linear = 0.106

Mean = 19.4011
Std. Dev. = 3.09953
N = 187

R Sq Linear = 0.045

Mean = 19.4043
Std. Dev. = 3.42629
N = 188

R Sq Linear = 0.069

Mean = 9.3594
Std. Dev. = 1.55561
N = 192

R Sq Linear = 0.278

Mean = 9.0789
Std. Dev. = 1.56316
N = 190

R Sq Linear = 0.263

345

Descriptive data for four main clusters

Significance tests between clusters

Significance Tests - Nominal Variables		
	Sig	Chi-Square
School	0.071	0.071
Gender	ns	
Family status	ns	
Ethnicity	ns	

Significance Tests - Ordinal Variables			
	Sig	K-S Test	df
Achievement Group	ns		
Total Achievement	ns		
KS2 English	0.047	7.956	3
KS2 maths	ns		
KS2 science	ns		
Like learning	0.000	52.264	3
Importance of education to career	0.000	16.041	3
School related self-esteem T1	0.000	9.078	3
School related self-esteem T2	0.000	19.253	3
Social Inclusion 1	0.000	8.069	3
Social Inclusion 2	0.000	27.457	3
Distress 1	0.000	6.540	3
Distress 2	0.000	12.535	3
Pubertal status	ns		
Comparative changes	ns		
Like family time	0.000	22.103	3
Like sport at school	0.000	22.379	3

Significance Tests - Continuous Variables			
	Sig	F	df
Age	ns		
Age at pubertal onset	0.043	8.135	3
Liking School 1	0.000	45.121	3
Liking School 2	0.000	52.622	3
Liking Teachers 1	0.000	13.275	3
Liking Teachers 2	0.000	62.314	3
Importance of subjects	0.000	15.085	3
Academic self-perception	0.000	11.592	3
Freedom in learning	0.000	12.693	3

Descriptive data across clusters

Cluster descriptives - school & gender

School		Well Adjusted	Autonomy Seekers	Social Isolates	Mal-adjusted	Total
Thorpe	Count	29	48	34	19	130
	% within School	22	37	26	15	100
Butterton	Count	16	8	9	4	37
	% within School	43	22	24	11	100
Total	Count	45	56	43	23	167
	% within School	27	34	26	14	100
Gender		Well Adjusted	Autonomy Seekers	Social Isolates	Mal-adjusted	Total
Girls	Count	31	29	24	12	96
	% within Gender	32	30	25	13	100
Boys	Count	14	27	19	11	71
	% within Gender	20	38	27	15	100
Total	Count	45	56	43	23	167
	% within Gender	27	34	26	14	100

Cluster descriptives - background characteristics

Cluster	N	Mean	sd	N	Mean	sd
	Age at Pubertal Onset			Socioeconomic Status		
Well Adjusted	25	-0.19	1.08	37	0.27	0.98
Autonomy Seekers	23	0.45	0.67	44	0.10	0.95
Social Isolates	18	-0.35	0.99	32	-0.10	0.96
Maladjusted	11	0.24	0.87	18	-0.57	1.16
Total	77	0.02	0.96	131	0.01	1.02
	Prior Achievement			Key Stage Two English		
Well Adjusted	36	0.20	0.85	38	0.20	0.95
Autonomy Seekers	46	0.10	1.02	49	0.13	1.01
Social Isolates	34	-0.08	0.96	36	-0.08	0.98
Maladjusted	16	-0.30	1.20	20	-0.47	0.97
Total	132	0.03	0.99	143	0.01	1.00

Cluster descriptives - perceptions of lessons						
Cluster	N	Mean	sd	N	Mean	sd
	Lesson Enjoyment			Subject Importance		
Well Adjusted	45	0.79	0.68	45	0.64	0.62
Autonomy Seekers	56	-0.24	0.79	56	-0.28	0.83
Social Isolates	43	0.23	0.79	43	0.10	0.83
Maladjusted	23	-1.23	0.99	23	-0.76	1.45
Total	167	0.02	1.01		0.00	1.00
	Academic Self			Freedom in Learning		
Well Adjusted	45	0.59	0.71	45	0.48	0.72
Autonomy Seekers	56	-0.15	0.91	56	-0.04	0.79
Social Isolates	43	0.15	1.06	43	0.12	0.97
Maladjusted	23	-0.72	1.00	23	-0.89	1.11
Total	167	0.04	1.00	167	0.02	0.96

Cluster descriptives - home characteristics						
Cluster	N	Mean	sd	N	Mean	sd
	Like Family Time			Home Autonomy		
Well Adjusted	45	0.43	0.40	45	0.18	0.74
Autonomy Seekers	56	-0.04	0.91	56	0.76	0.63
Social Isolates	43	0.18	0.88	43	-1.07	0.59
Maladjusted	23	-0.73	1.33	23	0.17	0.83
Total	167	0.05	0.94	167	0.05	0.98

Cluster descriptives - overall school perceptions						
Cluster	N	Mean	sd	N	Mean	sd
	Like Learning			Education for Career		
Well Adjusted	45	0.73	0.61	45	0.38	0.67
Autonomy Seekers	56	-0.32	0.84	56	-0.17	1.04
Social Isolates	43	0.35	0.78	43	0.21	0.78
Maladjusted	23	-0.91	1.20	23	-0.66	1.47
Total	167	0.05	1.00	167	0.01	1.02
	Liking School 1			Liking School 2		
Well Adjusted	45	0.81	0.66	45	1.02	0.55
Autonomy Seekers	56	0.08	0.55	56	-0.49	0.93
Social Isolates	43	0.59	0.67	43	0.37	0.73
Maladjusted	23	-1.06	0.90	23	-1.19	0.90
Total	167	0.25	0.90	167	0.04	1.10
	Liking Teachers 1			Liking Teachers 2		
Well Adjusted	45	0.41	1.06	45	0.74	0.88
Autonomy Seekers	56	0.04	0.71	56	-0.05	0.61
Social Isolates	43	0.47	0.89	43	0.41	0.76
Maladjusted	23	-0.95	1.28	23	-1.80	0.79
Total	167	0.11	1.05	167	0.04	1.10

Cluster descriptives - psychosocial variables						
Cluster	N	Mean	sd	N	Mean	sd
	Social Inclusion 1			Social Inclusion 2		
Well Adjusted	45	0.63	0.91	45	0.95	0.46
Autonomy Seekers	56	0.08	0.83	56	0.03	0.74
Social Isolates	43	-0.16	0.88	43	-0.34	0.90
Maladjusted	23	-0.25	0.89	23	-0.51	1.08
Total	167	0.12	0.93	167	0.11	0.95
	Lack of Distress 1			Lack of Distress 2		
Well Adjusted	45	0.60	0.81	45	0.77	0.66
Autonomy Seekers	56	0.07	0.99	56	0.03	1.11
Social Isolates	43	-0.07	1.12	43	-0.19	0.93
Maladjusted	23	-0.50	1.32	23	-0.65	1.28
Total	167	0.10	1.08	167	0.08	1.09
	Self-Esteem 1			Self-Esteem 2		
Well Adjusted	45	0.59	0.62	45	0.76	0.51
Autonomy Seekers	56	0.10	0.83	56	0.06	0.90
Social Isolates	43	-0.04	0.85	43	-0.12	0.74
Maladjusted	23	-0.45	1.08	23	-0.71	1.05
Total	167	0.12	0.88	167	0.09	0.92

Factor analysis by school

<u>Thorpe Term One</u>

Liking of Teachers & School, & Academic Competence	Item	Loading	Variance
I think my teachers are friendly.	AS1	0.716	21%
I like my teachers.	AS23	0.700	
I think that my teachers take notice of what I need.	AS4	0.519	
I look forward to coming to school most days.	AS7	0.456	
I like school better than most other children.	AS9	0.435	
I'm quite pleased with how school work is going .	AS17	0.393	
In class I'm often able to work with people I like.	AS16	0.383	
I am making good progress with my work.	AS11	0.338	

Peer Group Membership & Confidence	Item	Loading	Variance
Others in class include me in what they are doing.	AS22	0.722	10%
I don't have as many friends as I'd like at school.	AS14	0.705	
I am liked by most of the other children in my class.	AS20	0.642	
I'm afraid that I'll make a fool of myself in class.	AS15	0.605	
Sometimes I feel lost and alone at school.	AS10	0.569	
I don't belong to many friendship groups at school.	AS12	0.560	
Nobody at school seems to take any notice of me.	AS3	0.476	
People like me don't have much luck at school.	AS19	0.423	
I am afraid to tell teachers when I don't understand.	AS21	0.369	

Attitude to School & Academic Competence	Item	Loading	Variance
I don't really enjoy anything about school.	AS8	0.531	3%
I usually feel relaxed about school.	AS6	0.505	
I wish we did things we like instead of being told.	AS18	0.484	
I think most school work is just to keep us busy.	AS2	0.429	
I have trouble keeping up with my work.	AS24	0.387	

Thorpe Term Two

Teachers, Academic Confidence & School Enjoyment	Item	Loading	Variance
I like my teachers.	AStwo23	0.731	25%
I'm quite pleased with how school work is going .	AStwo17	0.705	
I like school better than most other children.	AStwo9	0.667	
I think my teachers are friendly.	AStwo1	0.657	
I look forward to coming to school most days.	AStwo7	0.581	
I usually feel relaxed about school.	AStwo6	0.557	
I think that my teachers take notice of what I need.	AStwo4	0.521	
I am making good progress with my work.	AStwo11	0.520	
When we do tests I feel confident I'll do well.	AStwo13	0.507	
I don't really enjoy anything about school.	AStwo8	0.451	

Social Inclusion & Confidence	Item	Loading	Variance
Sometimes I feel lost and alone at school.	AStwo10	0.785	10%
Others in class include me in what they are doing.	AStwo22	0.700	
I'm afraid that I'll make a fool of myself in class.	AStwo15	0.686	
I don't have as many friends as I'd like at school.	AStwo14	0.658	
I don't belong to many friendship groups at school.	AStwo12	0.634	
People like me don't have much luck at school.	AStwo19	0.625	
Nobody at school seems to take any notice of me.	AStwo3	0.559	
I am afraid to tell teachers when I don't understand.	AStwo21	0.498	
I am liked by most of the other children in my class.	AStwo20	0.426	
People like me will never do well at school.	AStwo5	0.373	

Academic Beliefs and Classroom Peers	Item	Loading	Variance
I think most school work is just to keep us busy.	AStwo2	-0.461	4%
In class I'm often able to work with people I like.	AStwo16	0.375	

Butterton Term One

Confidence, Competency & School Belonging	Item	Loading	Variance
People like me don't have much luck at school.	AS19	0.802	31%
I have trouble keeping up with my work.	AS24	0.735	
When we do tests I feel confident I'll do well.	AS13	0.681	
I don't really enjoy anything about school.	AS8	0.677	
Sometimes I feel lost and alone at school.	AS10	0.617	
I don't have as many friends as I'd like at school.	AS14	0.598	
I usually feel relaxed about school.	AS6	0.522	
People like me will never do well at school.	AS5	0.504	
I'm afraid that I'll make a fool of myself in class.	AS15	0.491	
I am afraid to tell teachers when I don't understand.	AS21	0.483	

Peer Group Membership	Item	Loading	Variance
I am liked by most of the other children in my class.	AS20	0.698	10%
I don't belong to many friendship groups at school.	AS12	0.602	
Others in class include me in what they are doing.	AS22	0.458	
I like school better than most other children.	AS9	0.432	
Nobody at school seems to take any notice of me.	AS3	0.365	

Teacher Support of Autonomy & School Value	Item	Loading	Variance
I wish we did things we like instead of being told.	AS18	0.955	5%
I think that my teachers take notice of what I need.	AS4	0.715	
I like my teachers.	AS23	0.547	
I think my teachers are friendly.	AS1	0.540	
I think most school work is just to keep us busy.	AS2	0.512	
I look forward to coming to school most days.	AS7	0.385	
I am making good progress with my work.	AS11	0.328	

Academic Beliefs & Confidence, Teachers & Social Inclusion	Item	Loading	Variance
People like me will never do well at school.	AStwo5	0.838	28%
I have trouble keeping up with my work.	AStwo24	0.727	
I think my teachers are friendly.	AStwo1	0.679	
I am making good progress with my work.	AStwo11	0.649	
People like me don't have much luck at school.	AStwo19	0.640	
I'm quite pleased with how school work is going .	AStwo17	0.621	
I like my teachers.	AStwo23	0.581	
When we do tests I feel confident I'll do well.	AStwo13	0.565	
Nobody at school seems to take any notice of me.	AStwo3	0.546	
In class I'm often able to work with people I like.	AStwo16	0.479	
I think most school work is just to keep us busy.	AStwo2	0.447	
I think that my teachers take notice of what I need.	AStwo4	0.439	
I don't belong to many friendship groups at school.	AStwo12	0.425	

Social Inclusion & Confidence	Item	Loading	Variance
I don't have as many friends as I'd like at school.	AStwo14	0.839	10%
Others in class include me in what they are doing.	AStwo22	0.686	
I'm afraid that I'll make a fool of myself in class.	AStwo15	0.568	
Sometimes I feel lost and alone at school.	AStwo10	0.545	
I like school better than most other children.	AStwo9	-0.489	
I am liked by most of the other children in my class.	AStwo20	0.444	
I don't have as many friends as I'd like at school.	AStwo14	0.839	

School Enjoyment	Item	Loading	Variance
I usually feel relaxed about school.	AStwo6	0.596	6%
I look forward to coming to school most days.	AStwo7	0.587	
I don't really enjoy anything about school.	AStwo8	0.542	
I wish we did things we like instead of being told.	AStwo18	-0.464	

Personal reflections

When teaching full time between 2002-2004, I was fortunate work in both a middle and a secondary school. In both schools I taught groups of Y7 pupils and noticed that they were quiet and well behaved in the secondary school and had fairly impersonal relationships with teachers. In comparison, the middle school Y7 pupils were boisterous and full of confidence and were more likely to speak their mind to a teacher trainee. My query then was whether these differences were attributable to the socioeconomic differences between the schools or to school environment and school structures. This query was put aside as I embarked on a round the world backpacking trip and did my masters in educational research and adolescent vocational psychology at the Faculty of Education at Cambridge.

In finding Dr Linda Hargreaves as a supervisor I have been extremely fortunate, as her interest in school transfer helped me formulate this query into a doctorate. During my first two years at Cambridge I worked as a supply teacher to cover my living expenses, therefore my mind was never far from the classroom as I prepared my first year report on school structures and adolescent development. In the schools that I taught at I observed continuous behaviour problems and negative attitudes to school across early to late adolescents. Often I would talk frankly to the pupils and ask how they felt about school and why. Their views were often deeply considered and were without the superficial dismissal of education that is often attributed to adolescents as being a part of their rebellious nature. The importance of really listening to adolescents then grabbed my attention as the optimal way to improve schools and thus their school experiences. This provoked me to develop a methodology that elicited their views whilst supporting them developmentally. This movement was in line with the 'pupil voice' and 'students as researchers' fields of research and my growing experience in this allowed me to become a pupil voice consultant in schools and to give up the supply teaching in favour of a more direct intervention within school environments.

The experience of working part time whilst doing the doctorate, as a consultant and as a researcher on the *Changing Adolescence Programme* funded by the Nuffield Foundation, has sharpened my academic brain and enabled me to meet people who have become my mentors, colleagues and friends. If given the opportunity to do a fully funded PhD I would, on reflection, not let this dampen my efforts to work alongside other people in my field both within and outside of the university system. This has been the single most important thing, outside of my supervisions with Dr Hargreaves, that has helped me in my PhD journey. Without working I might never have become interested in pupil voice and would not have the support that I do now to continue my research into adolescent development and education.

The PhD met all of my aims for generating new methodology and research findings given the capabilities of the project. Yet there are many things I look forward to developing. One is a more casual style of researching with adolescents. Despite trying to make them feel as comfortable as possible in a formal interview environment, they still fed back their preference for unstructured conversations and recommended walking around the school as a means of eliciting their perspectives on schooling. This type of in vivo data gathering and its potential for authenticity encourages me to take further training in ethnographic methods in order to gather the best possible data on adolescent development and education.