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Critical Success Factors in Early Secondary Education.

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April 2005.

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CRITICAL SUCCESS FACTORS IN EARLY SECONDARY EDUCATION

AN ANALYSIS OF VARIABLES WITHIN THE SCHOOL ENVIRONMENT WHICH INFLUENCE THE DEVELOPMENT AND PROGRESS OF STUDENTS ENTERING THE FIRST YEAR OF THEIR SECONDARY EDUCATION

A THESIS SUBMITTED TO THE UNIVERSITY OF DUBLIN IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DAVID WILSON

2005

Declaration.

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Signed: David Wilson.

David Wilson.

Date: 16/12/2005

Acknowledgements.

Undoubtedly the completion of any large-scale study such as this, requires the cooperation and assistance of many people. It would be unreasonable to continue further without firstly crediting a group of individuals for their help. The students of the study group were clearly the most important people in the entire research programme. Their willingness to provide input, together with the approval given by their parents, was greatly appreciated. The Principal of the school was extremely helpful in terms of providing access to information and in respect of his constant encouragement and interest. His successor (who took office as Principal towards the end of this research project) also offered encouragement. In addition, the 1st, 2nd and 3rd Year Heads were instrumental in providing day-to-day data about the group. On an academic level, Professor Mona O'Moore was a continuous source of guidance in Trinity College. Her supervision of this thesis provided direction and support throughout. Finally, I would like to record my thanks to my family and friends for their on-going encouragement.

Abstract.

The primary purpose of this piece of research was to identify data trends which influenced the experience of students from their entry into year one of secondary school to the completion of their Junior Certificate exams at the end of year three. The focus of attention was a theory that factors within the school environment influenced students and that, as a result, their individual performances were dependent to some degree on a wide range of variables. If it were possible to identify these variables, the results could be used to advise and assist parents, teachers, students or indeed a number of educational stakeholders.

The school chosen for the purposes of the study was an all boys independent school, located in south Dublin. The annual intake of year one students was just under 100 and each year group were looked after by a 'Year Head'. These year heads provided much of the daily information relating to behaviour, attendance and punctuality and also acted as a reference point for weekly briefings regarding the progress of the group. Class teachers, form teachers and extra-curricular staff also provided information which was added to the continuous stream of formal input and which was valuable in terms of providing a complete account of each student's experiences.

Aside from the regular Junior Certificate programme, the school offered a comprehensive package of extra-curricular games and activities in which almost all of the students took part to some degree. Movement of students in and out of the group was rare, with only one new student joining and 6 leaving the group during the three year course of the study.

On their entry into year one of secondary school, the study group (91 students aged 12-13) began a series of tests, surveys and assessments that would continue for the three years of their junior cycle experience. Ten variable categories were studied and numerous data collection techniques were employed:

- Ability and intelligence tests were administered to all students;
- Daily reports were compiled in the areas of behaviour, attendance and punctuality;
- Six-weekly continuous assessment reports were presented by individual teachers;
- Twice yearly surveys on esteem, attribution and socialisation were organised;
- Annual assessments of involvement in extra-curricular activities and involvement in bullying were completed; and
- The normal school records (eg: academic results at Christmas and summer of each year) were also made available for the purposes of the study.

Each of these tests, surveys and assessments was administered directly by the researcher, who was working as a teacher in the school for the duration of the project. The information gathered was added to a selection of computerised data files at the end of every day and a summary of the results in each category was produced at the middle and end of each academic year. These results were collated over a three year period and were cross-referenced and correlated in an attempt to identify trends and patterns in the data.

The first assessment tool used was a correlation analysis of the data. Results from each of the variables were compared and relationships between each set were highlighted. Among these relationships, it was found that:

- The continuous assessment findings provided by teachers on the six-weekly report books were extremely accurate in terms of predicting not only exam performance, but also with regard to a range of factors including an estimate of those students most likely to be involved in bullying.

- The socialisation results displayed a strong connection with the victimisation findings, indicating that students targeted in bullying relationships tended to be amongst the least popular in the group.

- The exam results achieved by students were closely related to the exam results achieved by close friends and also to the individual pupil's level of academic self-esteem.

- Involvement in bullying was strongly related to the number of penalty points each student received (for poor behaviour), confirming that this type of relationship existed as part of a wider behavioural pattern rather than as an isolated issue in itself.

As well as generating a number of findings through the correlation analysis, the data were used to show how each of the variables (either independently or dependently) followed distinct patterns. These results strongly supported arguments that...

- Year two (between the start of secondary school and the Junior Certificate year) saw a fall-off both academically and behaviourally. Many students failed to recover fully from this in year three.

- The ability and intelligence tests used at the start of year one were very accurate and, for most students, gave an almost entirely factual account of how they were likely to perform academically in the coming year.

- The average levels of esteem and attribution were very consistent throughout the study, confirming that the foundation for characteristics such as these, were almost certainly laid early in life.

- Close friends and classmates were crucial in relation to progress in various data categories and were frequently influential when it came to exam performance and behaviour in particular.

- A reasonable degree of involvement in extra-curricular activities was perfectly adequate in terms of creating social connections and maintaining academic progress. Excessive involvement in activities was not seen to produce any additional benefits, while at the same time eroding time available for other commitments.

These and many other results and findings created an extremely favourable argument in support of the hypothesis that school-related variables influence the performance and experience of students in school. The continuous nature of this evidence (over three consecutive school years), the width of the supporting data (covering academic, social, personal, administrative, extra-curricular and behavioural relationships) and the support of the background literature, together confirmed that the variables under investigation were very much inter-connected. The potential for students starting secondary school to experience positive outcomes was therefore dependent not only on their own attitudes, abilities and motivations, but also on an assortment of relationships and practices within the school environment. The aim of maximising each students' opportunities for success in school was subsequently reliant on (among other factors) an understanding of the role of the critical variables and a willingness and ability to make relevant provision for this in the organisation of the school curriculum.

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Technical Explanations.

The terms listed below appear at various stages during the presentation. A brief description is therefore provided for the benefit of those who may be unfamiliar with them.

Junior Certificate.

These are the Irish state exams, taken by all students at the end of their third year in secondary school. The exams normally consist of 8-10 different subjects, with each of these subjects offered at 2/3 levels of difficulty. The tests for each subject are 2½ hours in duration.

Junior Cycle.

The period of time from when students begin their secondary education (year one), up until they complete their Junior Certificate exams (the end of year three).

Year Head.

The school involved in the study operated a system of year heads, where one teacher was given overall responsibility for a specific year grouping. Individual class teachers would forward information to the year head, who in turn would coordinate any discipline or pastoral action. The year head also acted as a point of contact for parents and referred serious incidents to the Deputy Principal or Principal. Year heads were often assisted by 'Form Teachers'.

Data.

The term 'data' is applied in the description of a collective (ie: plural) group of results or figures, as would be expected in an accurate use of the word. Since the word 'data' is however often referred to (incorrectly) in the singular, some of the descriptions featuring in this text may appear to be incorrectly phrased. This usage of 'data' in its plural and intended form is entirely deliberate.

1. Introduction.

1.01 Introduction.

The start of secondary school has often been viewed as an event of extreme importance in the lives of young Irish people. This is a period of substantial change in which subjects, teachers, friends and indeed the entire school environment are altered irrevocably. Students pay much attention to this transition and a broad spectrum of emotions often accompany this important phase. In addition, the challenge of coping with significant change at what is still a relatively young age, often results in doubts over one's ability to exert control over the new circumstances that are presented. Will I be able to do all the homework? Will I make new friends? Will I get onto the sports team?

It is with this backdrop that talk often turns to advice which could be offered to students, parents and teachers during the early stages of the secondary cycle. In particular, the new start not only tests the ability of those who have done well in primary school to maintain their performance, but also provides a chance for those whose primary experience was less than positive to benefit from a 'blank canvas'.

This research project therefore arose from a desire to assess a variety of practical issues during the early years of secondary school and to generate a range of results which could provide beneficial advice to those involved in this important educational transition.

Although a sizeable volume of research relating to the start of secondary school was already in existence, the need for further study appeared for a few clear reasons. Firstly, much of the existing research focused on a very narrow range of variables. Studies and texts for example concentrated on the influence of extra-curricular activities on academic success, or on the influence of bullying behaviour on self-esteem. Secondly, it became apparent in an analysis of background literature that most of this material was gathered over short – medium time periods. In other words, many of

the studies related to a period of weeks, months, or maybe only one year. Finally, while international research was reasonably plentiful, findings in this area relating to secondary schools in Ireland were less abundant.

The conclusion to this was that a need existed for research which focused on a wide range of experiences of the student starting secondary school (and not just isolated variables), that this research should span a full academic cycle (not just one year) and that the research should concentrate on a school or schools within our own educational system.

In attempting to pursue these objectives, choices had to be made about the specific type of study that would be completed, the subjects that would be involved and the location of the work. Since the researcher was working at the time in a secondary school in Dublin, the logical option was to take advantage of this situation by requesting the assistance of students and teachers in the school. While this provided a seemingly ideal partnership, two particular issues had to be addressed. The primary question was whether completing the research in only one school (as opposed to a simultaneous project in 3 / 4 schools) was the best approach. This question was easily answered once the data-collection planning started and it became very clear that a huge volume of work would be needed to complete the study effectively in even one school. By spreading the work across a variety of schools it was very clear that the efficiency and accuracy of the data collection could not be guaranteed (with only one research student involved).

In choosing to concentrate on one particular school, some other decisions were then made by default. The chosen school for example was an all-boys day school, situated in an urban location and thus the project by necessity was influenced by these factors. Although these issues clearly presented limitations in the study (to be discussed later in this thesis), the alternative approach of spreading the work across a range of schools was far more unsatisfactory.

In September 2001 therefore, ninety-one boys began their secondary education at this south-Dublin school. These students were monitored closely over the subsequent three years and a detailed picture of their Junior Certificate experience was consequently built up. The following research provides an explanation of the entire process, from initial thesis to final conclusions. Processes and methodologies are discussed, as are the results of numerous tests carried out during the study period.

2. Literature Review.

2.01 Literature Review.

In preparing a scheme of research for this study, it was necessary to identify and review data gathered by others in the same field. On a general level it was clear that this thesis touched on many areas of study – school effectiveness, sociology, education management, adolescent development, etc. The consequence of this was that an extremely broad range of background literature was available for review. Rather than straying too far from the core aims and objectives of the thesis, it was decided to focus on research which related as closely as possible to the critical factors under investigation.

It could certainly be argued that work such as Michael Rutter's "15,000 Hours" (1979) might provide a logical point of reference for any research in this area. Rutter undoubtedly yielded many beneficial findings. Primary among these was a solid confirmation that while the attributes and experiences brought to secondary school by pupils were important, the time spent within the school walls played a vital role in shaping the educational outcomes of each individual. Cleary this type of finding matched the objectives of my own research on many levels. Similarly, a number of related studies and reports have supported the notion that schools play an important part in the development of the student (Robinson, 1988), (Proudford and Baker, 1995). Watkins and Wagner (2000) for example discussed an increasing volume of evidence to argue that the different outcomes achieved by schools cannot solely be explained with reference to the type of pupils entering the school or the neighbourhood in which the school is operating. McGuiness (1993) also highlighted how the temptation for those within the school to blame problems on the home, the neighbourhood or other external factors, often hid the extent to which the school environment could yield a positive influence.

The difficulty however lay in the fact that each of these researchers elected to focus on different factors in the school environment. In addition to this, the factors chosen were measured, assessed and reported in a variety of

ways. While the same broad conclusion (that school *matters*) has been reaffirmed in many such studies, a number of issues of interest to my own thesis were rarely emphasised. This obvious obstacle of choosing to focus on a specific set of factors within the school, made it difficult to compare results and methodologies en-bloc with other large-scale studies. The majority of time spent in reviewing existing literature was therefore given to separately assessing recent research in each of the factors under investigation.

The outcomes of this literature review can firstly be presented under each of the relevant headings. A conclusion to the assessment has also been included for the purposes of drawing together the key data in each portion of the review.

Literature Review 1: Ability / Academic Performance Grouping.

2.02 Ability / Academic Performance.

> What is an ability? It can be a skill, or a capacity to think, or a capability that is largely based on someone's knowledge, or a combination of any of these. An ability can be broad, as indicated when psychologists introduce terms such as 'verbal ability' or 'motor ability', or it can be specific, as is implied when a person is said to have the ability to sail a boat or drive a car. People use the word in a variety of different ways.
>
> (Howe, 1998).

For the purposes of school and educational research, the word ability is generally viewed as the collection of academic capabilities and competences gathered by the student to-date. It is true that school life almost exclusively focuses on specific types of intelligence (verbal and numerical in most cases) and that ability assessments in school as a result tend to focus on these same narrow criteria.

As Gardner (1991) concluded, although there is a place for the types of intelligence measured in school, success in later life almost certainly depends on the extent to which an individual possesses and uses other intelligences.

In addition, two primary restrictions must be considered when assessing ability data. These are:

- Ability results may confirm that an individual is capable of performing a specific task, but these results do not explain *why* they can do it. For example, high grading may be a result of repeated practicing of the actual assessment or recent instruction in the specific subject matter.

- Ability results indicate a level of performance at one moment in time. They provide no guarantee of continued progress or future performance. While it is almost certainly possible to estimate academic attainment using ability ratings, it must surely be the case that other factors have an impact as well.

The acquisition of ability requires effort and attention on our part, a course of action which can be time consuming and challenging. Sternberg and Grigonenko (2003) for example, discussed the connection between the achievement of success and subsequent time invested in a task. Their view was that the willingness of a student to commit to an academic challenge was based on a range of factors (perceived ability, past successes, etc.). While these issues may influence on-going learning potential, basic principles of learning suggest that the quality of initial ability development is based on a variety of factors:

- Active mental processing. It has long been accepted that learning is an active, not a passive process. Students who engage in the learning activity and who interact with the subject matter on any

level tend to develop stronger and longer-lasting abilities than their passive classmates.

- Making meaningful connections. Once basic human abilities have been mastered, learning becomes a strategy of adding knowledge to that already gained. Terms such as 'building-blocks', 'scaffolding' and 'chain-links' are used in teacher education to explain how students form new concepts and abilities.

- Repetition. The old adage 'practice makes perfect' is critical in relation to the development of ability. Practice, rehearsal and self-testing are all commonly accepted methods of reinforcing knowledge or skills which have been learned.

The development of ability is therefore dependent on many factors. However further to this, it is important to bear in mind that ability is not necessarily a fixed concept. In other words it is quite possible (and indeed inevitable) that individuals lose certain abilities as time passes. Howe (1998) highlighted four kinds of influences that can make a large difference to the capacity to perform tasks:

- The influence of time and place. While the fact that the maintenance of ability suffers with the passing of time comes as no surprise, the fact that many abilities are 'context driven' is of interest. In many situations, it seems that abilities learned in one location or context, are not always transferable to other contexts. Students who perform well in class and yet poorly in exams may provide an example of this.

- The effect of a learner's mental state. Mood and emotion can influence an individual's ability to perform tasks effectively. Matching the mood at the time of learning, with the mood at the time of assessment, provides the greatest opportunity for effective performance. For example in school settings, the stress of tests and

exams can clearly influence a student's mood and, as a result, their test score.

- The personal significance of tasks. Many examples exist of individuals who have shown markedly different abilities depending on the manner in which they have been assessed, from autistic children who cannot make simple calculations but can perform elaborate manipulations of calendar dates, to street children in Brazil who struggle with simple addition and subtraction but can perform intricate arithmetic with the goods they sell. These and other examples highlight the fact that when a task or challenge is of personal interest, individuals find it easier to gain and maintain a high level of ability.

- How a problem is displayed. In many cases, it is not just the ability itself which seems to be unstable – often, changes in the assessment procedure results in ability rating variations. Many of us have no doubt experienced the sinking feeling of learning off a complex mathematical or scientific process only to become completely incapacitated by the manner in which the exam question is presented to us.

It should be noted that the one element common to almost every discussion of ability and achievement is motivation. Given that initial learning is dependent on factors such as active mental processing and practice, it is not difficult to see why motivation plays a crucial role. Similarly, once abilities have been developed, it is very often the degree of motivation towards the task which determines how well the ability can be maintained. On the positive side, individuals who have developed achievement motivation and/or an internal locus of control tend to seek ability challenges. Conversely, those who have developed a fear of failure (or a fear of success) and / or feelings of learned helplessness tend to avoid ability challenges and therefore progress at a slower rate.

Varma (1993) discussed evidence that schools do indeed influence measured intelligence and explained that:

> It would be wrong to infer that a child's tested intelligence level is a measure of some fundamental underlying attribute which determines what a child is capable of achieving, but which is not itself affected by educational processes.

Ability is not merely a fixed characteristic which is pre-determined at birth, but is an expression of this innate competence, combined with the fruits of learning and experience. The question for those involved in education is consequently 'which factors within the school can best help students to maximise their ability?' In this regard, it is surely the case that the ability a child brings to secondary school, for example, will not stand alone in determining their subsequent academic performance. Daily events, personal encounters and school incidents might all conceivably influence how well individual students manage to gather, apply and maintain their abilities.

Literature Review 2: Behaviour Grouping. (Attendance and Punctuality, Continuous Assessment, Behaviour).

2.03 Attendance / Punctuality.

> It should be of no surprise that one of the predictors of a child's success in school is attendance. Students who miss fewer days are more likely to reach proficiency and are more likely to complete school successfully.
>
> (Office of jobs and family services, 2002).

A cursory glance through the literature and recent research on school attendance confirms the generally accepted view that attendance at lessons

is a critical factor in determining success at school. While there seems to be little doubt surrounding the validity of this general assumption, questions still remain regarding the degree and scope of the influence. In short, while we are aware that poor attendance is likely to have negative consequences, the type of results which are likely and the force or seriousness of these results would seem difficult to predict.

HM Inspector of Schools (1993) quite simply concluded that commonsense and statistical evidence together clearly suggested that there was a link between attendance and attainment, and that good attendance was vital to the success of our young people's education.

The Welsh Office (1985) had previously gone a step further by clearly arguing that most students who miss regular amounts of school time, miss and do not make up important learning experiences. In most cases, they concluded that this subsequent lack of success on the part of a student further increased the likelihood that absenteeism might be repeated.

Blyth and Milner (1999) on the other hand, emphasised the fact that absence and non-attendance are not cut and dried issues. Students can miss entire days, or just certain lessons, or even just part of certain lessons. In addition, the considerable challenge of dealing with absence from school requires an understanding of the multiple causes of this behaviour.

Poor attendance it seems, can be attributed to numerous factors. Interestingly, it would appear that 'home' factors rarely contribute to absence and the primary causes of poor attendance (according to the students themselves) in the vast majority of cases, are 'school factors' (Malcolm, Wilson, Davidson and Kirk, 2003). These school factors include issues such as:

- Problems with lessons
- Problems with teachers
- Opportunism

- Not wanting to get into trouble
- Being bullied
- Peer pressure to take days off
- Social isolation

A small number of those surveyed in attendance studies, suggested additional causes of irregular attendance. Issues such as psychological problems, learning difficulties, behavioural problems and low self-esteem have been mentioned. Embarrassment at personal attributes such as being overweight, the inability to speak English well, or laziness, have also been noted as reasons for absence in specific cases.

The transition from primary to secondary education has received a growing degree of attention in research literature (e.g. Joint Oireachtas Committee on Education and Science, 1998), (e.g. A.S.T.I / N.P.C., 2001). The natural anticipation of such a move, coupled with new buildings, lack of familiarity with students and teachers, new subjects and complicated timetables, can all present a significant challenge to young students. Given that teachers and students may not be fully acquainted with each other for a number of months, the opportunity to miss classes and indeed full days of school is enhanced. Unfortunately, this also makes it more difficult to return to lessons since the perception may exist that "everyone else knows each other and I'm not sure what's going on".

Academic underachievement, loss of confidence and esteem were highlighted as prime outcomes in both the research mentioned above and in numerous other studies. Indeed, national data gathered in the U.S (Office of Jobs and Family Services, 2002), specifically highlights important thresholds of attendance below which success in school can be reasonably expected:

Table 1: Maximum number of days that a student can be absent from school each year, while still maintaining a reasonable expectation of academic success.

	Elementary School	Middle School
Days Missed:	6 days or less per year	13 days or less per year

Similarly, student attendance has been found to explain as much as 13.9% of variation in reading and mathematics test scores (New York City division of assessment and accountability, 2000).

Work by Le Riche (1995), also emphasised that the effects of absence were not only felt academically and that by promoting positive attendance, schools could help to ensure that students acquired confidence, discipline and self-respect. Missing out on school can, for example, clearly affect a child's ability to make and maintain friendships - an essential element of any child's life.

Research has also shown that young people with poor attendance records are more often drawn into anti-social behaviour or crime than those who are rarely absent from school (Department of Education and Skills, 2002).

Studies by Malcolm, Wilson, Davidson and Kirk (2003) found strong evidence which suggested a serious erosion of confidence and esteem amongst those who missed school on a regular basis. They claimed that the loss of a student's routine was a blow to their sense of purpose and security. This caused them to dislike school more and in turn, to want to be there less.

> When they come back they feel out of sorts, and that ends up reinforcing their not liking school, because their friends have been playing other games and the teacher's teaching a lesson they don't understand because it relates to the day before. And I think it's very self-perpetuating.
>
> (Head Teacher, quoted in Malcolm, Wilson, Davidson and Kirk, 2003).

A point occasionally raised in the literature is the degree to which those students missing school are aware of the possible negative implications of their actions. Teachers and administrators mentioned in various pieces of research felt that the students either weren't aware of the likely problems associated with poor attendance, or were aware and didn't particularly care, or were aware but mistakenly felt that catching up would not be a big problem. It has also been suggested that students missing school may well come from families where this is accepted behaviour. Indeed since many of those absent from school are missing lessons with their parent's consent, it is clearly difficult for them to see what is wrong with their behaviour.

The effect of absence on *other* pupils is an issue which has come to prominence in recent years. These students can be influenced in several ways:

- friends and work partners are left isolated;
- the class can be disrupted when the absent student returns;
- good attenders may develop a sense of resentment;
- poor attenders may become role-models.

On a similar note, teaching staff are often left to deal with the negative consequences of poor attendance:

- attention may be diverted from the whole class when the student returns;
- the teacher may lose free-time, helping the absent student to catch up;
- difficulties arise in maintaining accurate records and completing course-work;
- impaired opportunities arise in relation to building teacher-pupil relationships.

On a wider scale, it should be noted that poor attendance can influence both the school (in terms of difficulty in maintaining discipline) and also society at large (in terms of ensuring general standards of education).

In short, attendance at school matters. While the degree to which absence influences individual students depends on a number of variables (the number of lessons missed, the size of the class, the abilities of the pupil, etc.), there is little doubt that those who miss school are disadvantaged in many ways.

2.04 Continuous Assessment.

In attempting to measure and grade the progress of students, testing and assessment dominate as the most frequently utilised options. In general terms, tests compare the quality of knowledge which can be displayed, with a specific volume of pre-assigned information, at a given moment in time. Assessments on the other hand, usually involve a larger degree of subjective judgement on the part of the assessor, who grades performance on a wider range of qualities and over a wider range of time.

Tests and exams have, over recent decades, become an entrenched element of educational life in most countries. It is widely accepted that tests serve three main purposes:

- To provide a measurement of what has been learned;
- To provide a basis for selection (to further education and employment);
- To provide an indicator of future potential.

While these are all valuable results, it is important to understand that tests by their very nature, display certain limitations. To be of true worth, measurement tools should satisfy requirements of validity, reliability and convenience. The majority of school tests would certainly seem to possess

reliability (in that they are repeatable). In addition, they are usually convenient (in that they are relatively simple and inexpensive to administer).

The issue of validity however, has long been debated. In defining validity as the 'requirement that a test should achieve what it is designed to achieve', it is difficult to see how many tests could possibly meet this standard. Written tests of foreign languages, for example, certainly measure a student's ability to remember verbs or write letters. Unfortunately the crucial ability of communicating in the foreign language (which would surely be the aim of any foreign language course), cannot be addressed in a typical test. In essence, many tests fail to meet the standard of validity, in that while they can measure learning, they cannot measure competence.

Further to this, measurement and grading systems which are based solely on testing display additional limitations:

- Tests often carry an assumption that the student's ability is fixed. A child who gains a 'D' grade in a Christmas exam, can be thought of as a 'D' student until the next exam – which may not be till several months later.
- The cut-off points for grading in exams are normally arbitrary selections on the part of the examiner.
- Tests usually compare students with each other, as opposed to providing a definite indication of the student's level of task-mastery.
- Tests are very susceptible to situational and task characteristics. Not only is the material being tested, but so too is the student's ability to understand the questions being asked and his ability to work under time constraints, as well as his ability to express himself effectively in writing.

While tests therefore are by no means a one-stop solution, their convenience and reliability have justifiably made them an accepted part of school life across the globe.

Assessment is concerned with the range of a student's knowledge and how that knowledge is integrated and accessed. In attempting to complement the strengths of formal testing and at the same time make-up for some of its weaknesses, many schools have implemented systems of continuous assessment. Teachers grade students over a period of days or weeks, based on broad criteria such as 'progress', or 'effort', or 'application'. This assessment itself however, is by no means a perfect solution:

- Due to the inherent subjective nature of assessment, different teachers may interpret the grading differently or apply varying standards.
- Since grading relates to a period of days or weeks, students can never be exactly aware when they are being assessed.
- Teacher perceptions can result in imbalanced judgements. The 'Halo Effect' for example (where prior information or first impressions influence future decisions), is often difficult to overcome.

A couple of cautionary points therefore need to be considered when applying an assessment strategy. Firstly, grades on regular report cards can influence a student's attitude towards specific subjects, towards school in general and towards scholastic achievement. Depending on the grades and comments received (and on the reaction of others), a student may develop a sense of industry, aspiration and achievement. Equally, poor grades or negative comments may result in disillusion, lack of motivation and apathy. Assessments therefore make up for some of the restrictions of testing, and are powerful tools in their own right.

Secondly, although assessments are measurements of performance over a specific time-frame, there is a danger that reactions and experiences on the

day or days leading up to the actual completion of the assessment form, may over-ride the reality of the student's performance throughout the entire assessment period. In other words, if a student has performed very well for four weeks but causes disruption on the day the teacher is completing the end-of-month assessments, this one incident may create a degree of 'selective-perception' on the part of the teacher. While assessment strategies are subjective in nature, they are most effectively implemented by teachers and schools who keep accurate and up-to-date records of student performance.

The potential advantages of assessment strategies have been studied to a reasonable degree. Schloss and Smith (1998) for example, found that regular home-school communication could help to support appropriate behaviour both inside and outside the school environment. Equally, by developing a system of on-going communication with families, the opportunity was provided to both convey information about the student and also to address student needs in a timely manner.

Kerr and Nelson (1989) also supported the view that a continuous assessment of pupil performance was desirable. They felt that such approaches increased the likelihood that positive influences could be exerted on academic, social and behavioural performance.

It would seem practical to assume that a variety of grading and measurement techniques (both tests and assessments) provides a suitable approach. On the one hand, since students possess a variety of learning styles and teachers present their subjects in a number of different ways, it would be reasonable to expect that grading should in some way reflect this diversity. In addition, a system of continuous grading (as opposed to simply testing at the end of the module, term, or year) provides students with a fair opportunity to display their abilities, and provides teachers with a more balanced and accurate set of results. Finally, a combination of testing and assessment also enables parents and students themselves to monitor progress and to identify potential problems at an appropriate stage.

It is certainly reasonable to hope that the grading of our students should meet all three 'valid, convenient and reliable' criteria. A combination of testing and assessment offers a realistic option, to ensure that these standards are achieved.

2.05 Behaviour.

The behaviour of students in schools has attracted a great deal of attention recently in the popular press. One only has to read a newspaper article, listen to a radio phone-in programme, or watch a television chat-show to be convinced that the behaviour of students is causing serious problems in numerous schools. This increasing awareness and interest seems to have been generated for two main reasons. Firstly, the degree of behavioural problems reported by schools seem to be more serious than in the past. In other words, although the volume of disruptive behaviour may not be increasing, there have been reports of serious assaults and attacks on students and teachers. Secondly, the age at which disruptive behaviour is prevalent would appear to be falling. Where in the past we would have expected to see a certain degree of poor behaviour from older students, teachers are reporting behavioural problems amongst those in much younger classes.

Unquestionably, the period of early adolescence presents a significant challenge to our young people. As well as the physical and psychological issues which must be dealt with, the inevitable task of entering secondary education arises. While most teenagers manage to cope with these transitions, there is no doubt that many find it extremely difficult to manage and subsequently display behavioural evidence such as disaffection, stress, depression, disruption, etc. Watkins and Wagner (2000) referred to the 'cycles of interactions', or the volume of relationships, situations and challenges facing students on a daily basis and concluded that the school environment itself certainly contributes to patterns of behaviour amongst pupils.

Streaming of classes, lack of appropriate guidance, discipline procedures and various other policies can lead to certain groups of students feeling alienated and rejected. A vicious circle of under-achievement and disruption can therefore be created if those with low ability and esteem are further isolated by the actions of the school.

It is perhaps unsurprising that displays of poor behaviour often highlight deeper issues in a student's development. Algozzine, Serna and Patton (2001), confirmed that students who are disruptive in school are also likely to display other emotional characteristics at the same time:

- Unsatisfactory interpersonal relationships;
- Inappropriate behaviour and feelings outside school;
- Pervasive unhappiness or depression;

Further to this, academic work and socialisation in school appear to be closely related to behavioural performance. Those most likely to be disruptive are also likely to…

- Encounter physical symptoms or fears associated with school;
- Experience learning difficulties;
- Display poor attention to task, task commitment and homework completion.

An understanding of behavioural management techniques is obviously of crucial importance during these periods of transition. In moving from primary to secondary education, the two areas of greatest concern are consequently academic and social skills. For students who have experienced behavioural problems in the past, the opportunity to start fresh in secondary school is vitally important. Students themselves, when asked about their concerns entering secondary education, regularly cite issues such as uncertainty over rules, routines and teachers. It's clearly vital that issues such as these are addressed as early as possible (before the student enters secondary school, if this is practical) so that the primary concerns of

academic and social integration can be focused on in the first weeks of school.

Given that a certain degree of disruptive behaviour is almost inevitable (as students 'test the water' in their new secondary school), teachers will tend to manage this behaviour using a wide range of strategies:

- Environmental Strategies; where students are moved in the class, the activity is changed, the classroom surroundings are reorganised etc. The aim of this type of approach is to defuse the problem behaviour by reducing the opportunity for disruption.

- Reinforcement Strategies; where positive behaviour is recognised and rewarded, in the hope that it will be repeated.

- Punishment Strategies; where negative behaviour is met with sanctions.

Possibly the most recognisable approach to dealing with behavioural issues is punishment. While punishment is generally easy for students to understand and convenient for teachers to apply, the use of such a strategy can have a negative outcome in many situations. In so far as the aim of classroom management is to foster and encourage positive behaviour, teachers must be wary of adopting practices which might create a perceived lack of justice or balance. The danger of fuelling feelings of mistrust and victimisation is very real.

Perhaps the biggest obstacle for teachers in attempting to deal with disruptive behaviour is the need to make quick decisions about the huge range of issues which might present themselves at any given moment. Applying theory to practice is difficult when other students need attention, when class time is running out, or when crucial instruction needs to be given to the class as a whole. Kazdin (1987) for example, identified four distinct stages in behavioural management:

- Defining Behaviour
- Measuring Behaviour
- Explaining Behaviour
- Changing Behaviour

Unfortunately, it is all too easy for teachers to focus solely on the fourth stage, without having managed to define, measure, or explain the behaviour they are seeking to address. Without a knowledge of the type, extent and causes of the disruption, any attempt to change behaviour is at best a game of chance, and in fact more likely to be a further reinforcement of frustration and disaffection.

It must be remembered however, that school is only one part of an adolescent's life and that it would be unwise to burden schools entirely with the task of managing negative behaviour. The family of course play a crucial role, as does the wider society and indeed the student themselves. The role of shaping behaviour is therefore a shared responsibility, falling on the shoulders of at least three or four stakeholders. Equally, it is important to bear in mind that behaviour does not only relate to class and school. The notion of 'education for life' promotes an acceptance of the fact that we are moulding young people to become responsible citizens, self-directed adults and contributing members of the community. Just as schools rely on families and society to assist in behaviour management from an early age, it would clearly be unwise for the school to ignore its longer-term responsibilities.

Literature Review 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

2.06 Socialisation.

> Once social groups are established, these then also promote further social development. Being part of a group with other socially skilled individuals allows access to feedback which enables children to hone their skills still further. Meanwhile, the isolated, rejected child is likely to be involved in a circle of frustrating, unsuccessful overtures to gain access to the popular cliques or else may give up and withdraw or be relegated into a group with other similarly excluded children.
>
> (Ladd, 1983)

Friends serve many important functions in the lives of children and adolescents. The transition from primary to secondary education in particular provides both a significant challenge and opportunity for students. The task of meeting and mixing with a new circle of peers is mirrored by the chance to gain dozens of new friends.

This newly-found peer group can attend to numerous social and emotional needs at a time of great transition in the adolescent's life. Hendrick and Hendrick (2000) identified six distinct benefits of friendship amongst young people:

- Self-validation and ego support. Given that friends are generally complementary and supportive, they can provide a sense of belonging and self-worth.

- Emotional security. Friends can provide comfort in new or stressful situations (which is clearly relevant at times such as the transition into secondary school).

- Self-disclosure. Friends give young people an 'independent' third party to talk to about issues which are important to them.

- Help and Guidance. Friends are very often people who share the same problems and experiences. Their guidance as a result, can prove extremely valuable.

- Reliable allies. Friends generally provide back-up in times of crisis and frequently stick-up for each other in the face of adversity.

- Companionship and stimulation. Friends provide entertainment, distraction and pleasure.

In general, it would seem clear that friends contribute in many ways to the development of individual children. This contribution affects young people in areas such as personal, social, moral and educational growth.

Of course, this input from friends may be both positive and negative. Studies by Broadfoot, Osborn, Planel and Sharpe (2000) for example, generated support for the notion that low levels of motivation amongst boys in both French and English schools, was linked to anti-school peer-group influence.

Crucially, it is also apparent that the relationships a child develops begin to separate into distinct categories around the time they enter secondary education (Hartup, 1979). It is at this stage that friends in many ways, become an even greater source of comfort and support than the family itself. Young adolescents begin to look to their peer group for advice on social norms and accepted behaviours, rather than taking the advice of their parents as before. Adolescent's relationships with each other are markedly different from those with family members. This is primarily because relationships between young people are almost always voluntary and transient. In other words, both parties willingly enter the 'partnership' and

are free to leave at any time. In addition, there is a general balance of power between friends (as opposed to relationships with adults).

> Interaction with peers becomes increasingly significant and they gradually become the major reference group when making decisions and evaluations concerning current activities and event.
>
> (Erwin, 1998)

Of interest to this particular study are the similarities often displayed by friends. It would be logical to expect that many childhood friendships begin because of shared similarities – i.e., two or more young people with the same interests, or in the same school, or from the same backgrounds, forming a relationship. The question which has emerged in recent years is whether young adolescents will begin to share even more or deeper similarities as their friendship grows. Erwin (1998) claimed that this was certainly the case and that similarity tends to occur on many levels. His belief was that similarities in important personal attitudes (such as school orientation, music, fashion, drugs usage and aspects of personality) develop between friends.

> The participants in friendships that survive throughout a school year actually grow to be more similar to each other as they jointly develop some new interests and take on some of the existing characteristics of their friends.
>
> (Erwin, 1998)

As well as providing a back-up for the adolescent's attitudes, values and behaviour, similarity with friends can also help to create a positive group bonding dynamic. In other words, if a group of children all display similar characteristics and behaviours, a sense of strength and unity is built up amongst the group, which protects them individually from outside pressures. It would therefore seem that similarity between friends is both a cause and a consequence of the relationship and that an individual's development is likely to be influenced by those whom he chooses to be friendly with.

It is important to bear in mind also that friendship patterns in early adolescence can be quite transient. In a study of adolescent friendships, Fehr (1997) concluded that the two most important criteria for strong relationships were loyalty and intimacy. Similarly, Bukowski, Newcomb and Hartup (1996) identified common ground and affirmation as the core qualities in friendship formation and maintenance. The cessation or perceived breach of any of these qualities almost inevitably insured a termination (albeit temporary) of the relationship.

Juvonen and Wentzel (1996) reaffirmed the extensive and on-going social challenge facing young people. They highlighted the fact that on a daily basis, children work to build and maintain social connections, develop social identities and identify expected standards of performance. This behaviour is then modelled in the expectation that behaviour valued by teachers and peers will be rewarded. This wish to seek approval from those around them may (in the view of Juvonen and Wentzel), lead to the development of values and behaviours that are consistent with those of their peers.

In short, friendships are a crucial feature of adolescent life. Most young people come in daily contact with friends and as a result share intimacy, information and advice with these critical others at a stage when this type of relationship is most definitely needed. Time spent with friends shapes not only experiences and events but also attitudes and values – elements which will be carried right through into adult life.

The choice of friends and indeed wider social groups is one which carries a range of possible implications. While those who join with others are likely to become exposed to the norms and values of the particular group, it is also important to remember that conformity in all areas is by no means inevitable or pre-destined. Many social groups, while still exerting a degree of informal peer-pressure and uniformity, display a wide range of personal interests and attitudes.

What is certainly clear is that the life experience of young adolescents is potentially influenced by both the range and strength of friendships they experience. This detail provides both a solid foundation for those who manage to secure strong relationships in adolescence, but yet also a tangible cause of concern for those who miss out on friendships at this early stage.

2.07 Self-Esteem.

Self esteem is generally viewed as the value which we place on ourselves. It is a judgement of self-worth based on previous experience and feedback received from valued sources.

Coopersmith (1981) set out to study the influence of self-esteem by implementing a large-scale research project, beginning his investigation with a sample of ten-year-old boys and following them through into early adult life. Consistently and over the many years of this study, Coopersmith found that his sample could be split into three clear groups. High self-esteem boys possessed a positive, realistic view of themselves and their own abilities. They enjoyed taking part in things, were confident and were not unduly worried by criticism. They generally succeeded both academically and socially. Because they were less daunted by the possibility of failure, they were more likely to rise to challenge and to express their own opinions.

Medium self-esteem boys were more conformist, less sure of their worth and more anxious for social acceptance. Low self-esteem boys tended to be isolated, fearful, reluctant to join in and over-sensitive to criticism. They viewed failure as a further blow to their small store of confidence and therefore usually played safe, by setting artificially low goals. In some cases, the low-esteem boys set themselves unrealistically high goals – presumably so that failure would not be unexpected or criticised.

Coopersmith found that the influence of self-esteem continued well into early adulthood. High self-esteem boys consistently outperformed those of low self-esteem, both educationally in school and college, and also vocationally in terms of employment.

Unfortunately, the difficulty of assessment (other than using a formal measurement tool) often creates obstacles in relation to identifying those with low self-esteem. Since children (and adolescents in particular) are often quite skilled at hiding their feelings, teachers may be misled into thinking that there are no esteem problems in their class. Fontana (1995) proposed a sample of possible 'warning-signs' for teachers:

- If a child prefers to cheat rather than acknowledge mistakes, it is perhaps done in the belief that it is better to have broken the rules than to have scored poorly on a test. Poor results deliver a blow to self-esteem and therefore cheating may be a more acceptable strategy to the student.
- Often attempts to dominate or impress others stem from a need to boost self-esteem. When a child continuously tries to force their attention on others, it would be reasonable to consider that they may have difficulties with their self-regard.
- Students who consistently absent themselves from school are providing evidence that the consequences of missing school are more attractive to them than the consequences of attending. While this may be for one of many reasons, it's possible that school attendance for the particular child is so strongly associated with failure, that non-attendance is seen as a method of protecting self-esteem.

Similarly, it is important to monitor the degree to which students act and make decisions independently of others. Research has shown that individuals who have a low sense of self-esteem are more likely to replicate a model's behaviour, than individuals who have a greater sense of self-esteem and confidence (Biehler and Snowman, 1986). For this reason,

students with low self-esteem may be more likely to 'follow the crowd' and end up behaving in ways which they know are inappropriate.

Humphreys (2001) believed that self-esteem and academic achievement were closely linked. He concluded that without attention to self-esteem, children were not likely to make long-term academic progress. Lawrence (2003) backed-up this view by explaining that students with a positive degree of self-esteem are more likely to possess a natural curiosity and will react eagerly and enthusiastically when presented with a new challenge.

Unfortunately, the normal classroom environment itself may unwittingly contribute to the problem of low self-esteem. While brighter, active, more confident students by and large reap rewards in terms of test results and positive feedback, their less fortunate classmates may consistently experience failure and frustration. In order to protect their self-esteem, these students are likely to develop their own coping (and self-esteem protection) strategies. In the same way that cheating, attention seeking, or non-attendance were mentioned above, lack of effort and non-participation can equally be expected.

It should be noted however that increases in self-esteem are not always needed and do not, independent of other factors, necessarily produce any benefits. As noted by Reeve (1997), increases in achievement usually produce increases in self-esteem, however the reverse is rarely the case – increases in self-esteem do not usually produce increases in achievement. In addition, the level of self-esteem displayed by an individual can sometimes rise too high:

> Inflated self-esteem has a dark side. People with an inflated self-view are prone to aggression and acts of violence when that favourable self-view is threatened.
>
> (Reeve, 1997)

Self-esteem would appear to be a result, as opposed to a cause, of positive experience:

> The conclusion is not that self-esteem is the royal road to high motivation, but rather, that esteem is an end product of other self-related functions. Self-esteem is like happiness or morale - in that trying to be happy or enthusiastic does not get you very far. Rather, happiness and morale are emotional by-products of life's satisfactions, triumphs and positive relationships.
>
> (Reeve, 1997)

Performance accomplishments seemingly provide the most dependable source of self-esteem building. The fact that they are based on one's own experiences, raises confidence and expectations of further success in the future. Observation of others succeeding in threatening situations, also provides a 'vicarious' opportunity for the observer to develop esteem ("If he can do it, so can I").

Given that rejections, challenges and obstacles are faced by almost every individual from an early age, the striking characteristic of those succeeding (even in the face of great adversity), is a strong sense of self-worth. Invariably, a resilient sense of self-esteem depends not only on achieving successes in life, but also on overcoming the challenges and obstacles mentioned above. For this reason, it is not uncommon to encounter individuals with a significant level of success experience who have failed to develop a positive level of self esteem (because of the fact that their successes have come too easily and with little need to overcome rejection or struggle).

Self-esteem is a critical component of personal development. Schools provide an environment where self-esteem can be either fostered and nurtured, or equally stifled and restricted. Undoubtedly one of the characteristics of good teachers, and indeed good schools, is an ability to ensure that the former is the case.

2.08 Attribution.

'Attribution' refers to the manner in which individuals account for or explain events in their lives. The terms 'Optimist' and 'Pessimist' are generally used to describe the different attribution styles which can be displayed. Pessimists tend to believe that bad events will be on-going, that the situation is probably their own fault and that the outcome of any particular event will have an impact on everything they do. Optimists on the other hand usually believe that bad events are very much temporary, are caused by circumstances beyond their control and that the effects of a particular situation will not influence their lives in any other way.

The principle assumption of attribution theory is that people actively seek to discover *why* events occur. This analysis most frequently follows outcomes which are:

- Unexpected
- Negative
- Important

While every outcome could have literally hundreds of *actual* attributions, attribution theory is concerned with identifying the individual's attribution and how this view in turn influences motivation and emotion.

In view of this, it would seem that the attribution style employed by an individual is likely to direct their behaviour in various environments. Pessimistic people for example, are likely to blame themselves when things go wrong and as a result, are more likely to quit or become depressed about a particular outcome. Optimists on the other hand display a belief that success depends entirely on finding the most effective strategy. If they fail, quitting is rarely the chosen solution. Instead, a different strategy is selected and attempted.

Seligman (1991) identified a number of possible effects on motivation which were dependent on attribution style:

- Expectancy. The level of aspiration (and expectancy) tends to rise following a success and fall following a failure. Attribution style however, can exaggerate these outcomes at either extreme. The expectancy of optimists for example, will tend to rise substantially following a success, but remain reasonably stable after a failure. Conversely, the expectancy of pessimists will tend to fall substantially following a failure, but remain reasonably stable following a success.

- Personal Control. Given that pessimists often explain bad events with attributions which are internal, stable and uncontrollable, they are predisposed towards distress, passivity and fatalism. Optimists on the other hand, are predisposed towards control, activity and positivity.

- Helplessness v Optimism. Seligman (1991) used the term 'Learned Helplessness' to describe individuals with a pessimistic attribution style. This occurred not only when the individual viewed a situation as being beyond their control, but also when they had come to believe that they lacked the capacity to *ever* overcome this 'uncontrollable' environment.

- Emotion. It is clear that while some emotions result directly from the outcome of particular situations, many reactions result from the attribution. Pride, anger, relief, pity, hope, or hopelessness could all result to different degrees depending on how the individual explains the outcome which has been experienced. Pride and positive self esteem are often experienced as a consequence for example, if a positive outcome is attributed by the individual to their own involvement in the event.

In relating attribution theory to success in school, it would seem that success should not necessarily go to the most gifted, but to those with the most positive attribution style. Certainly when it comes to predicting academic success, the background literature indicates that there is a

substantial element of interconnection between explanatory style and ability.

Henderson and Milstein (1996), in assessing the resiliency of students in schools, proposed that schools do in fact have the ability to build and foster such traits. They found that students who could be taught to develop such positivity, were more socially competent, were good at problem solving and had the ability to take initiative in tasks.

Seligman, Girgus and Nolen-Hoeksema (1986) conducted a large-scale research project, following four hundred school children over a five year period. They concluded that children with a pessimistic explanatory style were at a serious disadvantage when it came to success in school. This happened for a few reasons. Firstly, it is extremely likely that most children will encounter a difficult life event at some stage in their early childhood (a death in the family, brother or sister leaving home, parental separation, moving house, switching schools, etc.). The study found a direct link between these negative experiences and childhood depression:

> The more misfortunes befall a child, the worse his depression. Optimistic children resist the impact of bad events better than pessimistic children do, and popular children resist better than unpopular do. But this does not prevent bad events from having some depressing effects on all children.

The study concluded that the causal explanation of success in school was dependent on a number of factors – including both ability and explanatory style. Over and above the talent v test score, it was repeatedly found that pessimists drop below their predicted potential and optimists exceed it.

Recent research has also attempted to investigate the communication of attribution style to others:

> Adolescents for example, tend to communicate to authority figures (teachers or parents) that failure was due to lack of ability rather than lack of effort and that success was due to effort rather than ability. To their peers however, adolescents convey that lack of effort rather

> than lack of ability was the cause for failure and that success would be due to high ability rather than effort.
>
> (Forsterling, 2001)

This attempt to explain our experiences is particularly relevant during adolescence, when the views and opinions of peers are highly valued. In attempting to manage the impressions of others, adolescents often either self-handicap before the event (deliberately introducing a success inhibiting factor before a particular activity is undertaken) or make excuses after the event. The net aim of both strategies is to separate the individual from the failure and therefore to maintain their perceived position within the social grouping.

Attribution style provides individuals with a method of explaining life events, which in turn contributes to a pattern of subsequent behaviour. The development of this explanatory style can best be viewed as a transactional process, where experience shapes attribution but where attribution can equally shape experiences. It is therefore vital to consider the role that attribution plays in shaping the experience of school students. At no time would this be more relevant than during the academic, social and personal transition from primary to secondary school.

2.09 Extra-Curricular Involvement.

The volume and quality of extra-curricular activities offered by schools varies enormously from institution to institution. Scarce resources, limited budgets and decreasing involvement of staff are often cited as reasons for curtailing after-school programmes. The perceived benefits of promoting extra-curricular activities however, invariably encourage even the most under-funded of schools to offer some degree of courses, classes or events.

It has long been recognised that sports programmes, for example, offer students the opportunity to explore different abilities and to develop skills

which cannot be practically challenged in the classroom environment. While specific sports-related skills are clearly addressed in these extra-curricular activities, of perhaps greater importance are the non-specific attributes which can be influenced by a student's involvement. Robb and Letts (1995) identified ten key attributes which children should be encouraged to develop:

- Self reliance
- Self belief
- Self determination
- Self awareness
- Self respect
- Self control
- Self restraint
- Self motivation
- Self assertion
- Self discipline

Given that these attributes form part of almost every sports programme offered to students, it is perhaps relatively easy to see why an involvement in after-school games is assumed to be beneficial for our young pupils.

It is worth noting however, that sports programmes are not the only way in which students can be exposed to new skills after-school. The provision of music and drama programmes is also becoming a focal-point of school life for many pupils. The primary benefit of these activities is the involvement and development of the right hemisphere of the brain. Robb and Letts (1995) emphasised this point. They observed that since the majority of the school day is taken up with logical, factual and analytical tasks, the left hemisphere of the brain is primarily utilised. While this provides excellent training for sequential, structured, or rational tasks later in life, a range of 'right-sided' skills are largely neglected in the regular school programme. Extra-curricular music and drama classes give students an opportunity to address this imbalance and to explore their spontaneous, emotional and experimental abilities. Although it would be a mistake to overly emphasise the need for training on either brain hemisphere, it would seem that the appropriate challenge is to provide opportunities for both sides of the brain to be developed, so as to ensure that students can draw from either or both hemispheres in new learning scenarios.

In addition to theories of brain operation, music and drama programmes fit firmly within the recommendations of both 'emotional intelligence' and 'multiple intelligences' findings. Goleman (1996) focused on the brain's limbic system and on the importance of emotive skills in life. Goleman proposed that learning would be more effective if it focused not only on the traditional 'chalk and talk' approach, but also if the emotion of learners was somehow touched. Similarly Gardner (1991) concluded that since individuals possess a wide range of intelligences, schools which choose to concentrate solely on logical / mathematical tasks are depriving their students of a wide range of educational opportunities. Both drama and music enable individuals to explore aspects of their personality which can create positive learning experiences by themselves and which can also build a foundation for future learning tasks.

As well as sports, drama and music, debating has, for many students, played an important role in their adolescent development. The process of researching, analysing, organising and presenting a logical argument, in the presence of opponents and adjudicators, certainly provides an opportunity for debaters to develop various critical life-skills. It has also been noted that students involved in debating are also given a chance to learn in other, less obvious ways. The content or 'motion' of a debate, for example, typically requires a student to gather knowledge in the specific field – something that more than likely would not have been done were it not for the debate. For this reason, students involved in debating often display a broad knowledge of current affairs, an understanding of historical events and an insight into international issues.

Further to this, debating gives students a chance to stand up in front of an audience and have their opinions heard. Given that adolescence is a time when tension and frustration is often fostered through a lack of communication, the provision of a forum for adolescent speech presents a clear-cut method of promoting communication skills. On the other side of this argument is the critical task of *listening*. Effective debating certainly demands a significant effort in terms of listening to the arguments of

opponents and identifying the key elements of their speech. Since one of the many aims of extra-curricular activities is to facilitate 'transferable learning' (ie: teach skills which can be used in other settings), there can be few parents and teachers who would not wish to encourage an enhancement of listening skills amongst our young people.

In addition to these benefits, studies by Watkins and Wagner (2000) showed how schools scoring highly on an index of communal organisation (offering full extra-curricular programmes, getting students involved in school life, etc.) contained students that were more interested in academic achievements, absent from school less and were more orderly.

Overall, it would seem that the general classroom environment places many restrictions on both teachers and students and that as a consequence, the range of skills and attributes which can be developed are somewhat confined. Offering a broad range of extra-curricular activities certainly opens up a different world of opportunities for students and enables them to identify and build on different abilities and talents which they may have. While there is no guarantee that an involvement in extra-curricular activities can definitely result in significant positive benefits for students, the chance to achieve success and personal growth can lead to a range of related benefits (increased confidence, reduced fear of failure, greater commitment to tasks, etc.).

The clear difference between extra-curricular activities and those offered during the main school day were clearly identified by Epstein and Karweit (1983). Three crucial differences were particularly emphasised by them:

- The voluntary nature of involvement;
- The wider range of abilities, skills and interests visible in the extra-curricular domain; and
- The fact that extra-curricular success often carries more weight (in terms of social standing) than normal school activities.

Finally, it should be noted that not all extra-curricular activities accrue the same benefits and results. While those participating in individual activities may be expected to develop a greater sense of achievement and independence, those who participate in group or team activities may be expected to gain more from a social perspective. Similarly, the difference between competitive and non-competitive activities in terms of the benefits of participation, certainly merits attention. The advantages to students participating in extra-curricular activities would appear to depend not only on the volume of participation, but also on factors such as the focus (individual vs team) and type (competitive vs non-competitive) of activities chosen.

2.10 Bullying.

> The abuse of power can happen in any human group. Whether bullying does occur is likely to depend on the psychological make-up of the potential bully, the possible support or connivance of others in the group, the response of the potential victim and the institutional framework which may or may not make bully / victim incidents more likely to happen.
>
> (Smith, 1999)

Bullying among children in schools is not a recent phenomenon. This abuse of power has however, been the subject of a growing volume of investigation in recent years. In addition, interest and awareness amongst pupils, teachers, parents, politicians and members of the press has been fuelled by the increasing quality and quantity of research in the field. Many of these recent studies have focused on a definition of bullying (or a modified version of it), proposed by Olweus (1993):

> We say a pupil is being bullied, or picked on, when another pupil, or group of pupils, say nasty and unpleasant things to him or her. It is also bullying when a pupil is hit, kicked, threatened, locked inside a room, sent nasty notes, when no one ever talks to them or things like that. These things can happen frequently and it is difficult for the pupil being bullied to defend himself or herself. It is also bullying when a pupil is teased repeatedly in a nasty way. But it is not

> bullying when two pupils of about the same strength have the odd fight or quarrel.

Given that bullying involves an on-going series of aggressive or negative acts towards a particular victim or victims, it is particularly likely to occur in situations from which the potential victim cannot readily escape. While school bullying is not an isolated behaviour (but is usually only one example of a specific child's negative behaviour pattern), (Olweus, 1993), the school environment unfortunately provides an ideal surrounding for this type of action.

Victims of this bullying behaviour generally fall into one of two categories (Olweus, 1993). Passive or submissive victims are generally quiet, sensitive, anxious, or insecure. They often possess a negative view of both themselves and their situation, are regularly lonely and isolated and may have a negative attitude towards violence. These characteristics are likely to be both a cause and a consequence of bullying.

Provocative victims are characterised by a combination of both anxious and aggressive reaction patterns. They often have problems with concentration, which causes behaviour that may irritate other students. In class surveys, provocative victims are sometimes identified as both bullies and victims.

Studies in England and Wales (Smith, 1999) found that students particularly at risk were those with special educational needs, those with physical disabilities, or those with speech problems.

Studies in secondary schools in Ireland (O'Moore, Kirkham and Smith, 1997) found that out of 10,843 post-primary pupils surveyed, 1,172 (10.8%) reported that they had been bullied occasionally. Another 316 (2.9%) pupils were bullied sometimes and a further 207 (1.9%) claimed that they were frequently bullied. This considerable volume of victimisation in schools certainly provides cause for concern.

Students who display bullying tendencies are typically aggressive towards adults as well as peers (Olweus, 1993). They are characterised by impulsivity and a strong need to dominate others. They are likely to be physically stronger than their peers (if they are boys) and are often surrounded by 2-3 peers who appear to like and support them. Recent studies by O'Moore and Kirkham (2001) however showed that children involved in bullying (as bullies, victims, or both) displayed lower levels of global self-esteem than those that had not been involved in any way. Their results also created a clear distinction between 'pure bullies' and 'bully-victims' (who bullied others and were also victims of bullying themselves). The results of this 2001 study showed that while both were likely to suffer negative consequences, 'bully-victims' had significantly lower global self-esteem and feelings of inadequacy than 'pure-bullies'.

Bullying behaviour is generally attributed to one or more primary motives:

- The need for dominance and power;
- Hostility towards the environment;
- Instrumental component (the bully may aim to get something from their actions – money, prestige, etc.).

Social psychology also tells us that bullying behaviour can be fostered in students who may otherwise never have behaved in a negative way. Children and adults may be encouraged to behave aggressively after having observed someone else acting in this way. This tendency will be even greater if the observer has a positive view of the model or if the observer perceives the model to have been 'rewarded' for his behaviour (by gaining status in the group for example).

In addition, if several individuals act as a group when victimising a particular student, the effect is a dilution of individual responsibility for the behaviour. Equally, as a result of repeated attacks or incidents of bullying over time, the victim may be perceived as someone who 'deserves' or 'should' be bullied.

The implications of bullying in school are wide ranging. On a positive note, bullying appears to steadily decrease with age in schools since:

- The bully is usually an older student. The older a student gets, the less people there are in the school that might potentially bully them.
- Victims gradually develop coping strategies as they grow older.
- Weaker students may become less vulnerable as they grow older (bigger, stronger, more confident).

Unfortunately, the effects of bullying are frequently negative. Follow-up studies of bullies and victims (Smith et al., 1999) have produced findings such as…

- 60% of boys characterised as bullies in grades 6-9 had been convicted of at least one officially registered crime by the age of 24.
- Victims still had lower self-esteem and were more likely to suffer from depression, even after having left school.
- Only half of secondary school pupils who had been victims of bullying behaviour, ever told anyone.
- The academic achievement of bullies is below average and their attitudes towards school and teachers tend to be negative.

Similar results have been gathered almost worldwide and together highlight a significant problem for schools. Perhaps best summarising this data, are two key findings from research in New Zealand (Sullivan, 1999):

- When children were asked 'the worst experience they ever had', bullying incidents came 2nd, behind the death of a close person.
- 90% of emotional abuse and physical violence experienced by children happens at school.

Bullying and aggression in childhood is undoubtedly an issue which requires on-going attention. While both the victims and perpetrators of bullying behaviour deserve assistance, it would seem that the effective

management and organisation of school life must surely suffer, without efficient prevention and intervention strategies.

2.11 Conclusion.

The background literature clearly demonstrates that a range of factors within the school environment influence the development of the student. A need now exists for data to be collected showing not only to what degree each of these elements influence the students but also how these elements influence each other. On an individual basis therefore, the background literature provides an indication of what can be expected in each of the different variables under investigation.

Initially it will be of interest to see whether or not the data gathered in this specific study match the findings of the related studies discussed above. While the literature provides ample evidence to back up a range of conclusions relating to each data category, this thesis will provide an opportunity to add further to the body of research by combining all of these elements into one study. By following the data subjects over a period of three years, this thesis also diverts from many other similar works by nature of the study period duration. In short, the interaction and relationship between variables together with the long-term nature of the study will yield results which can hopefully create a unique difference between this and other similar pieces of research.

3. Methodology.

3.01 Aims and Objectives.

The title of this thesis ('Critical Success Factors in Early Secondary Education') provides a clear indication of the overall research aim. Essentially the primary objective was to identify school-based elements which influenced the educational experience of students. Variables such as levels of attendance, involvement in extra-curricular activities and behaviour in school were selected and analysed. The intention was to highlight and measure the degree to which these and many other key factors contributed to each student's academic, social and personal progress in school. The core objectives were:

- To identify trends within each of the selected data categories;
- To measure the relationship between these variables;
- To provide a detailed account of the influence of these variables on students' experiences at school;
- To compile data which could be of use to students, parents, teachers and school administrators, in terms of increasing the benefits derived from early secondary education.

In short, the hypothesis to be tested was that "variables within the school environment impact on each other and on students within the school, influencing the experience and performance of individuals".

3.02 The Variables.

In deciding which factors should and should not be included in this investigation, it was decided from the outset to focus on school-based topics. Factors such as family background and previous school records were therefore not considered. The primary rationale behind this decision was to provide an opportunity to pinpoint exactly how issues in secondary school influenced students, *independent of external factors*. In principle, this approach was used to assist in answering one of the main questions

posed by the project as a whole, namely: how can a school maximise the possibility that new students will have a positive experience of secondary education? Given that external factors such as family conflict are largely outside the control of the school, the decision to concentrate solely on school-based issues was taken.

Following on from this, the logical enquiry then became a question of *which* variables should be studied. A review of recent literature and research (which follows), provided a broad spectrum of potentially critical factors which subsequently created the foundation for this study. The 10 variables selected were…

- Academic ability and performance.
- Socialisation / popularity within the class group.
- Extra-curricular activities (frequency, volume and type of participation).
- Attendance and punctuality.
- Attribution style.
- Academic and social esteem.
- Behaviour in school.
- Continuous assessment of effort, conduct and homework.
- Academic performance and behaviour of close friends.
- Involvement in bullying.

Within each of the above categories, further break-downs and distinctions were made. Specific issues within these bands were highlighted and addressed in detail. A full explanation of each variable, together with a description of how data were gathered and how results within each category were assessed, is contained in the various sections of this presentation.

3.03 Variable Categories.

In discussing the background literature, methodologies and results in relation to the variables under investigation, it was decided to deal with these variables in three distinct categories:

Category One: Ability and Academic Performance Grouping.

Category Two: Behaviour Grouping. (Attendance and Punctuality, Continuous Assessment, Behaviour).

Category Three: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

3.04 The School & Students.

Children in Ireland generally enter secondary school at 12/13 years of age, having completed six years of formal education at primary level (and possibly an additional 2/3 years of pre-school education) before that. At the end of the third year of secondary education, the 'Junior Certificate' exams take place. Most Junior Certificate students sit between 8-10 exams, each of which is offered at different levels of difficulty (ranging from 'Higher Level' to 'Ordinary Level' and in some cases 'Foundation Level').

The research group for this thesis consisted of an entire year grouping from a school in south Dublin. The school is an independent (fee paying) boys primary and secondary school, founded and governed by a religious order. The secondary school is split into six separate years, each with three classes of 30 pupils. Students have different teachers for each subject and one 'Year Head' coordinates the day-to-day running of each year group. A discipline procedure is implemented in situations where the behaviour of a student is deemed by a member of staff to be inappropriate or

unacceptable. This procedure relates to general behaviour in the school and as a result, no separate policy exists in relation to bullying.

A wide range of subjects is offered at a variety of levels and a moderate degree of assistance is provided for students with special needs. In any given year about 4-5 students (5% approximately) could be classified as having special educational needs. Normally these students have the opportunity to take one extra class per week (one-on-one) in order to work on basic level English or Maths. In addition, arrangements are made for these students to complete state exams with any assistance they are entitled to.

School facilities include a student canteen, computer room, playing fields and sports complex. As well as a wide range of class subjects, a full programme of extra-curricular activities is offered. The main activity offered to students is rugby. The vast majority of students entering year one would normally take part in rugby and this figure would only fall slightly as the pupils progress through years two and three.

Roughly a third of the students come from the surrounding area, with the remainder commuting by car, bus, or rail. All of the students are required to pay fees (no scholarships are offered) with books, uniform and sporting equipment being provided at additional cost. Parents are generally very supportive while at the same time expecting high standards of both the school and their children. Almost every student would be expected to complete the school cycle and a sizeable number (80% – 90%) would go immediately on to third level education. The study group for this particular research started the first year of its secondary education in September 2001. The data which follow relate to the three subsequent academic years, culminating in the Junior Certificate results achieved by the students in question.

3.05 Limitations of the Study.

A discussion of the research procedures and findings would obviously be somewhat flawed were it not to be preceded by an acceptance of any inherent limitations. Given that this study focused mainly on one specific group of students in one particular school, it would be rather easy to identify a crucial restriction in the data collection process. The question will no doubt be raised as to whether the experiences of this specific study group can be related to other schools, other age groups, or even other cultures.

As a result of this, it is important to stress that the intention of this thesis was not necessarily to generate findings which could be directly applied to numerous other situations. Instead, this thesis aimed to act as a starting point for further research, fuelling questions as well as answers and creating an interest in the notion of school and student development. Rather than forcing any findings on the educational community at large, or stating that 'This is how it is', the objective of this study was simply to state that 'This is how it was *in this particular school*'. After that, the challenge will be for other researchers to compare or test the findings in alternate situations - girls or mixed schools, older or younger school years, different social backgrounds, etc. Ultimately, a positive outcome for this thesis depends on conclusions being reached which are *useful* to pupils, teachers, parents and schools in general. At very least, there is little doubt that the methodology employed in this research project will yield findings which can be applied, debated, or tested by numerous educational stakeholders.

Tests and Measurement.

As a consequence of the wide range of variables under investigation, it was necessary to employ a variety of assessment techniques. Throughout the course of the three year study-period a combination of surveys, tests, continuous assessments, exams and general school records were collected for the purposes of the research project.

Tests and Measurement 1: Ability and Academic Performance Grouping.

3.06 Ability / Academic Performance.

In order to provide a means of establishing how well a student was performing academically, each pupil underwent a series of ability tests during the first week of year one. These combined the normal ability tests used by the school to assess new students (Drumcondra Aptitude, Ability and Reasoning Tests) together with the Raven's Standard Progressive Matrices Test.

Drumcondra Tests.

- *Drumcondra Irish Test, Educational Research Centre, Drumcondra, Dublin.*
- *Drumcondra Reasoning Test (DRC), Educational Research Centre, Drumcondra, Dublin.*

The Drumcondra tests measure a student's ability in Irish, English and Maths. The Irish test consists of four subtests: Vocabulary, Comprehension, Usage and Spelling. The reasoning test is an objective test of cognitive skills, which is used to assess verbal reasoning (in English) and numerical ability.

These tests have been standardised on over 10,000 pupils attending Irish post-primary schools. Scores can be used to produce a profile showing a student's strengths and weaknesses. A combined Verbal Reasoning and Numerical Ability score for example, can be used as an index of scholastic ability.

Test-retest reliability coefficients were calculated for the purposes of the Drumcondra Reasoning Test, test materials. The stability of the test performance over time was identified as .85 for verbal reasoning, .85 for numerical ability and .90 for total reasoning, with students of the same age as those in this current thesis. In terms of reliability, the coefficients range in value from .88 to .96, with these high scores suggesting that the items in each test or sub-test did in fact measure the same attribute.

The criterion-related validity of the reasoning test compared the test results with a range of external variables. A comparison with teacher ratings for example ranged from .47 to .64, although the higher correlations tended to come from primary schools (where it was felt that the teachers may have been more familiar with their students across a wide range of subjects).

The validity of the Drumcondra Irish Test was assessed using both curriculum-based measurements and also a variety of other test instruments within the Drumcondra Attainment Test Series. Correlations of between .51 and .65 between the Irish test and the Drumcondra Verbal Reasoning test for example suggest a strong relationship between Irish and general verbal attainment.

The reliability of the Irish test has also been well assessed. On one type of reliability measure (the 'internal consistency'), the coefficients for the total mathematics, Irish reading and English reading tests exceed .93. The coefficients for the different subtests within the level iv series all exceed .80.

Raven's Standard Progressive Matrices.

- *Raven's Standard Progressive Matrices, J.C Raven (1990), Oxford Psychologists Press.*

The Standard Progressive Matrices test assesses non-verbal intelligence, using abstract reasoning tasks. It consists of five sets of 12 problems. Each set starts with a problem which is relatively easy to solve, with subsequent tasks building on the method needed to solve earlier problems. In this way, the student has five opportunities (ie: in each of the five sections) to identify a problem-solving method and to develop it for the next group of tasks. The overall test therefore provides a built-in training programme and ultimately measures the ability to learn from experience, or 'learning potential'.

The reliability indicators for the Raven's matrices are extremely positive. Internal consistency studies range from .60 to .98, with a median of .90. Test-retest correlations range from .46 to .97 (with regard to intervals of eleven years and two days respectively). The median test-retest value is approximately .82 and the coefficient for students in the 13 years plus age group (as provided by Ravens) was .88.

Similarly the validity results for the Standard Progressive Matrices are highly positive. Coefficients between the Standard progressive Matrices and the Stanford-Binet and Weschler scales range from .54 to .88. The majority of these coefficients are to be found in the range of .70 to .80.

The Drumcondra tests were administered in one sitting by the school Guidance Counsellor (as is normal practice in the school). The Raven's test was administered by the Ph.D student two days later. In both cases, brief instructions were given to the pupils (as per the instructions on the respective testing materials) at the start and the tests were subsequently completed without any problems.

The results from the two tests were combined and standardised (to provide a total score of 0-42), which gave each student a result that could be easily compared to their subsequent exam performance (also consisting of a total possible score of 0-42). The standardisation of scores was performed as follows:

Maths scores were divided by 92 (the top score) and then multiplied by 100 to get a percent.

Irish scores were divided by 136 (the top score) and then multiplied by 100 to get a percent.

English scores were divided by 194 (the top score) and then multiplied by 100 to get a percent.

Raven's scores were divided by 56 (the top score) and then multiplied by 100 to get a percent.

The four percentage scores above were averaged, divided by 100 and then multiplied by 42 to create a standardised score from 0-42. This total could then be compared to the exam points earned by each student in subsequent school tests.

The academic performance of each student was measured using the two main sets of school exams each year. In first and second year, these were the Christmas exams in December and the summer exams in May. In third year, there was a slight difference - the normal summer exams were replaced by the Junior Certificate state exams.

In each case, a points system was used to enable comparison of grades over time and between students. This system awarded pupils points for their best six subjects, using the following scale:

Higher Level	Ordinary Level
'A' Grade = 7 Points	'A' Grade = 4 Points
'B' Grade = 6 Points	'B' Grade = 3 Points
'C' Grade = 5 Points	'C' Grade = 2 Points
'D' Grade = 4 Points	'D' Grade = 1 Point.

A student scoring six 'A' grades on higher level papers, would therefore achieve the maximum of forty-two points.

Tests and Measurement 2: Behaviour Grouping. (Attendance and Punctuality, Continuous Assessment, Behaviour).

3.07 Attendance / Punctuality.

The normal school records for the student body were made available for the purposes of this research. As a result, it was possible to monitor attendance and punctuality for the students on a daily basis over the three years of their junior cycle. Attendance and punctuality figures were maintained by the year heads (as is their normal role) and were passed on to the researcher every day. The attendance figures given in the findings are simply the number of absent days from school, while the punctuality figures relate to days in which the student arrived late to school or when they arrived late to any class during the course of a school day.

3.08 Continuous Assessment.

Every six weeks, a school report was compiled by teachers, to be sent home to the parents of each student. These results were recorded for the

purposes of this study and facilitated the construction of two distinct data assessment categories:

- 'Report Book Grades': Since the report books sent to parents used a number system for grading, it was possible to generate an average score for each pupil every six weeks. The number system asked teachers to award marks from 1-4 (one being best) for application, homework and behaviour. The report book grade recorded for each student was therefore the average mark awarded by the teachers. Lower scores indicated better grades.

- 'Report Book Comments': As well as the number system mentioned above, teachers were given the opportunity to add comments to their grades. The report book comment recorded for the students in this thesis was the number of positive comments minus the number of negative comments received on each six-weekly report. Higher scores indicated more positive comments from teachers.

- It should be noted that in year three, the report books used for the students, changed slightly. The school introduced a new system at the start of year three, which meant that the students only received comments (and no grades). The data analysis tables in this thesis, will therefore display figures in the 'Report Book Grade' columns for year one and year two, but not for year three.

3.09 Behaviour.

A penalty-points system was used to monitor the behaviour of students in the study group. Over the course of their three year junior cycle, a daily file was maintained containing details of any behavioural incidents noted by teachers. Every negative incident was then recorded as one penalty

point on the student's behavioural total. These behavioural incidents were recorded by the year head on receipt of a complaint from any subject teacher. It can be assumed that some incidents may have occurred during the study which were not recorded. This would have happened in a situation where the class teacher chose not to report the incident to the year head. By definition, this would have only included very minor offences, since anything of any significance would almost certainly have been passed on to the year head by the teacher.

It should be noted however that in year three a new code of discipline was introduced into the school. This made individual class teachers responsible for dealing with minor behavioural incidents. These were only reported to the year head if the situation continued to escalate or if a pattern of poor behaviour emerged over a period of time. For this reason, the overall volume of behavioural incidents recorded on the school files was expected to fall in year three.

Tests and Measurement 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

3.10 Socialisation.

For the purposes of this study, socialisation was measured using a peer-assessment form. Twice a year (at Christmas and Summer) students were given a list of everyone in their class. On this list, they were asked to mark each of their classmates as a '1' ("I don't really get along with this person"), a '2' ("I get along ok with this person"), or a '3' ("I get along very well with this person"). Using the results from this assessment, two data sets were produced.

Firstly, it was clearly quite easy to identify those students who received the most marks and, equally, those who received very few marks in total. In addition, it was possible to highlight close friendships between students by comparing marks awarded by pairs of students to each other. In other words, if two students gave each other a '3' grade ("I get along very well with this person"), they were deemed to be good friends. Relationships where one student awarded a '3', but where the other only awarded a '1' or '2', were deemed to be less stable. Using this information, the average academic performance (in Christmas and summer exams) and the average behavioural record (using the penalty points system) for each student's closest friends could be calculated.

3.11 Self-Esteem.

The self-esteem result for the first term came from the "Piers-Harris Children's Self-Concept Scale", which was administered during the first week of September.

Piers-Harris Children's Self-Concept Scale.

- *Piers-Harris Children's Self-Concept Scale (PHCSCS-2), Piers, E., Harris, D., Herzberg, D. 1984, Western Psychological Services.*

This is an 80-item, self-report questionnaire designed to assess how children and adolescents feel about themselves. Respondents are presented with a list of statements and are simply asked to show whether each statement applies to them by marking "yes" or "no" after each one. The higher the total score given, the higher the predicted level of self-esteem. The Piers-Harris Scale creates both a general esteem score for each student and also sub-totals in the following categories:

- Behaviour;
- Intellectual and School Status;
- Physical Appearance and Attributes;
- Anxiety;
- Popularity;
- Happiness and Satisfaction.

Following this initial use of the Piers-Harris Scale, it was felt that the results were very broad and that a tighter measurement, more in line with the aims of the study and of greater relevance to the students in the study group might be beneficial. An alternative esteem test was therefore designed by the researcher and used for the remainder of the study period (School Specific Esteem Assessment – Appendix One). This assessment mirrored the structure and format of the Piers-Harris test but was shorter in length and focused on two aspects of self-esteem only (academic self-esteem and social self-esteem).

Students completed this school-specific self-esteem assessment at Christmas and summer of each year. The assessment was administered during the Christmas and summer exams and consisted of twenty statements which all described how some people might feel about themselves. Respondents were simply asked to indicate whether each statement applied to them by marking either a 'yes' or 'no' option after each statement.

The assessment contained ten statements which related to social esteem and ten statements which related to academic esteem (these were mixed randomly throughout the assessment). It was therefore possible when analysing the results to identify a total social esteem score for each student, a total academic esteem score for each student and also an overall esteem score. The higher the result in each case, the more a positive self-evaluation was suggested. A copy of the self-esteem questionnaire used is included in Appendix One.

The reliability and validity of the *Piers-Harris* questionnaire has been well tested. According to the revised testing manual (Piers, Harris, Herzberg, 1984):

> "The *Piers-Harris* appears to be a highly reliable instrument. Test-retest reliability coefficients range from .42 to .96 and internal consistency estimates for the total score range from .88 to .93. The reliability figures compare favourably with other measures used to assess personality traits in children and adolescents".

In addition, the standard error of measurement (based on a reliability estimate of .93 and a standard deviation of 13.3) is 3.8. The net conclusion is therefore that across a wide range of observations on the same individual, it would be expected that two-thirds of the observations would fall within four points of the true score.

In terms of validity, the *Piers*-Harris has been compared with numerous other assessment techniques (teacher, peer, or parental ratings, other self-concept testing tools, personality characteristics, etc.). In each case a strong degree of correlation was evident, for example:

- Correlation with 'Tennessee Self-Concept Scale': .51
- Correlation with 'Coopersmith' Assessment: .85
- Correlation with 'Personal Attribute Inventory': .67
- Correlation with Lipsett's 'Self-Concept Scale': .68

A further discussion on reliability is contained at the end of the methodology section.

3.12 Attribution.

Attribution style for the students in the group was measured twice a year. During the first week of year one Seligman's "Children's Attributional Style Questionnaire" (CASQ) was used to record this information.

Children's Attributional Style Questionnaire.

- *Children's Attributional Style Questionnaire (CASQ), Kaslow, Tanenbaum & Seligman (1978), Cognitive Therapy and Research.*

The CASQ is a 48-item forced-choice measure of explanatory style. Each item presents a hypothetical event and two possible explanations for why that event occurred. Respondents are instructed to imagine the event happening to them, then to choose which of the two explanations best describes why the event would happen to them.

The lower the overall score in the assessment, the more the child explains bad events in terms of internal, stable and global causes, while explaining good events in terms of external, unstable and specific causes – thereby displaying pessimistic tendencies towards both types of situation. Conversely, a higher total score in the assessment indicates an optimistic explanatory style in terms of both good and bad events.

The CASQ consists of 6 sub-scales (internality, stability and globality for positive events and the internality, stability and globality for negative events). An overall explanatory score (labelled CPCN) is obtained by subtracting the overall negative score (CN) from the overall positive score (CP). The coefficients for the CP, CN and CPCN scales have been reported as .71, .66, and .73 respectively (Seligman et al, 1984). The CASQ sub-scale scores tend to possess only modest reliabilities in the long-term, in that changes in life events appear to influence the consistency of results over prolonged periods. Over shorter time periods however, Seligman noted that ' the CASQ scores were highly reliable and quite stable'.

In terms of validity, he found that 'maladaptive explanatory style was significantly correlated with high-depression scores each time the questionnaires were administered'. This relationship between the CASQ and similar assessments has provided a high degree of predictive validity, particularly in terms of identifying students who have later displayed a

tendency to become depressed (Seligman et al, 1984). A study of 'Learned Helplessness in Children' (Seligman, Nolen-Hoeksema and Girgus, 1986) found significant correlations between results of the CASQ and those of the 'CDI' (a modification of the Beck Depression Inventory), the 'Life Events Questionnaire' and the 'Student Behaviour Checklist'.

The questionnaire was administered by the researcher, who gave a brief introduction (as per the C.A.S.Q instructions) and then allowed students as much time as was necessary to complete the questionnaire.

Following this first attribution assessment, a school-specific survey was designed and completed at Christmas and summer in each of the subsequent years (School Specific Attribution Survey – Appendix One). The reason for using the CASQ materials initially was that a number of the questions in the school-specific survey could not have been understood by students who had only recently come to the school. However by the end of year one, the students' knowledge of the school together with its exam and report structures, made it quite feasible to use the more efficient school-specific attribution assessment. This measurement simply involved a collection of twenty four hypothetical school situations together with true/false explanatory options. The format and structure of the CASQ was mirrored, with the intention of assessing the same attributes in each student but with a list of scenarios that were more familiar to them. Again, a mixture of both positive and negative situations was given, allowing a total score to be easily calculated. As with the CASQ, lower total scores in the assessment indicated a pessimistic attribution style, while higher total scores indicated an optimistic style.

A copy of the attribution survey used is included in Appendix One. The issue of reliability is discussed further at the end of the methodology section.

3.13 Extra-Curricular Involvement.

Involvement in extra-curricular activities was measured at the end of each academic year. Students were given a list of all the activities which were available and were asked to record which activities they took part in and how many days they were involved per week. This information made it possible to create four data sets:

- The average number of days per week each student took part in activities during the year.
- The number of different activities each student took part in during the year.
- The proportion of individual versus team activities which each student took part in during the year.
- The proportion of competitive versus non-competitive activities which each student took part in during the year.

The extra-curricular activities offered to the students in this specific study, were classified as follows…

Individual Activities: Archery, Art, Athletics, Cross-Country, Debating, Golf, Music, Squash, Swimming, Table-Tennis, Tennis.

Team Activities: Basketball, Cricket, Drama, Gaelic Football, Rugby, Soccer, St.Vincent de Paul (Charity collections), Waterpolo.

Competitive Activities: Archery, Athletics, Basketball, Cricket, Cross-Country, Debating, Gaelic Football, Golf, Rugby, Soccer, Squash, Swimming, Table-Tennis, Tennis, Waterpolo.

Non-Competitive Activities: Art, Drama, Music, St.Vincent de Paul (Charity collections).

3.14 Bullying.

In the final week of each year, students were asked to complete a questionnaire relating to bullying behaviour. This began with a short definition of bullying:

"A person is being bullied…

-When mean or unpleasant things are said about them;

- When they are ignored or left out of things on purpose;
- When they are hit, pushed, kicked, or threatened;
- When unfair lies or rumours are made up about them."

Respondents were asked to tick any one (or two) of three boxes after each name:

Box One:	This person bullied others in the class.
Box Two:	This person was bullied by other people in the class.
Box Three:	This person wasn't involved in bullying at all.

The questionnaire was administered by the researcher each year. It was distributed just before one of the summer exams (while all of the students were seated in the exam hall).

The results of this questionnaire were then inputted, creating a ranking of those students who were most often reported as bullies by their peers, as well as a ranking of those most often reported as victims by their peers.

Note: The decision to use a school-based bullying survey (as opposed to a pre-existing option) was based on a couple of key factors. Firstly, the revised Olweus Bully/Victim Questionnaire (Dan Olweus, 1996, Research Centre for Health promotion, University of Bergen) was too broad for the purposes of this study. Given that the aim was simply to assess the volume of bullying behaviour amongst the group, there was no need to administer a

questionnaire which would go far beyond this basic objective. The Peer Relations Questionnaire (PRQ, Rigby and Slee, 1983, The Professional Reading Guide, Victoria, Australia) provided an option but again, the length and complexity of the questionnaire was not suitable for the purposes of the study.

3.15 A Note on Reliability.

The self-esteem and attribution assessments relied to a large extent on tests designed specifically for this study. While the results in year one for each of these attributes were generated using proven tests (the 'Piers-Harris Self-Esteem Test' and the 'Children's Attributional Style Questionnaire'), years two and three featured school-specific assessments. It was important therefore that attention be paid to the reliability of these particular instruments.

In a consideration of reliability, the consistency of the measurement tool is under question. We need to be confident that, were the specific assessment to be repeated, the spread of results would remain stable. Charts 2-7 below provide a visual indication of the reliability of the attribution and self-esteem tests. Charts 2-4 show the frequency distribution for attribution results at the end of each year, while charts 5-7 show the same information for the self-esteem data. Most noticeable amongst these displays is the high level of consistency between the three attribution graphs and similarly between the three self-esteem graphs.

Table 2: Frequency Distribution of Attribution Scores (End Year One).

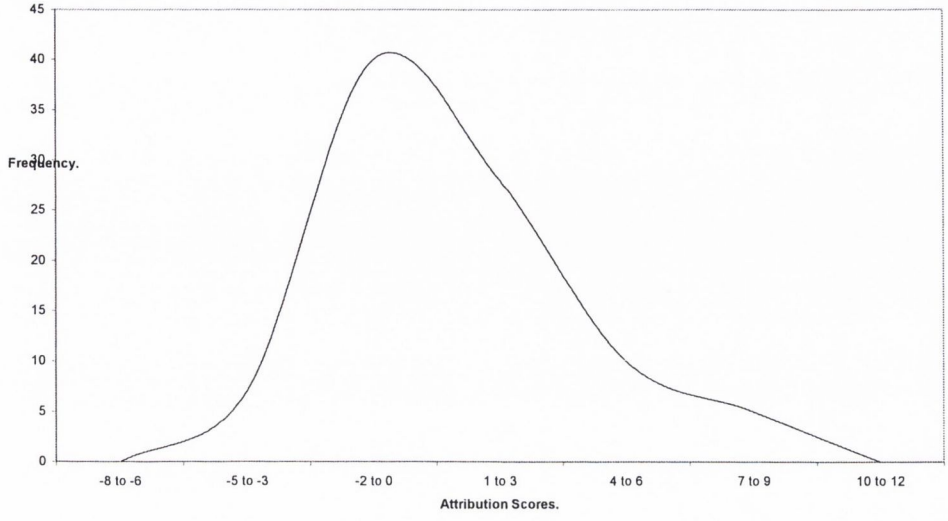


Table 3: Frequency Distribution of Attribution Scores (End Year Two).

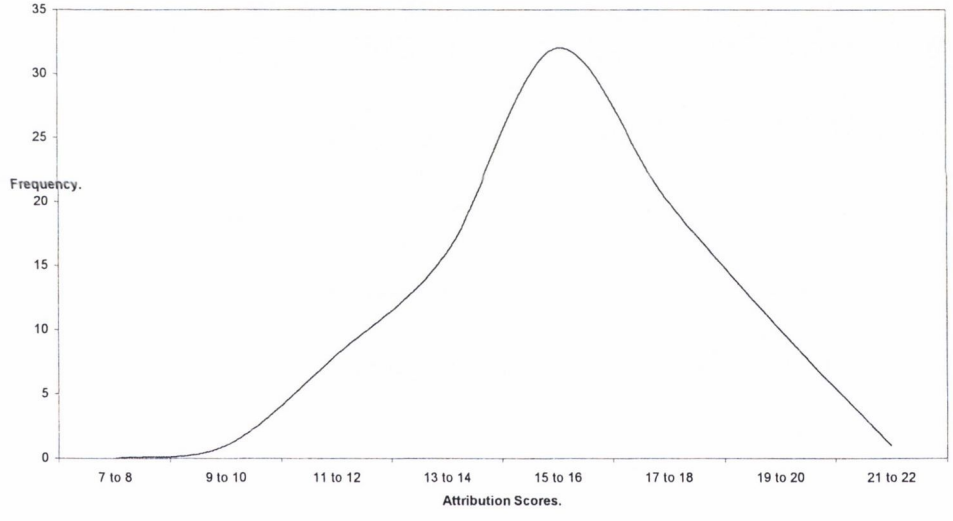


Table 4: Frequency Distribution of Attribution Scores (End of Year Three).

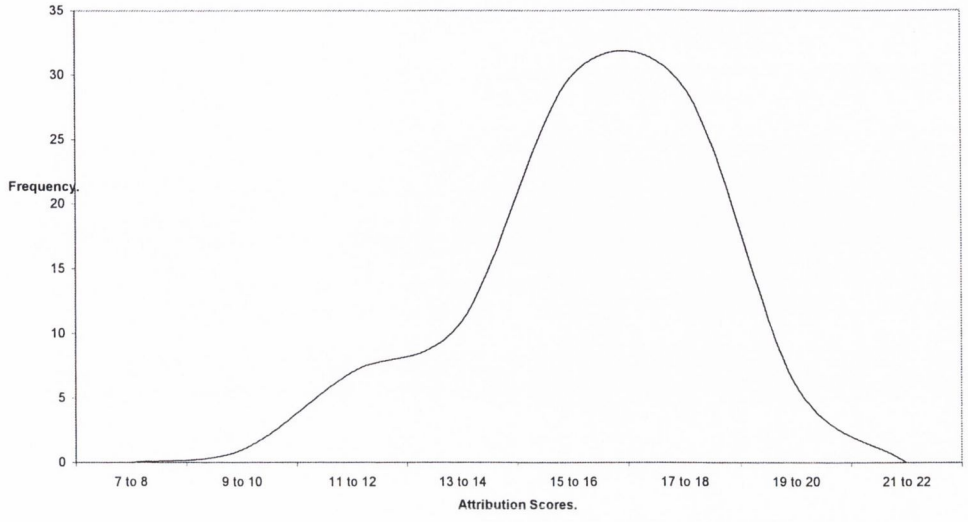


Table 5: Frequency Distribution of Total Esteem Scores (End of Year One).

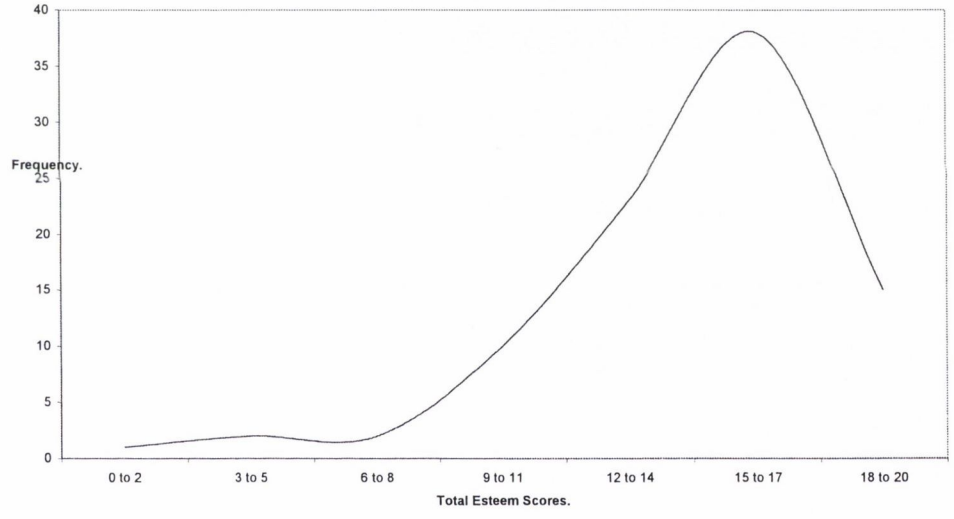


Table 6: Frequency Distribution of Total Esteem Scores (End of Year Two).

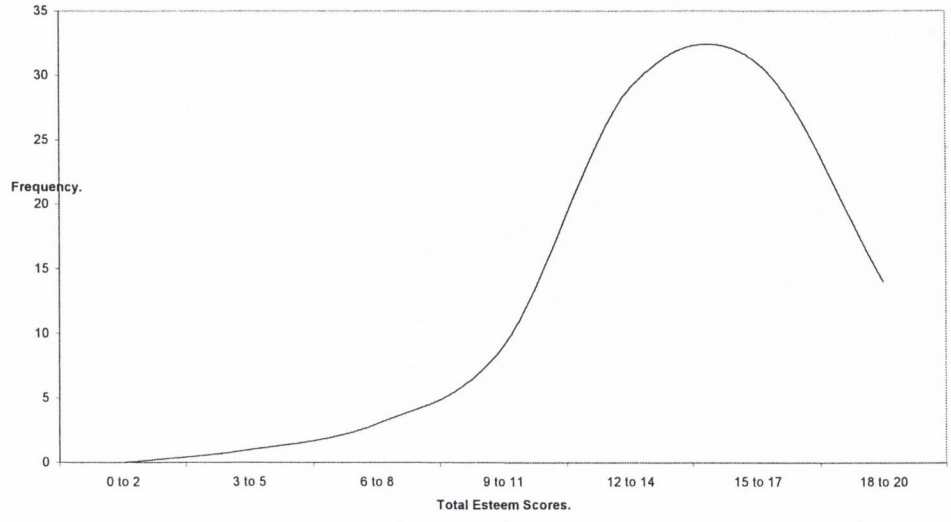
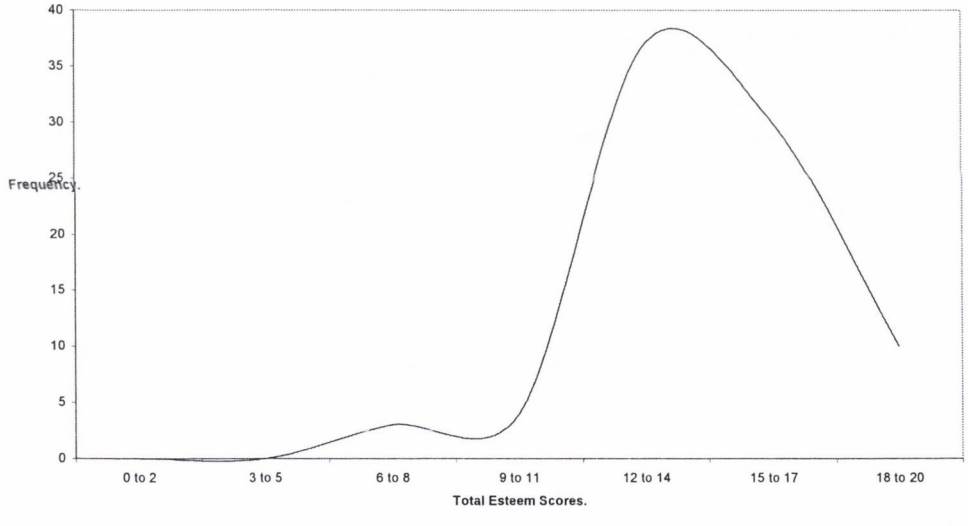


Table 7: Frequency Distribution of Total Esteem Scores (End of Year Three).



As can be seen from these charts, the attribution results (tables 2-4) followed a normal curve throughout the three years of the study. In comparison, although the self-esteem curves were skewed to the right somewhat, the important point to note is that the spread of results maintained this pattern in each of the three years.

This high degree of consistency and stability in relation to both the attribution and self-esteem tests, acts as an endorsement of the reliability of the instruments used. Although this is certainly a positive outcome, it is

important to be aware of the potential drawback of this assumption. Ultimately, the reliability of either of these tests will best be assessed following repeated uses with different groups, in a variety of settings and with different researchers administering and scoring the tests. For the purposes of this study however, the highly stable spread of results evident over a three year period, yields a high degree of confidence in the reliability of the instruments used.

Procedures.

The following section provides an explanation of the testing procedure that was employed. This annual 'Calendar of Events' was repeated in each of the three years and generated the data which formed the basis of the overall study. What follows is therefore a description of the timing of each measurement, the resources required and the techniques used to administer each test.

Procedures 1: Ability and Academic Performance Grouping.

3.16 Ability / Academic Performance.

The total group of students came together to complete the Drumcondra tests and the Raven's test during their first week in secondary school. The Drumcondra Irish test was administered first. The pupils marked their scores on a hand-scorable answer sheet, which was returned to the

Educational Research Centre in Drumcondra for scoring. The Irish test lasted for 1½ hours. At the end of this test, pupils were given a 30 minute break before the Drumcondra Reasoning Test was administered. Again, a hand-scorable answer sheet was used and was returned to the research centre for scoring. This second test also lasted for 1½ hours. In each case, the specific test instructions (as provided) were followed.

Two days later, the Raven's Standard Progressive Matrices were administered. This time, the testing procedure involved each of the three class groups being tested one after the other. Each test lasted 45 minutes and therefore the overall procedure was completed in a little over two hours. The pupil's answers to each question were simply written on a blank sheet of paper which was handed up at the end of the test. These were then corrected over the following days by the researcher.

Christmas and Summer Exams.
At each set of school exams, the results were copied and fed into the computer. A scoring system (as outlined earlier in this thesis) converted these results into an exam points score.

Procedures 2: Behaviour Grouping. (Attendance and Punctuality, Continuous Assessment, Behaviour).

3.17 Behaviour, Attendance and Punctuality.

Each of these three variables were collected on a daily basis. In the case of both attendance and punctuality, the normal school records were used to

simply record those students who were absent from class or who had been late to class during the day. In the case of behaviour, the relevant year head was approached at the end of each day and provided information on any students who had been reported to him / her by a teacher. Any such incidents were then recorded on the student file and a 'penalty point' was recorded, for the purposes of this study.

3.18 Continuous Assessment.

Report books were prepared by teachers every six weeks. This information was therefore copied and fed into the computer for analysis under the 'continuous assessment' category.

Procedures 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

3.19 Socialisation.

The socialisation surveys were the third and final questionnaires completed at both Christmas and Summer (on the last day of the exams). Since the instructions given on the sheet were very straightforward, the pupils were simply told to read these and to ask if they had any questions. In a similar fashion to the previous two assessments, there was no need for any time limit (since the test was quite short). The correction of the assessment could also be done by hand once completed.

3.20 Self-Esteem.

In a similar fashion to the attribution survey, the esteem survey was administered on the last day of both the Christmas and summer exams. Again, copies of the survey were needed for each student within the year group and the students were simply given told to "read the instruction at the top of the page and place the sheet at the side of the table when you are finished". They were also told to raise their hand if they had any questions during the assessment. The assessment never lasted more than 15 minutes and the results were corrected by hand, by the researcher.

3.21 Attribution.

The attribution survey was administered on the last day of both the Christmas and Summer exams. Since the total group were already in an exam hall, the organisation of this assessment was not overly complicated. Copies of the attribution survey were needed for each student within the year group and the students were simply given told to "read the instruction at the top of the page and place the sheet at the side of the table when you are finished". They were also told to raise their hand if they had any questions during the assessment. No time limit was given, since the assessment never required more than 15 minutes. The attribution surveys were corrected by hand, by the researcher.

3.22 Extra-Curricular Activities & Bullying / Victimisation Surveys.

The extra-curricular and bullying surveys were completed at the end of each year only (and not twice a year like most of the other assessments). There were distinct reasons for this.

Since some of the extra-curricular activities offered in the school only started in the spring (e.g. athletics, cricket) while others ran for the duration

of the school year, it was impractical to survey students effectively about their involvement in December. Instead it was felt that by waiting until May and assessing the degree of involvement at that stage, students would be in a better position to reflect on their interest in the full range of activities that were offered that year.

The bullying survey on the other hand, was administered only once a year for a different reason. Essentially it was felt that the bullying data were probably the most 'sensitive' of the attributes under investigation. Equally it was highly likely that since this was an on-going and highly transparent research project, the students might well talk to each other about the various surveys being completed and that discussion amongst them was somewhat unavoidable. While this was not a problem for any of the other data collection methods or attributes being studied, it seemed unfair that pupils might hear that they had been identified by their peers as bullies or victims – labels which would be uncomfortable to say the least. Since negative feeling was certainly not something that should have resulted from the involvement of the students in this study, the strategy of using the bullying survey only once a year (on the last day of the summer term), sought to minimise the risk of individuals discussing what they had put down.

Again, there was no need for any explanation prior to either the extra-curricular or the bullying/victimisation surveys. Pupils were simply instructed to read the instructions on the sheet and to ask if they had any questions. Each survey lasted for approximately 15 minutes and both were scored by hand by the researcher.

Since both the bully / victimisation and involvement in extra-curricular activities surveys were only completed once a year, results in these categories do not appear on the mid-year analysis of results tables

Note.

At all times during the study-period, pupils used coded numbers on their surveys and assessments. An additional coding occurred when data were inputted following an assessment or survey. The combined effect of these strategies was that the identity of students referred to by number in this final presentation remains unknown, even to those who took part in the research.

3.23 Procedure For Dealing With Missing Data.

As would have been expected, there were some occasions during the course of the study when specific data could not be collected. This happened for example when a student was sick and unable to attend the Christmas or summer exams. In these cases, the following approach was taken:

Ability or Exams Missed.
Where a student missed either the initial ability assessment or any of the major school exams, no score was entered in the results table. Equally, the 'academic variation' variable was also left blank, to avoid skewing of the overall averages for the group.

No Involvement in Extra-Curricular Activities.
On the rare occasions when a student was involved in no extra-curricular activities, the results tables show no entry for any of the four related variables ('extra-curricular days', 'extra-curricular number', 'individual v team' and 'competitive v non-competitive').

No Close Friends.
In attempting to compare the performance of each student's close friends, a comparison of socialisation ratings was used. Where an individual did not

receive a '3' rating ('I get on very well with this person') from any other student that they themselves awarded a '3' to, it was recorded that the student in question had no close friends. The variables 'FPP' and 'FER' therefore remained empty on the results tables.

No Attribution or Self-Esteem Rating.
If any student was absent on the day of these assessments, the relevant field was left blank on the results table.

3.24 Multiple Regression.

While a host of correlations and relationships between variables were identified during the study period, it might reasonably be asked, "which variables were the *most* important"? The breadth and scope of the research project however, makes this a somewhat unanswerable question. For example, even the matter of deciding on a classification or ranking of variables in relation to their importance requires a clear subjective judgment. To some people, the primary interest may lie in identifying which factors contributed to academic success amongst the study group. Others may feel that issues such as self-esteem or involvement in bullying merit greater attention. These judgements are all equally valid but, at the same time, create a difficulty in terms of prioritising results.

The use of statistical analysis in this thesis has therefore focused on individual variables, relationships between pairs of data and descriptive statistics on an individual and class basis. Given the numerous data categories that were studied it was certainly possible to consider multiple regressions amongst the results. This process involved a consideration of the relationship between one specific variable (the 'dependent variable') and a number of other variables (the 'independent variables') which it may have been felt had an influence on this element.

In table 8 for example, the relationship between the dependent variable (exam results) and a selection of the most closely related independent variables (as selected by their individual correlations with the exam result variable) is shown. The 'r' score provides an overall correlation between the exam results of the group and the collection of other variables under investigation. The 'R Squared' figure highlights the proportion of variance in the dependent variable that is accounted for by all of the independent variables.

Table 8: Mutliple Regression Analysis With Dependent Variable: 'Exam Results' and Independent Variables: 'Ability', 'Attendance / Lates' and 'Behaviour'.

	Year One	*Year Two*	*Year Three*
Multiple R	0.84	0.87	0.84
R Squared	0.71	0.75	0.70
Adjusted R Squared	0.70	0.74	0.69
Standard Error	4.01	4.80	3.77
Observations	91	87	83

In this analysis a strong connection is evident between the variables. This association is also particularly consistent across the three year duration of the study, allowing a conclusion to be drawn that exam results were primarily influenced by the three variables under consideration.

Table 9 provides evidence of a slightly different regression trend, where the dependent variable this time (socialisation) shows a fading relationship with the independent variables (extra-curricular days, bullying and victimisation) as each year passes.

Table 9: Multiple Regression Analysis With Dependent Variable: 'Socialisation' and Independent Variables: 'Extra-Curricular Days', 'Bullying' and 'Victimisation'.

	Year One	*Year Two*	*Year Three*
Multiple R	0.73	0.62	0.55
R Squared	0.53	0.39	0.31
Adjusted R Squared	0.52	0.36	0.28
Standard Error	5.16	5.83	5.60
Observations	91	88	84

The inference in this case is that while these variables were largely responsible for each student's popularity rating in year one, their influence faded somewhat in years two and three.

This type of analysis can therefore help us to assess the bearing that groups of variables may have on specific individual variables. The difficulty however, concerns the vast array of variables available for consideration and the almost limitless combination of these that could be assessed. With

twenty data categories under investigation in this specific study, tens of thousands of potential relationships existed.

In table 10 a reasonably strong relationship is evident between the dependent variable (self-esteem) and the three selected independent variables (exam results, penalty points and victimisation). It is clear from this moderate result however, that other variables must also be responsible for influencing each student's self-esteem.

Table 10: Multiple Regression Analysis With Dependent Variable: 'Total Esteem' and Independent Variables: 'Exam Results', 'Penalty Points' and 'Victimisation'.

	Year One	*Year Two*	*Year Three*
Multiple R	0.49	0.53	0.43
R Squared	0.24	0.28	0.19
Adjusted R Squared	0.21	0.25	0.16
Standard Error	3.19	2.58	2.43
Observations	91	88	84

Table 11 therefore aims to take the analysis a step further by adding two more independent variables (attendance and extra-curricular days). The result is an R-Squared value only marginally different than was evident in table 10.

Table 11: Multiple Regression Analysis With Dependent Variable: 'Total Esteem' and Independent Variables: 'Exam Results', 'Penalty Points, 'Victimisation', 'Attendance' and 'Extra-Curricular Days'.

	Year One	*Year Two*	*Year Three*
Multiple R	0.50	0.55	0.49
R Squared	0.25	0.30	0.24
Adjusted R Squared	0.20	0.26	0.19
Standard Error	3.22	2.56	2.38
Observations	91	88	84

A decision therefore was necessary with regards to testing each combination of variables in this way – selecting a dependent variable and then continuously performing a regression analysis using the thousands of possible combinations of independent variables. While this process may well have yielded a ranking of the most influential variables, it would also have generated a considerable volume of data to add to the already teeming collection of results discussed so far.

The primary aim of this research project (as emphasised in the introductory stages of the thesis) was to "identify school-based elements which impacted on the educational experience of students". A decision to move away from a full multiple regression analysis of the data was therefore taken. This removed the potential threat of overcrowding the results of the study with numbers and calculations. At the same time, the correlation data clearly answered the primary research question. As well as

identifying a range of relationships between variables, the correlation assessment also provided an opportunity to pinpoint the most influential variables in the study. The regular report book results, exam grades and behaviour records for example, were the three data categories which showed high levels of correlation with more categories than any other variables. In a ranking of correlation relationships from strongest to weakest these three variables featured nine, eight and six times respectively in the top thirty correlations.

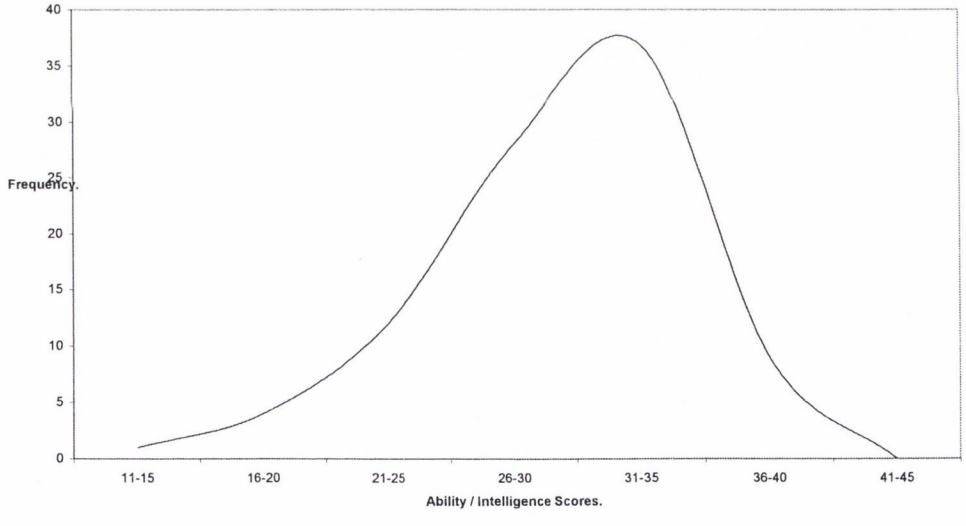
In short, a wish to stick close to the core objectives of the study together with a desire to present the results in a clear manner, led to a decision to provide only a passing commentary on regression statistics.

4. Results.

4.01 Ability / Academic Performance.

The initial ability tests were completed by all of the ninety-one students who started first year. With a possible range from 0 – 42, the actual range observed was from the lowest score of 15 to the highest of 39. The average score for the entire group was 29.9. The frequency distribution curve for these results followed a normal 'bell-curve' pattern, displaying a predictable spread of abilities across the study group.

Table 12: Frequency Distribution of Ability / Intelligence Scores (September Year One).



Following on from these ability tests, the results below were recorded in the six subsequent major exams (from Christmas of year one to the Junior Certificate exams at the end of year three).

Table 13: Average, maximum and minimum exam points totals achieved by the study group in each of the six major exams.

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Avg.	32.8	33.5	31.3	29.5	29.9	32.6
Min.	8	5	4	4	5	8
Max.	42	42	42	42	42	42
St. Dev.	7	7.3	8.2	9.4	7.8	6.7

As can be seen, the general trend was for a fall-off in academic results in year two followed by a reasonable degree of recovery in year three.

An assessment of the average variation between academic ability and exam results, also reflected this drop in performance in year two. With little or no variation between the predicted score and actual performance in year one, it would seem that the ability and intelligence test prediction was certainly accurate at that stage. However, the subsequent gap (particularly in year two) highlighted an important issue. Although the ability test was an accurate predictor in year one, other factors appeared to impact on exam success to a greater extent in years two and three. The ability tests provided further evidence therefore that the academic capabilities displayed by students at the start of secondary school, were not the sole indicators of subsequent achievement. Instead, a variety of elements contributed to and influenced (particularly in the later years of the junior cycle) the ability of the students to match or exceed their predicted level of achievement.

Table 14: Average difference between a student's ability score and their subsequent exam performance in each of the six major exams.

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Average	+ 2.9	+ 3.6	+ 1.2	- .6	- .5	+ 2.3

The notable recovery in the final exams of the study period (the Junior Certificate exams) could have been the result of a range of factors. Most realistically, the impending threat of these state exams undoubtedly encouraged a number of students to substantially increase their study and revision workload in the months leading up to the tests. Equally as a private school, a large proportion of students would also have been taking part in grinds or revision classes either independently at home or in grind schools. With participation in such classes increasing as the Junior Certificate approached, it is probably that this had a positive influence on the exam results.

Correlation Data for Ability / Academic Performance.

Table 15: Correlation Between Academic Ability and Exam Results.

No.	*Variable 1*	*Variable 2*	*Jan Y1*	*May Y1*	*Jan Y2*	*May Y2*	*Jan Y3*	*May Y3*
15	Ability	Exams	0.77	0.80	0.76	0.77	0.69	0.80

One of the most anticipated results in this study, was the relationship between the academic ability and intelligence of students (as measured at the start of year one) and the subsequent performance of these students in

major exams. Critically this correlation yielded two major points of interest.

Firstly, the high correlations evident between these two variables highlights a strong level of practical use in relation to the ability and intelligence tests used. In other words, if it was possible to accurately predict the performance of students in this study using the relevant tests, it would be reasonable to assume that this would also be the case with other groups.

Secondly however, a degree of scope is also available in terms of arguing that ability and intelligence are not the only factors which predict exam performance. Enough students performed above or below their recorded ability to confirm that other factors must play a part in determining grades at major exams.

Table 16: Correlation Between Academic Ability and Report Book Grades.

No.	*Variable 1*	*Variable 2*	*Jan Y1*	*May Y1*	*Jan Y2*	*May Y2*	*Jan Y3*	*May Y3*
16	Ability	RBG	-0.61	-0.65	-0.52	-0.52		

The relationship between academic ability and the grades awarded to students on their report books, remained strong throughout the course of the study. Although there were no report book grades awarded in year three, the data from years one and two provide evidence of a firm connection between the two variables.

The correlation data in this case simply imply that higher report book grades (which are a result of poor performance in school) are linked to lower levels of academic ability, as measured at the start of year one. Of note is the fact that the strength of the correlation between these two variables fell from year one to year two. This would seem to suggest that

while a student's ability in year one is strongly reflected in his subsequent performance in year one, this entry level ability does not restrict the possibility for the student to change his performance level (for the better or worse) in later years. The fact that the connection between these two variables became looser in year two is therefore almost certainly an indication that the ability a student might start first year with is not necessarily a firm predictor of the level of performance which will be achieved in years two, three and beyond.

Table 17: Correlation Between Academic Ability and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
17	Ability	RBC	0.59	0.61	0.41	0.41	0.60	0.58

Given that the grades and comments awarded by teachers on the six-weekly report books were extremely consistent in nature, it is reasonable to assume that the correlations between either the report book grades or the report book comments and any other variable, would be very similar. Indeed, the correlation data would back up this straightforward premise.

A strong relationship was already seen to exist between the report book grades achieved by students and their academic ability, for example. Further to this, it is clear from the data above that this correlation extends also to the report book comments recorded by teachers for each student.

The dip in the strength of the correlations evident in January and May 2003, can probably be explained by internal factors relating to the use of the report book system. Throughout year one it was evident that teachers were giving a high volume of comments on report books (quite possibly as a result of the fact that students were new to the school and therefore

teachers felt the need to provide plenty of encouragement and support at the early stages of secondary education). Equally, the fact that the report books changed to a 'comments only' system in third year, resulted in a high volume of comments being recorded at that stage. In the interim therefore, the volume of comments in year two was lower than in either year one or year three. This in turn impacted on the correlation data and may provide an answer to the apparent skew in the data in year two.

Table 18: Correlation Between Exam Results and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
18	Exams	Ac. Variation	.74	.77	.84	.89	.83	.75

The initial ability and intelligence tests administered at the start of year one, provided an indication of the academic standards which could be expected of each student in the years ahead. As subsequent Christmas and summer exams passed by, the measurement of variation between each student's ability and their actual exam performance yielded a substantial connection. As the data above demonstrate, an extremely high proportion of students fared very much as predicted by the ability scores.

These findings primarily act as an endorsement of the ability and intelligence tests used, in so far as very few students performed well beyond or well short of their predicted attainment level in major exams. It is important to note however, that a small minority *did* fare much better or worse than expected – a result which highlights the fact that performance in exams is not solely dependent on ability and / or intelligence.

Table 18 below, gives an indication of what proportion of students fared either better or worse than their predicted level in each of the six major sets of exams:

Table 19: Number and Percentage of Students Performing Above or Below Their Predicted Ability Level in Each Set of Exams.

Exams.	***Worse Than Predicted***	***Better Than Predicted***
Jan Year 1 (n91):	14 (15%)	77 (85%)
May Year 1 (n91):	14 (15%)	77 (85%)
Jan Year 2 (n89):	30 (34%)	57 (64%)
May Year 2 (n88):	39 (44%)	48 (55%)
Jan Year 3 (n86):	38 (44%)	48 (56%)
May Year 3 (n86):	18 (21%)	66 (77%)

Table 20: Correlation Between Exam Results and Report Book Grades.

No.	*Variable 1*	*Variable 2*	*Jan Y1*	*May Y1*	*Jan Y2*	*May Y2*	*Jan Y3*	*May Y3*
20	Exams	RBG	-0.74	-0.75	-0.73	-0.79		

It is perhaps of little surprise to note that the grades awarded by teachers on the six-weekly report cards, matched the subsequent performance of students in major exams. Again, there is little doubt that this reflects positively on both the ability of teachers to identify potential problems and also their ability to provide positive reinforcement to those students who were working well.

It may well be argued that, in many cases, the teachers providing the comments were also the ones to set and indeed grade the subsequent exams. While this is certainly true, there were also many cases during this study in which exams were graded by different members of the teaching staff or where the exams were set by a combination of teachers. Unfortunately, since there were no report book grades in year three, it was not possible to put this correlation to the test against the Junior Certificate State Exams. Given the strength of the relationship in years one and two however, there is no reason to suspect that any major variation would have been evident in the final year.

Table 21: Correlation Between Exam Results and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
21	Exams	RBC	0.69	0.72	0.66	0.65	0.79	0.74

Just as the grades on the six-weekly school reports correlated strongly with exam performance, the comments written by teachers similarly displayed a firm link with test grades. It is perhaps interesting to note that the grades, while simply being a quick 1-5 reporting system, yielded a stronger correlation than the more detailed and time-consuming comments section of the report cards.

In fairness to the teaching staff however, it should once again be noted that of all the elements which could be used to predict the exam performance of a student, the continuous assessment, regular comments and grades of teachers provided some of the strongest indicators (second only to ability and intelligence scores) of how a student was likely to perform in major exams. The consistent accuracy of the data (even that which was noted during the early part of each year) in terms of how well a student was likely

to do, acts as both a positive endorsement of the work of teachers and also a significant point of information for students and parents.

Table 22: Correlation Between Exam Results and Penalty Points.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
22	Exams	P.Points	-0.45	-0.53	-0.45	-0.63	-0.50	-0.34

The strong negative correlation between these two variables is probably the least surprising result of the entire study. Parents, teachers and students all over the country have long been aware that behaviour in class impacts on academic performance. In this case, the negative correlation provides specific evidence that indeed increasing penalty points (signifying poor behaviour) are mirrored by falling exam grades.

Of particular interest however, is the fact that this correlation was at its weakest in the final term of year three. This phase of time was also the only occasion in the entire study period when the exam results were external in nature. In other words, the major exams from the start of year one, up until mid-way through year three were all corrected by teachers in the school. The junior certificate exams on the other hand were corrected by independent teachers outside the school, with no connection to any of the candidates.

This might perhaps suggest that students who have behaved poorly in school may well be at a psychological disadvantage in school exams (in that teachers correcting the exams are aware of their behaviour) – a disadvantage which appears to be erased when external examiners correct their tests.

Table 23: Correlation Between Exam Results and Academic Self-Esteem.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
23	Exams	Ac.Esteem	0.14	0.53	0.52	0.51	0.59	0.49

It would be reasonable to expect that the levels of academic self-esteem recorded by students, would somehow be related to their actual performance in major exams. The findings above confirm that, in this specific study, this indeed was the case.

The correlation results show that students who performed best in exams tended to be the students who displayed the highest levels of academic self-esteem in the self-reported questionnaires. In contrast, those performing poorly in exams unsurprisingly tended to display low levels of academic self-esteem. Of particular interest was the low level of correlation between these variables in January of year one. At this first set of secondary school exams, it appears that the two variables were only loosely connected. Once the results of these first major exams were distributed to the students and the next set of exams approached, the relationship between academic self-esteem and exam performance began to solidify.

It should be noted however that although a clear relationship was shown to exist between these variables, there is little doubt that a number of other factors 'crossed-over' or played a substantial role in determining the value of each variable. Exam results for example were certainly a result of far more than just academic self-esteem and similarly, academic self-esteem was undoubtedly a product of a number of key elements (past experience, psychological make-up, etc.).

Class Grouping Analysis.

Given that the total study group was split into three 'non-streamed' classes when they entered year one, it was not surprising that the initial ability results displayed a high degree of consistency across the classes.

The average ability of each class ranged from 28.7 - 30.8, with the only notable feature being the higher range of abilities evident in class three. Indeed, class three contained the student with the highest ability score (38.7) and also the student with the lowest ability score (15.3) in the entire year.

The subsequent academic scores attained by each group followed a reasonably consistent pattern. Group two achieved the highest average scores at each major set of exams. They also displayed a number of maximum points scorers (42 exam points) throughout the duration of the research period. Group three also contained some maximum points scorers, however the presence of some particularly poor results in their class, brought their overall average down. Group one was identified as the weakest group academically, with disappointing average results, a number of underachieving pupils (relative to their measured ability) and no maximum points scorers in any major set of exams.

Results 2: Behaviour Grouping.
(Attendance and Punctuality, Continuous Assessment, Behaviour).

4.02 Attendance / Punctuality.

A specific analysis of attendance and punctuality findings yields the following summary data:

Table 24: Average number of days absent from school per student.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg.	2.5	7.0	2.7	7.0	3.2	7.7

Table 25: Average number of days late to school per student.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg	1.1	3.3	2.1	4.4	2.8	5.2

These figures reveal a trend towards increasing absenteeism and lateness, as the students progressed through the three years of their Junior Certificate cycle. By January 2002 for example (half way through year one), the pupils had missed an average of 2.5 days of school each and had been recorded as late an average of 1.1 times. Unsurprisingly, by the end of the second half of year one, these figures had increased, showing an average of 7 days missed and 3.3 late. This would seem perfectly logical since the

figures for May of each year are a total of the results from September to January, plus the results from January to May).

Of reasonable note however, is the fact that increases in both the mid-year and end-of-year figures are evident for both attendance and punctuality. There were more absents and lates recorded in the first half of year three than there were in the first half of year two, with the first half of year one recording the lowest figures. Similarly for the second half of each year – Year three recorded the highest level of absents and lates, with year one presenting the lowest findings.

At either extreme, twenty-eight students missed less than ten days of school over the full three year period. In the same time however, eighteen students missed thirty or more days. The complete range ran from the student with the best attendance record (missing only one day in three years), to the student with the worst attendance record (missing one hundred and ten days of school).

The overall findings regarding punctuality presented similar data. Twenty-three pupils were late once or never, while eighteen pupils were late more than twenty times in the three years. The range ran from the student with the best punctuality record (who was never late), to the student with the worst punctuality record (late ninety times in three years).

In summary, the data on attendance and punctuality reveal an increasing likelihood for the pupils in this group to miss or be late for school, as they progressed from year one to year three. Further to this, the range between the best and worst (in terms of both attendance and punctuality) increased throughout the course of the study, suggesting that although a growing number of students were recorded as absent or late, those at the higher end of the scale continued to build on their volume of 'offences'.

Correlation Data for Attendance and Punctuality.

Table 26: Correlation Between Attendance and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
26	Ac. Variation	Attendance	-0.35	-0.26	-0.13	-0.29	-0.23	-0.39

The influence of attendance on school performance is often difficult to assess, with varying reports of how much school a student can miss before substantial disadvantages begin to accrue.

In this study, an interesting pattern emerged. It appeared that students who missed school either at the beginning of year one or at the end of year three, were at a particular disadvantage in relation to their peers. Although a negative correlation existed throughout the duration of the study (signifying that an increase in days missed from school was connected to falling academic performance), there were specific periods when the relationship was particularly strong.

This trend strongly suggests that the beginning and end of the junior cycle were vital learning periods, where material and concepts were either being introduced for the first time or finely tuned for exam purposes. In between, those who missed periods of school (particularly at the start of year two) were less likely to suffer negative consequences in terms of poor performance in the end-of-term exams.

Class Grouping Analysis.

Striking differences certainly existed between the groups when it came to the issues of attendance and punctuality. Classes two and three shared the

honour of best attendance overall, with class one trailing far behind. Even when in year two, groups two and three had higher individual contributors, class one still maintained the position of having the worst attendance record of the three classes. In year three, class one had an average of 4.2 days off school per pupil up to Christmas and an average of 11.1 days off per pupil by the end of the school year. This was in contrast to classes two and three who had an average of 2.9 and 2.4 days off per pupil at Christmas and an average of 6.0 and 5.9 days off by the end of the year.

In fairness to the students of class one, one student with a long-term illness contributed significantly to these figures. However even without these absences, the group still finished in the bottom position.

The picture for punctuality was remarkably similar. While class three was by far the least likely class to record latecomers to lessons, class one was the most likely to be recorded as offenders. Again, there is little doubt that a few individuals largely contributed to this result, but in parallel to the attendance figures, class one would still have displayed the worst punctuality data even if their worst offender was excluded.

The connection between attendance and punctuality noted in the correlation data was clearly mirrored in the class grouping analysis. The group which stood out as most often guilty on either front not only displayed a continuing downward slump in both attendance and punctuality but also recorded a related degree of dis-improvement in each of the two variables over time.

4.03 Continuous Assessment.

Continuous assessment results were produced in two distinct formats. These were 'Report Book Grades' – the average mark per student awarded by teachers on a scale of 1-4 (1 being best) and 'Report Book Comments' –

the average difference between the number of positive and negative comments noted by teachers on a student's report book.

A general summary of the report book comment scores is provided below. It would seem from the overall average grades, that the most positive feedback from teachers was provided in year three.

Table 27: Average report book comments received by students from their teachers.

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Avg	2.2	2.8	0.2	0.1	3.2	2.9

However, this figure may be slightly misleading, in that year three also stood out as being the year in which teachers provided by far the greatest volume of comments on the report books.

Table 28: Number of comments recorded by teachers on the six-weekly report books.

	1st Year	*2nd Year*	*3rd Year*
Number of Comments Recorded:	2976	1152	3425

This inevitably also affected the range of scores which were recorded. In short, year three not only displayed the greatest volume of comments from teachers, but also provided the most extreme values. A simple assessment of this data would suggest that teachers provided a substantial volume of mainly positive feedback in first year, followed by a lower volume and less

positive degree of feedback in second year. Finally, third year resulted in the highest volume of feedback but most importantly, a clear distinction on the part of teachers between those students doing well (who received a consistent collection of positive comments) and those doing poorly (who received an equally regular pattern of negative comments).

Table 29: Range (maximum – minimum) of report book comments provided by teachers in the six-weekly reports.

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Max	7.3	7.7	3.3	2.7	10.0	10.3
Min	-3.3	-2.2	-5.3	-2.8	-6.5	-7.8
Range	10.6	9.9	8.6	5.5	16.5	18.0

The 'Report Book Grade' results showed less variation and room for analysis. Given that these results were dependent on numerical inputs of between 1-4, it is unsurprising that the spread of results was quite narrow. Indeed the average grades over the course of three years displayed a range of only 1.7 : 1.8.

As was noted earlier, the system of report book grades ended at the start of third year, thereby restricting the volume of data in this category. Despite this, it is evident that the grades awarded to the group remained consistent over the first two years of secondary school and despite individual variations (to be discussed later), displayed a narrow range overall.

Table 30: Average report book grades received by students from their teachers.

	Jan-02	May-02	Jan-03	May-03
Avg	1.7	1.7	1.8	1.7

Table 31: Range (maximum – minimum) of report book grades provided by teachers in the six-weekly reports.

	Jan-02	May-02	Jan-03	May-03
Max	2.4	2.3	3.0	3.0
Min	1.2	1.1	1.1	1.1
Range	1.2	1.2	1.9	1.9

Correlation Data for Continuous Assessment.

Table 32: Correlation Between Report Book Comments and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
32	RBC	Ac. Variation	0.45	0.52	0.63	0.63	0.6	0.55

The findings above identify a pattern in relation to the comments provided by teachers on the six-weekly report books and the subsequent over or under performance of students in major exams.

The data suggest a firm connection between teacher comments on the report book and exam performances. The strong positive nature of the correlation indicates that high degrees of favourable comments from teachers were linked to exam performances which exceeded the predicted level of attainment. Conversely, increases in negative comments from teachers were linked to exam performances which fell short of the predicted level of attainment.

Given that similar results have been displayed in terms of strong correlations between exam results and teacher reports, it is not altogether surprising that a similar pattern would emerge in this relationship.

Table 33: Correlation Between Report Book Grades and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
33	RBG	RBC	-0.88	-0.93	-0.81	-0.84		

The tight relationship between these two variables almost certainly comes as little surprise. On these six-weekly reports, low *grades* signify a positive report from teachers. Conversely a high number of positive *comments* provide evidence of excellent performance. As a result of this, it would seem reasonable to assume that the lower the grades a student received, the higher the number of positive comments he was likely to receive at the same time. The correlation statistics above would appear to confirm this assumption.

Given that the study group did not receive report book grades in year three, it was not possible to calculate relationship data for these variables in the last two segments of the study period. The strength of the correlation up to that point however, reflects a substantial consistency on the part of the teachers who provided both the comments and the grades. This result primarily creates a positive reflection on the reporting of the teaching staff, whose approach to the six-weekly task provided clear and consistent results for students.

Table 34: Correlation Between Report Book Grades and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
34	RBG	Ac. Variation	-0.51	-0.52	-0.64	-0.76		

Data results relating to academic variation serve mainly to reinforce the exam performance findings. An example of this can be clearly seen when the relationship between the grades received on report books and the academic variation (the degree to which exam performance varied from the predicted level of ability and intelligence) is assessed.

This correlation generates results which display a negative relationship between the variables. In other words, as the grades on the six-weekly report books fell (signifying better performance), the subsequent level of performance in major exams was likely to rise above that level which was predicted at the start of year one. Conversely, students whose exam performance fell below the level predicted by their ability and intelligence scores, were likely to be receiving higher (and therefore poorer) report card grades at the same time.

Once again, the lack of report book grades in year three created somewhat of a gap in the findings, however two years of solid results up to that point certainly provides strong evidence of a link between these variables.

Table 35: Correlation Between Report Book Grades and Best Friend's Penalty Points.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
35	RBG	FPP	0.2	0.43	0.55	0.37		

The influence that friendship has on the performance of students, is an issue which is often difficult to assess. In this set of data however, it was possible to identify the relationship which existed between the behaviour of 'best friends' and the report book grades received by a student.

The findings above indicate that a positive correlation between these variables was evident and that increases in the volume of penalty points received by a student's best friends were related to increases in the individual student's report book grades (signifying poor performance in class).

The fact that this correlation exists will come as little surprise to many people, given that the instinctive reaction of many parents is to keep their children apart from those who may be looked on as being troublesome. Of note however, is the result that this correlation really only took effect in the second half of year one. In the early stages of first year, it would seem that little or no relationship existed between an individual's class performance and the behaviour of his best friends.

Unfortunately, no report book grades were awarded to students in year three and therefore it was not possible to follow the trend to the

culmination of the study period. This incomplete picture therefore confirms that a correlation exists, but ultimately falls short in highlighting a more substantial trend.

Class Grouping Analysis.

The fact that the report book grade and comment findings mirrored those of the behavioural penalty point scores is not altogether surprising. It is reasonable to assume that the practical records of those who have behaved poorly on a daily basis, will be matched by the six-weekly reports of teachers. In this case therefore the data provide ample evidence that this connection is indeed the case and that the class average report book grades and comments reflect not only a record of behaviour, but also of effort and organisation in class.

The report book grades identify class two as being consistently the best group over the three year study period. They attained the lowest (and therefore best) grades in each of the survey periods (January of year one, May of year one, January of year two and May of year two). Unfortunately there were no report book grades awarded in year three. However if there had been, there is no reason to suspect that the data trend evident in years one and two would not have continued.

Class one, as before, trailed the other two groups. Their average grades were the highest (and therefore worst) in each of the survey periods. With both the highest individual totals and overall averages, they were clearly the least favoured group when it came to application, homework and behaviour grading by teachers.

The report book comments served to solidly reinforce the grades which had been awarded. In a similar fashion to the grades, class two consistently received the most positive comments from teachers while class one received the least.

The combined impact of the grades and comments was to paint a picture of class one performing poorly overall, contrasting sharply with class two, who were graded best in all aspects of their work (application, homework and behaviour) and whose report books contained a high volume of positive comments from their teachers.

4.04 Behaviour.

Table 36: Average and total penalty points recorded for poor behaviour.

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Avg	3.4	8.1	4.5	8.8	1.7	3.3
Total	311	740	398	777	147	287

The average and total penalty point scores follow a predictable pattern, in that the results at the end of each year are roughly double the mid-year score.

The substantial fall-off visible in year three (Jan 2004 and May 2004), was more than likely a result of school reporting structures, rather than any significant shift in student behaviour. At the start of year three, the school introduced a new code of discipline which ultimately resulted in less complaints and reports reaching the relevant year head. This in turn caused a decline in the number of disciplinary issues recorded on each student's file.

At the extremes of the final data, fifteen students received one or less penalty points in the entire three year period. In contrast to this, twenty students received thirty or more penalty points. The complete range ran from the best behaved student (on no penalty points) to a student who received a total of one hundred and eighty-six penalty points in three years.

On an interesting note, the average penalty points per student would seem to be a slightly misleading result. In short, a substantial volume of the penalty points were awarded to a small minority of students in the study group. When this total penalty points score is spread across the group to calculate an average, it appears that the general student body all gained a certain number of penalty points. In fact, this couldn't be further from the truth. The tables below for example, show the spread of penalty points across the range of students.

Table 37: Number of pupils receiving penalty points within each range of results.

P.Points	*Jan-02*	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
0 – 3	65	36	60	41	75	64
4 – 7	16	23	14	14	6	11
8 – 11	3	11	3	15	3	3
12 +	7	21	11	18	2	8
Total	91	91	88	88	86	86

Table 38: Percentage of students receiving penalty points within each range of results.

P.Points	*Jan-02*	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
0 - 3	71.4%	39.6%	68.2%	46.6%	87.2%	74.4%
4 - 7	17.6%	25.3%	15.9%	15.9%	7.0%	12.8%
8 - 11	3.3%	12.1%	3.4%	17.0%	3.5%	3.5%
12 +	7.7%	23.1%	12.5%	20.5%	2.3%	9.3%
Total	100%	100%	100%	100%	100%	100%

Similarly, we can highlight this imbalance between the well behaved and poorly behaved by comparing the overall average penalty points score at each stage of the study, with the average result *excluding the bottom quarter of students* (ie: those with the worst penalty points scores).

Table 39: Average penalty points received for poor behaviour compared to the average amount *minus the bottom quarter.*

	Jan-02	*May-02*	*Jan-03*	*May-03*	*Jan-04*	*May-04*
Overall Average	3.4	8.1	4.5	8.8	1.7	3.3
Avg (- B.Qtr.)	1.4	4.1	1.5	3.3	0.7	1.3

In summary, an extensive volume of behavioural reports were received over the course of the study (albeit to a slightly lesser extent in year three, as outlined above). Throughout this period, a minority of students regularly featured and, between them, accounted for a majority of the penalty points recorded in the school. In parallel to this, an exceptional range of penalty points scores existed between those who behaved very well and those who had received dozens of complaints.

Correlation Data for Behaviour.

Table 40: Correlation Between Penalty Points and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
40	Ac. Variation	P.Points	-0.37	-0.42	-0.34	-0.65	-0.43	-0.34

The negative correlation between these two variables highlights an unsurprising connection between the behaviour of a student in school and his subsequent over or under-performance in exams.

While it is clear that ability and intelligence on their own do not determine academic performance, it is often difficult to identify exactly which other factors contribute to success in exams and, more importantly, to what extent these other factors play a part.

The correlation data displayed above therefore provide evidence that behaviour is clearly one such factor. In this study, the degree to which students exceeded or fell short of their predicted academic attainment (as recorded in the ability and intelligence tests at the start of year one) was matched by related increases or decreases in the number of penalty points they received (for poor behaviour in school).

Again, it is interesting to note that the presence of a state exam with external examiners appeared to reduce the impact that past behaviour had on exam performance. It is certainly possible that the opportunity to be tested by examiners with no prior knowledge of behavioural or discipline records, acts as a benefit to those who may have performed poorly in school up to that point.

Table 41: Correlation Between Penalty Points and Report Book Grades.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
41	P.Points	RBG	0.58	0.69	0.64	0.72		

The correlation data for the relationship between penalty points and report book grades indicate that as the report book grades received by students increased (indicating poor performance), the number of behavioural penalty points attained by the students also tended to rise. This positive correlation averaged .66 and remained between .58 and .72 throughout the study period.

This correlation was at its weakest during the first half of year one (.58) and at its strongest during the most recent measurement (no calculation could be made in year three, since report book grades were not awarded to students during third year). This trend would seem to indicate that when teachers and pupils were getting to know each other in the early stages of year one, it proved more difficult for teachers to provide an accurate estimate of those students who were most likely to encounter behavioural difficulties. Conversely, as time went on and as teachers and students became more familiar with each other, the fit between grades awarded by teachers and frequency of behavioural incidents, became tighter.

Table 42: Correlation Between Penalty Points and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
42	P.Points	RBC	-0.53	-0.65	-0.38	-0.55	-0.49	-0.5

The benefit of assessing correlations using the report book comments variable (as opposed to the report book grades variable), is that the comment system was utilised on the report book system from the time students started first year, until the end of third year. This provides an opportunity to compare variables right across the duration of the study period (in contrast to the report book grade system, which ended at the end of second year).

In this case, the comments recorded by teachers on the report books, remained tightly connected to the number of behavioural penalty points awarded to each student. The data suggest that as the comments fell lower (suggesting poor performance in class), the number of penalty points increased (suggesting poor behaviour around the school in general).

The strength of the relationship can be seen clearly when the two sets of data are placed in rank order. At its closest point of correlation (in May of year one), a ranking of the study group by report book comments, showed that the top quarter of students in terms of report book comments had earned an average of 1.1 behavioural penalty points. Conversely, the bottom quarter of students in terms of report book comments had earned an average of 16.5 penalty points.

Class Grouping Analysis.

The penalty point system made it relatively straightforward to compare the behaviour of each of the three classes at all stages during the study period. The total and average results for each group highlight the degree to which classes were disrupted or affected in some way by poorly behaved students.

Class three for example, provided the lowest penalty point findings for the duration of both year one and two. They yielded both the lowest overall averages in these years and also the lowest maximum and minimum scores (when the worst and best in each class were compared). This data was evidence that class three was rarely disrupted in the first two years of secondary school and that their lessons were least likely to be influenced by any form of poor behaviour.

The effect of one poorly behaved student was evident in year three when one particular student in class two did not return to school in September. From that point on and for the remainder of the year, the average penalty points total for class two fell dramatically and they became the class with the best behavioural record in the group.

Unfortunately, class one again finished bottom of the heap with the worst behavioural averages throughout the study. Although a couple of students in particular contributed to this overall average, the disappointing consequence for the class as a whole was that lessons were regularly disrupted by this behaviour. In year two for example, one student in class one amassed a total of eighty-eight behavioural penalty points. This compared to the highest total of fifty-three in class two and forty-seven in class three. Inevitably the records of these poorly behaved students will impact severely on the class average as a whole. However the low overall averages for classes two and three (even allowing for the high individual totals in their group) provides positive evidence that the rest of the students in the class performed very well.

Results 3: Social Grouping.
(Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

4.05 Socialisation.

i) The socialisation results presented can be summarised as follows:

Table 43: Average and total socialisation results recorded in each of the six assessments.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg	59.2	60.5	59.6	60.7	55.5	57.4
Total	5384	5504	5305	5338	4770	4935

The primary trend emerging from this data was the increase in score from the first to the second half of each year, with both average and total results consistently rising from January to May.

The overall impression created by the socialisation data, was of fluctuation. The average score awarded to students by their peers, while remaining within a reasonably tight range, varied throughout the three year period. A similar conclusion was reached when the total mid-year and end-of-year scores were assessed. This variation in results across the research period may well reflect the transient nature of friendships in the early teen years. It is reasonably likely that the data gathered simply provides evidence that the strength and length of friendships amongst pupils of this age are somewhat fragile.

In addition, the summary table above provides evidence of a fall-off in friendships in year three. The average scores and total scores for both January 2004 and May 2004, were the lowest in the three year period. This may be explained in a number of different ways. It could be suggested that as other interests take up more time (serious study demands, bigger commitments to extra-curricular activities, etc), the maintenance of friendships perhaps suffer. Equally, it may be the case that, as time goes on, students develop closer relationships with a smaller group of friends (as opposed to nurturing a wider range of less intense friendships). Whatever the reason for this fall-off, it was certainly clear that the overall pattern of friendships was variable and open to change over time.

ii) A merging of socialisation data (identifying those students who reciprocated a '3' grade on the socialisation questionnaires and who were therefore deemed to be close friends), made it possible to assess the performance of each student's closest friends.

The tables below outline the average number of behavioural penalty points and the average number of exam points received by each student's best friends, over the three year period.

Table 44: Average number of behavioural penalty points attributed to each student's closest friends.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg	3.1	7.0	3.6	7.3	1.6	3.6

Table 45: Average number of exam points achieved by each student's closest friends.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg	33.6	34.5	32.1	30.3	30.7	32.8

As would be expected, the results at May of each year in the behavioural category were roughly double the total for January, since the data for May was a total of penalty points received in the first half of the year *plus* the second half of the year.

The substantial fall-off in year three is (as mentioned earlier) a result of the new discipline system introduced into the school when the pupils started third year. This new system resulted in fewer behavioural issues reaching the desk of the respective year head and, therefore, fewer recordings of behavioural incidents on each student's file.

The data for average exam points achieved by best friends merely reflects the overall academic results – namely that performance amongst the group slipped in year two, recovering by small increments at Christmas and summer of year three respectively.

Correlation Data for Socialisation.

Table 46: Correlation Between Socialisation and Victim Rating.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
46	Social	Victim		-0.63		-0.45		-0.42

As has been noted in related studies, the social status of both bullies and victims is an issue which is certainly worthy of attention. The results of this research would indicate that the lower a student's social standing within the class group, the more likely they are to become a victim of bullying. Conversely, the data suggest that popularity within the group may be an effective barrier to any possible bullying actions.

This relationship was at its strongest during year one of secondary school and generally fell as the students progressed through Junior Cycle. At its point of closest correlation (May of year one), a ranking of the students by popularity showed that the top quarter of students in terms of popularity had received an average of 0.5 victim nominations from their classmates. In contrast, the bottom quarter in terms of popularity had received an average of 7.3 victim nominations from their classmates.

The fact that this link became less rigid as time passed however, provides evidence that popularity itself is not a unique factor when it comes to the targeting of potential victims by those involved in bullying.

An additional finding from the research showed how the social standing of victims differed in comparison to the social standing of bullies. While those involved as bullies did not necessarily suffer socially, victims of such behaviour were quite likely to be ranked at the lower end of the popularity scale.

Table 47: Frequency with which students in the top quartile of bullies (most often named as bullies by their peers) appeared in the top and bottom quartile in terms of popularity.

	Bullies Ranked in Bottom Quartile in Terms of Popularity.	*Bullies Ranked in Top Quartile in Terms of Popularity.*
Year One:	8 (36%)	1 (5%)
Year Two:	8 (36%)	3 (14%)
Year Three:	8 (36%)	4 (18%)

Table 46 demonstrates how eight (36%) of the top quartile (22) of students in terms of bullying (i.e. those most often named as bullies by their peers) found themselves in the bottom quartile in relation to popularity in the group. Conversely, the majority of bullies (64%) did not suffer socially to any large extent as a result of their actions. At the same time, a growing number actually appeared in the *top* quartile in terms of popularity. This figure reached a peak in year three with four of the top twenty-two bullies achieving a very high social standing.

Table 48: Frequency with which students in the top quartile of victims (most often named as victims by their peers) appeared in the top and bottom quartile in terms of popularity.

	Victims Ranked in Bottom Quartile in Terms of Popularity.	*Victims Ranked in Top Quartile in Terms of Popularity.*
Year One:	13 (59%)	0 (0%)
Year Two:	8 (36%)	1 (5%)
Year Three:	9 (41%)	3 (14%)

Victims on the other hand faced a more severe outcome. As highlighted in table 47, those who were most often the victims of bullying almost never featured in the top quartile of popularity within the group. Instead, large numbers of these victims fell within the bottom quartile in terms of popularity in each of the three years of the study.

These results confirmed that the social status of bullies, while sometimes suffering as a result of their actions, did not in the majority of cases diminish their social standing. Victims on the other hand almost always presented as isolated and unpopular.

Table 49: Correlation Between Report Book Grades and Best Friend's Exam Results.

No.	*Variable 1*	*Variable 2*	*Jan Y1*	*May Y1*	*Jan Y2*	*May Y2*	*Jan Y3*	*May Y3*
49	FER	RBG	-0.44	-0.53	-0.48	-0.49		

The results above provide further evidence of a link which is noted in a number of the other correlation relationships in this thesis. Namely, a connection exists between the application of an individual student and the performance of his closest friends. In this specific correlation, the question is whether or not there is a relationship between how well a student applies himself in class (based on the report book grades awarded to him by his teachers) and how his friends fare in major exams.

The correlation analysis yields results which suggest a negative link between the two variables. In other words, increasing report book scores (suggesting poorer class performance) were matched throughout the study by decreasing exam results amongst close friends. The unsurprising conclusion to this point is that the impact friends have on each other extends to classroom and exam performance and that changes in the level or degree of application from an individual can be explained to some degree by a similar change in the application of his closest friends.

Table 50: Correlation Between Report Book Comments and Best Friend's Exam Results.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
50	FER	RBC	0.48	0.56	0.42	0.46	0.47	0.36

Just as the grades awarded to students on their six-weekly report cards were seen to be related to the exam performance of their closest friends, the comments received by students on these reports displayed a similar correlation.

An increase in positive comments received from teachers was matched by a similar increase in the academic performance of close friends. These results produce further evidence to show that close friends not only share

interests and experiences but can also display similar attitudes, levels of application and indeed overall school performance.

The important element of these findings of course, is the fact that students in this study improved or disimproved together. In other words, it could be argued that academically weak or academically strong students simply form friendships with others of similar ability (and therefore a correlation between the performance of these students would be easily explained). In this study however, the students who regarded each other as being close friends displayed widely varying levels of ability throughout the study period but yet still rose and fell (in terms of behaviour, ability and report book results) in tandem with each other. This element of the results highlights the transactional nature of peer relationships, in so far as the students impacted on each other *regardless* of their ability level.

Table 51: Correlation Between Friend's Penalty Points and Friend's Exam Results.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
51	FER	FPP	-0.55	-0.70	-0.64	-0.70	-0.60	-0.49

The findings presented in the grid above, mirror those in the correlation between penalty points and exam results, in so far as a relationship between behaviour in school and exam performance is being addressed.

In this case, the data display a link between the number of behavioural penalty points each student's best friends received and the subsequent performance of these friends in major exams. The figures suggest that as the number of penalty points received increased (signifying poorer behaviour in class), the worse the performance in subsequent exams was likely to be. It is important to note that this was an average finding,

relating to the best friends of students and not to individual students themselves. The wide variation of correlations (from -.49 to -.7) is therefore a combination of not only the changing strength in relationship between the variables, but also a result of the changing number and strength of friendships between students over time. This cross-relationship subsequently impacts on the actual connection between the variables and as result, the correlation data displayed above.

Class Grouping Analysis.

In the first socialisation survey (mid way through year one), the data created a predictable mix of results. At this early stage of secondary education, it was fully expected that friendships were still being formed and that a broad range of results would therefore be evident. Actual results ranged from only 34 socialisation points for a student in class three, to 72 socialisation points for a student in class two. Class two was marginally the group containing most friendships at this early stage.

Following this early survey, one particularly important trend emerged. Class three became (and remained until the very end of the study period) the class with most friendships. The average socialisation score achieved by students in class three was higher than either of the other two class in May of year one, January of year two, May of year two, January of year three and May of year three.

The overall socialisation grades were seen to fall in general across the three classes as time passed, a result which was not altogether unsurprising. Early-teen friendships are often transient in nature and short-term in duration. The results of the socialisation surveys would suggest that students were likely to be reasonable friends with a lot of classmates at the start of secondary school, while becoming closer to a smaller number (and moving away from the rest) as time passed.

Class two scored poorly on the socialisation tests in January and May of year three, recording by far the lowest class average (46.5) of the entire study period in January and the second lowest class average (54.5) of the entire study period in May. This dramatic fall-off is evidence of lower friendship grades awarded by each student in the group to each of his classmates and suggests a poorer social atmosphere in this class, relative to each of the other two groups.

In parallel to the data discussed so far, an assessment of the performance of each student's closest friends casts further light on the contrasting performances of the three class groups. Once again, the fortunes of those in groups one and two in particular, were at substantial variance.

In terms of behaviour, the best friends of students in group three for example, earned an average of 14.3 penalty points in the three year cycle. In other words, the average student's best friends were recorded as being in trouble just over fourteen times in the year. In that same time period the best friends of students in group two earned 13.3 penalty points, while in group one the average was 25.7. The implication therefore is that students in class one were close friends with those who were more regularly in behavioural trouble than those in either of the other classes.

4.06: Self-Esteem.

The overall results for both academic esteem and social esteem remained extremely constant over time.

Table 52: Average esteem results recorded in each of the six assessments.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg. Academic Esteem:	11.8*	6.8	6.5	6.8	6.4	6.8
Avg. Social Esteem	9.4*	7.6	7.7	7.5	7.7	7.6

* *The esteem test used in January 2002 differed from the tests used for the remainder of the study period (see explanation in the methodology section, above). For this reason, the results in this first period have been graded on a different scale.*

The general esteem findings, in both the academic and social categories, mirrored the attribution results very closely. In all cases, while there were individual examples of change over time (to be discussed later), overall averages varied to only a small extent. This may possibly be attributed to the age of the data subjects, in that as teenagers, they have almost certainly already formed strong impressions of both themselves and their environment. It would appear that at this stage of their lives, it takes more than minor day-to-day events to significantly influence either their social or academic esteem.

Correlation Data for Self-Esteem.

Table 53: Correlation Between Academic Esteem and Report Book Grades.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
53	Ac.Esteem	RBG	-0.54	-0.58	-0.63	-0.56		

A high degree of correlation was maintained between the self-reported academic esteem of each student and the report book grades awarded to these students by their teachers. The data suggest a link between increases in report book grades (a sign of poor performance in class) and decreases in levels of academic self-esteem. Similarly, those students who received lower grades on their six-weekly report books (signifying good performance in class) were likely to display a high degree of academic self esteem.

Table 54: Correlation Between Academic Esteem and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
54	Ac.Esteem	RBC	0.48	0.52	0.45	0.51	0.63	0.52

A straightforward relationship was evident between the self-reported academic esteem of each student and the comments noted by teachers on the six-weekly report books. Generally, the positive correlations outlined above indicate that levels of esteem and volume of positive comments received, rose and fell in tandem.

These results mirrored those in table 62 (above) where a strong correlation was shown to exist between academic esteem and the report book *grades*. The combined effect of these findings is a strong suggestion that a firm link existed between the continuous assessment of students and their academic self-esteem.

Table 55: Correlation Between Academic Self-Esteem and Penalty Points.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
55	Ac.Esteem	P.Points	-0.41	-0.51	-0.5	-0.46	-0.36	-0.36

While a correlation between academic self-esteem and academic performance would be almost entirely expected, a relationship between academic self-esteem and behaviour is perhaps more surprising. The findings above confirm a link between these two variables and indicate a connection between falling esteem and rising penalty points (signifying poor behaviour).

The strength of this correlation reached a peak in May of year one (-.51) and fell at a moderate pace in the subsequent 2½ years. At the closest point of correlation, a ranking of the study group by academic self-esteem, showed that the top quarter of students in terms of academic esteem had earned an average of 5 behavioural penalty points. In contrast, the bottom quarter in terms of academic esteem had earned an average of 16 behavioural penalty points.

Table 56: Correlation Between Academic Esteem and Academic Variation.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
56	Ac. Variation	Ac.Esteem	0.17	0.40	0.51	0.51	0.54	0.52

Given that the academic performance of most students was not entirely consistent over the course of the study, it is interesting to note that changes in their exam performances were matched by changes in their levels of academic self-esteem.

This positive correlation suggested that as a student exceeded or fell short of his academic ability, a related shift in academic self-esteem was also evident. The fact that the strength of correlation between these two variables increased steadily over the three years of the study period, may indicate that by the end of the junior cycle (when students had completed a full three years of secondary education) they had developed a deep-rooted sense of academic worth.

4.07: Attribution.

In a similar vein to the general findings on esteem levels, the overall attribution data for the group remained extremely constant over time.

Table 57: Average attribution results recorded by pupils in each of the six assessments.

	Jan-02	May-02	Jan-03	May-03	Jan-04	May-04
Avg	0.9*	15.9	16.4	15.6	15.9	15.7

** The attribution test used in January 2002 differed from the tests used for the remainder of the study period (see explanation, above). For this reason, the results in this first period have been graded on a different scale.*

The relatively static nature of the attribution characteristic is clearly reflected in these general summary statistics. While individual changes were certainly evident and while a greater variance may have been evident if the study group was somewhat younger (and therefore still in the process

of forming their own general explanatory styles), the data gathered for the group appear consistent with expected values.

Class Grouping Analysis.

The attribution and esteem data proved to be useful in terms of identifying patterns amongst the three class groups. The attribution findings for example, showed a clear tendency for either class two or class three to display the most positive attribution style. With two surveys a year over three years, there were a total of six attribution recordings and throughout this period, class one never provided the highest score of the three groups. Specifically, class two recorded the most positive attribution style in January of year one, May of year one and January of year two. In the May of year two survey, groups two and three shared the same joint average score. For the duration of year three, group three then provided the highest average attribution totals.

A different picture was painted in the data collected on social esteem. Although class two initially looked like the most socially confident class group (with the highest scores in year one), class one provided the highest totals for the durations of both year two and year three.

This trend was not reflected in the academic esteem data however, with class one performing in a similar manner to their attribution results. Classes two and three were consistently higher scorers in terms of academic esteem throughout the three year study period, with class one displaying the lowest average results in five out of the six surveys completed.

Overall, class two and three showed more positive attribution styles at all times and in addition, recorded higher levels of academic esteem. Class one on the other hand, only shone when it came to social esteem ratings, noting the highest levels in the final two years of the study. Their varying

results in each of these attribution and esteem categories, contrasting directly with the performance of the other two classes.

4.08: Extra-Curricular Involvement.

Data collection relating to extra-curricular involvement consisted of four distinct categories:

- The number of activities each student took part in during the school year;
- The number of days per week each student was involved in extra-curricular activities;
- The proportion of individual activities (as opposed to team activities) each student took part in.
- The proportion of competitive activities (as opposed to non-competitive activities) each student took part in.

The average results in each of the four categories can be summarised as follows:

Table 58: Average extra-curricular involvement over the three year study period.

	Year One	*Year Two*	*Year Three*
Avg. Number of Activities Taken Part In:	4.9	4.1	2.8
Avg. Number of Days Per Week Involved:	4.5	4.2	3.8
Avg. % of Individual v Team Activities:	52%	51%	46%
Avg. % of Competitive v Non-Competitive Activities:	81%	85%	87%

i) Number of Activities:

From a wide range of possible options offered by the school, it was clear from the findings that the vast majority of students took part in at least a handful of activities. Twenty-seven students averaged more than five activities a year, while only one student in the entire study group chose to stay away from extra-curricular events altogether.

The number of activities students were involved in generally fell as they progressed from first to third year. Given that in first year, the students were all new to the school and therefore may have been keen to try out new after-school activities, the fall-off in second and third year would seem logical. Also, given that the state exams took place at the end of third year, the extra time needed for study may well have impacted on pupils' decisions to get involved in extra-curricular activities.

ii) Number of Days:

Similar to the findings on number of activities each student was involved in, the data for number of days involvement per week follows a

sliding trend. On average, students were involved in activities 4.5 days per week in first year, 4.2 days per week in second year and 3.8 days per week in third year. At the extremes, thirty-one boys were involved an average of five days or more per week over the three year period, while 16 were involved less than three days per week.

One point which stands out in the summary data above, is the fact that although the figure for number of activities and the figure for number of days students were involved both fell during the study, they fell at a different rate. In other words, although students were involved in a lot less activities (2.8, as opposed to 4.9) in third year than they were in first year, they were still spending almost the same amount of time at these activities (3.8 days per week, as opposed to 4.5 days per week). This would seem to suggest that although students gave up a number of activities as they progressed through the three years, they began to spend more time at those activities which they continued to be involved in.

iii) Individual v Team Activities:

The ratio of individual to team activities remained well balanced throughout the three years of the study, with students spending 52% of their extra-curricular time in first year engaged in individual activities, 51% in second year and 46% in third year. This slight shift in the data towards team activities is probably explained by events within the school. Mid-way through year three, the school is involved in a high-profile sports competition in one of the team sports offered. This event attracts large crowds, press interest and a large volume of attention within the school. For this reason, a number of students focus solely on this activity during third year, thereby increasing the proportion of pupils involved in team activities and conversely reducing the number involved in individual activities.

iv) Competitive v Non-Competitive Activities:

The study group as a whole certainly favoured competitive extra-curricular activities, with the group average exceeding 80% competitive involvement for each of the three years. This figure increased as the students progressed, culminating in the result that 87% of the activities students were involved in (in third year), were competitive in nature. At the extremes, twenty-five pupils took part in competitive activities only (ie: no non-competitive activities at all in the three years) and only two students in the entire group recorded a proportion of less than 50% competitive activities in relation to non-competitive activities.

This bias toward competitive activities can be explained in two ways. Firstly, with nineteen activities offered in the school, only four were non-competitive in nature (art, music, drama, charity clubs). This imbalance in terms of what was offered to the students certainly had an impact on the activities chosen. Secondly, as an all-boys school, there was an unsurprising focus and culture which lead many of the boys into the higher profile sporting activities.

Correlation Data for Extra-Curricular Involvement.

Table 59: Correlation Between (Individual v Team Extra-Curricular Activities) and (Competitive v Non-Competitive Extra-Curricular Activities).

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
59	I v T	C v N		-0.51		-0.5		-0.43

The correlation findings for extra-curricular involvement would seem to suggest a relationship between the *type* of activities students took part in

and the *nature* of these activities. The data indicate that students tended to opt for either:

a) individual, non-competitive activities or;

b) team, competitive activities.

Two possible explanations account for this trend. Firstly, the highest profile extra-curricular activities offered by the school fell mainly into one of the two categories mentioned (individual, non-competitive or team, competitive). There were few significant opportunities for involvement in either individual, competitive activities or team non-competitive activities. Naturally, this inherent bias impacted on the choices made by students each year.

Secondly, some activities were offered far more frequently than others and therefore gave students a greater opportunity to become involved each year and indeed each week. The two most popular of these were both team, competitive activities, which were offered on at least a few occasions each week for a substantial portion of the school year. Again, this internal factor contributed to the number of students becoming involved and as a result, impacted on the correlation data mentioned above.

Class Grouping Analysis.

The involvement of students in extra curricular activities was generally consistent across each of the three classes. The overall averages indicated that students took part in extra-curricular activities between four and five days a week in first year. This figure in most cases fell for second and third year, as students presumably spent their free time in other pursuits outside school or gave up activities in favour of study or simply to gain more free time. The exception to this drop off were the students in class one, who maintained the highest frequency of involvement in year three (4.1 average days per week).

In relation to the number of different activities in which students took part, class one also led the field. They enrolled in an average of 5.2, 4.1 and 2.9 activities in first, second and third year respectively. Class one therefore showed the greatest propensity to try-out, get involved in and stick with after-school activities throughout the course of the three year study. This is evidenced by both the number of activities chosen and the number of days per week these activities were taken part in.

The nature of extra-curricular activities was assessed using competitive v non-competitive criteria. The findings show that the three classes were well balanced in terms of their choice of activities and that an even split existed in each group, with around half of the students opting for individual activities and half preferring team activities.

In contrast, the degree to which students favoured competitive v non-competitive activities presented a more clear-cut finding. The proportion of students favouring competitive activities over non-competitive activities never fell below 80% throughout the three years and indeed remained at all times between 80% - 90%, in each class. Thus while the students displayed a mixed opinion of the nature of activities (showing equal interest in individual and team activities), there was a clear and consistent leaning towards competitive events in each class.

4.09: Bullying.

An analysis of the data gathered from the bullying / victimisation surveys revealed the following:

Table 60: Number of students named as pure bullies, pure victims, or bully / victims by their classmates.

Students only included who received 3 or more nominations from peers.	Year 1.	Year 2.	Year 3.
Number of Students Recorded as 'Pure Bullies' by Peers:	30 (33%)	26 (30%)	32 (37%)
Number of Students Recorded as 'Pure Victims' by Peers:	16 (18%)	20 (23%)	20 (23%)
Number of Students Recorded as 'Bully / Victims' by Peers:	8 (9%)	20 (23%)	17 (20%)

These figures are taken from the three annual surveys completed by students at the end of each year. As mentioned in the grid above, the figures quoted only include students who received three or more nominations from their classmates.

This therefore presents a somewhat startling picture, in that a third of students in year one for example, were named as pure bullies by three or more of their classmates. This figure rose even higher in year three, culminating in 37% of the total study group being named as pure bullies.

Similarly, the figures for victims rose from 18% of students noted as pure victims by their classmates in first year, to 23% in second and third year.

On a further point of concern, it should also be noted that the findings relating to 'bully / victims' highlight the fact that an additional 9% of students (that are not included in the pure bully or victim results) in year one were identified by their peers as being both a victim and a perpetrator of bullying behaviour. In line with the pure figures for bullies and victims, the combined bully / victim findings increased during the course of the study period.

The pattern of growth between the results reflects a steady rise in both the number of bullies and victims. This result broadly matched the expectations and predictions of the background literature, in that this early stage of secondary education saw both a high volume of reported involvement in bullying and victimisation and also an increase in the propensity of bullying behaviour over time across the study group.

A pattern of friendships between those involved in bullying was also apparent. This result acted as both an endorsement of the work of Salmivalli (1996) and also a sharp reminder of the group nature of bullying behaviour. At the end of year three for example, an analysis of the friendship patterns amongst the top quartile (the twenty-two students most often named as bullies by their classmates) showed a substantial volume of close friendships. In other words, these twenty-two students displayed a strong social connection with *each other*. In assessing the grades pupils recorded on the socialisation surveys, there were twenty-six instances in this top quartile of bullies, where bullies noted that they 'got on very well' with others at the top of the bully ratings.

Table 61: Frequency of close friendships between the top quartile (22 students) in terms of bully nominations in May of year 3.

Class Group	*No. of Bullies in the top quartile.*	*No. of close friendships between these bullies.*
Class One	7	4
Class Two	7	7
Class Three	8	15
Total	22	26

Finally on a related point, it is important to note that both the socialisation and bullying results showed a variance between those who participated in the school's main sport (rugby) and those who didn't. By the end of year three for example, six out of the top ten (60%) most popular students in the group were rugby players. Conversely of the ten *least* popular students in the group, only three (30%) were rugby players. This trend was also evident in the bullying data. Again 60% of the top ten bullies were students who participated in rugby whereas only 30% of the ten most victimised students played.

Correlation Data for Bullying.

Table 62: Correlation Between Report Book Grades and Bully Rating.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
62	Bully	RBG		0.55		0.54		

Given that bullying is almost always a 'covert operation', out of sight of teachers and school administrators, it is interesting to note that the grades awarded by teachers on report books reflect strongly with the data provided by students in relation to those named as bullies by their peers.
In other words, the correlations above suggest that those who attained the highest bully ratings (in surveys of their classmates) also tended to be those who achieved above average report book grades from teachers (suggesting poor performance in class).

While these correlations are almost certainly indirect in that teachers did not award poor report book marks because they *knew* the pupils were

involved in bullying, but rather a reflection of a trend for those who were involved in bullying to also perform poorly in class.

In year one for example (when the correlation between these two variables was at its highest), a ranking of the study group by report book grades showed that the top quarter of students in terms of report book grades had received an average of .7 bully nominations from their classmates. In contrast, the bottom quarter of students in terms of report book grades had received an average of 6.3 bully nominations from their classmates.

Table 63: Correlation Between Bully Rating and Report Book Comments.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
63	Bully	RBC		-0.57		-0.5		-0.33

Just as the grades awarded by teachers on the six-weekly report books showed a firm relationship with a student's propensity to become involved in bullying, a strikingly similar correlation existed between the bully ratings and the *comments* of teachers on report books.

The findings suggest that the number of positive comments on the report book fell in line with a related increase in the volume of bully nominations a student may have received from his classmates. While not a single comment on any report book during the three year period made any direct reference to bullying, it is clear that the comments of teachers may simply have highlighted negative behaviour patterns, which could subsequently manifest themselves in bullying actions.

The fall-off in correlation fit in year three is indicative of either a drop in the volume of bullying behaviour in general, or equally a widening relationship between behaviour in class and bullying outside class.

Fortunately, the overall results of this research highlight the fact that the former is a more probable explanation. Since the general volume of reported bullying and victimisation fell in year three, it is safe to assume that this type of behaviour became less prevalent as the students progressed up through the junior cycle. This in turn would have impacted on the correlation data, which indicates that the relationship between bully ratings and report book comments should indeed have become weaker in year three.

Table 64: Correlation Between Penalty Points and Bully Rating.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
64	Bully	P.Points		0.55		0.46		0.11

A relationship which suggests a connection between poor behaviour in class and bullying activities in the school in general, is not altogether surprising. The findings above illustrate the correlation between these variables, more specifically confirming that increases in penalty points received were on a par with increases in classmate nominations for bullying behaviour.

The relationship is best illustrated by adding further information. At the point of closest correlation (May of year one), a ranking of the study group by bully rating, showed that the top quarter of students in terms of bully ratings had earned an average of 17.4 behavioural penalty points. The bottom quarter, on the other hand, had received an average of only 4 penalty points.

A dramatic fall-off in correlation between these variables is present in year three. This is in all probability a result of changes to each of the variables in year three. Firstly, the number of penalty points awarded to students fell

dramatically as a consequence of the new discipline system introduced to the school. Secondly, the volume of bullying behaviour reported by students was substantially lower in year three than in either year one or two.

Table 65: Correlation Between Best Friend's Exam Results and Bully Rating.

No.	Variable 1	Variable 2	Jan Y1	May Y1	Jan Y2	May Y2	Jan Y3	May Y3
65	Bully	FER		-0.51		-0.37		-0.14

The correlation data gathered for these two variables indicates that a relationship does exist and that an increasing propensity to become involved in bullying behaviour, is connected in part to falling school performance amongst close friends.

As has been previously noted, the impact of close friends extends far beyond shared interests. The evidence of this study would certainly seem to suggest a far wider impact, influencing areas such as behaviour, exam performance and in this case, even the degree to which individuals chose to take part in bullying.

The 'bell-curve' properties of this correlation data (with the strength of the relationship between the variables rising initially and then falling towards the end of year three) mirrors many of the related correlations already discussed. This trend is a reflection of not only the falling volume of recorded bullying behaviour in year three, but also a measure of the extent to which individuals appeared to become less drawn by their peer group as they moved towards the end of the junior cycle.

Class Grouping Analysis.

The information collected in the bullying and victimisation surveys provided varied results. As regards the number of pupils nominated as bullies by their peers, the three different class groups exhibited contrasting values. In first year for example, students in class three were most likely to nominate their peers as being bullies. This changed in year two however, when class one showed the highest average bully ratings (with an average of 5.7 nominations per pupil, as opposed to 4.9 and 4.7 for classes two and three respectively). Subsequently, class two then took over as the group with most bully nominations in year three.

The fact that each of the three groups in turn spent a year as the highest rated class for bullies is certainly an interesting result. It would seem that the volume of students displaying bullying behaviours not only changed over time, but indeed the propensity for this type of behaviour to be fostered or tolerated in each individual class also changed.

In gathering results relating to the volume of victims in each class on the other hand, the findings were more uniform. Class three stood out as the class with the highest victim ratings in each of the three years of the study. In other words, students in class three were more likely to nominate their classmates as being victims of bullying than students in either of the other two classes.

When taken together, the joint results of the bullying and victimisation surveys would suggest that while the volume of individuals involved as bullies changed over time, the degree to which individual victims were been targeted (particularly in class three), increased. In short, while the numbers of people involved in bullying (as either bullies or victims) varied, the frequency of the behaviour appears to have increased over time.

5. Discussion.

Discussion 1: Ability and Academic Performance Grouping.

5.01 Ability / Academic Performance.

Reference to the Background Literature.

The results and findings discussed in the previous section strongly support much of the existing research in the areas of ability and academic achievement. In particular, Howe (1998) strongly identified the existence of broad influences on which the development of ability was dependent. His proposal argued that ability was not a fixed state and rather was influenced by a range of factors in the learner's environment. Howe's results provided a foundation for the central academic-based hypothesis in this particular thesis – namely that the academic performance of students is not based entirely on their ability levels and that factors within the school can influence the likelihood of over or under performance.

Although in general terms the findings of this thesis have supported the work of Howe, the results clearly take the research a step further by identifying on a more specific level *the degree* to which various factors influence the ability of students to achieve academically. A correlation analysis of the data gathered has made it possible to display quantitative measurements of the relationships between the dependent variables (ability and academic achievement) and a host of independent variables (such as attendance, socialisation and behaviour). The results of that portion of the thesis have therefore served both to support the initial reference work and have in addition added further to these previous findings.

In addition to this, the results of the academic assessment of students in the study group confirmed one other clear trends. The first was a confirmation of the notion of *achievement motivation* (Fontana, 1995) where almost every student who began to perform well at the start of year one in terms of

academic success, managed to maintain and in many cases outperform this good start. While these students' experience of success fuelled their desire for achievement, the opposite scenario was equally prevalent, with a group of students experiencing failure on a regular basis from the start of year one. The inevitable fall-off in motivation as a result of this constant negative reinforcement almost certainly influenced subsequent levels of motivation.

It was no surprise therefore that a high correlation existed between the academic success achieved by students and their levels of academic self-esteem. The link between the two supports the notion of *self-efficacy* (Bandura, 1977), or the belief that one has the ability to achieve a particular outcome. This sense of what is and what isn't possible determines "*how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences*". The snowball effect both in terms of those who succeeded and those who struggles in the early stages to continue further along this same path, could at least in part be explained by a link to the motivational theories mentioned above.

Validity of the Methodology.

In questioning the validity of the results, the starting point would almost certainly be the initial ability and intelligence tests used. How can we be sure that these provided a fair and accurate reflection of the ability and intelligence levels of the students when they entered secondary school?

The first attempt to ensure that this would be the case was a decision at the beginning of the research to use well-established assessment tools when testing ability and intelligence. Rather than simply taking grades from Primary school or attempting to design a specific measurement tool for the research, time was spent investigating the best available options. At that early stage when two clear possibilities emerged (namely the Drumcondra tests and the Raven's Standard Progressive Matrices), it was decided to

administer *both*. This decision to firstly use well-established tests and secondly to take results from two different sources, provided a solid starting point for the research.

In addition, each of the candidates completed their ability and intelligence tests at the same time, in the same venue and under the same conditions. Their results were all compiled, recorded and reported in the same format and manner.

Following on from this, the second half of the ability findings were the outcomes and results from school tests. In other words, while the initial ability results may have been robust, it was important to ensure that the data which would be compared to these (i.e. the school exam results) would be equally valid. To this end, the decision was firstly taken to use a points system in measuring performance. This gave students a fair chance of receiving a reasonable total, without penalising them for poor results in one or two subjects. As well as this, the separate points table for higher and ordinary level was clearly necessary in terms of generating equitable outcomes.

The primary question over the validity of results can be seen in relation to the actual Christmas and summer tests that students sat each year. With three different classes within the total group, it was often the case that different teachers were setting and marking the different tests. Undoubtedly, this yielded a likelihood of varying standards and presented a difficulty in comparing student achievement. The alternative however was to focus solely on one class group, although this would have reduced the study sample to less than thirty students, which would have been far less ideal. Fortunately, given that the school was not too big, a situation arose where each class group tended to have many of the same teachers across the curriculum. In other words, if class one had an 'easy' teacher for Geography, it was possible that class two (while not having him for Geography) had the same teacher for History. Since almost every teacher in the school taught at least two subjects, it was frequently the case that

when the entire range of subjects was considered, students did in fact have almost the same teachers.

Alternative Explanations.

The evidence of the correlation data in particular confirmed that the academic ability of students was by no means the sole predictor of subsequent academic achievement. It is possible of course that the factors influencing the performance of students in exams were actually *outside* the school environment and that the progress or fall-off seen amongst many pupils was in fact caused by family or personal issues. Fortunately however, it was the existence of the correlation findings which confirmed that this was not necessarily the case and that factors within the school environment were certainly influential.

Given that increases and decreases in exam results occurred in tandem with changes in attendance, behaviour and socialisation patterns for example, confirmed to a large degree that these issues had an influence on academic achievement. Equally, it is important to stress that the aim of the study was not to identify *all* of the contributing factors to a student's academic progress, merely to confirm that factors within the school played a part. It was clear from the data gathered that this was indeed the case.

Further Research.

As is often the case, the process of research generated as many questions as answers and therefore ideas for further work can be easily identified. Since this particular study focused on internal factors of influence, it might be beneficial for example to focus on the range and force of factors that exist outside the school (family influences, the media, etc.). Similarly, it would be of interest to apply a range of intervention strategies (such as assistance with study skills, or the provision of one-to-one tutoring in certain subjects)

to a portion of the students in a group, to see how these might influence the abilities and academic achievement of students as they progress through secondary school. Finally of course, there is no guarantee that the patterns and results which emerged in the time period between year one and year three, would be repeated in the senior cycle. Perhaps this opens the possibility of a replication of the study at this older age.

Summary.

The background literature emphasised how ability testing in general served to provide measurements for just one specific moment in time. While such ability scores might yield an indication of the future capabilities of an individual, variations in actual performance were to be expected. In this respect the results of the study very much support this view. As discussed, the exam results displayed in the short-term aftermath of the ability tests followed closely in line with the ability predictions. As time passed however, a range of students performed much better or worse than expected.

Again, the background literature's identification of organisational, situational and motivational factors which might influence the performance of a student, matched the findings of the study. Relationships between academic performance and variables such as behaviour, continuous assessment and attendance, confirmed that an accurate prediction of academic performance could not be made based on ability alone.

Discussion 2: Behaviour Grouping.
(Attendance and Punctuality, Continuous Assessment, Behaviour).

5.02 Attendance and Punctuality.

Reference to the Background Literature.

The central belief that attendance at school matters, is clearly evident in the background literature. Rather than attempting to simply replicate this finding therefore, the aim of this study was to add further to the body of research by assessing the extent to which attendance influenced progress in school. To this end, national data gathered in the U.S (Office of jobs and family services, 2002) provided a strong reference point, identifying important thresholds of attendance. Their view was that it was possible for students to miss a small number of days of school each year, without necessarily suffering any significant adverse consequences.

Findings in this study certainly support the conclusions of the U.S research, while at the same time attaching an additional angle to their results. It was clearly the case that small degrees of absence showed almost no direct correlation with reduced exam performance, socialisation, etc. At the same time the records of students who missed much greater volumes of school, almost always displayed a strong correlation with issues such as reduced exam performance and lower levels of socialisation. Further to the research mentioned above however, was a finding that absence did not always have the same force of impact. Students who missed school at the start or end of the study period suffered to a greater degree than those who missed school in the middle of this period.

In addition, the findings also supported the work of Malcolm, Wilson, Davidson and Kirk (2003) in relation to the tendency for those who miss

significant amounts of school time to also fall into a vicious circle of falling confidence and desire to return. Two of the students in particular fell into this category, with prolonged 'legitimate' absence from school being followed by a period when they could have returned but felt psychologically unable to.

Of particular interest in the results of this thesis was the confirmation of the critical findings of Blyth and Milner (1999) who emphasised that absence could not just be defined as a lack of attendance at school on a particular day. It was possible they felt, that students could be absent from a part of the school day or from parts of lessons and that these types of non-attendance could also influence their progress on a number of levels. Their view was strongly supported in this thesis, where it became apparent that not only were students who failed to attend school on a regular basis at a distinct disadvantage, but so too were those who were frequently late to school and also those who behaved poorly and were therefore sent out of class on a number of occasions.

Validity of the Methodology.

With respect to the gathering of attendance and punctuality data, it was an entirely straightforward collection process. The fact that a daily record already existed in the school, meant that this information was simply copied at the end of each day, resulting in a continuously up-to-date list of those who were absent from school or who had been late to class.

An attempt to record the reasons for absence or lateness proved to be almost impossible, with both a vast array of reasons provided and more importantly, an increasing frequency of occasions in which no reason could be gathered. Certainly it might have been beneficial to have compared the influence of genuine absence with any 'un-official' or 'non-sanctioned' absence but given that the difference between the two could not be accurately measured, it would have been unwise to quote results from this

somewhat grey area. In addition, it was often the case that students were absent from class on school business (taking part in sports fixtures, at school religious services, etc.) and while this provided an example of official and sanctioned absence, it still contributed to an overall picture of non-attendance (particular for those who might already have missed a large degree of class time).

Alternative Explanations.

The question therefore remains of whether the influence that non-attendance was seen to have had, could have been caused by alternative factors. As with any study where a range of variables are introduced and assessed, there is little doubt that absence on its own was never the sole contributing factor to any of the negative outcomes witnessed in the study group. The correlation data in particular however, certainly confirm that a definite relationship existed between attendance and other factors under investigation. It is also clear that as the degree of absence increased, the strength of the correlation between these data sets also showed a greater propensity to become stronger. Nowhere in the study group was there evidence of a student who missed a high proportion of school time but who managed to maintain high academic standards, strong social links and positive school reports. It is at the extremes of attendance that the results are plainly evident.

In contrast to this result, it would be fair to say that factors which suffered to a small extent in line with relatively minor absence, might plausibly be explained in relation to entirely different issues (and might have actually had little or no influence from the non-attendance at school). In other words, it would seem that small-scale non-attendance *can* have a negative effect but doesn't always. Students who missed a small volume of school time each year sometimes fell behind in other domains, but very often maintained their previous records. In this respect it would be a mistake to

assume that a lack of attendance (particularly on a small-scale) inevitably creates problems for the student.

Further Research.

As was mentioned above, a classification of the reasons for non-attendance would create a substantial contribution to the body of research already in existence. An attempt to measure not just how total absence influences school progress but how different types of absence (illness, truancy, parentally sanctioned absence, etc.) compare, would be of particular interest. Similarly while the background literature is clear about the influence that absence has in school, there is little doubt that non-attendance from school (particularly over a prolonged period of time) might have similar negative consequences in terms of tension, workload and relationships in the home. Research in this area might yield results which could shed some formal light on these outcomes. Given that non-attendance is a problem which touches a variety of groups, it would seem logical that research collected from a variety of sources would be of substantial use.

Summary.

Although the background literature focused on the volume of school time missed by a student, the results of the study took this view a step further. While the research certainly supported the notion that excessive absence from school negatively influenced a pupil's progress, it was also clear that the *timing* of this absence was important. Students who missed class time at either the start (year one) or end (year three) of the junior cycle appeared to suffer the widest ranging negative consequences, while those missing time mid-stream managed to avoid these outcomes.

This result served as a further back-up of the view that certain time periods during the junior cycle were more important than others. In particular, the early stages of year one (where work was being introduced and friends made) and the later stages of year three (where the academic and extra-curricular workloads tended to peak) exerted particular influence over a range of variables.

5.03 Continuous Assessment.

Reference to the Background Literature.

One aim of the study was to assess the relationship between the continuous assessment of students within the group and their subsequent progress across a range of variables. The background literature tended to approach this issue from the direction of these other variables in so far as the emphasis was on variables such as behaviour or academic performance, with a brief mention of the fact that continuous assessment may provide an indication of subsequent poor performance in these areas. Blyth and Milner (1999) for example noted that continuous monitoring of pupils was needed in terms of identifying possible problems with non-attendance at school. Equally Robinson (1993) promoted the notion of regular testing with regard to effective academic progress.

The data collected in this study certainly confirm these previous findings and add further weight to the argument that continuous assessment of students not only provides an accurate picture of their current academic standing, but can also be used to predict changes in other seemingly unrelated variables. While the close relationships evident between continuous assessment and variables such as behaviour and academic performance were largely expected, the existence of a strong correlation with student's involvement in bullying was not thought likely.

This addition to the background literature acted mainly as an endorsement of the indirect benefits of continuous assessments, where the opinions of teachers about an individual's general progress related strongly to issues in which the teacher would have had little or no knowledge. While confirming the background theory therefore that the views of teachers were highly accurate in relation to classroom effort and behaviour, the uses of continuous assessment reports were seen to stretch further than this.

It is of interest to note finally, how the literature has in place indicated a lack of understanding on the part of teachers regarding the possible impact of their regular reports. Fontana (1995) argued that reports sent out by school were of potentially huge value in terms of communicating issues to both parents and students. The problem he felt however, was that the comments generally written on such reports were vague ("Could do better") and provided no clear direction on how problems could be dealt with. This view was certainly evident in the current study where many of the comments provided by teachers were helpful with regard to recording a students progress, but rarely proposed any opportunity for issues to be dealt with and resolved.

Validity of the Methodology.

The chosen reporting methodology was already in existence at the school by the time the study began. For this reason, there was no opportunity for any significant changes to be made to this system and it was simply a matter of gathering and recording all of the results at each six-weekly reporting period.

The unfortunate restriction on the data collection procedure was the fact that in year three the school changed the reports to consist only of comments. By excluding the grading system that had been used up to that point it was not possible to compare this section of the report cards over a full three year period. Fortunately, teachers were able to continue

providing comments on each report and therefore a complete record of feedback (both positive and negative) for each student in the study group was built up.

Alternative Explanations.

The wide range of variables with which the continuous reports correlated yields evidence of a valuable assessment tool, whose benefits in relation to measuring progress should not be overlooked. A critical argument to be addressed however is the notion of teacher bias (presumably unintentional) from the point of view of exam results. In other words, the view could be expressed that if the same teacher is making comments about students throughout the year on continuous reports and then is also correcting their major end of term exams, surely there is the possibility that their position is somewhat compromised.

With this in mind it was helpful that the final set of exams for the students in this group were the Junior Certificate state exams. These were set, supervised and graded by external examiners and therefore the teachers who had been providing the continuous record comments during the year had no control over the final results that would be provided.

A correlation analysis of the data sets after the Junior Certificate exams discounted the proposal that teachers may have shown a degree of bias when they were setting and correcting exams themselves. In fact the strength of the correlation (.76) evident between the report book comments and Junior Certificate grades, was actually higher than it had been for some of the testing periods when teachers had been involved in correction. It was fair to conclude therefore that the relationship between these variables was a result of the accurate perceptions teachers formed regarding the progress of their students in class.

Further Research.

There is certainly scope for a study which seeks to categorise or classify the different types of comments provided by teachers on continuous reports. Depending on the reporting system of the school under investigation, it would be of interest to identify whether or not there is added benefit from comments which focus solely on effort, or behaviour, or indeed any other aspect of classroom life. Equally, it was necessary for the purposes of this study to adopt the six-weekly system which was already in place in the school. It would perhaps be helpful to assess the merits of providing more regular reports to students and parents and weighing this in some way against the related increases in workload for teachers and administrative staff.

Given that the field of background research (particularly that which has a direct relevance to Irish schools) is relatively narrow, a host of possible investigations exist. It would seem that most schools simply adopt a continuous reporting procedure on the basis of what has worked reasonably well in the past. Rather than just focusing on a system that is easy to run or that has stood the test of time, it would perhaps be of benefit for efforts to be made to highlight not only the frequency of reporting as mentioned above, but also the type of reports used, the variety of information to be included (i.e. reports based entirely on classroom performance versus those that might include extra-curricular elements) etc. In short it would appear that not only is continuous reporting an issue which has gone largely unquestioned but it is, at the same time, a potentially valuable source of information and direction.

Summary.

Although the background literature had provided an indication of the relationship between continuous assessments of student progress and

subsequent performance across a range of variables, the results of this study confirmed the connection in extremely strong terms.

Both the *number* of correlations involving either the report book grades or the report book comments of teachers and the *strength* of the correlation data, exceeded any reasonable prediction which could have been made at the start of the research project.

The results confirmed that continuous assessments of student progress did indeed identify not only those who were likely to do well academically, but also those who were likely to be involved in bullying, those who missed most class and in fact those students who were likely to show changes across a range of related variables.

5.04 Behaviour.

Reference to the Background Literature.

The critical background research from the point of view of this section, came from Algozzine, Serna and Patton (2001). Their conclusion was that poor behaviour in class resulted in a range of negative consequences including poor academic progress, unsatisfactory interpersonal relationships, learning difficulties and low levels of homework completion.

The results of this study firmly supported many of the 2001 conclusion mentioned above. There was certainly a strong correlation between behaviour and both academic success and continuous assessment. The combined effect of these findings was a confirmation that many of the academic demands of school life required an ability to pay attention and to focus on the work at hand.

The results on the other hand only broadly mirrored the 2001 study in the areas of interpersonal relationships in that it was not simply the case that students who behaved badly were unpopular amongst their peers. Indeed in some cases, students who behaved poorly were seen to be surrounded by a group of close friends. At closer examination however, it could be seen that this group of friends often contained many other students who themselves were noted as behaving badly in school. To this end, the research moved away from Algozzine, Serna and Patton (2001) by proposing that the socialisation pattern wasn't as straightforward as may have been thought.

In addition, while much of the background literature speaks of behaviour as somewhat of a fixed property, an important outcome of this study was the fact that different time periods were identified as being more or less important. Both the start of secondary school at the beginning of year one and the end of the junior cycle at the end of year three, were seen as periods when behaviour was at its best. In contrast, it was more likely that students would slip to some degree in the intermediate phase.

The role of *social learning theory* (Bandura, 1977) was in addition, very evident in an assessment of the bullying data. The tendency for students to observe and imitate others in their class who were behaving poorly, could be seen in two primary forms. Firstly, of the three separate class-groups involved in the study it became apparent very early that each would follow a different path in terms of overall group behaviour. A small group of students in class one for example began to behave poorly at the start of the study. The status given to their behaviour (when compared to the possible negative consequences) by their peers appears to have acted as an encouragement for others to begin behaving in a similar manner. A wider group of students in the class subsequently began to gather penalty points and ultimately the class as a whole displayed the worst behavioural record in the overall study group.

Secondly, the creation of a new discipline procedure in the school in year three may have gone some way towards explaining the fall-off in penalty points at that stage. Although the imminent threat of the Junior Certificate exams almost certainly focused the attention of many students, a greater awareness and presence of negative consequences (when compared to the option of replicating the poor behaviour of specific peers) created a more effective form of social learning.

Validity of the Methodology.

In essentially passing over the data collection responsibilities to teachers with regard to behaviour, close monitoring of the process was required. The methodology worked extremely well however and it was certainly fortunate that the school was very well run and that the systems which were already in place lent themselves conveniently to the recording of behavioural incidents.

The process of collecting information on a daily and weekly basis regarding any student who had been referred to the Year Head certainly took up a lot of time and required regular communication with the Year Heads. This system however provided not only a continuously up-to-date record of student progress, but also meant that events were reported as soon as they had happened (rather than arranging for collection 2/3 times a year and thereby discussing events that may have been months old).

As was mentioned before, it could be argued that the volume of teachers involved in the school might have presented a clear limitation, in that surely some would have been more likely than others to report problems to the Year Head. Since the teachers working with each class changed throughout the course of the study and by and large the same members of staff worked with each of the classes at some stage during the junior cycle, it was hoped that any difference in styles and approaches would have balanced itself out over time. In addition, it should be remembered that for

any behavioural issue to be dealt with (in terms of a student being detained, suspended, etc.) the issue by necessity would have had to go through the Year Head and therefore it is highly unlikely that any student in the group behaved poorly without this being recorded in the study data.

Alternative Explanations.

It seems highly unlikely that a student who was seen to be behaving poorly in class would not also expect to display signs such as poor reports from teachers and unsatisfactory grades in exams. In this respect, the results of this study not only support the background literature, but also back-up the experiences of many parents, teachers and indeed almost anyone who has had an involvement in education. It would be fair to conclude that the students in this group who behaved poorly ultimately impinged on their own progress and achievement.

In seeking to explain the results that were presented it might be debated as to which of the variables was the more dependent. In other words, while poor achievement in class could be explained as a result of bad behaviour, it might equally be argued that a student whose academic performance was poor, might be more inclined to behave badly. While these alternative explanations certainly exist, the aim of this study was simply to identify and confirm a connection between a range of variables. To this end, there was little doubt that the behaviour of students was one of the primary contributing factors to a host of other factors within the school.

Further Research.

Having accepted above that the correlation between behaviour and academic performance was strong, a deeper analysis of this relationship would be helpful in terms of identifying the degree of dependence each has on the other. An understanding of the causes of poor behaviour (for

example, the potential influence of difficulties with academic work) would go a long way towards providing positive intervention strategies.

Similarly, the methods that were used to deal with incidents of poor behaviour were not considered for the purposes of this study. It would certainly be of interest to assess in some way how varying discipline procedures might help solve (or potentially increase) the volume of behavioural problems that were reported.

Summary.

The data gathered in relation to behaviour amongst the study group firmly supports the background literature. It was clear that patterns of poor behaviour occurred in tandem with changes in other variables and that as such, connections between these variables were evident. For example, drop-offs in exam performance were seen among pupils who had shown a poor record of behaviour over the previous months.

This and other similar trends continued throughout the course of the three year period and therefore not only provided evidence of a link between behaviour and other school issues (as was predicted in the background literature), but in addition confirmed that the behaviour variable showed a similar frequency and strength of correlation with other factors at all stages during the junior cycle.

Discussion 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

5.05 Socialisation.

Reference to the Background Literature.

Strong support was evident between the results of the various surveys, measurements and assessments and the conclusions outlined in the background literature. Perhaps the best summary of the benefits of friendship was provided by Hendrick and Hendrick (2000) who found that social networks offered self-validation, emotional security, self-disclosure, help and guidance, companionship, stimulation and a source of reliable allies. This broad but comprehensive synopsis captures most of what appears in the findings of other researchers. Erwin (1998) in addition, noted that peers were likely to become the major reference group for decision-making and evaluation in adolescence. In this current research, the choice of friends led students not only to select similar extra-curricular activities as each other, but also created a tendency for those identified as being close friends to perform at a similar standard in exams and to behave in a similar manner in class.

Adding further to the support of the literature, a range of accompanying findings were also recorded. A clear link was confirmed for example, between an involvement in bullying and subsequent social status within the group. Those students most often identified as victims of bullying by their peers tended to be among the least popular in the class. Conversely, those students identified as bullies showed little sign of suffering socially. These results served to confirm the conclusions of researchers such as Olweus (1993).

The high degree of self-awareness amongst pupils in terms of their social standing, provided a further link between esteem and socialisation. This correlation between socialisation and social self-esteem indicated that students who displayed a low sense of social self-esteem (in the self-report assessment) tended to be amongst the least popular in the group. The reverse was the case with the more popular students (who displayed high levels of self esteem).

Of additional interest was the relationship between social competence and variables such as report book grades or academic achievement. As Goleman (1996) had noted, a lack of social skill not only increases the likelihood of a student being isolated, unpopular or even bullied within a group, but may also impinge on the relationship a student has with other individuals. These difficulties in terms of misreading, and indeed being misread by, teachers creates a challenge which is not restricted solely to the social domain. Thus a lack of social skill can (and in some of the cases viewed in this thesis, *did*) manifest itself simultaneously in both a low popularity rating and also a poor continuous or academic achievement record.

Validity of the Methodology.

The methodology employed to measure socialisation within the group was based on a self-report grading of friendships with peers which was administered twice a year. The determination of where a student stood socially in the class therefore involved a collection of all of these surveys. The possible limitation of this approach was of course the reliance on information provided by the students and the fact that some students may not have provided entirely accurate information (in an attempt to maybe show that they had more and better friendships than in fact they actually had).

In seeking to avoid this potential problem, two main strategies were employed. Firstly, as was previously mentioned, the collaboration of all of the individual surveys was used to hopefully average out any possible bias. In other words even if one (or a few) students completed their socialisation surveys in a careless or misleading manner, the effects of this distortion would have been greatly reduced once the results of every other student's surveys had been added. Secondly, the socialisation surveys (like all of the other assessments used) were completely anonymous. The students were fully aware of this situation and therefore it was unlikely that they would feel the need to conceal or elaborate on the truth in an effort to improve their own social position.

It must of course be considered that by concentrating on socialisation patterns within the school, the possibility of students having extremely positive or poor social networks outside school was largely overlooked. The existence or non-existence of such relationships (with friends from home perhaps), might explain for example how some students with high self-esteem rated quite poorly in school with regard to socialisation. While this situation certainly presented somewhat of a limitation, the alternative approach of taking into account family and home friendships presented far too wide a challenge than could be addressed effectively in this study.

Alternative Explanations.

In considering whether or not any alternative explanations exist to justify the trends and relationships displayed within the socialisation data, strong support for the background literature provides the most tangible evidence. It would be difficult to argue that social esteem for example might be correlated with popularity within the group for any reason other than that a direct relationship existed between the two. This connection (as with many of the other correlations evident between socialisation and other variables) continued across the three year duration of the period, closely matched

previous findings and also supported a solid instinctive endorsement of the relationship.

Although as with many of the other variables under investigation the issue of dependent v independent variables could long be debated, the primary question was whether the relationships between socialisation and the other variables were actual correlations or whether they occurred for some other reason. The existence therefore of three clear supporting arguments (consistency of results over three years, collaboration with the background literature and conformation with generally held views) helped to verify the findings as they have been presented.

Further Research.

The challenges of conducting large-scale research within the school inevitably necessitated a cutting down of potential areas of investigation. By focusing on socialisation and friendship patterns within the school environment, the obvious consequence of this was the fact that friendships outside the school were discounted.

It would therefore be of considerable benefit to assess in some way the connection between friendship patterns inside school and those outside school. As was mentioned in the limitation discussion above, it was possible that students in this study who rated very poorly in terms of socialisation might for example have been part of a positive social network once away from school (after school, at weekends and during holidays).

Summary.

The data gathered in relation to socialisation certainly supported the background literature in many respects. Previous findings on the relationship between popularity and variables such as involvement in extra-

curricular activities and involvement in bullying, were firmly mirrored in this research.

Adding further to the background literature however were the findings in relation to the close friends of pupils in the study group. Three distinct variables displayed high levels of correlation with regard to the performance of individual students and their closest friends. The behaviour, exam performance and involvement in bullying of students was related (across the three years of the study) to the performance of their close friends in each of these three categories.

5.06 Self-Esteem.

Reference to the Background Literature.

The extensive volume of background literature available in the field of self-esteem provided a number of predictions relevant to this specific study. Coopersmith (1981) for example, concluded that boys with high self-esteem were more likely to succeed both socially and academically. This view was clearly supported by the data in the study, with favourable correlations existing between academic self-esteem and exam performance and also between social self-esteem and popularity in the group.

Of particular interest from Biehler and Snowman (1986) was the suggestion that students with lower self-esteem levels were more likely to 'follow the crowd' and behave in ways which they knew they shouldn't. Again this finding was well mirrored in the study in terms of both a link between esteem and behaviour and also in the correlation between the behaviour record of individual students and the records of their close friends.

The conclusions reached by Reeve (1997) were, to a degree, supported also. Reeve's view that higher levels of self-esteem should not necessarily be viewed in a completely positive light, received backing from some of the study data. In this regard for example, a few of the students who were named as bullies by their peers displayed high levels of self esteem. This would seem to back-up the notion that those with higher levels of esteem may be prone to aggression when they find themselves in situations in which their favourable self-view is threatened. A correlation of the self-esteem data with results from the bullying surveys however, generated stronger support for other sections of the background literature. In a similar fashion to the findings of O'Moore and Kirkham (2001) for example, the self-esteem of both bullies and victims generally fell in line with the degree of bullying involvement that was reported by their peers.

Equally (as was mentioned in the bullying section of the discussion above), the characteristic results displayed by victims largely matched the social risk factors for victimisation as outlined by Hodges and Perry (1996). Almost all of the victims displayed at least one of the proposed risk factors of having few friends, or having friends who were unable to help or protect, or having been generally rejected by the peer group. In many cases all three risk factors were present. In turn, the social-esteem of these students obviously suffered substantially.

In addition to supporting the primary background literature, the results of the study went a step further by also finding that academic esteem was closely connected to the comments and grades awarded by teachers on the six-weekly reports. Social esteem at the same time was correlated with victim status in relation to bullying relationships, in that those students most often named as victims by their peers were also likely to display low levels of social self-esteem.

Validity of the Methodology.

In electing to use a school-based assessment of self-esteem, a clear limitation was undoubtedly presented, in that the results generated from these measurements could not be tested or compared with other similar findings. It would be fair therefore to enquire as to how valid the results were and how consistent the survey results might be in different environments.

Two main factors support the validity of the assessment methodology. Firstly, the results achieved across the three years of the study (albeit with the same group of students) remained extremely consistent. This would appear to indicate that the assessment was free from any particular weaknesses that might create substantial deviations over time. Secondly, the relationship between the esteem results for each student and their correlations with other variables, remained extremely close to the levels predicted by the background literature. In other words, the esteem results correlated in the manner that would be expected in relation to variables such as exam results and socialisation.

Alternative Explanations.

A common line of enquiry in relation to any relationship between data sets is the question of which is the dependent variable and which is the independent variable. With regard to the results on self-esteem, alternative explanations could certainly be proposed in either direction. It is possible that positive levels of self-esteem influenced the improvements that were seen in other variables, while of course it is also possible that those improvements themselves actually caused the increase in self-esteem.

The conclusions of Reeve (1997) however, would seem to provide the most practical explanation. A comparison of self-esteem with feelings such as happiness or morale was used to show how esteem cannot just be 'turned

on' and in fact is more than likely a by-product of changes in any related variables. From the point of view of this research though, the aim was not to implement a 'cause and effect' study but merely to show that a relationship existed between this range of variables. It would be fair to concluded therefore that aside from the possible debate over possible explanations, a definite connection existed between both academic and social self-esteem and a host of variables within the school environment.

Further Research.

As with the results of the attribution surveys, it would be of great benefit to assess the self-esteem of the group over a longer period of time. This could take the form of a long-term study either beginning at a younger age or continuing to an older age. By focusing on a group of students who were thirteen at the start of the study, it was likely that many had already formed a strong foundation of esteem that was unlikely to change significantly as a result of experiences in early secondary school. At the same time, by ending the study in mid-adolescence, the data collection missed out on important phases in each individual's life (transition from school to college or work, movement from home, etc.). Self-esteem is obviously a fluid trait, changing over time as a result of experiences and life events. By having to focus on a specific time period, the possibility always exists of missing out on critical information.

On a related point, the fact that a specific survey was created for the purposes of this study would by definition imply a need for this measurement tool to be tested in different settings. A collection of results from a variety of schools, sexes, or age groups would provide an opportunity to fully test the accuracy and efficiency of the survey.

Summary.

In a similar fashion to the findings on attribution, the fact that the study focused solely on school-related issues clearly limited the scope for dramatic changes in self-esteem. In addition, having started with students who were 13 years of age at the commencement of the study, it was likely that the foundations of self-esteem had already been laid at an earlier age and that substantial variations away from these levels were not entirely likely.

Of interest therefore was the fact that the strongest results in relation to esteem did in fact support the background literature. These outcomes focused on academic self-esteem and confirmed that relationships existed between this variable and the academic results, teacher reports and behavioural records gathered by students.

5.07 Attribution.

Reference to the Background Literature.

The background literature predicted a range of outcomes for this particular study. Seligman's (1991) view that attribution style contributed to motivation could not be directly supported or rejected on the basis of this research, as a result of the fact that no specific measurement of motivation was taken. What was clear however was that issues such as exam performance, behaviour and involvement in extra-curricular activities (which would all appear to relate to levels of student motivation) displayed little or no relationship with attribution. Correlation scores between these variables were relatively weak throughout the duration of the study period.

In a similar vein, the conclusions of Seligman and Nolen-Hoeksema (1986, "...it was repeatedly found that pessimists drop below their predicted potential and optimists exceed it"), could not be confirmed. Over the three

years of the study, no clear pattern emerged between the attribution style of students and their subsequent academic performances.

Support for Fosterling's (2001) results was evident however. Although those students who performed poorly in an academic sense did not necessarily record low scores on the attribution assessment, they tended to display high levels of poor behaviour and higher than average absence from school. This supports the view that adolescents in particular often seek to explain or excuse negative events (such as poor exam results) with actual self-handicapping strategies (such as absence from school) or distraction techniques (such as poor behaviour).

An additional point of note was considered in light of research by Scarr (1988), which argued that a clear line of distinction between optimists and pessimists was their ability to be prepared for events and experiences. Optimists tended to act proactively, learning from prior experience and making appropriate changes in order to deal better with future events. Pessimists on the other hand were more likely to be reactive, failing to consider or prepare adequately for events and therefore often being overcome by them. Supporting evidence for this view was generated in the thesis by the existence of a small group of pupils who appeared to be overcome by the academic and social challenges presented to them and who continued to fall behind in many domains as the study progressed. Their ability to contain specific weaknesses or to recover from minor setbacks clearly fell short.

Validity of the Methodology.

It was clear that the actual data collected from the attribution surveys did not match the predicted findings of the background literature. Of note however was the fact that the actual experiences of the students (as measured in the behaviour, attendance, academic, etc. domains of the study) displayed trends which were very much predicted by the literature.

The conclusion to be reached from this was that the measurement used to assess attribution style among the study group, may not have effectively achieved this aim. It was evident throughout the study that the attribution scores remained very steady over time and that few students showed any tendency to increase or decrease their attribution levels. The methodology employed focused initially on the 'Children's Attribution Style Questionnaire' (1978) which unfortunately the students found hard to complete. In attempting to provide a more school-based measurement, a different assessment was used from that point on. While this may have had the advantage of being easier to understand and complete, it is possible that the results of this survey did not generate the results that were desired.

Alternative Explanations.

While issues relating to the validity of the survey must certainly be considered, it is also possible that the results which were displayed were highly accurate and that for this group of students, the influence of attribution was not as strong as may have been predicted. As was mentioned earlier in the thesis, since the attribution trait is generally formed early in life, the degree to which it is open to change by the time of adolescence may be somewhat limited. Similarly, attribution decisions and influences tend to follow events that are particularly serious, negative or unexpected. It is entirely possible that the school-based experiences of the students during the three years of the study never met these criteria and therefore no substantial attribution effects followed. In other words, unless an experience in school was particularly serious, negative or unexpected, it is unlikely that there would have been any significant consequences in terms of attribution. Since students by their early teens are more than well aware of their academic ability and social position in school, it might be reasonably argued that serious, unexpected or negative experiences would have been more likely at a younger age.

Further Research.

With the above limitations and explanations in mind, the first logical research issue to pursue would be a consideration of events and experiences outside school in relation to attribution measurement. It is possible that by focusing solely on school-based issues, that a range of relevant events outside school were ignored which may have had a substantial influence on attribution. If it was the case that school events alone did not carry sufficient weight to sway attribution levels, it could be considered in future studies to either leave out this factor entirely or alternatively to widen the scope of attribution measurement to include issues from outside school.

Further to this, the existence of an easy to follow assessment tool, with specific relevance to students in Irish schools, would have been of tremendous benefit. Aside from the possibility of pursuing further research in the area of attribution, it might therefore be wise for future researchers to focus firstly on the possible development of an effective measurement survey / questionnaire.

Summary.

A review of the background literature highlighted some potential limitations in the assessment (for the purposes of this study) of attribution. Given that this particular study focused solely on school-based variables and didn't take into account any events or experiences outside the school environment, the frequency and force of unexpected, negative or important events which were recorded was clearly diminished.

Secondly, by selecting a study group of pupils who were 13 years of age at the start of the research programme, it was likely that the attribution style they possessed had been formed some years earlier. As can be seen in the

background literature, many of the large-scale studies relating to attribution, begin with students of a much younger age.

The joint effect of these limitations was that the results of the study served to only lean in certain directions (rather than yielding substantial evidence of any clear outcomes).

5.08 Involvement in Extra-Curricular Activities.

Reference to the Background Literature.

The findings in relation to the involvement of students in extra-curricular activities were generally unsupportive of the background literature. Robb and Letts (1999) for example, outlined a range of benefits which were likely to result from an involvement in activities. These in turn, it was felt, would almost certainly lead to advantages which would help the student with regard to their progress in school. Equally, Goleman (1996) and Gardner (1991) highlighted the learning benefits that exist outside of the mainstream classroom environment. They again proposed a variety of positive outcomes arising from an involvement in challenging activities and warned against the drawbacks of situations where students were focused solely on literal-arithmetical tasks for the duration of the day.

The results of this study, while not actually discounting these views, did not provide any substantial evidence to support the findings outlined above. A comparison of students who were involved in more extra-curricular activities than others, did not reveal any major differences (in terms of other variables) between the two groups.

The results which did stand out were based on general tendencies of the group to take part in various activities. These findings amounted to a falling volume and frequency of involvement from year one to year three,

together with a strong influence from the school in terms of what activities were chosen by students. These particular results were largely expected, with the choices of activities made by students clearly dependent on those that were offered by the school. Of interest to the findings was the fact that the varying degree of attention and resources given to different activities by the school, influenced to a large extent the likelihood of students choosing to take part in these activities. It appeared therefore that involvement was not an entirely 'free' concept and in some senses the activities which students chose to become involved in were actually selected by the school.

The fact that many of the benefits of extra-curricular involvement proposed by the background literature go beyond the scope of this thesis, is a critical point of note. While the conclusion that children learn from play (Rubin, Fein and Vandenberg, 1983) is easily understood, the challenge of measuring qualities such as discipline, team-work, empathy, or commitment, did not fall within the compass of this thesis.

As a result of this, the fact that few substantial links were identified between an involvement in extra-curricular activities and other variables under investigation does not mean that such an involvement has no definite benefits, merely that the advantages to be gained from taking part are focused mainly in areas that were not assessed for the purposes of this thesis.

Validity of the Methodology.

It is possible that the strategy of assessing extra-curricular involvement only once a year was less effective than the possible approach of surveying students more often. The alternative however would have brought numerous complications, in that not only did various activities start and end at different times of the year, but many students also chose to take up or indeed give up specific activities at various stages. A system of assessing involvement on more than one occasion each year might

therefore have resulted in either an overlap or an omission of information. By giving students the opportunity in May to look back over their whole year of extra-curricular involvement, it was felt that a fairer and more accurate picture of both the type and volume of involvement could be built up.

Alternative Explanations.

The lack of any clear relationship between extra-curricular involvement and variables such as behaviour, socialisation or academic progress was somewhat surprising (and as was mentioned above, contrary to much of the background literature). It is possible however, that two clear explanations exist for this outcome. Firstly an analysis of the results in the extra-curricular category reveal that every single student who completed the full three year cycle in the group took part in some activity during their time in the school. While their volume of involvement may not have been particularly high, it is important to note that everybody did *something*. It could perhaps be the case that in comparing the influence of a high versus low involvement in extra-curricular activities, the extent of involvement is not actually a critical factor. In other words the lack of any clear difference between those who took part frequently and those who only took part to a lesser extent, may indicate that *any* involvement is enough to yield benefits and that excessive involvement does not necessarily increase these positive effects.

Secondly, the assessment of involvement in activities focused solely on school activities and therefore did not take into account the fact that many of the students were taking part in activities outside of the school (local football teams, drama groups, etc.). This again may provide an explanation as to why little difference was evident (in terms of influences on other variables) between those heavily involved in school activities and those who only took part from time to time. Just as the volume of involvement might not be critical in terms of reaping benefits, it is possible that positive

outcomes might also not be dependent on whether the activities take place inside or outside school.

Further Research.

As has just been mentioned, it was clear that by focusing on activities within the school environment, the influences on students of activities which they choose to take part in outside school were entirely unaccounted for. On this basis, a specific study into the outcomes of involvement in *any* activities (whether inside or outside school) might be of use. Given that so many young people in Ireland are involved in clubs and societies outside of school, such a study would in many ways provide a practical and valuable source of information.

In addition, a large-scale study into the types of activities young people take part in would also be free in many respects from the limitations of this particular piece of research (namely that a narrow range of activities were available and that even these were not offered on a completely equal basis).

Summary.

While the background literature provided a beneficial insight into the general influence of extra-curricular activities on student progress, the reality of researching in a specific school generated somewhat different results.

In identifying particular issues for discussion, it became apparent very early on in the study that the decision of students to get involved in extra-curricular activities was obviously influenced largely by both the type of activities offered and also the quality and volume of resources allocated to the activity by the school. For example, the school chosen for the purposes of this study focused a high degree of attention on rugby. Training or

matches were available to students at least three days a week, a large number of staff were employed as rugby trainers and almost the entire school grounds area was used as rugby pitches.

On this basis, the extra-curricular activity in which most students took part was obviously rugby. In contrast to this, few other activities even came close in terms of how often they were available to students or how much attention was paid to them by school management. The logical consequence of this situation was that it proved difficult to compare the extra-curricular situation with similar research from other studies. Certainly it was clear that the students favoured team-based, competitive sports as their choice of activity, but it could be said with almost as much certainty that if any other activity received the same degree of concentration as rugby, the results would have been very different.

5.09 Bullying.

Reference to the Background Literature.

Across a range of issues, the data gathered in the study strongly supported the background literature. The initial question as to the number of students involved in bullying highlighted a trend far higher than most teachers within the school would have predicted, but at the same time almost entirely in line with the findings of other studies in Irish schools.

A study by O'Moore, Kirkham and Smith (1997) found that out of 10,843 post-primary students surveyed, 1,172 (10.8%) reported that they had been bullied occasionally. Another 316 (2.9%) pupils were bullied sometimes and a further 207 (1.9%) claimed that they were bullied frequently.

The findings of this particular study very much mirrored (and in many ways exceeded) the results of the 1997 research mentioned above, with 24

students out of 91 (27%) being named as victims in year one, with an increase to 40 (46%) students being named as victims in year two and finally, with the commencement of a decline to 37 (43%) students named as victims in year three. As well as supporting the 1997 research, this result backed up the conclusions of a large-scale study by Smith et al (1999) which (amongst other things), found that the number of children reporting being bullied tended to fall over time. An initial rise (particularly among boys) was seen as an attempt to establish dominance in a new group (such as the start of a new secondary school for example). Once the hierarchy had fully emerged and was accepted by the social group, the need for bullying behaviour then tended to fall.

Those who continue to be victimised tend to be those who have failed to cope effectively, while those who continue to bully will be those for whom bullying has been a successful venture in the past (in terms of gaining recognition, status, etc.). These 'risk factors' for continued involvement were more than present in the study group. Since very few intervention strategies were in place in the school either to assist those who had been a victim or to work with those who had been a bully, the continued involvement of a high number of students in bullying was not altogether surprising.

In addition to the support of the literature with regard to the degree of involvement, the characteristic results for both parties matched previous findings. As was proposed by Olweus (1993) for example, the students named as bullies were not necessarily unpopular amongst the group and in many cases were in fact surrounded by a small number of close friends. Conversely, the students named as victims were often socially isolated and were rarely named as friends by other students in their class. The fact that many of the close friends of those named as bullies were also named as bullies themselves added further weight to the view of bullying as a group process (Salmivalli, 1996), where even those not directly involved in specific incidents lent social support to the abuse.

The bullies themselves however did not pass through the junior cycle without consequence. The study by Smith et al. (1999) found that below average academic achievement and a generally poor attitude towards school were frequently evident in bullies. This outcome was certainly confirmed in the study, with strong correlations existing between each of these variables. Support was therefore generated not only for the 1999 study mentioned above, but for other similar pieces of research. Findings by O'Moore and Kirkham (2001) showed that post-primary students who bully others perceive themselves to be:

> "more troublesome, to have a lower intellectual and school status, to be less popular, and to be more unhappy and dissatisfied".

The strong correlations present in this current thesis also confirm an additional conclusion of the O'Moore and Kirkham study (2001), namely that the more frequently children were involved in bullying (either as victim or bully), the lower their global self-esteem was likely to be.

Equally, the description of social risk factors for victimisation as outlined in the background literature (Hodges and Perry, 1996), matched closely with the evidence of this current study. The notion that victims are most likely to have few friends, to have friends who are unable to help or protect, or to have been rejected by the peer group, is certainly evident in an assessment of the bullying and socialisation data in this thesis.

Validity of the Methodology.

The use of a class-based questionnaire (as opposed to a self-report assessment) brought with it a range of advantages and disadvantages. On the positive side, it was likely that any bullying behaviour that was taking place would be reported (in that there would be no reason for students to 'cover-up' incidents when filling in their surveys). This was one clear reason why self-reported assessments were not used, in that students could

have decided not to provide entirely truthful accounts of their own involvement in events.

On the other hand, it was possible in the class-based survey that students might take the opportunity of naming others as bullies or victims who may not have been involved at all. For this reason, it was important that all of the results from the class were combined before any analysis took place. In addition, results of nominations (as either victim or bully) were only counted when more than two classmates named a particular student in either role. The combined effect of these strategies was an increased accuracy of the final result.

Alternative Explanations.

The question could certainly be asked as to whether the high degree of bullying behaviour evident in the results matched the reality of events as they unfolded over the three years of the study. It is possible that the students 'over-reported' on the end of year surveys and that the figures were therefore exaggerated in some way. The high degree of consistency in terms of nominations (in that the same groups of students were consistently named as either bullies or victims) together with the consistent volume of total nominations each year, suggested that the assessments were accurately completed.

It might also be argued that the chosen approach of surveying students only once a year (at the end of May) about the frequency of bullying in their class, could have influenced the results in some manner. Perhaps experiences from earlier in the year may have been forgotten and the results were somewhat biased against anyone who had been involved in bullying in the latter months of the school year. The alternative however was for additional assessments to have been arranged during the year, but as was mentioned earlier in the thesis, the sensitive nature of the topic in question resulted in a decision in favour of a single assessment each year.

In addition to this, it was felt that bullying incidents were likely to be significantly memorable, as was found by Sullivan (1999), whose research highlighted that an involvement in bullying was something that a young person was likely to identify as one of the worst experiences of their lives. For this reason the fact that the assessment was only carried out once a year, should not have influenced the results to any major extent.

Further Research.

The fact that this study focused solely on a three year period at the start of secondary school provides a clear opportunity for some form of replication at an older age. The patterns of victimisation and bullying might therefore be tested in relation to the senior cycle in order to generate a complete picture of the secondary school experience.

Further to this (and as was mentioned in the 'Behaviour' section of the discussion) there was no attempt during the course of this study to use results to intervene in any way. The results were simply observed and recorded for analysis and the Year Head only took action on complaints or behaviour that was actually observed. It would certainly be helpful if a variety of intervention strategies could be tested within a group, in an attempt to identify the potential outcomes of each approach. By taking some form of action and subsequently monitoring the parties involved over a prolonged period, it might be possible not only to see how successful the strategies were in comparison to each other and with regard to ending the immediate bullying problem, but also in terms of how each party progressed over the coming years.

Summary.

While many of the results generated in this study mirrored the research discussed in the background data, perhaps the one point which stood out

from this similarity was the relationship between bullying and the continuous assessment of school performance by teachers. Although teachers never made any direct reference on the regular reports to involvement in bullying, there was a consistently strong correlation between the grades and comments they recorded and the frequency with which students were named as bullies by their peers.

It is almost certain that this link, while being highly accurate, was somewhat indirect and more importantly reflected a connection between the likelihood of a student to take part in bullying and their behaviour, attitude and effort in class.

Nevertheless it is worth considering, in addition to the wealth of background information now available, that the experience and observations of teachers in the classroom, even with regard to issues that may seem somewhat removed from the actual issue of bullying, may well provide a valuable means of identifying potential bullying relationships.

Student Case Studies.

An analysis of individual data for the group provides an opportunity to highlight some of the important trends and relationships which were evident during the three year period. The following section consists of a sample of student case studies, split into each of the three data groupings. These case studies focus on individual students whose results in a variety of categories throughout the study period, serve to emphasise many of the findings which applied to the group as a whole.

5.10 Ability and Academic Performance.

Table 66: Summary of Results for Student 101.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	38	42	65	0	0	0		
May 1	38	42	67	2	0	0	0	1
Jan 2	38	42	62	1	0	0		
May 2	38	41	60	6	0	0	1	3
Jan 3	38	42	50	0	0	1		
May 3	38	42	59	0	0	1	1	2

Student 101 performed at the top end of the scale in the initial ability and intelligence tests. His subsequent exam results reflected this ability, at all times remaining at the maximum exam points score. As well as having one of the highest recorded levels of ability, student 101 was one of the few students who performed *better* that his ability rating in every major set of exams.

Student 101 was a perfect example of an 'all-rounder', with socialisation scores consistently in the top quartile of the group. His extra-curricular involvement followed the standard trend of high involvement in year one, with slightly less in years two and three respectively.

A superb attendance and punctuality record was scarred only by six days absent towards the end of year two. His social and academic esteem scores remained consistently high and his behaviour and report book results were all comfortably in the top quartile.

Student 101's closest friends were similar 'high-flyers' academically and apart from a high grade at the start of year one, also received very few behavioural penalty points throughout the study. As a group, they appeared in the top quartile of almost every variable under investigation and, in some cases, received the top scores in specific variable categories.

Student 101 was never named as a bully by more than one other classmate, however in year two, he received three nominations as a victim of bullying, from his classmates. It is interesting to note that at this time he was not only identified as a bullying victim by some classmates, but also received lower total popularity scores in the socialisation survey and missed more school than at any other time in the three year cycle.

Although student 101 excelled in almost every area throughout the course of the research period, there is no doubt that he had somewhat of a difficult period towards the end of year two. This impacted on more than a few variables and primarily caused him to suffer from a social perspective.

Table 67: Summary of Results for Student 104.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	32	36	60	5	2	0		
May 1	32	38	61	14	14	1	0	1
Jan 2	32	37	66	3	11	0		
May 2	32	38	69	10	23	1	1	0
Jan 3	32	38	65	8	14	0		
May 3	32	38	68	19	23	1	0	0

Student 104 was one of the few students to consistently perform above his predicted level of academic achievement (based on the original ability and intelligence tests). This level of attainment rarely wavered, remaining between 36 and 38 exam points in each of the six major sets of tests.

At the same time, student 104 was also in the top quartile of pupils in terms of popularity within the group. In this respect, he showed a steady rate of progress, with a socialisation total of sixty at the start of year one and a total of 68 at the end of year three. As well as being in a small minority of 'over-achieving' pupils academically, student 104 was one of a small percentage of students to make regular gains in terms of socialisation.

Unusually, while performing very well socially and academically, student 104 displayed a poor record in relation to both attendance and punctuality. In each category, he was ranked in the bottom quartile – a result that for most other pupils in the study group would have been seen in parallel with

disappointing exam scores, poor report book grades and negative comments. Student 104 however, displayed none of these negative consequences. His report book grades and comments every six weeks, were some of the best in the group,

What separated him from other students with below average attendance and punctuality records was a very positive record in terms of attribution, social esteem and academic esteem. At almost every stage of the study period student 104 was rated in the top quartile of the group in each of these three attributes. At the same time, he was also heavily involved in extra-curricular activities, taking part several times a week, in a wide range of activities. These activities were well balanced between both team and individual activities and also competitive and non-competitive activities.

It would seem therefore that while student 104 exposed himself to the potential dangers of falling behind and losing out through absence and lack of punctuality, he managed to avoid these possible outcomes. Instead, he actually excelled on an academic level (constantly achieving beyond his predicted level), gained in popularity during the three years and received a large volume of encouraging feedback on reports. The presence of high levels of attribution and esteem, together with a substantial involvement in a broad range of extra-curricular activities, may go some way towards explaining this extremely positive conclusion.

Table 68: Summary of Results for Student 115.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	32	37	63	4	0	0		
May 1	32	37	61	9	0	0	0	0
Jan 2	32	39	63	0	0	0		
May 2	32	35	65	10	0	0	0	2
Jan 3	32	36	62	2	0	0		
May 3	32	37	61	9	0	0	2	2

The data for student 115 showed an almost ideal progression through the junior cycle. The grades awarded by teachers on the six-weekly report cards highlighted a substantial level of effort and application in class. The related comments from teachers (with a high proportion of positive v negative comments) further added to this endorsement.

Student 115 performed very well academically. Having started year one with a predicted exam level of thirty-two points, he managed to consistently surpass this in both Christmas and summer tests. His best friends performed to a similar standard, with their lowest average score being almost thirty points. The behaviour of his closest friends was equally positive, remaining at the lower end of the scale for almost the entire study period.

This student recorded a steady involvement in extra-curricular activities, with an average of between 4 and 6 days a week taken up with various

sports and activities. He did however limit his interest to a small number of activities and clearly opted to spend a lot of time on two or three of the options available, as opposed to spreading himself across a wide range.

Student 115 displayed a high degree of esteem, both academic and social. In both categories he was placed in the top quartile of the study group for the entire three years of the study. His attribution results highlighted an equally positive, but slightly different trend. Having recorded a below average attribution score of 12 in year one, this result rose steadily and consistently to 15 and 16 at Christmas and summer of year two and then to 18 and 18 at Christmas and summer of year three respectively.

A slight hint of victimisation appeared in year three, with two separate classmates naming him as a pupil who was being bullied. These nominations were not backed in any way by evidence from other data categories and if there was any accuracy or depth to the victimisation data, few if any negative consequences accrued.

Student 115 was popular amongst classmates, hard-working in class and committed to his chosen sports and activities. He missed very little school through absence and was never once late to school in the three years of the junior cycle. His behaviour was equally impeccable, with not a single penalty point attributed to him for poor behaviour. There is little doubt that the overall picture of student 115 is of someone who put a lot into his school during the junior cycle and who as a result, gained and grew on many levels at the same time.

Table 69: Summary of Results for Student 158.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	37	42	54	1	1	0		
May 1	37	41	56	2	4	2	0	2
Jan 2	37	39	62	0	2	0		
May 2	37	41	61	2	3	0	2	1
Jan 3	37	39	51	1	3	0		
May 3	37	42	64	6	3	0	2	1

Student 158 performed consistently well in terms of academic results. Having started junior cycle with a predicted exam points score of thirty-seven, he subsequently exceeded this level in each of the six major sets of exams that followed. In fact on two separate occasions (including the Junior Certificate exams), he achieved the maximum of forty-two exam points.

This high level of achievement was unsurprisingly first identified in the six-weekly reports compiled by teachers. Both the comments and the grades on these reports provided a clear indication that student 158 was performing very well. The report book grades for example, were amongst the best in the entire group. Similarly, student 158 received a large excess of positive comments from teachers on the reports. In year three, his report books contained an average of ten positive comments.

As might be expected from these findings, student 158 was rarely in behavioural trouble in school. For the entire duration of the study, he received a total of only two penalty points. Equally, the classmates he was most friendly with received very few penalty points and performed very well in major exams. Student 158 was clearly a hard-working pupil who not only aimed to do well in school, but who became close friends with a number of like-minded peers.

Student 158 also maintained a strong interest in extra-curricular activities. Across the three years of the study, he took part in activities after school more than four days a week on average. This involvement stretched to nine separate activities in year one and fell to four activities in year two and year three.

Student 158's attribution style appeared to be quite erratic, with scores ranging from thirteen to eighteen and with an inconsistent trend evident over time. The fact that many of the other pupils in the study displayed a greater uniformity in their explanatory style provided an interesting contrast with student 158. It was certainly possible that his optimism / pessimism balance was influenced by events and that experiences in school to some extent shaped his subsequent reaction to relevant outcomes.

What is clear is the fact that changes in attribution style (or equally of self-esteem) while being of a measurable volume, did not produce a sufficient impact to adversely affect overall academic performance. While student 158's perception of school events may have altered as he progressed through junior cycle, his ability and hard work outweighed any potential losses brought about by these changes in outlook.

Table 70: Summary of results for Student 176.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	37	42	60	1	0	0		
May 1	37	41	66	6	0	0	0	1
Jan 2	37	40	63	0	0	0		
May 2	37	38	67	0	0	0	1	3
Jan 3	37	41	65	2	0	0		
May 3	37	40	64	2	1	0	0	2

Student 176 was heavily involved in extra-curricular activities throughout the course of the study period. His high level of involvement began in year one with an average of six days per week participation in various activities. While most of the rest of his peers became substantially less involved in activities as time passed, student 176 was still taking part in extra-curricular activities an average of five days per week in both year two and year three. The range of activities in which student 176 took part changed over time, with an annual total of seven different activities in year one, falling to just three in year three. This pattern was reflected in a number of similar students, who appeared to try a wide variety of activities in year one and then slowly began to specialise in a smaller volume in years two and three.

This broad interest in after-school events did not seem to have had an adverse impact on student 176's academic progress. Having attained a predicted exam points score of thirty-seven in the initial ability and

intelligence tests, he managed to exceed this level in each of the six major sets of exams. Although there was a slight fall-off during the study period, the end result was still comfortably higher than the predicted performance level.

As well as being among the top achievers academically, student 176 was also popular with peers. In four out of the six socialisation surveys, he finished in the top quartile of the group. In addition, an analysis of his close friends showed a strong group of well-behaved and academically high-achieving peers.

Student 176's six-weekly report books also reflected a positive contribution to class. The comments he received from teachers were consistently low (signifying a high level of application) and the volume of positive comments noted by teachers greatly exceeded any negative comments that were received.

Excellent attendance and punctuality records (missing only eight days of school and being late only once in three years) completed the picture of a well rounded, heavily involved, well behaved and high achieving pupil.

Of note however was the fact that, although almost all of the data in each category reflected positively on student 176, low levels of social and academic esteem stood out as causes for concern. While all of the outward signs of student 176's progress were encouraging therefore, poor levels of self-worth generated some question marks as to his ability to maintain this progress into the future.

Table 71: Summary of Results for Student 105.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	23	22	64	3	4	18		
May 1	23	10	48	10	6	25	11	18
Jan 2	23	5	43	2	6	22		
May 2	23	5	44	9	13	47	10	22
Jan 3	23	13	56	1	2	15		
May 3	23	21	55	1	3	21	4	19

Student 105 started year one with an expected exam points score of twenty-three, yet in the three years (and six major sets of exams), scored on average of just under thirteen points in these tests. This substantial level of under-achievement was predicted at various stages during the junior cycle, both in terms of report book grades and comments, and also in terms of the number of penalty points awarded for poor behaviour in school.

The grades awarded to student 105 on the six-weekly report books for example, were among the worst in the entire study group. In year two in fact, his report book grade average was *the* worst. In addition, while most students in the group maintained a favourable balance between positive and negative comments from teachers on the report book, student 105 received a greater number of negative comments for the entire duration of the study period.

His behaviour in school was clearly extremely poor, with a total of ninety-three penalty points awarded to him over three years. The behaviour of many of his closest friends was similarly poor (although few were quite as bad), however it should be noted that unlike this specific student, many of them still managed to perform reasonably well in the end-of-term tests.

Student 105 was frequently nominated in both bully and victim categories. He received a total of twenty-five bully nominations from his peers during the three year cycle and at the same time, received a total of fifty-nine victim nominations. This substantial involvement in bullying activity must surely have impacted on many of the other variables under consideration.

Student 105 was involved in very few extra-curricular activities, relative to his peers. In fact by year three, he only stayed after school on average once a week and his involvement only stretched to one minority activity. This factor, when combined with his bully and victim nominations, may have contributed to the low socialisation scores received at the end of each term. The socialisation data placed student 105 in (or very close to) the bottom quartile in terms of popularity for most of the three year period.

Student 105 unquestionably had a negative junior cycle experience. His involvement in bullying (as both bully and victim), his poor behaviour record, his lack of involvement in extra-curricular activities and his extremely disappointing exam results all paint a disappointing picture of under-achievement and missed opportunity.

Table 72: Summary of Results for Student 120.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	25	8	52	11	2	2		
May 1	25	27	71	14	4	6	1	0
Jan 2	25	22	66	2	4	2		
May 2	25	11	66	5	7	6	2	3
Jan 3	25	5	63	3	0	1		
May 3	25	17	63	3	4	1	9	1

Student 120 recorded one of the group's worst academic performances, relative to his predicted level of achievement. In the initial ability and intelligence assessments at the start of year one, he received a score of twenty-five points. In the subsequent six major exams (Christmas of year one to summer of year three), he received eight, twenty-seven, twenty-two, eleven, five and seventeen exam points respectively in each set of tests. This considerable level of under-achievement was rivalled only be those who missed an extreme amount of school as a result of illness.

The results achieved by student 120 however, could not be attributed to poor attendance. He missed a total of twenty-two days of school in three years – a result which by no means placed him at the bottom of the attendance rankings. Similarly, his punctuality record while being moderately poor, was far from the worst.

A deeper analysis of student 120's record provides a few possible explanations for his disappointing performance. While an extremely poor level of academic esteem might well be described as a consequence (rather than a cause) of his poor test results, an inconsistent behavioural record possibly provides more of a descriptive clue. In year one, student 120 received a total of six penalty points. These results placed him in the bottom quartile in terms of behaviour. Unfortunately year two saw no sign of improvement, with a further six penalty points being added. Finally in year three, student 120's behaviour took a turn for the better, with only one penalty point being earned in the whole year.

In parallel with his penalty points record, the results of the report book analysis similarly highlighted a poor level of application. The data from both the six-weekly report book grades and also from the comments provided by teachers, firmly placed student 120 in the bottom quartile of each category.

Of substantial note was the consistently high average penalty points totals received by the close friends of student 120. At each stage of the research process, student 120 was identified as being close friends with many of the worst behaved pupils in his peer group.

The picture therefore developed, of a student with moderate ability who failed to apply himself in class to any reasonable level, who was friendly with a number of poorly behaved classmates and who himself received a number of sanctions for breaches of the school discipline policy.

Case Studies 2: Behaviour Grouping. (Attendance and Punctuality, Continuous Assessment, Behaviour).

5.11 Attendance and Punctuality.

Table 73: Summary of Results for Student 103.

	Ability	Exam	Social	Atten.	Lates	P.Points	Bully	Victim
Jan 1	24	30	54	5	12	3		
May 1	24	30	63	16	21	7	3	0
Jan 2	24	29	63	12	8	1		
May 2	24	23	66	24	19	8	1	1
Jan 3	24	24	59	5	30	9		
May 3	24	25	64	15	50	14	0	8

Student 103 stands out as the student with the worst punctuality record in the entire study group. He was late to school a total of ninety times during the three years of the research period. This ranged from a low of eight days late in the first half of year two, to a high of thirty days late in the first half of year three. This continual slide was also reflected in other areas of his overall school experience.

His performance in exams fell from a consistent test point level of thirty points, down to twenty-three points at the end of year two and twenty-four at the start of year three.

Even though his punctuality and academic performance were poor, student 103 remained quite popular amongst his peers. He frequently scored in (or very near) the top quarter of students in the group in terms of socialisation. Interestingly, although he was rarely nominated as either a bully or a victim during the study, he was named as a victim of bullying by eight of his classmates in year three. This warning sign also came at a time when student 103's social and academic esteem levels slipped and when the number of penalty points awarded to him for poor behaviour were at their highest level.

Student 103's involvement in extra-curricular activities remained fairly consistent over time. He was involved in activities after school almost every day and took part in four or five different activities each year.

Although student 103 was the worst offender in the group in terms of punctuality, he also missed more days of school than almost every other student in the year group.

The performance of student 103's close friends also gave cause for concern. Their average level of behaviour and performance in major exams showed a distinct drop-off over time. This may have been a reflection of a choice of new (and less hard working) friends on the part of student 103, or equally a reflection of a steadily poorer level of performance from the same group of friends over the three years of the study.

In short, student 103's extremely poor attendance and punctuality record was coupled with a choice of friends whose level of work and behaviour in school steadily declined. These factors were evident at a time when

student 103 also experienced a drop off in academic and social esteem and also a disappointing short-fall in exam results.

Table 74: Summary of Results for Student 112.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	26	31	57	7	0	0		
May 1	26	33	60	21	0	3	5	0
Jan 2	26		58	9	2	0		
May 2	26	26	61	23	3	0	8	1
Jan 3	26		56	18	5	0		
May 3	26	25	59	30	13	0	7	0

Student 112 presented with a reasonable level of ability. Although he managed to perform at this level in most of the exams, there were two specific instances (at Christmas of years two and three), in which he did not sit any exams at all. Having started year one exceptionally well with very positive results (thirty-one at Christmas and thirty-three at summer – in comparison to his predicted ability level of twenty-six exam points), he declined reasonably dramatically and scored only twenty-six exam points at Christmas of year three and then twenty-five points in his Junior Certificate.

This disappointing slump appeared in tandem with a number of other low scoring variables. In particular, student 112 was identified by a number of his peers as being involved in bullying. In year one, five of his classmates nominated him as a bully. In year two, this figure increased to eight classmates and in year three, seven classmates identified him as a bully on the end of year survey. Interestingly, student 114 was one of the few pupils who were named as bullies, yet whose behavioural record was generally positive. Almost every other student named as a bully, showed a tendency to gather penalty points for poor behaviour in school. Student 112 on the other hand, appeared to be able to alienate some classmates and peers, while at the same time not encountering any significant disciplinary action in school (he earned a total of only 3 penalty points in the course of the entire study).

Student 112 was heavily involved in after-school activities, taking part in sports an average of more than five days a week. These activities were entirely competitive in nature, with a result of 100% on the 'Competitive v Non-Competitive' scale for each of the three years.

His attendance record was also one of the worst in the group. He missed a total of seventy-four days of school in the three years of the study, a result which almost certainly placed him at a distinct disadvantage academically. A poor level of academic self-esteem was also evident at almost every survey period, adding further to (or possibly fuelled by) a general lack of attendance at school.

Student 112 may well have gained from his involvement in extra-curricular activities, although a number of negative factors must surely have contributed to a generally poor outcome overall. It is reasonable to conclude that a student who fell back from an excellent academic start, who was named as a bully by a number of classmates and whose esteem and popularity ratings were below average, had a disappointing junior cycle experience overall.

Table 75: Summary of Results for Student 161.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	20	17	43	5	4	13		
May 1	20	21	44	22	14	30	1	12
Jan 2	20	13	46	13	3	1		
May 2	20	8	48	23	11	9	2	8
Jan 3	20		45	14	17	0		
May 3	20	8	48	30	27	4	4	13

Student 161 performed extremely poorly in a number of different areas. On an academic level, he failed to achieve more than twenty-one points in major exams at any stage during the study. His last three sets of exams were particularly disappointing with only eight points achieved at summer of year two, no points achieved at Christmas of year three and then just eight points achieved in the Junior Certificate exams at the end of year three. This clearly compared very unfavourably to the fifteen points level as predicted in the initial ability and intelligence tests at the start of year one.

In relation to possible explanations for this severe under-achievement, the first of many contributing factors was attendance. In the three years of the study, student 161 missed seventy-five days of school and was late a further fifty-two times. In addition, he received a total of forty-three penalty points for poor behaviour in school.

It would appear that these issues were clearly identified from an early stage and were firmly recorded in the six-weekly report books. While the comments received by student 161 on his report books were moderately positive at the start of year one, the tone of these comments shifted steadily towards a greater volume of negativity by year three. In the second half of year three for example, the average report book for student 161 contained a surplus of almost eight negative comments over positive comments.

On a social level, student 161 fared little better than he did in other categories. In each of the six socialisation surveys over the three year period, he was ranked firmly in the bottom quartile of the group. Further to this, when an assessment of the performance of his close friends was attempted, it was found that for much of the study period not a single other classmate could be identified as a close friend. The data supplied by the socialisation surveys failed to produce any other student who reciprocated a nomination of being a good friend of student 161.

As would be expected, the social and academic esteem scores recorded by student 161 were also disappointing. This combination of poor performance overall, together with a low sense of self worth, provided evidence of an extremely unfortunate junior cycle experience. There is little doubt that the benefit accrued by student 161 in terms of his early secondary education was minimal at best.

Table 76: Summary of Results for Student 190.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	17	10	67	6	4	6		
May 1	17	12	63	14	10	24	9	0
Jan 2	17	4	62	2	4	13		
May 2	17	4	58	15	9	26	23	0
Jan 3	17	10	59	4	13	3		
May 3	17	12	58	18	31	4	9	1

Student 190 recorded one of the lowest ability and intelligence test scores at the start of year one. With a score of just seventeen in this assessment, he was only one mark higher than the weakest student in the group. Even given this extremely low predicted level, student 190 failed to exceed or even match this standard in subsequent exams. His actual exam performance ranged from twelve points (at summer of year one and year three) to just four points (at both Christmas and summer of year two).

A number of different factors provided possible explanations for this severe under-achievement. Student 190's attendance and punctuality results for example, highlighted the fact that a substantial amount of class time was missed. Over the three year study period, he missed forty-seven days of school and was late on a further fifty occasions. There is little doubt that the combined impact of these two issues alone must have influenced his academic progress.

In addition, student 190's behavioural file showed a total of fifty-four penalty points received in three years for poor behaviour in school. In particular, year two provided the highest volume of penalty points (twenty-six) – the same year when exam performance fell to an almost negligible two points.

Student 190 also received a heavy volume of bully nominations. In the end of year survey on bullying, he was named by peers as a bully nine times in year one, twenty-three times in year two and nine times in year three. Again, it is interesting to note that the huge amount of bully nominations in year two coincided with both an increasing frequency of penalty points and a fall in academic standards.

Despite this involvement in bullying, student 190's social standing remained quite high for the duration of the study. In fact, he received some of his highest social ratings during the period in which he was identified as a bully by most classmates. Unsurprisingly, his esteem scores reflected a negative self-opinion of his academic worth but a positive opinion of his social status within the group.

Taking part in a reasonable variety of extra-curricular activities may also have contributed to student 190's positive socialisation. While he chose to get involved in an average of at least three activities per year, he also maintained a firm balance between individual and team oriented activities and also between competitive and non-competitive activities. It would seem that his ability to remain part of these groups and activities certainly helped to maintain a positive sense of self-worth, despite the continuously poor academic and behavioural results which were reported.

Table 77: Summary of Results for Student 192.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	29	37	61	4	0	0		
May 1	29	37	57	12	0	0	1	6
Jan 2	29	39	58	5	0	0		
May 2	29	37	60	13	2	0	1	4
Jan 3	29		62	13	2	0		
May 3	29		53	85	2	0	1	4

Student 192 missed by far the most school of any student in the group throughout the course of the junior cycle. This absence was the result of a long-term illness which ultimately caused him to miss both the Christmas exams in year three and also the Junior Certificate exams in June of that year.

Perhaps unsurprisingly, student 192 also missed out socially as a consequence of his absence, with his social rating (recorded by classmates) falling to its lowest level while he was away from school. Involvement in extra-curricular activities obviously ended during this period also, a situation which could have only further distanced him from his peers.

A further result of this situation was that student 192 was away from school during some of the surveys and assessments administered for the purposes of this study. The overall results tables therefore show gaps for him at specific times, in relation to elements such as attribution and esteem.

5.12 Behaviour.

Table 78: Summary of results for Student 151.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	28	18	53	0	1	35		
May 1	28	21	50	4	15	66	10	6
Jan 2	28	21	57	1	4	40		
May 2	28	4	48	6	11	88	10	6
Jan 3	28	5	53	11	9	15		
May 3	28	19	51	19	24	32	3	3

Student 151 had the distinction of being the worst behaved pupil in the entire group. In the three years of the study he amassed a total of one hundred and eighty-six penalty points for poor behaviour. This consisted of an average of two incidents of negative behaviour per week, reported to form tutors or year heads by his class teachers.

Unsurprisingly, the report book grades and comments received by student 151 were also some of the worst in the group. This began with an average surplus of three negative comments (in excess of positive comments) from teachers on his six-weekly report cards in year one, steadily slipping further to an average surplus of six negative comments by year three.

Student 151 was one of the few pupils to receive a high number of nominations as both a bully *and* a victim. A total of ten classmates identified student 151 as being involved in bullying behaviour in years one and two, while at the same time six classmates felt that he himself had been a victim of bullying.

These contrasting experiences may have explained the poor scores achieved by student 151 on the socialisation surveys. With total scores regularly well into the bottom quartile of the group, it was clear that he was not one of the more popular students in the class. The few close friends that he did have, performed quite well academically and, while being in a moderate amount of behavioural trouble, never came close to matching the volume of penalty points gathered by student 151.

The attendance and punctuality data also highlighted a steady slip over time. Starting with four days of absence and fifteen days late to school in year one, these figures were reasonably maintained in year two (with six days absent and eleven days late). Year three saw a sharp decline however, with nineteen days absent and twenty-four late.

A consequence (or possible cause) of this highly disappointing overall performance was the personal impact evident in the attribution and esteem data. With results generally falling well below the average for the group, student 151's negative experience of junior cycle education certainly extended well beyond the basic categories of results and behaviour. A relationship clearly existed between these high profile variables and the less mentioned (but in many ways, more important) collection of personal attributes such as esteem and attribution.

Table 79: Summary of Results for Student 169.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	25	28	61	4	0	4		
May 1	25	19	60	13	8	7	2	1
Jan 2	25	23	62	6	1	15		
May 2	25	20	60	17	4	36	9	4
Jan 3	25	22	54	7	3	9		
May 3	25	22	51	13	11	14	12	4

Student 169 was notable for his record of behaviour in school. Across the three years of the study period, he received a total of fifty-seven penalty points for poor behaviour. A high volume of grades on his six-weekly report books (indicating low levels of application), together with a substantial degree of negative comments on these same reports, added further to the evidence of the penalty points totals.

On an academic level it is perhaps of little surprise to discover that student 169 underachieved substantially during the study period. Having started year one with a predicted exam points score of twenty-five, he only once managed to reach this level of achievement. He subsequently fell from a high of twenty-eight exam points at Christmas of year one, to a low of just nineteen points a matter of months later. This decline was evident in not only the continuous behavioural problems mentioned above but also in the grades and comments provided by teachers throughout the course of the study.

For most of the three year period, student 169 managed to maintain a reasonable level of popularity within the class group. His socialisation scores for years one and two were consistently around the average for the group. In year three however, these figures fell somewhat, causing student 169 to slip into the bottom quartile in terms of popularity. Of note was the fact that at the same time, he began to receive an increasing volume of nominations for bullying behaviour. On the end-of-year bullying and victimisation survey in year one, student 169 was identified as being involved in bullying by two of his peers. In the same survey at the end of year two, nine classmates named him as a bully and, by the end of year three, twelve peers were naming student 169 as a bully.

This general trend towards falling performance levels was also reflected in the attendance and punctuality data. In three years student 169 missed a total of forty-three days of school and was late on a further twenty-three days. His involvement in extra-curricular activities also fell from a high of taking part in seven activities in year one to just one activity in year three. It was apparent that while student 169 may have begun his secondary education on a reasonably positive note, falling application, attendance and behaviour levels all had a substantially negative impact on his overall performance from that point on.

Case Studies 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

5.13 Socialisation.

Table 80: Summary of Results for Student 126.

	Ability	Exam	Social	Atten.	Lates	P.Points	Bully	Victim
Jan 1	29	31	50	0	2	16		
May 1	29	31	54	3	4	38	15	1
Jan 2	29	28	50	3	8	15		
May 2	29	25	41	8	20	34	23	2
Jan 3	29	27	35	3	14	11		
May 3	29	28	35	9	27	12	13	16

Student 126 stood out as consistently the most unpopular pupil in the study group. His socialisation results fell from an already poor level during the first half of the study, to the worst in the group for the remainder of the junior cycle. Further to this, when it came to assessing the performance of his closest friends, the number of students reciprocating friendship nominations on the socialisation surveys, was almost non-existent. Indeed in the first half of year three, not a single other student was identified as a close friend.

The explanation for this huge lack of popularity probably lay within the bullying data. As well as being the person with the lowest scores in terms of socialisation, student 126 was also the student with the highest number of nominations for bullying. In year one, fifteen classmates identified student 126 as being involved in bullying others. This figure leapt to an alarming twenty-three nominations (almost every student in the class) in year two and then fell back down to thirteen in year three.

In addition to this involvement in bullying, student 126 also received a number of sanctions from teachers for general poor behaviour around the school. In the course of the three year study, he received a total of eighty-four behavioural penalty points in school. This level of application was also reflected in his six-weekly report cards where his grades for example, were comfortably in the bottom quartile of the group. Further to this, the comments he received from teachers on his report cards, consisted at all times of more negative than positive comments.

As may have been expected, student 126 let himself down badly in relation his academic performance. Even though he started year one with a favourable ability and intelligence prediction of twenty-nine points, he never once reached this standard in any major exam. Instead, his results slid from a high of thirty-one in year one, to as low as twenty-five in year two. The few friends who were recorded as being close to student 126, performed even worse than this, recording both poor behavioural records and disappointing exam results.

As the study progressed, student 126 also withdrew from involvement in extra-curricular activities, from taking part in five activities in year one, to only one activity in year three. Given that this solitary activity only took place once a week, it would be reasonable to say that his involvement after-school was minimal.

Student 126 clearly fared very badly in his Junior Certificate experience. His results were disappointing, he took little involvement in school life,

behaved poorly in school, chose to bully other classmates and was generally disliked by his peers.

Table 81: Summary of Results for Student 142.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	15	17	34	0	1	2		
May 1	15	8	43	4	2	10	3	20
Jan 2	15	5	44	0	1	0		
May 2	15	10	46	0	2	0	0	17
Jan 3	15	14	52	0	0	2		
May 3	15	18	51	0	0	2	1	22

Student 142 recorded the lowest ability and intelligence score in the entire study group. When these assessments took place at the start of year one, he received a score of fifteen points – fifteen points lower than the average score for the year and twenty-four points lower than the maximum score recorded.

While this result predicted a poor level of performance in major exams, the reality was substantially worse than this. He performed best at both the start of year one and the end of year three (with only seventeen and eighteen points respectively), while reaching scores as low as five exam points in year two.

Unfortunately this academic under-achievement was not the only negative outcome. In terms of popularity, student 142 also finished bottom of the class group, receiving extremely poor results on the end-of-term socialisation tests. As further evidence of the isolation, there was not a single reciprocated close friendship recorded for student 142, in the three years of the study. In other words, where student 142 graded a peer as being a close friend (on the six socialisation assessments), there was never a situation where one of these peers gave student 142 a similar grading.

In addition, student 142 was identified on a regular basis as being a victim of bullying behaviour. This was very apparent in year one, when he received a total of twenty nominations from classmates on the end-of-year bullying survey. By year two, this volume of nominations had fallen to seventeen, however a subsequent increase to twenty-two in year three highlighted student 142's unfortunate situation.

A lack of involvement in school activities may have contributed somewhat to these social issues. Student 142's interest seems to have waned substantially as the years passed, falling from an average of three days a week involvement in year one, to just one day a week in year two. Similarly, having taken part in five different sports and activities in year one, he was taking part in only one of these by the end of year three. The fact that this solitary activity was an individual sport surely did little to improve his social situation.

Overall, student 142 was extremely lacking in positive school experience. His summary data yield evidence of academic underachievement, social isolation and lack of participation. It was unsurprising therefore, that poor levels of both academic and social esteem were evident throughout the course of the study.

Table 82: Summary of Results for Student 145.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	28	33	64	3	2	15		
May 1	28	34	68	9	8	21	0	2
Jan 2	28	28	72	0	6	13		
May 2	28	17	74	5	10	25	1	1
Jan 3	28	29	70	6	5	4		
May 3	28	30	68	8	6	10	3	0

Student 145 experienced mixed fortunes in his junior cycle. Having initially fared poorly in terms of comments and grades on his six-weekly report cards, for example, he managed to make substantial improvements towards the end of the study period. In specific terms, his average report book comments in both year one and year two were strongly balanced in favour of negative comments. In year three however, there was an average of three more positive comments than negative comments on each report card.

This level of progress was also reflected in his academic results. Having started quite well in year one (scoring thirty-three and thirty-four exam points at Christmas and summer respectively), a noticeable slip resulted in scores of just twenty-eight and seventeen in year two. Fortunately the improved application, evident in the report cards, was confirmed by exam results of twenty-nine and thirty at Christmas and summer.

In relation to socialisation, student 145 was consistently one of the most popular pupils in the group. Even his lowest recorded socialisation score (sixty-four, at Christmas of year one) would have seen him ranked in the top quartile of the study group. In addition, subsequent scores of seventy, seventy-two and seventy-four, placed him amongst the most popular pupils.

An interesting trend also emerged with regard to data from the bullying and victimisation survey. In year one, student 145 was named as a victim of bullying by two classmates. In year two, this result changed to only one nomination as a victim, but now included a nomination as being a bully himself. In year three, this trend took a further step with student 145 receiving no nominations for victimisation, but receiving three for bullying others. In short, it would appear that his involvement in bullying shifted over time, changing from someone who was slightly bullied in year one, to someone who (on a small scale) bullied others in year three. Of particular note was the relationship between this bullying trend and the results of the socialisation data (with popularity increasing in line with the shift from being a victim to being a bully).

A similar pattern emerged when the number of penalty points per year (for poor behaviour in school) was assessed. Again this volume increased from year one to year two, but then showed an excellent level of improvement in year three. Whether these and other results can simply be explained by a growing level of maturity is difficult to confirm, although it is almost certainly the case that despite a poor year in the middle of the study period, it was possible for student 145 to recover to a reasonable level by the end of the junior cycle.

Table 83: Summary of Results for Student 157.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	33	39	62	1	0	1		
May 1	33	40	72	7	0	2	1	0
Jan 2	33	38	73	1	1	0		
May 2	33	35	74	5	1	0	0	0
Jan 3	33	34	74	5	1	0		
May 3	33	35	69	10	1	0	0	1

Student 157 maintained a position throughout the study period as one of the most popular pupils in the group. Ratings from peers at six intervals across the three years consistently provided highly positive feedback in relation to socialisation. Student 157 also displayed a unique ability to mix with a wide variety of classmates. An assessment of his closest friends (those who reciprocated a '3' grade on the socialisation surveys) showed a wide variance in terms of academic ability. In addition, while many of his closest friends were extremely well behaved, a core number received a moderate volume of behavioural penalty points.

Student 157 was heavily committed to extra-curricular activities. In both year one and year two, he took part in activities on an average of six days per week. Understandably, with the pressure of the state exams in year three, this figure fell to an average of four days involvement at that stage. Between five and seven different activities were tried each year, confirming both a substantial volume and range of involvement. Of note

however, was the fact that every activity in which student 157 became involved, was *competitive* in nature.

Academically, student 157 recorded a predicted exam points score of thirty-three at the initial ability and intelligence tests in September of year one. In the first half of the study period (Christmas of year one – Christmas of year two), he performed comfortably in excess of this level. The second half of the study period however, saw a noticeable drop-off. Although student 157's results never fell significantly below his predicted level, his final Junior Certificate results were four points short of the grades attained in year one.

Three separate clues perhaps provide evidence as to how this disappointing end to the academic cycle may have occurred. Towards the end of year two, student 157's attribution ratings fell slightly. At the same time, his level of academic self esteem also displayed a tendency to fall while, conversely, his social self esteem was moving in a positive direction. In short, the data provided by student 157 painted a picture of a pupil feeling slightly worse about himself in an academic context and developing a marginally more pessimistic view of school. This may in some way account for a portion of the academic fall-off which was evident in the exam results. On the other side of the analysis, the rising levels of social self-esteem were almost certainly linked to the increasing willingness of student 157 to get involved in more extra-curricular activities. It is certainly possible that these issues impacted on each other, with the desire to take part in activities after school benefiting student 157's social standing and esteem, but at the same time eroding his ability to maintain a high performance in major exams.

5.14 Bullying.

Table 84: Summary of Results for Student 124.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	26	30	63	2	2	3		
May 1	26	30	67	6	4	8	4	0
Jan 2	26	27	60	1	1	3		
May 2	26	23	67	2	3	8	11	1
Jan 3	26	27	63	0	0	0		
May 3	26	25	59	4	1	0	13	1

An analysis of the results of student 124, tells a dramatic story of contrasting outcomes. At the start of year one, student 124 recorded a predicted academic score of twenty-six exam points. In the subsequent exams during the course of year one (at Christmas and summer), he performed above that level, with a points totals of thirty at both Christmas and summer. Unfortunately these results were to become the highlights of the three year cycle. By Christmas of year two, this exam total had slipped to twenty-seven and by summer of year two had fallen even further (to twenty-three). This trend reversed slightly in the final year of the research period, with a Christmas points total of twenty-seven and a final Junior Certificate result of twenty-five points.

Needless to say, this underachievement was coupled with a pattern of falling results in the academic esteem assessments. In this category, student 124 fell into the bottom quartile of pupils as soon as his results began to deteriorate. This was a position he was to maintain for almost the entire remainder of the junior cycle.

Of most note, was the fact that student 124 became one of the most frequently nominated bullies in year two and year three of the study. Although in year one, it was noted that four classmates identified student 124 as being involved in bullying others, this figure was to be comfortably exceeded by nominations in the subsequent two years. In year two for example, eleven classmates identified student 124 as a bully and in year three this figure rose even higher, with thirteen peers noting that he was bullying others.

At the same time, the grades and comments provided by teachers on the six-weekly report books, offered continuous evidence of this overall decline. From receiving an average surplus of more than two positive comments (in excess of negative comments) on report books in year one, this changed to an average surplus of almost two *negative* comments in year two and further still, to a situation where there were an average of four more negative comments than positive comments on each report book in year three.

It would certainly be reasonable to assume a connection between the disappointing academic performance displayed by student 124 in years two in particular and his substantial involvement in bullying during the same period. It is interesting to note however, that although he was identified as being involved in such a high volume of bullying behaviour, his penalty points totals (for behavioural issues noted by teachers) were reasonably low. The conclusion from this finding was that student 124 chose to behave reasonably well in school, thus avoiding any specific sanctions, while at the same time making school life uncomfortable for a number of fellow classmates out of sight of school staff.

Table 85: Summary of Results for Student 129.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	33	34	64	0	0	2		
May 1	33	35	62	3	0	8	4	0
Jan 2	33	32	63	2	0	7		
May 2	33	34	66	3	1	9	8	2
Jan 3	33	28	59	2	0	0		
May 3	33	32	59	5	0	2	13	0

Student 129 was one of the few students to be regularly nominated by peers as being involved in bullying. Unlike other students in the same category however, the bully nominations received by student 129 *increased* consistently throughout the three year period of the study. In year one for example, four classmates identified student 129 as bullying others. This figure increased to eight peers who named him as a bully in year two and to thirteen classmates nominating him in year three. As with other similar students, the socialisation data highlighted a falling popularity on a par with this involvement in bullying.

Aside from this fact, student 129 was heavily involved in extra-curricular activities. Although he participated in a small range of those activities on offer (only two activities in year two and just one in year three), the volume of activity was very high (between five and six days a week, every year). His chosen activities were predominantly team based and almost all were competitive in nature.

Student 129 performed inconsistently in major exams. Having started year one with a predicted exam point ability of thirty-three, he surpassed this level on four occasions but let himself down in two major sets of exams (including the Junior Certificate Exams at the end of year three). It would seem that teachers were reasonably happy with student 129's performance in class however, since both the grades and comments he received on these regular report cards were generally positive.

The close friends of student 129 were very similar in both behaviour and performance to him, with a moderate degree of behavioural penalty points and slightly lower than average academic results.

Student 129 continually provided results which were slightly poorer than would be hoped for in almost every category. While he did not demand attention for any specific issues (other than perhaps the slightly high number of bully nominations), he failed to impress with any substantially positive outcomes. In an unfortunate way, it would seem that student 129's popularity in the group and his lack of major disciplinary, attendance or punctuality problems, may have resulted in teachers missing his general under-performance. His somewhat anonymous slip in achievement was matched by a subsequent fall in academic self-esteem levels, a factor which may have an impact on his potential for progress over the coming years.

Table 86: Summary of Results for Student 140.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	35	28	53	6	0	1		
May 1	35	34	56	17	0	7	17	0
Jan 2	35	31	57	3	0	2		
May 2	35	31	62	8	0	3	8	2
Jan 3	35	24	61	4	0	1		
May 3	35	35	63	12	1	3	3	0

Student 140 underperformed academically for almost the entire duration of the junior cycle. Having recorded a highly respectable score of thirty-five in the initial ability and intelligence tests, he went on to achieve as few as twenty-four points in the major school tests. This level of performance was first hinted at in the early stages of the study, when he attained only twenty-eight exam points in the Christmas tests. At that stage, student 140 was also coming to attention for the high number of bully nominations he was receiving from classmates. At the same time as his performance began to fall-off, seventeen classmates were identifying him as being involved in bullying other pupils. A steady improvement on this front was subsequently evident however. The number of bully nominations he received from peers fell to eight in year two and then to three in year three.

Student 140's academic results fell dramatically at the start of year three. Having made a reasonable recovery from his poor start to secondary school, an exam points total of just twenty-four gave cause for concern.

There were few predictors for this sudden decline and indeed the comments supplied by teachers on the six-weekly reports, provided evidence of an *increase* in effort and application. This first term of year three was the only time in the entire study period when student 140 received more positive than negative comments from teachers on the report books. This extremely unusual situation (where the comments, penalty points totals, attendance and punctuality records all pointed to a positive performance, but where the reality was in fact the case) could not be explained with reference to any other variables under investigation.

The overall picture of student 140's progress through the three years, makes for an interesting, complex and worthwhile assessment. Although he managed to recover somewhat from his poor start to year one, a sudden decline (albeit unexplained by internal school factors) knocked him substantially off course in the early stages of year three. Fortunately this diversion appeared to have little or no medium term impact on student 140, in so far as his academic, social and behavioural records not only returned to their former levels, but in many cases showed a steady rate of improvement.

Table 87: Summary of Results for Student 144.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	32	42	49	2	0	0		
May 1	32	42	58	6	1	0	0	4
Jan 2	32	42	56	0	2	0		
May 2	32	42	62	0	3	0	2	4
Jan 3	32	41	51	1	3	0		
May 3	32	42	61	2	4	0	2	2

Student 144 excelled academically throughout the duration of the study. Having recorded a predicted exam points total of thirty-two in the initial ability and intelligence tests, he went on to far exceed this score in the six major sets of exams. In all six of these exam periods he actually achieved the maximum of forty-two points (six 'A' grades at higher level).

This high level of achievement was mirrored in positive attribution and academic esteem ratings. In both categories, he was comfortably ranked in the top quarter of students.

In terms of behaviour, student 144 was a model pupil. He did not receive a single penalty point for poor behaviour in the three years of his junior cycle. In addition, an analysis of the performance of his best friends provided similar results. Their penalty points average never rose above one penalty point in any given year. Similarly, the academic results attained by this group of close friends were very impressive. Excluding a

fall-off at Christmas of year three (when interestingly student 144 also underachieved academically), the results of his close friends never fell below an average of twenty-five exam points.

Unfortunately, it would seem that student 144 may have been the target of a moderate degree of victimisation. In both year one and year two, four classmates identified him as someone who was been bullied by peers. Thankfully, this volume fell to just two classmates who named student 144 as a victim in year three. As has been seen with other pupils in the study group, the presence of victim nominations was evident in tandem with low levels of social self-esteem. Indeed for most of the study period, student 144 was in the bottom quartile of pupils in terms of social self-esteem.

It is frustrating to imagine therefore, that while student 144 was working hard and achieving excellent academic results, his self image and perception were almost certainly dented by the negative actions of others. It can only be hoped that his substantial network of friends (as judged by the socialisation surveys and results) and his consistent willingness to take part in many of the extra-curricular activities offered by the school served as a barrier to this kind of victimisation. A positive attendance record and excellent grades and comments on the six-weekly reports, suggest that the bullying identified by classmates did not overly impact on his school experience.

Table 88: Summary of Results for Student 148.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	38	39	56	0	0	0		
May 1	38	41	54	0	0	0	1	7
Jan 2	38	40	55	0	0	0		
May 2	38	41	59	1	0	0	0	2
Jan 3	38	41	56	0	0	0		
May 3	38	42	54	3	0	0	1	12

Student 148 progressed steadily in relation to academic grades throughout the course of the study. Having started with a predicted academic ability of twenty-seven points, he achieved above this in five out of six of the major exams. In the final Junior Certificate state exams at the end of year three for example, he achieved a maximum of six 'A' grades (thirty points). Needless to say, a high level of academic self-esteem was maintained throughout this period.

On an extra-curricular level, student 148 participated in an average of 4.5 activities in each of the three years of the study. These activities occupied him for an average of six days a week in year one, four days a week in year two and three days a week in year three.

This high level of involvement in extra-curricular activities would have been expected to lead to positive socialisation scores and high levels of social self-esteem. The reality unfortunately, was far removed from this.

In relation to socialisation, the scores achieved by student 148 were consistently below average. His social self-esteem ratings were similarly close to this same level.

The explanation for this lack of fit between involvement in school activities and socialisation may be seen in the data on victimisation. Student 148 unfortunately received one of the highest number of victim nominations from his classmates. In year one for example, seven peers named student 148 as someone who had been the victim of bullying behaviour. It appeared that this problem was eroding though when, in year two, only two classmates identified student 148 as a victim. This was not going to be the case however, as a total of twelve victim nominations were received in year three.

The overall picture was therefore painted of an academically successful, highly involved and well behaved student whose experience of junior cycle was almost certainly affected to a large degree by social issues. The fact that bullying behaviour was experienced throughout the course of the study period was distressing enough. A consideration that this student had few if any close friends and that his socialisation results suggested a generally small social support network added further to the impact of the victimisation trend.

Student 148's consistently high attribution scores indicated a degree of coping and optimism which may go some way towards explaining how excellent results, behaviour and extra-curricular involvement were maintained in the face of hostile behaviour.

Table 89: Summary of Results for Student 170.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	33	38	34	0	0	1		
May 1	33	38	45	5	0	2	2	29
Jan 2	33	40	50	0	0	0		
May 2	33	37	56	4	0	0	0	26
Jan 3	33	37	54	1	0	0		
May 3	33	41	58	1	0	0	0	24

Student 170 received more victim nominations than any other student in the entire study group. In the end-of-year bullying and victimisation surveys, he was named as a victim by a consistently high number of classmates. In year one for example twenty-nine of his peers (all but one of his classmates) identified him as being a victim of bullying behaviour. Fortunately this total fell to twenty-six in year two and twenty-four in year three, however even allowing for the small degree of progress, these figures were still alarming to say the least.

Closely related to these results were the scores recorded on the six socialisation surveys. These scores were highly comparable with other pupils who had been identified as victims in the bullying surveys in that student 170's popularity was at its lowest in year one (when the volume of victimisation was highest). Conversely, when the volume of recorded victimisation began to fall his socialisation rating began to increase. As may have been expected, the social esteem scores noted by student 170

were also the lowest in the group. As with some of the other pupils named as victims, for much of the study period there was not a single classmate who could be identified as a close friend of student 170.

To the credit of student 170, he managed to maintain an exceptional level of academic progress throughout this difficult period. Having attained a predicted exam points score of thirty-three in the initial intelligence and ability tests, he subsequently exceeded this level in each of the six major exams. On two occasions (Christmas of year two and the Junior Certificate exams), he reached totals of forty and forty-one respectively.

In addition, his attendance and punctuality records were excellent, with only ten days missed in three years and not a single incident of being late to school. A small degree of involvement in extra-curricular activities was also evident each year although the fact that his chosen activities were almost entirely individual in nature may perhaps have added further to his social isolation.

Student 170 certainly appeared to make the best of a bad situation. He continually applied himself in class and study, while at the same time facing an entirely unreasonable degree of bullying. The academic success enjoyed by student 170 was undoubtedly a product of great determination in the face of ongoing adversity.

Table 90: Summary of Results for Student 184.

	Ability	*Exam*	*Social*	*Atten.*	*Lates*	*P.Points*	*Bully*	*Victim*
Jan 1	33	29	55	10	1	8		
May 1	33	32	53	11	2	18	10	9
Jan 2	33	27	56	12	0	4		
May 2	33	25	63	20	1	9	6	8
Jan 3	33	27	50	2	2	2		
May 3	33	29	50	5	3	6	2	11

Student 184 displayed a high degree of involvement in bullying, both as bully and victim. In year one, he was identified as a bully by ten classmates and as a victim by nine classmates in the end of year survey. By year two these figures had fallen to six bully nominations and eight victim nomination. However in year three eleven classmates were naming student 184 as a victim (and only two naming him as a bully). This shift in focus was quite unusual in the group and certainly appeared to have an impact on his overall socialisation ratings. Just as with other students named as victims, student 184's social status was lowest at times when he was most frequently identified as a victim. Conversely, the only time at which his social standing increased was at the same stage that a reduction in his volume of victimisation was noted.

Academically, student 184 consistently performed. Having attained a predicted exam points score of thirty-three in the initial ability and intelligence tests at the start of year one, he never once managed to attain

this level in a major exam. Indeed his academic results fell as low as twenty-five points (in the summer exams of year two).

In terms of extra-curricular activities, student 184 participated in a narrow range of activities, electing to take part in only one in both year one and year two.

The highly inconsistent behavioural records and exam points scores of those peers noted as close friends was an indicator of changing friendships rather than varied performance of the same group of friends. Student 184 appeared to maintain few long-term friendships over the course of the study.

Student 184's own behaviour did show signs of steady improvement across the three years of the study. Having recorded a total of eighteen penalty points for poor behaviour in year one, he subsequently recorded nine in year two and six in year three. This improvement was also noted in the six-weekly report books, where the balance of positive v negative comments shifted in a positive direction in year three. Unfortunately, this progress did little to improve either the academic success or social standing of student 184 who failed to make substantial gains in either of these critical categories over time. Thirty-six days of absence from school in three years simply added further to the difficult position in which student 184 became firmly entrenched.

6. Conclusions.

6.01 Conclusions.

The following section provides an outline of each of the main findings from the research data. The results to be discussed were chosen on the basis of both their practical value and also on the weight of supporting evidence which was discovered. Full quantitative findings for each of the various sections are provided in the appendices of this thesis. Before discussing the final outcomes of the research, it is important to re-emphasis two issues; namely the initial aims of the study and the limitations of the chosen research methodology.

Initial Aims of the Study.

Four core objectives were identified at the start of the study:

- To identify trends within each of the selected data categories;
- To measure the relationship between these variables;
- To provide a detailed account of the influence of these variables on students' experiences at school;
- To compile data which could be of use to students, parents, teachers and school administrators, in terms of increasing the benefits derived from early secondary education.

Overall, the specific aim of the research was to identify school-based elements which influenced the educational experience of students. The intention was to highlight and measure the degree to which a selection of variables contributed to each student's academic, social and personal progress in school.

Limitations of the Chosen Methodology.

One particular limitation of the chosen methodology was highlighted at the start of the study. This was the fact that only one school was selected for

the purposes of the research and that as a consequence of this the study was limited to an all-boys research group, in a specific location, with a specific culture, etc.

As was mentioned earlier however, it is important to remember that the conclusions below are obviously not completely applicable to other schools or situations. Instead, it is hoped that this thesis acts as a starting point for further research, fuelling questions as well as answers and creating an interest in the notion of school and student development. Rather than forcing any findings on the educational community at large, or stating that 'This is how it is', the objective of this study was simply to state that 'This is how it was *in this particular school*'.

Now the challenge is for other researchers to compare or test the findings in alternate situations - girls or mixed schools, older or younger school years, different social backgrounds, etc. Ultimately, a positive outcome for this thesis depends on conclusions being reached which are *useful* to pupils, teachers, parents and schools in general. At very least, there is little doubt that the methodology employed in this research project will yield findings which can be applied, debated, or tested by numerous educational stakeholders.

With this in mind, the conclusions reached within each of the selected variables are presented below.

6.02 Academic Results Trend.

An overall assessment of academic results throughout the duration of the study period highlighted a clear trend. In the first half of year one, the average points score for major exams was 32.8. This subsequently rose to 33.5 in the second half of year one. Year two however saw a tangible drop in results with the average points totals falling to 31.3 and 29.5 in the Christmas and summer exams respectively. A steady rate of recovery was evident in year three though, with the average points total rising back to 32.6 in the Junior Certificate exams.

A strict viewing of the average academic performances of students in the study group would therefore paint a variable picture of exam results. A visible trend was very clear in terms of high achievement in year one, followed by a fall-off in year two and partial recovery in year three. The standards reached by the end of year three were generally comparable (although not quite as high as) the levels of performance achieved in year one.

A couple of logical arguments could certainly be presented. Firstly, given that more and more information was being presented to students as they passed from year one to year three, it was perhaps unsurprising that the results achieved at the end of this period were lower than those achieved at the start. This however did not account for the fact that the results in year three (albeit lower than they were in year one) were still *higher* than in year two.

Secondly, it might be suggested that the trend simply reflected extremely difficult tests in year two which caused the results to fall. It would seem though that this was not the case since as well as being extremely unlikely

that each of the numerous teachers involved would have independently decided to set very challenging exams, the dip in performance was also reflected in other variables. The report book grades and comments, for example, provided evidence that levels of effort and application were noticeably lower in year two than in either year one or year three.

Instead, the trend seemed to suggest an overall fall-off in relation to academic impetus in year two. Having started secondary school with much enthusiasm and great study intentions in year one, the general student body appeared to relax somewhat in year two, before succumbing to the imminent pressure of the Junior Certificate exams in year three.

Recommendations:

It was unsurprising to note that those students who managed to avoid this under-performance in year two and who maintained a consistent record in each of the three years were likely to achieve at (or above) their predicted level. Although it might be entirely understandable that many students viewed year two as a 'gap' year between the initial start to secondary school and the state exams at the end, it was clear that such an approach was detrimental to academic progress. Students who stepped back from their studies in year two, not only slipped in the short term but also found it very difficult to make substantial progress the following year.

A greater emphasis on the importance of year two in academic terms would therefore be advisable. The fact that the primary goal (the Junior Certificate) is still almost two years away when students enter year two creates a difficulty in terms of providing short-term focus. It is, as a result, incumbent on parents, teachers and students to create more tangible targets to be worked towards. In addition, the monitoring of early warning signs showing any indication of fall-off in performance, should be given serious attention.

6.03: Accuracy of Ability / Intelligence Testing.

The combination of ability and intelligence tests used at the start of year one proved to be extremely accurate predictors of academic performance in the first year of the study. The degree of fit between these predictions and the actual results began to widen in year two and this pattern continued further into year three.

It could be argued therefore that the tests used were not entirely efficient, in that while they produced very accurate estimates of performance in year one, results in the later years of the junior cycle varied to a noticeable margin from the predicted levels.

The evidence of the study however supported the quality of the tests. Of principal importance was an acceptance of the fact that ability and intelligence tests by their nature simply provide an indication of *current* competences. As has been noted in much of the background literature, intelligence and ability are not static qualities. Rather, they are shaped and refined with learning and experience. The tests used at the start of year one therefore provided an indication of each student's position at that stage. It was unsurprising then, that the performance of almost every student in the group matched their ability levels over the coming months.

It then became clear as the study progressed, that the wide range of pupil experiences and efforts were impacting on each of the individuals within the group, resulting in either academic progress or underachievement for some and stability for others. This movement away from the confines of the academic predictions did not in any way result in a questioning of the accuracy of the testing. Instead, it simply reflected the characteristics of the ability tests and, in particular, their inability to assess attributes such as organisation, motivation or willingness to engage with school material.

In general, the fact that the ability and intelligence tests did not predestine students to specific levels of attainment was a positive result. Primarily,

this result confirmed that ability alone did not determine academic success but that other factors played a part in shaping the performance of pupils in exams. At either end of the ability spectrum, this impact of related variables was felt – reinforcing the message that even the brightest of students needed to pay close attention to their studies and that equally, some of those who came to the school with low levels of academic ability still managed to perform well above their predicted level.

Recommendations:

Although the long-term accuracy of the ability and intelligence tests was far from perfect, the short-term benefits yielded a strong indication of current competence. As an initial recommendation therefore it would seem reasonable to suggest that the administering of some form of ability / intelligence tests to students might be helpful for parents, teachers and students themselves. The point of entry into secondary education might logically be an appropriate time for such a series of tests to be used and perhaps again at the start of the senior cycle. Given that both of these educational phases often require students to make choices regarding the number, type and level of subjects to take up, it would be fair to say that an understanding of one's own abilities would be a beneficial selection tool. It is extremely disappointing to hear such a high volume of anecdotal evidence about students committing to subjects which are entirely ill-suited to their abilities, in turn impacting on their opportunities to perform well in exams.

Similarly, issues such as the expectations of parents and the teaching strategies employed by teachers are often based on perceptions of student abilities. An awareness of the actual ability and intelligence levels could surely serve to increase the accuracy and efficiency of these assumptions.

Conclusions 2: Behaviour Grouping.
(Attendance and Punctuality, Continuous Assessment, Behaviour).

6.04: Fall-Off in Attendance and Punctuality.

The data relating to attendance and punctuality contrasted somewhat with the academic achievement findings. While the academic results (and similarly the comments and grades on the six-weekly report cards) followed a clear pattern of high performance in year one, fall-off in year two and then recovery in year three, the attendance and punctuality trends differed slightly.

At first analysis, it would seem that the number of days of school missed by students steadily increased as the study period progressed. A glance at the average findings shows that 7.0 days of school were missed in year one, 7.0 were missed in year two and that 7.7 were missed in year three. It might be assumed therefore that as time progressed, students were more likely to take time off from school and that this general trend impacted on the group as a whole.

This explanation however fails to consider the effect of those students who contributed most to the attendance results. In other words, a small group of pupils each year missed a substantial portion of class time and their attendance records skewed the data. In year one for example, one student missed twenty-nine days of school. In year two, a student missed fifty days of school and in year three eighty-five days were missed by one student. The fact that these maximum results increased in each of the three years clearly influenced the average findings for the group. In attempting to confirm this point, it was possible to temporarily delete these three results from the data files and re-calculate the annual averages. This process

returned average attendance figures of 6.5, 6.8 and 6.5 days of school missed per year.

In a similar manner, the punctuality results show average days late to school of twenty-four, twenty-three and fifty for years one, two and three respectively. Again, this would appear to indicate a generally increasing trend to arrive late to school. However once the primary offenders for each year are withdrawn from the files, the recalculated averages again show a much more consistent range of between three and five days late per year.

The implication of these results is that, aside from the extreme patterns of attendance and punctuality displayed by a very small number of pupils, the attendance and punctuality trends of the student body as a whole remained remarkably consistent throughout the course of the junior cycle.

Recommendations:

It was clearly noted that the school mentioned in this study possessed a strong academic ethos and that the parents in the school were generally very supportive of the staff. For this reason, it was unlikely that many pupils would be encouraged to miss or be late to school intentionally for any significant period. The attendance and punctuality data consisted almost entirely of a low average of 'legitimate' absences and a small number of extended (illness-related) days away from school.

Given that those who missed a handful of days or who were late to school on only a few occasions did not suffer any substantial losses, the rational conclusion would be that attendance and punctuality records within these parameters are acceptable and should not cause any major cause for alarm.

Consequently, it would be important to monitor attendance and punctuality data on a daily basis to ensure that individual students do not move beyond a reasonable level of absence and to ensure that negative patterns do not

develop. Equally, since those who do miss a high volume of school appear to suffer in many domains, it might be worthwhile to allocate resources towards some form of assistance for those who have missed out.

6.05: Accuracy of Continuous Reports.

The existence of regular reporting in the school gave teachers an opportunity to pass feedback to parents at six-weekly intervals. The accuracy and relevance of this information was of an exceptionally high standard and provided a number of indicators of likely future performance.

On a direct level, the grades and comments provided by teachers generally related to class and homework. Issues such as effort and application were primarily addressed and as a result indications were given as to how each student was performing academically. Almost without fail, this data correlated very strongly with subsequent exam performance. Not only were levels of ability accurately noted by teachers, but, even when slight improvements occurred on major exam scores, it was almost always possible to trace feedback to this effect in recent report books.

While this direct link between comments, grades and exam results may well have been expected, the indirect link between feedback provided by teachers and issues such as bullying, was particularly noticeable. On a continuous basis, the students most frequently nominated as bullies by their peers were generally most likely to have received a high volume of negative comments on their report books. Similarly, poor report book grades and comments were symptomatic of falling levels of esteem and rising volumes of behavioural penalty points. In addition, the academic achievement and behaviour of close friends was even seen to correlate strongly with the report book data – supporting further the claim that the behaviour, application and effort of individual students was closely linked to the related performance of their best friends.

Adding further to the evidence of report book accuracy and to the connection between grades, comments and a wide range of correlated variables, was the prompt nature of the indicators provided by teachers. Feedback recorded on even the first report book to be completed (only six weeks into the very first year of secondary school) yielded a substantial volume of accurate performance predictors. This early opportunity for parents and students to accept potential problems and to act on the feedback provided by teachers was certainly accepted by some. Many others however, regularly disregarded a continuous stream of negative grades and comments. They displayed a disinterest or lack of ability to change and therefore produced little substantial recovery at any stage in the three year study from poor starts noted at the beginning of year one.

Recommendations:

There can be little doubt that the conclusion to this evidence is a strong message to parents and pupils that the grades and comments awarded by teachers should be closely watched. From the earliest moments of year one to the final reports before the Junior Certificate exams in year three, the feedback from teachers provided an opportunity for recovery and for taking positive action. Those who chose to ignore this advice or who were unable to catch up from ground lost were inevitably the students who let themselves down badly in a range of variables. Obviously the earlier that action is taken the better and for this reason it could be argued that the very first reports received by students are the most important and yield the greatest chance for fostering positive habits.

In fairness to those who slipped behind, it is possible that without having any knowledge of the school system or the results of other students, it might be difficult for a parent to know how well their child is performing. Comments and grades may be undervalued if there is no average or acceptable standard of comparison. For this reason, it might be of benefit

to include some form of comparison on continuous reports, along with the specific grades and comments for the individual student.

6.06: Pattern of Poor Behaviour.

The pattern of poor behaviour amongst students could be assessed from a variety of angles. An initial observation of the data, confirmed the finding which had been reflected in a range of different variables – namely that years one and three showed the most favourable results, whereas a drop-off was evident in year two. Few students were brought to the attention of the Year Head for serious breaches of the school discipline code in year one. By year two however, a wider group of pupils had begun to gather penalty points for poor behaviour in school. As with other variables though, year three saw a reasonable rate of improvement on this position and a large proportion of the student body managed to finish year three on a positive note. The fact that this trend corroborated evidence from other sections of this study confirmed to a large degree the suggestion that year one served as an opportunity for pupils to 'find their feet' in the new school, year two offered students a chance to become more comfortable in the school environment and finally, year three was seen as a period for focusing on the impending state exams.

Aside from the actual volume of poor behaviour which was recorded, it was interesting to note what range of students were actually involved in these issues. An analysis of the penalty points totals was therefore used to investigate the frequency and regularity of individual involvement in behavioural incidents. This process confirmed that while the overall total and average behavioural records of students in the group followed a clear pattern (as mentioned above), a very small number of individuals within the group were responsible for this trend.

The average number of penalty points in the group for the three year duration of the study was 5. If the average were to be calculated without

the top quarter of students (in terms of involvement in behavioural incidents), the result would fall to just 2. This 60% fall-off highlighted the impact that a specific group of students had on the behavioural record and on the subsequent penalty points totals of the group as a whole. The danger therefore of reaching conclusions based on average results was particularly pertinent in this case and an accurate conclusion unquestionably required an acceptance of the substantial impact of a few, rather than an assumption of guilt on the part of many.

Recommendations:

The fact that poor behaviour was related to so many other variables in the study, generated a strong implication that the conduct of students in many ways provided a 'snap-shot' of their overall likelihood of yielding a positive school outcome. In a similar vein to the data on academic performance, a clear pattern emerged regarding the propensity for students to gather penalty points for poor behaviour. The result confirmed that year two saw a loss of focus and acted as a gap between the excitement of starting secondary school and the pressure of the Junior certificate exams.

Unfortunately for those students who chose to pay less attention to their overall application in year two, it was often difficult to recover from this position by the end of year three. In specific terms, the human element of the teacher-pupil relationship clearly makes it difficult for an individual to behave poorly for teachers at any stage and then to expect the teacher to subsequently be as committed to that student as they would to others who have shown continuous cooperation at all times. Unlike a situation of falling behind academically (where recovery is for a large part in the hands of the individual), a fall –off in behaviour relies on the goodwill of others if a reasonable recovery is to be made.

6.07: Effects of Behaviour.

The fact that behaviour was seen to impact on a range of additional variables within the school environment was not particularly surprising. However it was certainly important that such a connection was investigated and it was beneficial that this was confirmed. Parents, teachers and indeed pupils have generally accepted in the past that excessive poor behaviour in school is likely to bring with it a variety of negative consequences and the data in this specific case would clearly seem to support this suggestion.

On an academic level, a consistent relationship was evident between the volume of behavioural penalty points a student received and his subsequent exam performance. Improvement and fall-off in either variable tended to arise hand-in hand, with a movement in either area acting as an accurate predictor of movement in the other. Further to this, the relationship between behaviour and academic progress also acted as a link between other variables. Academic self-esteem for example, was closely related to performance in exams which as has been just noted, was strongly connected to the standard of behaviour displayed by the student in class.

On a slightly different level, behavioural records were also seen to highlight the degree to which students were involved in bullying. A parallel trend between these two data sets, together with the evidence from the analysis of the bullying results, added further to the argument that involvement in bullying was merely a part of an overall pattern of poor behaviour. It was indeed rare for a student frequently named as a bully by his peers to display a positive behavioural record.

The behaviour of students in school was certainly interconnected with a number of different variables across a wide range of school-related issues. While the debate may well continue as to whether the behavioural issues *caused* the change in variables such as esteem and academic performance or whether in fact the impetus for change came from the opposite angle (with exam performance influencing changes in behaviour for example),

the connection between these parts of school life clearly existed. Perhaps of most relevance therefore was the fact that behaviour could be viewed as an outcome over which the student had direct control and in which it was not overly-difficult to make improvements in. For this reason, an interest in improving related variables such as exam performance might well benefit from focusing initially on the area of behaviour in school.

Recommendations:

As was mentioned above, behaviour in school was one of the few variables under investigation over which the students themselves possessed an extremely strong sense of control. The choice of some students and groups of friends to behave poorly influenced their performance in a range of different data categories. While the degree to which poor behaviour impacts on school outcomes may be debated, it is interesting to note that the nature of these effects are almost always negative. With the exception of the bullying evidence (which indicated that those involved in bullying may in the short-term perform well in terms of socialisation), every other outcome identified as being connected with poor behaviour, displayed a negative consequence.

There is little therefore to be gained by a student who elects to behave poorly in school. The temporary benefits of social status gained are almost certainly outweighed by the longer-term loss of academic standing, negative feedback received by teachers, fall-off in self-esteem, etc. Early warning signs of poor behaviour should therefore receive immediate attention. By attempting to take affirmative action at an early stage, parents and teachers not only increase the likelihood of reaching a successful conclusion, but just as importantly indicate a clear message of intent to a student who may be tempted to become involved in incidents of poor behaviour.

6.08: Results of Poor Attendance and Punctuality.

Attendance and punctuality generally only impacted on those students at (or near) the highest level of offending in each variable. Students who missed a small number of school days or alternatively who were late to school on a handful of occasions during the junior cycle were not seen to suffer in any substantial respect as a result of this. On the other hand, it was clear that students who either missed or were late to school a large amount of times were likely to lose out.

An analysis of the ten students who were late to school more often than any others shows that not a single one of these pupils performed higher in their Junior Certificate exams at the end of year three than their predicted score suggested in the ability and intelligence tests at the start of year one. Similarly, of the ten students with the worst attendance records in the group, only two out-performed their predicted level of academic achievement. In contrast, those students finishing in the top ten in terms of both attendance and punctuality, showed a consistent propensity to exceed their predicted academic performance.

While the general correlation data failed to highlight connections throughout the range of data, a ranking of other variables provided some interesting links. Of particular note was the fact that four of the ten students with the highest number of penalty points (for poor behaviour in school) also featured in the bottom ten for either attendance or punctuality. In a similar vein, three of the bottom ten in terms of popularity and three of the bottom ten with respect to frequency of nomination as bullies also appeared in the bottom ten of either attendance or punctuality.

It would seem therefore that a threshold appears to exist with regard to an 'acceptable' volume of absence or lateness to school. Students whose records in either domain fell short of this mark were subsequently seen to suffer with poor performances or ratings in related variables. Exactly where this threshold lay clearly depended to a large extent on the

individual abilities and attitude of the pupil. There were certainly cases where specific students missed or were late to school on an unreasonable amount of occasions, but where their hard work or academic ability prevented them for falling behind. It should be remembered however that the ability to keep in touch academically did not necessarily protect students from potentially negative social, esteem or extra-curricular consequences.

Recommendations:

While the importance of attendance and punctuality trends has been previously discussed, it is equally vital to consider a relationships between these and other variables. From a parent's point of view, for example, it is understandably difficult to be aware of exactly how many times a child is late or absent from school and equally, how significant the volume of late arrivals and absences is.

An attempt to inform parents regarding reasonable thresholds of attendance and punctuality, the likely outcomes of poor results in either category and possible courses of action should a substantial volume of school be missed could well act as a useful foundation towards home-school cooperation in this area.

At the other end of the scale, students whose attendance and punctuality records are at the top of the group could well have their achievement recognised by the school in a formal manner. By drawing attention to their performance in this way, other students may well make the connection between these variables and the related academic, social and behavioural outcomes. Although extreme negative attendance and punctuality results were rare in this specific study, the issues raised may take on far greater significance in different settings.

Conclusions 3: Social Grouping. (Socialisation, Self-Esteem, Attribution, Extra-Curricular Involvement, Bullying).

6.09: Fall in Socialisation Ratings.

The pattern of socialisation results yielded a number of interesting findings. Of initial note was the fall in socialisation ratings in year three. While the average socialisation grade totals climbed from year one to year two, year three saw a clear drop in the volume of friendships. It would be reasonable to have expected the socialisation increase from year one to year two, given that students at this early stage of their secondary education were no doubt building new friendships. The fall-off in year three however was certainly an unexpected result, a product perhaps of other data trends noticed in the study – falling involvement in extra-curricular activity, increasing bully numbers, etc.

A second pattern to emerge was the consistent relationship between the results at the end of the first half of each year and the results at the end of the second half of each year. In all six socialisation surveys (two a year, for three years) the end of year results highlighted a greater volume and a stronger average socialisation grade for the group as a whole. In other words, the average socialisation results in each year were higher at the end of the year than they had been mid-way through the year. This pattern would seem to support the assumption that close friendships develop over prolonged periods of time and that even if there are students in a class who don't share any real interests, it may be possible for them to come to accept each other to some degree as time passes.

The only related variables with which the socialisation data were closely correlated were the victimisation findings. The results showed a

continuous negative link between the frequency with which students were named as victims of bullying behaviour and their social standing within the group. The results confirmed that those who were most frequently named as victims by their peers tended at the same time to be rated at or near the bottom of the group in terms of socialisation.

Of particular note was the fact that those identified as bullies in the end of year bullying and victimisation surveys rarely suffered to any degree in relation to the social standings and in fact were often rated comfortably in the top half of the group. This seemingly inequitable product of the bullying relationship while probably contrasting with the anecdotal evidence, certainly confirmed the unfortunate reality regarding the social standing of bullies and victims at this age.

Recommendations:

The fall in socialisation results may reflect a natural pattern, one which merits little or no need for direct action from parents, teachers or students. It could be argued that students simply become more 'targeted' in their friendship patterns over time and that the lower ratings in year three simply suggest a movement away from a large volume of general friendships to a smaller number of closer relationships.

The socialisation data however clearly highlight the avoidance of victimisation as a step towards being a socially effective member of the class group. Those pupils who received the fewest nominations as victims in each of the classes were consistently rated near the top in terms of popularity. Of course the question can be asked as to whether the lack of social success on the part of some students is a cause or consequence of the victimisation they experience. Unfortunately however, the reality is in all probability a vicious circle effect, where the two variables act as contributing factors and also as unwelcome outcomes. Either way, it is clear that strategies which aim to assist students in either domain (helping

to increase social skills or reducing the frequency of victimisation) carry a variety of potentially beneficial results, with implications for a number of school-related variables.

6.10: Influence of Close Friends.

While the socialisation surveys acted as an indicator of the volume and width of friendships within the group, a closer analysis of individual relationships allowed for an assessment of the impact that specific students or groups of students had on each other. The primary source of findings were the correlation results, highlighting how variables were influenced by the performance of close friends.

This assessment yielded a wide range of relationships and confirmed that a correlation existed between both the academic and behavioural records of individual students and the related performance of their best friends. The strongest of these correlations was shown between report book results and the exam performance of close friends. It was consistently shown throughout the course of the study that rising grades on the six-weekly report books (signifying poor application) and falling volumes of positive comments on these same reports were linked with disappointing exam performances on the part of close friends.

Not only was there a connection between the results achieved by close friends and the feedback received by individual students from teachers but this impact also extended to the exam points totals achieved by the students themselves. In other words, not only was it noted by teachers on report books that the application of individual students was falling in line with their friends but these indications invariably turned out to be extremely accurate, as evidenced by falling exam points totals.
In addition to the academic connection between groups of close friends, further less obvious relationships were identified. A link between the exam results of close friends and the frequency with which pupils were named as

bullies by their peers was also noted for example. The implication of this result was that falling standards on the part of a student's closest friends (in a variety of areas) were frequently reflected in a general decline for the individual student himself. Similarly, a correlation between the volume of penalty points gathered by student's closest friends (for poor behaviour in school) and the report book grades and comments received by individuals displayed a strong relationship.

The range and scope of connections between individual students and their close friends provided strong evidence that the choice of friends each pupil made yielded a firm impact on their subsequent school experience. Of particular note was the fact that this influence extended not only into the academic sphere, but also into areas such as behaviour in school and involvement in bullying.

Recommendations:

This strong evidence that the choice of close friends made by a student is likely to have an impact on his own performance, is a critical point for parents, teachers and students themselves to consider. Much as students may feel that they can distance themselves from potentially negative influences of specific friends, the data from this study would suggest that this is not always the case.

This may of course reflect the fact that individuals tend to drift towards like-minded others when choosing friends and that the connection between the progress and fall-off of close friends is more to do with their similar personalities, interests and motivations than their actual relationship. Whichever is the case, it is equally evident that one element of friendship patterns in general is the tendency for individuals within the group to *develop* shared similarities, interests and motivations (in addition to the ones they brought to the friendship in the first place).

For this reason, it would seem prudent for those involved in education to attend to the friendship patterns that develop between students, to be alert to the fact that these patterns may engender negative outcomes and to identify opportunities for students to avoid these potential pitfalls without necessarily having to move away completely from close friends.

6.11: Form-Class Results.

Given that the study group had been split by the school into three separate classes when they entered year one and subsequently stayed within these core groups in most subjects for the remainder of the study, it was of interest to confirm whether or not these groupings influenced the individual outcomes within the sample. Evidence from a number of the variables under investigation provided a large volume of weight supporting the argument that attitudes, behaviours and social networks within each group certainly contributed to the results displayed by students within each class.

Group one for example consistently received the most disappointing feedback from teachers. On the six-weekly report books they received the highest average points totals (signifying poor application and behaviour) and also the lowest ratio of positive to negative comments. This feedback further reflected the situation with regard to performance in exams, where students in class one were more likely than those in either of the other two classes to under-perform (with regard to the predicted ability and intelligence ratings). Group one also fared best in terms of involvement in extra-curricular activities, showing the highest propensity to try out and also maintain their involvement in a wide range of sports and activities.

In contrast, groups two and three tended to perform better in other areas. Group three for example, recorded some of the highest socialisation values and became the group with not only the greatest volume of friendships in general, but also with a high degree of close friendships (as noted in a cross-reference of students who reciprocated a '1' grade for each other on

the socialisation surveys). In addition, groups two and three also maintained higher social esteem, academic esteem and attribution scores than group one for the duration of the study period.

The influence of the class group therefore changed from variable to variable and from year to year. Each class showed an ability to perform best in specific variables, at different stages throughout the junior cycle. At these times, not only did a small number of pupils within each class feature at the top of the overall group ratings, but results for many of their classmates also tended to rise accordingly. The impact of these improvements on the part of peers would appear to have influenced individual students across a range of variables. While individual interests, aptitudes and attitudes were clearly capable of over-riding the influence of the group, the positioning of pupils within each of the specific classes undoubtedly contributed to a range of measurable effects.

Recommendations:

The conclusion to the findings on class influence was that each of the three groups displayed their own unique pattern of progress. Just as individuals within the overall study group changed and grew during the research period, each of the three classes had phases of time when they performed well academically, times when they were particularly close as a group and times when they were more likely to be involved in extra-curricular activities.

While of course any on-going negative trend in a particular class may give cause for concern for parents or students within the group, it is important that the fluid nature of the group dynamic be considered. If a parent is eager to have their child moved from one group to another (to move away from some negative situation for example), it would be critical that they understand how the same scenario may well develop in the other class at some stage in the future, how the situation may only have been temporary

in nature in the original class and how by moving the student, a greater disorientation and ultimately a more substantial negative effect may result.

The class group therefore plays an important role in determining individual outcomes. However attempts to interfere with the natural development of the group or to solve short-term issues with 'quick-fix' solutions need to be approached with caution.

6.12: Consistency of Academic and Social Esteem.

Following a similar pattern to the data gathered in the attribution variable, the results for both academic and social esteem categories remained highly consistent throughout the course of the study. The academic esteem findings for example, yielded average results ranging from 6.4 to 6.8. While these results excluded the data gathered at the start of year one (as a result of the fact that a different esteem assessment was used at that stage – for reasons outlined in the introductory section of this thesis), the range of average results evident for the other two and a half years of the study was extremely consistent. Individual variations however did provide a specific point of information. It was clearly noted in each of the six assessment periods that a wide variation existed between the few students scoring particularly highly and those who were placed at the bottom of the group.

In each of the assessments, there was a small group of students who recorded the maximum score of 10. Equally, at the lower end of the scale, a distinct minority of pupils attained little more than the minimum level of 0. A clear disparity was therefore evident between the substantial proportion of the group achieving consistently stable results and the much smaller cluster at either extreme.

The social esteem findings followed a similar pattern, with the average results remaining within a tight range (from 7.5 to 7.7). Again though, it was evident that while the group as a whole viewed their social status in a

remarkably uniform manner, a small number of pupils at each phase of the research displayed either extremely high or extremely low levels of social esteem.

In relation to the impact of other variables, it appeared that the academic esteem domain was more open to influence from the other data under consideration than the social esteem domain. In comparing the relationships and correlations between variables, it was clear that social esteem was quite robust and was rarely influenced to any substantial degree by changes in related variables. It was certainly clear that the correlation between victimisation and social self-esteem highlighted a noticeable connection. With correlation results of between -.23 and -.38 for each of the six assessment periods, there was little doubt that a relationship existed between these factors. Apart from this result however, the social esteem results remained relatively consistent. As was the case with data such as the attribution results, it is possible that the social self-image of students was relatively fixed from an early stage, creating a perception of their own ability to deal with others in a range of settings. The consistent nature of the results displayed could therefore be viewed as a reflection of this level of esteem, with the small volume of extreme results merely acting as a reminder that, while substantial variation in results was unlikely, it was possible.

The academic self-esteem results on the other hand, were more open to influence from other variables. Strong correlations were seen between the academic self-concept of students and the comments and grades on report books, the performance of the student in major exams and the degree to which the student was involved in behavioural problems. This tendency for academic self-esteem to be effected by other factors within the school, possibly highlighted the widely different academic challenges presented to students on entering secondary education. As new reporting structures, exam experiences and behavioural codes were introduced and applied, levels of academic esteem displayed subsequent variation.

Recommendations:

The fluctuating nature of academic self-esteem and its related impact on a range of other variables emphasised a need for attention. Given that so many incidents and experiences in school were liable to create shifts in the academic esteem results, it would perhaps be beneficial if an emphasis were to be placed in these areas. In short a 'transactional' relationship appeared to exist between academic esteem and a host of related variables – in that variables impacted on others from a number of directions, with the existence of each of the variables influencing changes in the others.

On a concrete level, the likelihood of an event adversely impacting on esteem is generally based on factors such as the importance of the event, the severity of the experience etc. Since the start of secondary education is a major phase in most young people's lives, some preparatory work may prevent negative esteem effects during the early stages of secondary schooling. A comprehensive introduction to the new school, outlining the volume of work that will be given, the exam standards that will be expected and the type of feedback that will be received for example might give students a knowledge base from which to start in the school and might also provide a reference point for pupils who are unsure about their ability to cope with the new demands presented to them.

6.13: Academic Esteem Perceptions v Actual Events.

While an independent assessment of academic esteem trends provides an opportunity to identify patterns in the data, the restriction of such an analysis is that little attention is given to the accuracy of the initial results. It is important therefore that some attention is given to the actual esteem data and that a comparison is made between the perceived academic self-worth of students and the reality of the exam points totals.

On an academic level, it was clear that a correlation existed between the self-perception of students and a variety of related variables. Not only did the academic esteem of pupils match the feedback provided by students but also yielded an accurate reflection of performance in major exams. In other words, it was clear that students had a firm and very accurate measure of their own ability, a view that was shared by the general body of teachers and which was confirmed in subsequent exams. It could certainly be asked whether the comments of teachers and the results in exams were in fact contributing factors in relation to the levels of academic esteem or alternatively whether they were merely a result or reflection of the individual's esteem. Either way, one of the purposes of this study was to investigate the possibility of a link between the two and it would be reasonable to conclude that this was in fact the case.

Recommendations:

Academic esteem appeared to follow a more uniform trend, closely reflecting the actual abilities and academic position of students. The unstable nature of academic ability, as suggested in the data findings, lends itself to a conclusion that issues such as coping skills, organisation and ambition may be vitally important. The ability of a student to recover from tough exams or from school days missed for example, may serve as a buffer protecting their level of esteem.

6.14: Attribution Consistency.

While many of the variables in this study could be highlighted for their tendency to vary from year to year, the results of the attribution surveys were notable for their on-going stability. Since it was necessary to use a different attribution survey at the start of year one (for reasons outlined in the introductory stages of this thesis) as opposed to the survey used for the remainder of the study period, the results at that stage clearly varied from

the rest of the attribution data. However following this initial period, the average results for each of the surveys remained within one point of each other (15.6 - 16.4). In addition, the maximum and minimum scores evident in each of these surveys, never varied to any substantial degree.

Two concrete explanations could account for this finding. Firstly, it is possible that the events and experiences of school life over the three years of the study were not of major personal importance to students and that therefore these events did not produce any changes in attribution style. It could be argued that attributional analysis tends to follow major events or incidents that are meaningful in some way to the individual. If it were the case that day-to-day events in school did not meet these criteria, it would be easy to understand why little self-analysis would have occurred and in turn, why little change in attributional style would have accrued.

This explanation however ignores the on-going evidence observed within the study group. It would be hard to conclude that school was not important to the pupils under investigation when, amongst other things, a large amount of time was spent studying and revising for exams in study halls after school and when a sizeable majority participated in extra-curricular activities on a number of days per week (representing the school in various events and competitions). A conclusion that attribution style was consistent as a result of a lack of personal connection with school events and experiences would be tenuous at best.

Instead, a second possible explanation for the continuous stability of attribution scores seems more realistic. If it were the case that attribution itself were a relatively stationary attribute and that an individual's attributional style were to be predominantly fixed by the time they enter secondary education, the results generated by the research would be easily explained. Instead of arguing that school events were not important enough to generate a change in attribution style, it is perhaps more realistic to view the same result from the point of view that attribution style develops over time, but is primarily developed at a younger age as a result

of early events and experiences. Subsequent incidents may, it seems, impact to a reasonable degree on attribution but certainly in this case, the explanatory style of the general body of students remained stable over the three year period.

Recommendations:

Since the evidence gathered suggests strongly that attribution style is predominantly formed at a young age, a recommendation that attention is given to this attribute during the early childhood years would seem sensible. The development of a positive explanatory style could almost certainly be helped by some form of instruction and indeed, worldwide programmes are already in existence which give young children an opportunity to discuss hypothetical situations and to consider alternative explanations. Unfortunately such programmes require a degree of training on the part of staff and also may demand classroom time in an already busy primary curriculum. The long-term advantages though, would seem very clear.

Explanatory styles are undoubtedly products of life experience. However it is likely that such events do not necessarily have to be personally experienced for attribution effects to result. In other words, viewing the outcome of another person's action can encourage an individual to question why the result occurred, in turn encouraging a shift in the individual's explanation for events. Similarly, discussion of imaginary events not only gives students an opportunity to deal with potentially threatening experiences from a safe distance but also helps young children in particular to develop positive explanatory styles at an early age.

6.15: Involvement in Extra-Curricular Activities.

The first noticeable trend which developed in relation to extra-curricular activities was the falling level of involvement from year one to year three. While students in year one were clearly very keen to take part in as many different activities as possible, this degree of interest certainly waned as time passed. A falling average from 4.9 to 2.8 (activities per pupil) in years one and three respectively provided evidence to this effect.

While this may initially have led to suspicion that students were simply less inclined to take part in activities as they got older, the data relating to the frequency of involvement in specific activities helped to clarify the actual situation. While the number of activities taken part in fell substantially during the study, the number of days that students were involved fell to a much lesser degree. In other words, although students were doing *fewer* activities, they were tending to take part in this smaller selection *more often* than they had in year one. This finding would back up the anecdotal evidence of pupils trying out a large volume of activities initially, before selecting, sticking with and specialising in a smaller selection of chosen activities in subsequent years.

An assessment of the nature of activities in which students elected to participate in also generated noteworthy results. The data identified a consistent balance between involvement in individual and team activities. The narrow range of results for example ran from 46% to just 52% (in terms of the number of students favouring individual activities), highlighting an almost equal level of interest on the part of the student body to take part in either type of activity.

The balance between competitive and non-competitive activities on the other hand, was far from balanced. A range of results from 80% to 90% (in favour of competitive activities) confirmed an ongoing tendency for pupils to avoid non-competitive activities such as music and art. While it may be argued that this result merely reflected the availability and quality of

activities offered in the school during the study, it has equally been noted that the choice of activities offered by the school was largely based on the level of demand shown for specific activities in previous years. Instead, the substantial preference shown for competitive activities was almost certainly a product of the personalities, current interests and previous experiences of the students in the group.

Recommendations:

While the data gathered in this research reflect the reality of extra-curricular involvement for the students in this group, the results do not necessarily provide a 'best' or 'most efficient' combination of activities for others to choose. Involvement in extra-curricular activities of course depends on personal interests and tastes, the availability of options and facilities, and a host of other factors. What is reasonable to expect however is that schools consider the likely skills and characteristics which may be developed by the provision of specific activities.

Schools focusing primarily on competitive sports for example (such as the school in this particular study) may be doing their students a disservice by prioritising these at the expense of dramatic or musical lessons. Equally, a balance must surely be achieved between the development of team attributes and the ability of students to develop independence and self-confidence by standing alone in specific activities such as debating or athletics.

An awareness of the implications of extra-curricular involvement is a critical requirement of school management. The choice of activities to be offered can either create or hinder opportunities on the part of students to benefit socially and personally from their time in school and most importantly to develop vital life skills.

6.16: Extra-Curricular Involvement & Socialisation.

The results of the correlation section in this presentation contain numerous examples of data variables displaying connections or relationships with each other. Many of these confirm or at least provide strong evidence to support, relationships which a number of people in the field of education would have reasonably expected to find. Few examples exist however of relationships which might have been expected, but which failed to be supported. One such correlation was the connection between involvement in extra-curricular activities and the socialisation ratings. Although many parents, teachers and students would hold a general view that involvement in after-school games and activities helps students to develop social networks, the data gathered were somewhat less definite about this belief.

Initially, the doubt regarding any substantial link between the two was very strong, with a correlation of only .2 evident at the end of year one. From this point on however, a steady climb began, with the correlation reaching .26 by the end of year two and .42 by the end of year three. A few distinct conclusions might be drawn from these results. Firstly, since the strength of the correlation between socialisation and extra-curricular involvement grew over time, it was apparent that the relationship between the two variables could be best viewed as a long-term phenomenon. As a result, students participating in activities for a short period of time could not have expected to have gained any significant social benefits in the short-term.

Secondly, the weakness of the relationship reflected a lack of fit at the extremities. In other words, the students recording the highest levels of involvement in extra-curricular activities weren't the most popular students in the group and likewise, the least popular students weren't necessarily the ones to rarely participate in activities. Instead, the data indicated that a moderate degree of involvement over a continuous period of time produced positive socialisation effects. Increasing the involvement beyond this did not exaggerate these social gains.

Finally, it should be noted that the non-existence of a tight correlation between socialisation and extra-curricular involvement confirmed that other variables played an important role in determining the social position of the student within the group. In basic terms, popularity was certainly not based solely on one's desire to take part in specific activities. Instead, it could be concluded that patterns of socialisation were based on a wide range of factors and dependent on (amongst other things) a combination of shared interests, attitudes and motivations.

Recommendations:

Students whose schools offer a range of extra-curricular activities are indeed fortunate. The opportunity to take part in these games, lessons and events give individuals a chance to develop critical abilities and lifelong skills.

The data from this study indicate that at the initial stages of secondary school it is entirely appropriate for students to try out a wide range of activities, taking this chance to decide which ones most match their needs, abilities and interests. From this point on, the selection of a smaller group of activities in which to take part in the long-term enables students not only to improve at a steadier rate in these activities but also creates an opportunity to learn lessons from this specialisation in terms of commitment, organisation and responsibility. By remaining involved in even one activity over a consistent period, the social advantages discussed above are likely to result.

On a cautionary level, it should be remembered that a balance between competitive and non-competitive activities, as well as a balance between individual and team activities, would logically seem to provide most opportunity for rounded development. In addition, the temptation to become involved in too high a volume of activities may well divert

attention away from areas such as academic progress and as a result, produce unwelcome outcomes.

6.17: Bullying and Victimisation.

The data gathered on bullying and victimisation confirmed much of the background research from other similar studies. Of initial interest was the fact that bullying was seen to be part of a wider pattern of negative behaviour. Those students who were most likely to be identified as bullies by their peers were also likely to have received a high volume of penalty points for poor behaviour in school. This result was strongly reflected in the correlation between the two variables and also in the day-to-day school disciplinary records. On a regular basis, the information provided by teachers (in terms of both grades and comments on the six-weekly report books) provided an accurate indication of those students who were performing badly in class. Along with the behavioural penalty points totals, the information from the report books lent further support to the connection between bullying and overall poor performance in school.

The victimisation data on the other hand highlighted a worrying trend. It became clear at a very early stage in the study that the social status of those students identified as victims by their classmates was particularly low. Not only did this group of pupils have to deal with the psychological pressure of the bullying behaviour which was directed at them, but also were forced to face this situation from a position of poor social standing. Many of the students identified as victims possessed an extremely low (and in some cases, non-existent) group of close friends while almost all could be classified as unpopular members of the class group.

Ironically, the students named as bullies by their classmates did not necessarily suffer from any lack of social status. The bullies in the group were sometimes quite popular amongst their peers with many of their actual socialisation ratings and self-reported social esteem scores being

comfortably high. In addition, most of the bullies were surrounded by a reasonably consistent group of close friends – a comfort not afforded to those who suffered at the hands of these bullies.

It is perhaps unsurprising to have gathered these results, given that at this impressionable age (and particularly amongst a group of boys) the characteristics of bullies may be deemed worthy of respect amongst peers. Social confidence and strength of character (albeit at the expense of other students) clearly counted for much amongst this specific study group and probably amongst boys of this age in general. On the other hand, the social difficulties which resulted from (and possibly which contributed to) the experience of victims were seemingly unlikely to receive support from fellow classmates.

Recommendations:

Although many suggestions and wide-ranging programmes have been proposed and are currently being implemented in schools around the world, two specific issues arise from this particular piece of research. The social support received by bullies from their peers undoubtedly gives cause for concern. The fact that the action taken by many of those involved in bullying is not effectively condemned and in many cases is positively affirmed can surely only further fuel the likelihood of this action being continued. It is vital therefore that the issue of bullying is discussed in the class forum, primarily giving pupils an opportunity to discuss and understand the negative implications of such behaviour. Perhaps if pupils in general were more aware of the impact that bullying can have on the lives of others, they might be less likely to condone, support or admire those who choose to engage in this type of behaviour.

At the same time, the social isolation of victims is possibly not only a consequence of their involvement but also a contributing factor in many cases. Providing a range of activities and events after school for example (not only of a sporting and competitive nature) and creating 'safe'

environments for students to go to at break-times might both help to foster a spirit of inclusion and confidence.

6.18: Summary.

Having started with the aim of identifying critical factors, relationships and patterns in the experiences of the study group, there is little doubt that a wide range of such findings were evident. Among the most valuable results in the study were findings that…

- Both academic and behavioural data showed clear patterns of strong performance at the start of secondary school and also in the run-up to the Junior certificate, but with a fall-off in the interim;

- Ability tests administered at the start of secondary school proved to be strong indicators of the results which could be expected shortly after this;

- Reasonable degrees of absence from school or lateness to school did not result in any substantial problems;

- Both self-esteem and attribution measurements proved to be extremely robust and were rarely influenced to any large degree by experiences in secondary school;

- Bullying was clearly connected to a general poor performance in a variety of areas. Victimisation on the other hand was firmly related to low levels of social standing in the group;

- Continuous reports prepared and presented by teachers were extremely accurate and highly correlated with exam results and behaviour;

- In terms of extra-curricular activities, competitive team sports were favoured in the group. Involvement after school moved from a general participation in a wide range of activities in year one to a more specialised and intensive involvement in a narrower range of activities in year three;

- The choice of friends made by students in the group was shown to influence a range of other variables such as behaviour in school, performance in major exams, etc.;

- The behaviour of students in class was reflected in the subsequent exam results they were likely to receive;

- The academic self-esteem ratings provided by students were extremely accurate in relation to the reality of their exam performance. On the other hand the social self-esteem ratings (when compared to the reality of the socialisation standings) were not as closely correlated, showing a greater awareness on the part of students of their academic (as opposed to social) standing in the group.

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Appendix One: Surveys and Assessments.

Surveys and Assessments.

The following pages contain the collection of surveys employed during the study. Four surveys are not included here, since they are currently available in published forms. These are:

- The Raven's Standard Progressive Matrices;
- The Drumcondra Ability Tests;
- The Children's Attributional Style Questionnaire;
- The Piers-Harris Children's Self Concept Scale.

The five additional surveys which were used in the study, which are not available from any other source and which are contained in the following pages are:

- The Class Socialisation Survey ('How You Get On With People In Your Class');
- The Extra-Curricular Involvement Assessment;
- The School-Specific Attribution Survey;
- The School-Specific Esteem Survey;
- The Class Bully / Victim Assessment ('Bullying in Your Class').

The titles in brackets were used to name each survey when they were presented to pupils for completion. In each of the surveys that follow, fictional names and student numbers have been used.

(School-Specific Socialisation Survey.)

How You Get On With People In Your Class.

Below you'll find a list of people in your class. Please tick one box after each name to show how well you get along with them.

1st Box: I don't really get along with this person.
2nd Box: I get on ok with this person.
3rd Box: I get on very well with this person.

Number	***Name***	***Not Really***	***OK***	***Very Well***
801	Arnold Robert			
802	Balfe Kevin			
803	Breslin Michael			
804	Burke John			
805	Byrne Ben			
806	Byrne James			
807	Cassidy Rory			
808	Cosgrave Jonathan			
809	Cosgrave Paul			
810	Costigan Eric			
811	Dawson Joseph			
812	Dowdall Jack			
813	Haynes Shane			
814	Hogan Eoin			
815	Hughes Jamie			
816	Johnston Stephen			
817	Kearney Stephen			
818	Keevey Eoin			
819	Kellher Andrew			
820	Lyons Conor			
821	Masterson Ciaran			
822	Maxwell Colin			
823	McCabe Niall			
824	McCarthy Colin			
825	McLoughlin Nicholas			
826	Molloy Charles			
827	Murphy Carl			
828	Pierse Sam			
829	Roche Ben			
830	Sheridan Paul			

(Extra-Curricular Involvement Survey).

School Activities.

1.

On the list of activities below, please tick the ones which you did **more than five times** in school during 1st Year. Don't count things you did during PE or normal classes.

Archery	_____	Music	_____
Art After School	_____	Rugby	_____
Athletics	_____	Soccer	_____
Basketball	_____	Squash	_____
Cricket	_____	St.Vincent de Paul	_____
Cross-Country	_____	Swimming	_____
Debating	_____	Table Tennis	_____
Drama	_____	Tennis	_____
Gaelic	_____	Waterpolo	_____
Golf	_____		

(If you didn't do any of these activities more than 5 times in school this year, don't tick anything).

2.

How many days a week (including weekends) did you usually take part in the school activities you've just ticked above?

_____ DAYS A WEEK.

(For example if you usually did rugby twice a week and table-tennis once a week, your answer would be 3 Days A WEEK).

* * * * *

(School-Specific Attribution Survey).

Please read each sentence and then show whether you agree or disagree with it, by circling either 'True' or 'False'.		*TRUE*	*FALSE*
1	Anyone who studied hard enough would have done well in the Christmas exams	T	F
2	If you're a reasonable person, it's easy to get on well with everyone in this school	T	F
3	Once you put in a little bit of effort, it's easy to get a good report book every month	T	F
4	If I got an 'A' in an exam, my parents would think I deserved it for studying so hard	T	F
5	The people who did really well in the Christmas exams will probably do really well in the Summer exams	T	F
6	The most popular people in our class never seem to have arguments with anyone	T	F
7	If you get one good report book, the teachers are more likely to give you a good one again the next month	T	F
8	If I started doing well in a subject, my parents would expect me to keep doing well in it	T	F
9	Doing well in exams means you're intelligent	T	F
10	The most popular people in our class also get on well with people in other classes and years	T	F
11	Doing well in the report books probably means you're going to do well in the exams	T	F
12	If I got an 'A' in one subject, my parents would expect me to get 'A's in all my other subjects too	T	F
13	If you have a bad teacher, it's very difficult to do well in exams	T	F
14	Everyone else should try harder to get on well with the least popular people in the class	T	F
15	If teachers are in a bad mood, they mark the report books harder	T	F
16	If I got in trouble for fighting in school, my parents would think that it was probably the other person's fault	T	F
17	The people who did badly in the Christmas exams might still do ok in the Summer exams	T	F
18	People that you aren't friendly with now, might turn out to be very good friends of yours in the years ahead	T	F
19	Even if teachers decide you're not good at the start of the year, they give you a fair chance to improve later on	T	F
20	If I got a bad report book, my parents would expect the next one to be much better	T	F
21	The people who did badly in the Christmas exams might have just studied the wrong stuff	T	F
22	Even if you don't get on with one particular teacher, that doesn't mean the other teachers are going to treat you unfairly	T	F
23	Getting a bad report book just means you had one bad month - It's not a huge problem	T	F
24	If I did badly in one subject, my parents would expect really good grades in all the other subjects	T	F

(School-Specific Esteem Survey).

What You Think of School.

There are 20 sentences on this page. You are asked to read these sentences and then to show whether you agree or disagree with each one, by putting a circle around either 'True' or 'False'.

		TRUE	FALSE
1	I don't like the subjects we do in this school	T	F
2	Most of the teachers know who I am	T	F
3	I'm pretty good at learning things in class	T	F
4	The teachers in this school are annoying	T	F
5	I spend very little time studying	T	F
6	I like being involved in sports and activities after school	T	F
7	I did very well in the Christmas exams	T	F
8	I don't really get on well with most of the people in my class	T	F
9	I often forget things that we learn in class	T	F
10	I'd prefer if I was in a different school	T	F
11	My report book grades are always very good	T	F
12	If I do lots of study, I should have no problems in tests	T	F
13	People sometimes give me a hard time in school	T	F
14	The teachers in this school expect us to do too much work	T	F
15	I've made a lot of friends since coming to this school	T	F
16	I'll probably do quite well in the Summer exams	T	F
17	I know loads of people in different years in the school	T	F
18	It takes me a long time to understand the things we do in class	T	F
19	I hang around with friends from school most weekends	T	F
20	I get in trouble with teachers quite a lot	T	F

School-Specific Bullying / Victimisation Survey).

This section tries to find out if there were any people in your class involved in bullying this year.

A person is being bullied...

When mean or unpleasant things are said about them
When they are ignored or left out of things on purpose
When they are hit, pushed, kicked, or threatened
When unfair lies or rumours are made up about them

Below you'll find a list of people in your class. Please tick one box after each name to show whether they were involved in bullying in any way.

1st Box: This Person Bullied Other People In The Class
2nd Box: This Person Was Bullied By Other People In The Class
3rd Box: This Person Wasn't Involved At All

No.	***Name***	***Bullied Others***	***Was Bullied***	***Neither***
801	Arnold Robert			
802	Balfe Kevin			
803	Breslin Michael			
804	Burke John			
805	Byrne Ben			
806	Byrne James			
807	Cassidy Rory			
808	Cosgrave Jonathan			
809	Cosgrave Paul			
810	Costigan Eric			
811	Dawson Joseph			
812	Dowdall Jack			
813	Haynes Shane			
814	Hogan Eoin			
815	Hughes Jamie			
816	Johnston Stephen			
817	Kearney Stephen			
818	Keevey Eoin			
819	Kellher Andrew			
820	Lyons Conor			
821	Masterson Ciaran			
822	Maxwell Colin			
823	McCabe Niall			
824	McCarthy Colin			
825	McLoughlin Nicholas			
826	Molloy Charles			

If you think someone bullied others and was bullied themselves, it's ok to tick both boxes after their name.

Appendix Two: Full Results Tables.

Reading the Results Tables.

The data summaries which follow are presented in a spreadsheet format. Three methods of presentation are used:

- 'Analysis of Results'. In these tables, a full breakdown of results are presented. These consist of data for every student in the group in each of the different data categories. Summary data for variables are presented at the bottom of each column. A correlation grid is also presented, highlighting the degree to which relationships between data categories were evident. Six distinct 'Analysis of Results' tables are shown. These relate to January of year one, May of year one, January of year two, May of year two, January of year three and May of year three respectively.

- 'Class Grouping Analysis'. These three tables show the minimum, maximum and average results for each of the three classes as a whole. In a similar fashion to the results mentioned above, six data periods are quoted (the mid point and end of each year).

- 'Individual Student Results'. The individual results for every student who took part in the study are recorded in this section. Again, six data periods are shown (the mid point and end of each year).

Headings at the top of each column represent the various data categories. The headings can be interpreted as follows:

No.

The student number of each participating pupil. Numbers were used instead of names at all stages in the research project so that pupils could maintain their anonymity. The numbers were re-coded for a second time when the project was completed, to further protect the identity of those who took part.

Ability

The score for each pupil, as measured in the academic ability and intelligence assessment at the start of year one. These scores were standardised with a maximum total of 42, so that comparisons could be easily made with the subsequent exam points scores.

C.Ex / S.Ex

The most recent exam points total for each student, as measured in the Christmas or summer exams.

Diff

The difference between each student's predicted level of performance (from the ability and intelligence assessment) and the most recent actual performance (from the Christmas or summer exams).

Social

The total score attained by the student (from his peers) in the socialisation survey. Higher scores indicated more positive feedback from classmates.

E.C (D)

The average number of days per week that each student was involved in extra-curricular activities.

E.C (#)

The average number of different extra-curricular activities that the student was involved in during the year.

I v T

The proportion of individual oriented activities (as opposed to team-based activities) that each student took part in during the year.

C v N

The proportion of competitive activities (as opposed to non-competitive activities) that each student took part in during the year.

Atten.

The number of days each student was absent from school.

Lates

The number of days each student was late to school in the morning, or late to classes during the day.

Attr.

The result attained by each student on the attribution survey. Higher scores indicated higher or more positive levels of attribution.

Soc. Est

The 'social' score attained by each student on the esteem assessment. Higher scores indicated higher levels of social self-esteem.

Ac. Est

The 'academic' score attained by each student on the esteem assessment. Higher scores indicated higher levels of academic self-esteem.

P.Points

The number of penalty points received by each student for poor behaviour in school.

RBG

The average report book grade received by each student on the six-weekly reports. Lower grades signify better application, effort and standard of homework.

RBC

The average difference between positive and negative comments on the six-weekly reports. Higher results signify a balance in favour of positive comments.

FPP

The average number of penalty points received by each student's closest friends, for poor behaviour in school.

FER

The average exam points total earned by each student's closest friends. Higher scores indicate that close friends performed well in exams.

Bully

The number of bully nominations received from peers. Higher results indicate a greater propensity towards bullying behaviour.

Victim

The number of victim nominations received from peers. Higher results indicate a greater propensity to be the victim of bullying behaviour.

Note.

Since two variable categories (Bullying / Victimisation and Involvement in Extra-Curricular Activities) were assessed at the end of each year, results for these variables do not appear in the mid-year results tables.

Analysis of Results - January Year One.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=91																					
	101	38	42	4	65					0	0	-1	9	4	0	1.4	6	7	34.8		
	102	39	38	-1	61					1	0	-2	6	10	0	1.4	4.3	1.3	32		
	103	24	30	6	54					5	12	3	12	15	3	1.8	0.7	1.3	37.3		
	104	32	36	4	60					5	2	3	11	17	0	1.2	4	4.2	36.4		
	105	23	22	-1	64					3	4	4	10	5	18	2.4	-3.3	1.3	33.8		
	106	31	38	7	57					2	0	1	9	14	0	1.3	6.7	0.3	37.3		
	107	24	34	10	68					5	0	3	12	17	1	1.5	3.3	2.4	30.9		
	108	31	33	2	57					9	0	0	10	11	4	2	-1.3	1.3	33		
	109	35	39	4	60					0	1	-1	8	8	2	1.4	5.7	6	36		
	110	32	35	3	55					0	0	0	10	7	1	1.7	2.3	1	36.5		
	111	32	33	1	51					5	1	0	12	13	8	1.9	0	4.5	32		
	112	26	31	5	57					7	0	3	10	8	0	1.7	-0.3	5.7	29.7		
	113	25	24	-1	61					6	1	0	12	15	26	1.9	0	1.9	36.1		
	114	31	32	1	65					0	0	3	9	8	5	1.7	0.7	4.9	30.4		
	115	32	37	5	63					4	0	1	11	17	0	1.3	5	1.2	34.8		
	116	28	27	-1	64					4	3	-3	7	10	2	1.7	0.3	0.8	34.8		
	117	30	36	6	66					1	2	-2	9	12	2	1.4	3.3	3.3	32.2		
	118	34	40	6	58					3	2	-3	10	12	0	1.5	3.3	1	34.3		
	119	32	39	7	70					2	2	1	10	13	2	1.4	5.7	4.1	35.5		
	120	25	8	-17	52					11	2	5	11	15	2	2	0				
	121	27	38	11	71					1	0	8	11	15	1	1.3	6	3.9	37.3		
	122	32	36	4	62					0	0	-2	11	17	2	1.6	2.7	3.3	32.2		
	123	31	34	3	66					0	0	0	11	10	0	1.5	4	1.8	36.3		
	124	26	30	4	63					2	2	0	12	14	3	1.8	1.7	3.3	33		
	125	34	38	4	55					2	0	0	11	16	1	1.4	5.7	0	37.3		
	126	29	31	2	50					0	2	5	8	11	16	2	-0.7	4	27.8		
	127	27	31	4	55					3	1	3	11	15	2	1.7	1.3	3.8	35.6		

Analysis of Results - January Year One.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
128	33	42	9	55					1	1	0	8	14	0	1.4	6.3	1	38		
129	33	34	1	64					0	0	0	12	7	2	1.5	5.3	4.3	30.5		
130	30	41	11	70					0	0	4	11	15	0	1.4	5.7	5.7	34		
131	31	34	3	54					4	3	-2	11	12	1	1.7	-0.7	8.7	27		
132	29	30	1	72					1	4	8	9	15	5	2	0.3	4.2	33.6		
133	27	32	5	57					0	0	7	10	13	3	1.8	-0.3	6.8	29		
134	31	37	6	67					0	0	6	5	11	1	1.6	4.3	2.5	34		
135	18	24	6	59					2	0	0	12	14	9	1.9	0	2.7	33.2		
136	35	38	3	54					0	1	2	11	7	0	1.4	4.7	2	30.6		
137	27	37	10	64					0	0	2	4	7	5	1.7	0	5.3	28.9		
138	29	35	6	62					0	0	1	10	12	0	1.6	5	3.8	30.2		
139	36	38	2	65					0	0	7	11	13	0	1.7	2.7	2	36.3		
140	35	28	-7	53					6	0	2	8	12	1	2	-1	2	31.3		
141	36	39	3	50					1	1	-2	9	11	0	1.4	4.3	0.3	37		
142	15	17	2	34					0	1	4	3	8	2	2.1	-2				
143	29	36	7	62					1	6	-2	10	13	13	2	0	1.7	32.7		
144	32	42	10	49					2	0	0	10	17	0	1.2	7.3	0.3	39.3		
145	28	33	5	64					3	2	1	9	12	15	2.1	-1.7	2.4	35		
146	33	36	3	67					0	2	1	10	11	0	1.5	2.7	2.7	32.8		
148	38	39	1	56					0	0	2	10	17	0	1.3	4	1.8	32.9		
149	33	36	3	71					2	1	0	11	9	2	1.8	1.3	3	31.8		
150	32	38	6	52					1	0	4	2	11	0	1.4	6	0	42		
151	28	18	-10	53					0	1	0	8	11	35	2.1	-3	1	34		
152	28	39	11	65					4	0	2	11	14	1	1.4	1.3	4.4	35.8		
153	29	30	1	50					1	0	0	11	15	7	1.9	-1	1.5	33		
154	31	37	6	47					0	0	1	4	12	0	1.3	6.3	1	38		
155	23	24	1	54					3	0	-4	11	13	6	1.8	0.3	2.3	25		
156	27	37	10	71					0	0	1	10	11	3	1.4	5	2.4	34.9		

Analysis of Results - January Year One.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
157	33	39	6	62					1	0	2	9	15	1	1.3	3.7	3.4	33.4		
158	37	42	5	54					1	1	0	10	16	0	1.2	6.3	1	40.3		
159	33	37	4	57					1	1	2	7	10	0	1.5	3	0.5	38.5		
160	35	36	1	72					6	2	-4	11	7	6	1.7	3.7	4.1	35.2		
161	20	17	-3	43					5	4	0	12	12	13	2	1				
162	23	28	5	71					1	0	4	10	13	3	2	-2	2.6	33.7		
163	27	29	2	45					1	0	-2	9	12	1	1.8	0	6	24		
164	25	32	7	65					7	1	2	11	12	1	1.9	0.3	4.3	30.5		
165	19	17	-2	59					16	1	0	9	4	2	2	-1.3				
166	32	34	2	51					0	4	-1	3	13	1	1.2	5.3				
167	35	40	5	64					8	0	0	10	8	2	1.7	4.3	4	32.9		
168	36	40	4	64					0	0	0	11	14	1	1.3	4.7	3.9	34.5		
169	25	28	3	61					4	0	7	10	7	4	1.9	0	6.3	34.8		
170	33	38	5	34					0	0	0	5	16	1	1.3	4.3				
171	30	35	5	59					0	0	4	10	15	2	1.6	5	1.5	39.5		
172	24	25	1	49					7	0	-4	11	9	1	1.9	1.3	6	24		
173	31	33	2	49					10	0	-2	8	9	0	1.5	3.7				
174	34	37	3	60					0	0	2	12	16	4	1.6	2	4.5	33.8		
175	30	27	-3	54					8	0	-5	8	13	3	1.7	0.7	3.5	34.5		
176	37	42	5	60					1	0	1	7	12	0	1.2	4	0.5	37.5		
177	30	33	3	54					1	0	1	4	7	0	1.4	2	0.3	38.5		
178	27	29	2	61					1	1	-4	10	12	4	1.7	2.3	8.7	33.3		
179	34	35	1	65					2	1	-1	10	9	2	1.8	4.7	3.2	34.4		
180	30	35	5	62					1	1	-1	11	13	5	1.9	-2.7	3.5	30.8		
181	27	21	-6	59					1	0	4	11	14	5	1.9	-0.3	5.3	30		
182	24	21	-3	56					1	2	1	12	11	2	1.8	0.7	0.8	34.8		
183	27	32	5	69					0	4	-1	10	13	1	1.7	1.7	4.1	33.3		
184	33	29	-4	55					10	1	-2	10	7	8	1.8	1.3	4.5	27		

Analysis of Results - January Year One.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
	185	33	27	-6	66					3	2	3	10	13	2	1.6	3.3	7.8	30.5		
	186	31	33	2	65					5	1	3	11	16	4	2	-1.7	4.7	34.6		
	187	36	39	3	59					0	0	0	11	14	1	1.4	4.3	1	33.7		
	188	31	33	2	59					2	0	-2	6	9	4	1.9	-1	1	32.5		
	189	30	31	1	52					3	9	1	6	7	6	2	0.3	3	30.5		
	190	17	10	-7	67					6	4	0	11	12	6	2.2	-2.3	4.5	33.3		
	191	34	37	3	70					0	0	-1	11	12	3	1.3	6.7	1.1	35.8		
	192	29	37	8	61					4	0	0	5	10	0	1.4	5	1.5	38		
Top		38.7	42.0	11.1	72.0					16.0	12.0	8.0	12.0	17.0	35.0	2.4	7.3	8.7	42.0		
Avg		29.9	32.8	2.9	59.2					2.5	1.1	0.9	9.4	11.8	3.4	1.7	2.2	3.1	33.6		
Bot		15.3	8.0	-16.6	34.0					0.0	0.0	-5.0	2.0	4.0	0.0	1.2	-3.3	0.0	24.0		
St.Dev		4.8	7.0	4.5	7.7					3.1	1.9	2.7	2.3	3.2	5.5	0.3	2.7	2.1	3.5		

Analysis of Results - January Year One.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																					
		Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability			0.77	0.14	0.10					-0.31	-0.24	-0.17	-0.11	0.05	-0.31	-0.61	0.59	-0.18	0.25		
C.Ex		0.77		0.74	0.22					-0.44	-0.25	-0.06	-0.12	0.14	-0.45	-0.74	0.69	-0.18	0.38		
Diff.		0.14	0.74		0.24					-0.35	-0.14	0.09	-0.07	0.17	-0.37	-0.51	0.45	-0.07	0.29		
Soc.		0.10	0.22	0.24						-0.09	-0.03	0.16	0.34	-0.01	-0.05	-0.05	0.10	0.21	0.09		
EC D																					
EC #																					
IvT																					
CvN																					
Atten.		-0.31	-0.44	-0.35	-0.09						0.11	-0.16	0.18	-0.17	0.06	0.35	-0.33	0.13	-0.20		
Late		-0.24	-0.25	-0.14	-0.03					0.11		-0.01	0.05	-0.02	0.22	0.32	-0.26	-0.01	-0.01		
Attr.		-0.17	-0.06	0.09	0.16					-0.16	-0.01		-0.02	0.16	-0.02	0.10	-0.08	0.07	0.17		
S.Est		-0.11	-0.12	-0.07	0.34					0.18	0.05	-0.02		0.32	0.11	0.17	-0.11	0.25	-0.22		
Ac.Est		0.05	0.14	0.17	-0.01					-0.17	-0.02	0.16	0.32		-0.06	-0.26	0.17	-0.13	0.21		
P.Pts		-0.31	-0.45	-0.37	-0.05					0.06	0.22	-0.02	0.11	-0.06		0.58	-0.53	-0.04	-0.14		
RBG		-0.61	-0.74	-0.51	-0.05					0.35	0.32	0.10	0.17	-0.26	0.58		-0.88	0.20	-0.44		
RBC		0.59	0.69	0.45	0.10					-0.33	-0.26	-0.08	-0.11	0.17	-0.53	-0.88		-0.21	0.48		
FPP		-0.18	-0.18	-0.07	0.21					0.13	-0.01	0.07	0.25	-0.13	-0.04	0.20	-0.21		-0.55		
FER		0.25	0.38	0.29	0.09					-0.20	-0.01	0.17	-0.22	0.21	-0.14	-0.44	0.48	-0.55			
Bully																					
Victim																					

Analysis of Results - May Year One.

	No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=91																					
	101	38	42	4	67	6	6	50%	83%	2	0	18	7	9	0	1.2	6.3	2.6	37.4	0	1
	102	39	40	1	69	5	5	40%	100%	3	0	17	7	8	0	1.4	4.5	5.7	35.2	2	0
	103	24	30	6	63	5	5	80%	100%	16	21	17	7	8	7	1.9	0.5	5.6	35.4	3	0
	104	32	38	6	61	5	9	56%	67%	14	14	16	10	10	1	1.2	4	5.4	36.3	0	1
	105	23	10	-13	48	3	3	33%	33%	10	6	13	5	3	25	2.3	-1.5	9.7	30.3	11	18
	106	31	42	11	66	5	6	83%	67%	4	0	17	9	9	0	1.3	6.7	1.5	38.8	0	0
	107	24	32	8	66	4	6	33%	100%	15	0	15	9	8	1	1.7	2.8	5.7	34.8	0	1
	108	31	35	4	56	3	5	60%	60%	19	0	17	8	8	13	2	0.7	8.6	27.4	12	0
	109	35	39	4	57	3	4	100%	75%	1	6	15	5	6	2	1.3	5.7	11	33	1	4
	110	32	37	5	56	6	3	67%	100%	2	1	16	5	7	10	1.7	2.5	1	36	0	7
	111	32	32	0	51	3	4	50%	75%	11	2	18	10	9	11	1.8	2	17	29	12	1
	112	26	33	7	60	6	3	33%	100%	21	0	13	9	5	3	1.8	0.2	12	32.9	5	0
	113	25	27	2	62	6	4	50%	100%	12	1	17	10	9	40	1.9	1.2	8.4	36.1	7	1
	114	31	36	5	63	6	7	57%	86%	2	3	16	8	2	15	1.8	1.5	13	29.2	0	2
	115	32	37	5	61	4	3	0%	100%	9	0	12	9	10	0	1.2	5.5	2.3	38.8	0	0
	116	28	32	4	69	3	6	50%	83%	10	6	19	8	4	8	1.8	1.3	4.6	36.6	3	0
	117	30	34	4	54	6	4	50%	100%	3	5	18	8	6	5	1.6	3.7	3.5	32.5	4	3
	118	34	37	3	64	6	4	50%	100%	11	5	14	7	8	1	1.5	4.7	4.4	36.2	0	1
	119	32	39	7	73	6	7	43%	100%	6	3	16	10	8	3	1.3	5.3	14	34.4	1	0
	120	25	27	2	71	6	7	71%	86%	14	4	15	9	6	6	2	0	8	32.2	1	0
	121	27	40	13	66	3	5	60%	80%	3	0	17	9	8	1	1.3	6.5	1.9	37.8	0	0
	122	32	37	5	62	4	8	63%	88%	1	0	16	10	10	6	1.7	2.3	6.3	31.8	4	0
	123	31	36	5	61	3	1	0%	100%	2	0	18	9	6	0	1.5	5.3	6.6	36	1	1
	124	26	30	4	67	3	5	60%	80%	6	4	15	9	8	8	1.8	2.2	5	34.3	4	0
	125	34	41	7	60	5	8	88%	75%	2	0	15	8	8	1	1.3	5.7	4.2	35	0	1
	126	29	31	2	54	3	5	60%	100%	3	4	15	5	5	38	2.1	-2	9.8	33.8	15	1
	127	27	34	7	60	3	1	0%	100%	10	2	18	7	7	4	1.7	1.5	7.3	38.7	5	1

Analysis of Results - May Year One.

No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
128	33	41	8	54	5	6	67%	67%	3	2	19	9	10	0	1.2	6.7	1	40	2	8
129	33	35	2	62	6	6	33%	100%	3	0	18	8	4	8	1.6	5.2	4.4	35.2	4	0
130	30	37	7	66	5	6	33%	100%	2	2	15	10	7	2	1.3	6.5	5	35.8	1	0
131	31	34	3	52	5	6	33%	100%	7	24	15	9	6	2	1.8	-0.3	11	28	12	1
132	29	28	-1	69	5	5	40%	80%	14	14	18	7	4	12	1.9	0.8	8.2	35.4	0	1
133	27	33	6	59	4	4	50%	100%	1	5	19	5	7	6	1.9	1.2	11	29	4	2
134	31	34	3	72	5	3	33%	100%	0	0	15	5	6	2	1.6	4.7	2.5	38	2	0
135	18	24	6	48	5.5	4	75%	75%	9	3	17	10	3	31	2	0.3	11	32	18	1
136	35	41	6	55	2	4	75%	25%	0	2	11	5	7	3	1.3	4.8	13	32.5	5	1
137	27	35	8	61	6	4	0%	100%	1	3	9	0	1	16	1.8	0.7	18	32.8	6	2
138	29	34	5	64	6	5	60%	100%	0	0	17	10	9	6	1.7	3.8	4	36.4	9	0
139	36	38	2	57	6	3	33%	67%	3	0	16	10	7	2	1.5	4.3	2.6	36.8	2	10
140	35	34	-1	56	4	4	50%	75%	17	0	14	8	7	7	2	-0.7	14	21.4	17	0
141	36	41	5	59	5	5	100%	80%	1	1	15	8	8	0	1.2	5.5	1.7	37	0	4
142	15	8	-7	43	3	5	60%	80%	4	2	18	7	5	10	2	-1.8			3	20
143	29	40	11	58	5	3	33%	67%	5	8	17	9	7	21	1.9	1.2	10	34	7	0
144	32	42	10	58	3	4	50%	100%	6	1	18	4	9	0	1.1	7.7	1	39	0	4
145	28	34	6	68	3	6	83%	67%	9	8	19	8	5	21	2.1	-1.3	7.1	34	0	2
146	33	37	4	76	3	1	0%	100%	8	2	16	7	8	6	1.5	3.7	5	34.4	1	2
148	38	41	3	54	4	6	67%	100%	0	0	17	10	10	0	1.3	5.2	3.7	35.9	1	7
149	33	35	2	73	6	3	33%	67%	8	1	14	8	7	6	1.8	0.8	9.3	32.8	0	1
150	32	38	6	51	5	9	56%	89%	6	4	15	3	8	1	1.4	6.5	0.5	41	0	12
151	28	21	-7	50	5	7	57%	57%	4	15	13	3	0	66	2.2	-2.2	7.5	34.5	10	6
152	28	37	9	64	4	6	50%	83%	12	0	17	10	8	4	1.5	3.2	7.4	34.4	2	2
153	29	33	4	59	3	3	67%	67%	1	1	17	7	7	15	2	-1.2	1.5	36	12	1
154	31	40	9	41	5	7	57%	71%	8	0	19	8	8	0	1.3	5.3	2	38	1	16
155	23	30	7	59	5	5	20%	100%	8	1	21	6	7	11	1.9	1.7	10	29.5	0	8
156	27	36	9	67	5	7	86%	71%	4	3	17	9	8	4	1.4	4.7	1.7	37.7	0	1

Analysis of Results - May Year One.

No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
157	33	40	7	72	6	5	0%	100%	7	0	16	6	10	2	1.2	5.7	5.4	34.5	1	0
158	37	41	4	56	5	9	89%	78%	2	4	14	9	10	2	1.1	5.8	2	38.5	0	2
159	33	34	1	57	5	3	33%	100%	1	1	14	9	6	0	1.5	4	5.3	36.8	2	1
160	35	38	3	78	6	4	50%	100%	9	4	18	7	5	12	1.7	3.5	10	33.4	0	0
161	20	21	1	44	3	4	100%	25%	22	14	14	6	2	30	2.1	1.5	2	39	1	12
162	23	28	5	68	5	7	71%	71%	4	1	14	8	7	9	1.9	1.2	6.5	32.8	0	0
163	27	33	6	47	5	5	60%	60%	8	4	11	8	8	5	1.8	2.2	6	31	3	2
164	25	33	8	68	3	3	67%	100%	19	3	16	9	3	4	1.9	1	4.7	35	3	0
165	19	5	-14	61	3	2	50%	50%	29	3	11	2	2	11	2	-0.5	10	34.5	4	1
166	32	37	5	53	4.5	8	88%	50%	0	4	14	9	8	2	1.2	6	2	40	1	3
167	35	39	4	64	6	3	0%	100%	17	0	14	9	3	3	1.6	4.7	9.3	33.7	0	0
168	36	41	5	64	6	7	71%	43%	3	0	19	8	8	1	1.3	5.8	9	31.6	1	3
169	25	19	-6	60	4	5	80%	60%	13	8	18	9	3	7	1.9	1.2	10	36.7	2	1
170	33	38	5	45	3	4	75%	75%	5	0	14	3	10	2	1.3	5.2			2	29
171	30	36	6	62	2	6	67%	100%	2	1	15	8	10	4	1.6	4.8	2	36.4	3	0
172	24	28	4	53	5	3	0%	100%	12	1	16	7	8	4	1.9	1.8	9	35	1	5
173	31	36	5	58	2	1	0%	100%	14	5	16	2	7	1	1.6	3	4	36	2	1
174	34	34	0	59	6	5	80%	60%	0	0	19	9	10	7	1.7	2.7	19	33.8	1	7
175	30	28	-2	64	1	2	100%	50%	25	0	17	7	8	5	1.8	0.7	4.5	37.5	1	2
176	37	41	4	66	6	7	71%	71%	6	0	14	3	7	0	1.2	5.3	3	37	0	1
177	30	32	2	53	6	7	71%	71%	2	0	16	5	7	5	1.6	2.8	1.2	37.2	1	0
178	27	32	5	63	5	3	0%	100%	3	1	15	10	7	12	1.8	2.3	17	31.7	7	1
179	34	35	1	67	5	3	0%	100%	5	1	16	10	7	5	1.6	5.3	11	34.6	1	0
180	30	34	4	56	5	8	50%	88%	4	4	17	8	9	18	1.9	-0.3	6.3	33	7	1
181	27	26	-1	59	6	6	67%	83%	4	0	18	9	7	15	2	0.3	13	31	3	0
182	24	27	3	63	3	4	50%	50%	1	5	14	9	5	9	1.9	-1	15	27.3	5	8
183	27	34	7	66	6	3	33%	100%	2	4	17	8	3	3	1.7	3.3	11	35.2	4	0
184	33	32	-1	53	3	2	50%	50%	11	2	15	5	6	18	1.9	1	5.5	34.3	10	9

Analysis of Results - May Year One.

	No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
	185	33	34	1	63	4.5	5	60%	100%	4	3	17	10	8	6	1.6	4.3	5.4	36	0	0
	186	31	35	4	70	5	6	83%	67%	8	2	16	7	7	8	1.8	0.2	17	31.9	0	2
	187	36	40	4	62	5	7	57%	86%	0	4	18	9	8	1	1.3	4.8	4.8	34.3	0	1
	188	31	30	-1	67	5	7	43%	86%	9	1	13	10	6	13	2	-0.2	8.9	31.4	6	1
	189	30	29	-1	54	5	5	80%	80%	4	21	13	7	5	17	2	-0.7	6.7	31.7	2	14
	190	17	12	-5	63	3	3	67%	33%	14	10	21	10	6	24	2.1	-1.8	8.8	33.8	9	0
	191	34	36	2	67	6	2	50%	100%	3	0	15	10	7	4	1.4	5.7	2	37.3	2	0
	192	29	37	8	57	3	9	56%	67%	12	0	15	8	9	0	1.4	5.7	10	36.3	1	6
Top		38.7	42.0	12.6	78.0	6.0	9.0	1.0	1.0	29.0	24.0	21.0	10.0	10.0	66.0	2.3	7.7	19.0	41.0	18.0	29.0
Avg		29.9	33.5	3.6	60.5	4.5	4.9	0.5	0.8	7.0	3.3	15.9	7.6	6.8	8.1	1.7	2.8	7.0	34.5	3.3	3.0
Bot		15.3	5.0	-13.5	41.0	1.0	1.0	0.0	0.3	0.0	0.0	9.0	0.0	0.0	0.0	1.1	-2.2	0.5	21.4	0.0	0.0
St. Dev		4.8	7.3	4.5	7.4	1.3	2.0	0.3	0.2	6.2	4.8	2.2	2.2	2.3	10.4	0.3	2.6	4.5	3.2	4.1	5.0

Analysis of Results - May Year One.

No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																				
	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability		0.80	0.24	0.17	0.24	0.16	0.00	0.17	-0.41	-0.26	-0.04	0.02	0.44	-0.42	-0.65	0.61	-0.21	0.13	-0.27	-0.11
S.Ex	0.80		0.77	0.23	0.24	0.23	-0.04	0.33	-0.43	-0.30	0.06	0.12	0.53	-0.53	-0.75	0.72	-0.27	0.24	-0.35	-0.21
Diff.	0.24	0.77		0.20	0.15	0.20	-0.07	0.36	-0.26	-0.21	0.14	0.17	0.40	-0.42	-0.52	0.52	-0.21	0.23	-0.29	-0.24
Soc.	0.17	0.23	0.20		0.20	-0.06	-0.20	0.32	0.02	-0.16	0.12	0.22	0.05	-0.24	-0.13	0.14	0.06	0.04	-0.35	-0.63
EC D	0.24	0.24	0.15	0.20		0.27	-0.12	0.32	-0.28	-0.04	0.00	0.18	-0.02	-0.05	-0.16	0.19	0.06	0.00	-0.19	-0.17
EC #	0.16	0.23	0.20	-0.06	0.27		0.45	-0.11	-0.25	0.09	0.05	0.16	0.26	-0.06	-0.26	0.19	-0.14	0.06	-0.21	0.01
IvT	0.00	-0.04	-0.07	-0.20	-0.12	0.45		-0.51	-0.05	0.16	0.08	0.05	0.09	0.09	-0.02	-0.03	-0.20	0.10	-0.06	0.16
CvN	0.17	0.33	0.36	0.32	0.32	-0.11	-0.51		-0.19	-0.15	0.11	0.10	0.14	-0.26	-0.18	0.23	-0.08	0.08	-0.15	-0.29
Atten.	-0.41	-0.43	-0.26	0.02	-0.28	-0.25	-0.05	-0.19		0.18	-0.08	-0.06	-0.24	0.12	0.38	-0.37	0.11	-0.10	0.11	-0.06
Late	-0.26	-0.30	-0.21	-0.16	-0.04	0.09	0.16	-0.15	0.18		-0.05	-0.09	-0.33	0.35	0.34	-0.40	0.07	-0.11	0.15	0.08
Attr.	-0.04	0.06	0.14	0.12	0.00	0.05	0.08	0.11	-0.08	-0.05		0.32	0.22	-0.06	-0.02	0.06	-0.10	0.09	-0.08	-0.05
S.Est	0.02	0.12	0.17	0.22	0.18	0.16	0.05	0.10	-0.06	-0.09	0.32		0.30	-0.16	-0.07	0.10	0.03	-0.06	0.00	-0.31
Ac.Est	0.44	0.53	0.40	0.05	-0.02	0.26	0.09	0.14	-0.24	-0.33	0.22	0.30		-0.51	-0.58	0.52	-0.30	0.22	-0.25	-0.03
P.Pts	-0.42	-0.53	-0.42	-0.24	-0.05	-0.06	0.09	-0.26	0.12	0.35	-0.06	-0.16	-0.51		0.69	-0.65	0.25	-0.23	0.55	0.10
RBG	-0.65	-0.75	-0.52	-0.13	-0.16	-0.26	-0.02	-0.18	0.38	0.34	-0.02	-0.07	-0.58	0.69		-0.93	0.43	-0.53	0.55	0.04
RBC	0.61	0.72	0.52	0.14	0.19	0.19	-0.03	0.23	-0.37	-0.40	0.06	0.10	0.52	-0.65	-0.93		-0.46	0.56	-0.57	-0.05
FPP	-0.21	-0.27	-0.21	0.06	0.06	-0.14	-0.20	-0.08	0.11	0.07	-0.10	0.03	-0.30	0.25	0.43	-0.46		-0.70	0.35	-0.10
FER	0.13	0.24	0.23	0.04	0.00	0.06	0.10	0.08	-0.10	-0.11	0.09	-0.06	0.22	-0.23	-0.53	0.56	-0.70		-0.51	0.06
Bully	-0.27	-0.35	-0.29	-0.35	-0.19	-0.21	-0.06	-0.15	0.11	0.15	-0.08	0.00	-0.25	0.55	0.55	-0.57	0.35	-0.51		-0.04
Victim	-0.11	-0.21	-0.24	-0.63	-0.17	0.01	0.16	-0.29	-0.06	0.08	-0.05	-0.31	-0.03	0.10	0.04	-0.05	-0.10	0.06	-0.04	

Analysis of Results - January Year Two.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est.	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=89																					
	101	38	42	4	62					1	0	16	8	7	0	1.1	1.7	0.2	37		
	102	39	38	-1	68					3	0	18	7	9	1	1.8	1	4	33.7		
	103	24	29	5	63					12	8	15	8	8	1	1.7	1.7	3.4	30		
	104	32	37	5	66					3	11	20	10	10	0	1.4	2.3	7.5	33		
	105	23	5	-18	43					2	6	17	4	2	22	3.0	-5.3	8	30		
	106	31	40	9	66					6	0	17	9	8	0	1.4	2	0.1	35.7		
	107	24	31	7	66					8	0	15	10	7	1	1.7	1.7	3.8	29.4		
	108	31	32	1	63					5	0	17	9	7	3	2.1	-1	3.7	28.3		
	109	35	39	4	54					1	8	18	5	7	1	1.3	1.7	0	39		
	110	32	35	3	59					6	0	16	5	5	2	1.8	1.5	2.3	25.7		
	111	32	33	1	51					2	3	14	9	5	6	1.9	0	11	23.3		
	112	26			58					9	2	16	9	7	0	1.5	1	7	18.3		
	113	25	25	0	49					11	11	15	4	0	42	2.2	1				
	114	31	26	-5	68					0	12	17	8	2	7	1.9	-1.7	9.5	17.5		
	115	32	39	7	63					0	0	15	8	10	0	1.1	3.3	1.3	37		
	116	28	24	-4	67					0	0	18	9	5	4	2.1	0	1.8	35.7		
	117	30	32	2	56					0	2	15	7	4	4	1.8	0.3	9	31		
	118	34	37	3	67					2	7	14	8	9	1	1.8	-1.3	2.3	32.7		
	119	32	35	3	60					1	0	12	8	6	0	1.5	1	2.8	35.5		
	120	25	22	-3	66					2	4	16	7	2	2	2.2	-2.3	3.8	28		
	121	27	37	10	64					0	0	16	10	10	0	1.3	1.7	0.2	37.6		
	122	32	32	0	58					0	1	19	9	7	4	2.1	-3	4.3	29.8		
	123	31	30	-1	57					0	0	13	7	5	0	1.5	0.3	0.6	36.8		
	124	26	27	1	60					1	1	14	9	6	3	2.2	-1.7	2.8	30.2		
	125	34	42	8	59					1	1	17	7	10	0	1.4	3.3	0.1	37.1		
	126	29	28	-1	50					3	8	12	6	6	15	2.2	-0.3	7	18.3		
	127	27	38	11	55					1	0	18	7	7	2	1.6	2	3.3	35.5		

Analysis of Results - January Year Two.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est.	P.Points	RBG	RBC	FPP	FER	Bully	Victim
128	33	37	4	49					1	0	20	9	10	1	1.3	1.3	0	36.5		
129	33	32	-1	63					2	0	14	6	3	7	2.0	-1.3	2.4	32.5		
130	30	37	7	62					1	0	17	8	5	0	1.7	0.7	4.6	33.2		
131	31	26	-5	55					2	8	14	9	3	3	2.0	-0.3	9.4	22		
132	29	29	0	64					1	10	15	7	2	12	2.0	0.3	5.4	32.8		
133	27	31	4	58					0	4	15	10	7	9	2.1	0.7	5.5	29.5		
134	31	35	4	65					0	0	17	6	9	1	1.5	1.7	0	35.5		
135	18	21	3	49					2	7	18	6	3	30	2.4	-1	6.3	32		
136	35	40	5	55					0	2	13	7	6	0	1.4	2.7	1.3	36.7		
137	27	31	4	60					0	1	20	7	4	14	1.9	1	3	26		
138	29	36	7	64					2	0	20	9	6	2	1.9	-0.7	3.4	31.3		
139	36	37	1	58					5	3	17	7	7	0	1.5	0	0.4	38.2		
140	35	31	-4	57					3	0	15	6	7	2	2.2	-2.3	4	31		
141	36	39	3	58					6	0	15	7	10	0	1.4	2.7	0.1	37.6		
142	15	5	-10	44					0	1	22	10	6	0	1.9	0				
143	29	37	8	63					4	6	19	8	6	7	2.1	-0.3	4.4	33.8		
144	32	42	10	56					0	2	18	7	9	0	1.1	1.7	0	37		
145	28	28	0	72					0	6	15	6	6	13	2.2	-1	8.3	32.1		
146	33	33	0	72					3	2	14	7	7	4	2.2	-2.3	2.7	32.5		
147		36		69					0	1	15	4	3	1	1.6	1.3	2.5	33.8		
148	38	40	2	55					0	0	17	8	10	0	1.5	2	0.1	37.4		
149	33	31	-2	69					5	0	13	9	4	6	2.0	-1.3	5	29.5		
150	32	35	3	49					3	1	16	4	7	0	1.3	0.7	0.3	37.7		
151	28	21	-7	57					1	4	18	8	5	40	2.5	-2	6.2	32.6		
152	28	34	6	62					1	0	16	10	8	2	1.7	1	4	35		
153	29	30	1	56					1	7	17	7	6	18	2.3	-1.7				
154	31	39	8	46					1	1	18	9	10	0	1.2	1	0.5	36.5		
155	23	19	-4	61					1	0	15	8	6	3	1.9	-0.3	1	31		

Analysis of Results - January Year Two.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est.	P.Points	RBG	RBC	FPP	FER	Bully	Victim
156	27	40	13	63					0	0	15	8	9	0	1.3	0.3	1	34.6		
157	33	38	5	73					1	1	14	9	8	0	1.4	2	3.1	33.6		
158	37	39	2	62					0	2	18	8	9	0	1.1	2.7	0.7	39		
159	33	35	2	55					0	0	19	8	8	0	1.5	1.7	0	39.4		
160	35	34	-1	71					0	1	19	8	5	5	1.7	0.7	1.8	36.7		
161	20	13	-7	46					13	3	16	8	6	1	2.0	-0.5	6	33		
162	23	27	4	59					1	0	15	7	7	3	2.2	-1	4	29.2		
163	27	28	1	56					2	0	13	9	8	2	1.8	0.3	1	29		
164	25			68					25	4	18	7	0	1	2.3	-3	3.6	30.8		
166	32	36	4	47					2	3	14	8	10	1	1.9	-0.3	0	39		
167	35	34	-1	64					4	1	17	10	4	1	1.8	0.7	6	31.8		
168	36	38	2	64					0	0	20	10	9	0	1.5	1.7	11	29.9		
169	25	23	-2	62					6	1	20	4	1	15	2.5	-2.3	14	31		
170	33	40	7	50					0	0	21	3	9	0	1.4	1.7	3	33.3		
171	30	34	4	61					2	0	18	8	8	0	1.7	0.3	1	34.5		
172	24	22	-2	55					0	0	14	7	9	0	1.6	-0.3	1	32.5		
174	34	37	3	66					5	0	17	7	10	3	1.7	-0.3	10	30.6		
175	30	30	0	59					5	0	20	8	7	1	1.7	1	0.5	38.8		
176	37	40	3	63					0	0	15	8	8	0	1.4	3	0	39		
177	30	36	6	53					0	0	17	7	7	0	1.6	0.3	0.1	38		
178	27	25	-2	44					0	2	15	8	8	5	1.9	-4	6	27		
179	34	31	-3	60					13	2	20	9	3	1	2.0	0	4.3	32.5		
180	30	32	2	57					1	2	16	8	7	11	2.1	-0.7	6	31		
181	27	21	-6	61					2	0	18	9	9	6	1.9	-1.5	3.3	22.7		
182	24	24	0	63					1	1	14	8	8	1	2.0	-1.7	5.5	31		
183	27	31	4	59					0	1	18	9	5	3	1.9	-0.7	3.7	34		
184	33	27	-6	56					12	0	13	7	6	4	1.9	-0.3	7.5	26		
186	31	29	-2	68					2	0	18	8	7	10	1.9	0	6.5	21.5		

Analysis of Results - January Year Two.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est.	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																					
		Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	S.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability			0.76	0.27	0.25					-0.16	-0.21	-0.09	0.02	0.35	-0.36	-0.52	0.41	-0.29	0.33		
C.Ex		0.76		0.84	0.26					-0.14	-0.26	-0.06	0.04	0.52	-0.45	-0.73	0.66	-0.41	0.47		
Diff.		0.27	0.84		0.15					-0.13	-0.21	-0.02	0.06	0.51	-0.34	-0.64	0.63	-0.35	0.42		
Soc.		0.25	0.26	0.15						0.04	-0.09	-0.05	0.22	-0.04	-0.18	-0.05	0.09	0.04	-0.05		
EC D																					
EC #																					
IvT																					
CvN																					
Atten.		-0.16	-0.14	-0.13	0.04						0.15	-0.01	-0.06	-0.30	0.05	0.21	-0.13	0.17	-0.19		
Late		-0.21	-0.26	-0.21	-0.09					0.15		-0.04	-0.18	-0.39	0.49	0.35	-0.21	0.37	-0.30		
Attr.		-0.09	-0.06	-0.02	-0.05					-0.01	-0.04		0.03	0.01	0.05	0.01	0.02	0.05	0.16		
S.Est		0.02	0.04	0.06	0.22					-0.06	-0.18	0.03		0.29	-0.32	-0.17	0.12	-0.01	-0.10		
Ac.Est		0.35	0.52	0.51	-0.04					-0.30	-0.39	0.01	0.29		-0.50	-0.63	0.48	-0.42	0.35		
P.Pts		-0.36	-0.45	-0.34	-0.18					0.05	0.49	0.05	-0.32	-0.50		0.64	-0.38	0.45	-0.31		
RBG		-0.52	-0.73	-0.64	-0.05					0.21	0.35	0.01	-0.17	-0.63	0.64		-0.81	0.55	-0.48		
RBC		0.41	0.66	0.63	0.09					-0.13	-0.21	0.02	0.12	0.48	-0.38	-0.81		-0.42	0.42		
FPP		-0.29	-0.41	-0.35	0.04					0.17	0.37	0.05	-0.01	-0.42	0.45	0.55	-0.42		-0.64		
FER		0.33	0.47	0.42	-0.05					-0.19	-0.30	0.16	-0.10	0.35	-0.31	-0.48	0.42	-0.64			
Bully																					
Victim																					

Analysis of Results - May Year Two.

	No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=88																					
	101	38	41	3	60	5	4	50%	75%	6	0	15	8	8	0	1.1	1.3	1.8	38.5	1	3
	102	39	34	-5	64	4	2	50%	100%	5	0	18	7	9	2	1.7	1.3	8	26.3	5	4
	103	24	23	-1	66	6	5	40%	100%	24	19	17	10	9	8	1.7	-0.2	8.9	27.3	1	1
	104	32	38	6	69	5	6	33%	83%	10	23	20	10	9	1	1.4	2.0	7.3	29.4	1	0
	105	23	5	-18	44	4	1	0%	100%	9	13	12	3	2	47	3.0	-2.6	7	31.3	10	22
	106	31	40	9	68	5	5	80%	80%	13	0	20	9	9	0	1.3	1.4	0.5	35.5	0	0
	107	24	23	-1	73	6	10	60%	90%	13	1	16	9	8	2	1.7	0.8	10.1	29.6	2	0
	108	31	30	-1	66	3	2	100%	50%	10	0	15	7	7	6	2.0	-0.8	10	27.7	7	2
	109	35	38	3	56	4	5	80%	60%	3	13	15	5	6	1	1.3	0.7			1	5
	110	32	35	3	61	1	1	100%	100%	8	1	12	7	9	7	1.6	0.6	6.5	23.5	2	12
	111	32	34	2	52	4	1	0%	100%	9	5	14	10	8	11	1.8	0.3	16.3	21	18	1
	112	26	26	0	61	5	3	33%	100%	23	3	13	9	6	0	1.5	0.6	14.7	24.3	8	1
	114	31	29	-2	70	5	7	71%	86%	1	21	19	10	3	10	1.9	-0.5	13.7	24.1	2	1
	115	32	35	3	65	5	3	33%	100%	10	0	16	8	10	0	1.1	2.7	5.2	33.3	0	2
	116	28	30	2	68	4	3	0%	100%	10	2	21	8	7	8	2.0	-0.3	6	29.4	3	0
	117	30	31	1	57	6	5	20%	100%	1	6	17	5	7	8	1.7	-0.2	5	23	3	4
	118	34	31	-3	66	1	5	80%	80%	6	12	11	8	7	4	1.9	-1.0	5	31.1	4	1
	119	32	39	7	62	6	3	67%	100%	3	1	15	9	4	1	1.4	0.8	8.7	33.7	4	0
	120	25	11	-14	66	4	7	57%	71%	5	7	16	7	9	6	2.0	-0.8	8	22.5	2	3
	121	27	35	8	62	5	6	50%	83%	5	0	17	10	8	0	1.2	1.2	1.4	37.4	0	1
	122	32	29	-3	59	5	9	67%	89%	0	3	17	10	7	10	2.1	-2.7	6.3	27.3	12	2
	123	31	31	0	55	5	4	0%	100%	0	0	15	7	7	0	1.4	0.3	5.8	34.5	2	0
	124	26	23	-3	67	4	5	60%	80%	2	3	15	8	4	8	2.0	-1.0	6.6	27.8	11	1
	125	34	40	6	63	7	7	86%	86%	1	1	16	8	8	1	1.3	2.3	0.2	36.8	0	0
	126	29	25	-4	41	2	4	75%	100%	8	20	16	5	8	34	2.1	-1.2	9	20.5	23	2
	127	27	34	7	50	4	2	0%	100%	3	1	17	6	8	10	1.5	1.2	14	30	9	1
	128	33	40	7	49	5	5	40%	80%	2	0	18	9	9	1	1.2	1.0	2	38	7	13

Analysis of Results - May Year Two.

No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
129	33	34	1	66	5	2	50%	50%	3	1	12	8	1	9	1.9	-1.2	8.3	27.8	8	2
130	30	34	4	62	4	6	33%	100%	3	1	15	9	7	2	1.6	0.8	8.5	34.5	2	5
131	31	14	-17	59	4	4	50%	100%	5	14	15	10	5	10	1.9	-0.7	15.2	27.8	12	0
132	29	31	2	67	4	10	60%	100%	3	22	16	9	7	22	1.9	0.2	4.6	33.4	0	1
133	27	29	2	51	2	1	0%	100%	0	5	14	6	6	19	2.0	0.0	37.7	19	7	3
134	31	34	3	66	4	6	50%	100%	4	0	17	7	7	3	1.6	1.0	8	34.3	4	0
135	18	4	-14	50	3	3	67%	100%	6	15	14	7	5	53	2.3	0.8	11	34	18	1
136	35	40	5	62	4	5	100%	80%	1	2	11	8	6	0	1.4	1.8	0.4	36.2	1	2
137	27	32	5	62	0	4	25%	100%	2	5	20	7	5	24	1.8	0.5	10	21.5	8	3
138	29	35	6	69	7	5	80%	100%	4	1	14	9	6	4	1.8	0.5	9.2	27.2	11	1
139	36	38	2	58	6	5	20%	100%	10	4	15	9	7	6	1.4	0.3	0.3	38.3	3	18
140	35	31	-4	62	4	3	67%	100%	8	0	16	6	8	3	2.1	-1.5	8.5	27.2	8	2
141	36	39	3	55	6	8	88%	75%	9	1	17	8	10	0	1.3	2.0	0.5	38.3	0	3
142	15	10	-5	46	2	2	100%	100%	0	2	19	6	8	0	1.9	-0.2			0	17
143	29	30	1	54	5	3	0%	100%	13	9	15	9	6	14	2.1	-0.2	7	33.8	14	0
144	32	42	10	62	3	3	0%	100%	0	3	18	5	9	0	1.1	1.5	0	41	2	4
145	28	17	-11	74	2	3	33%	67%	5	10	17	7	4	25	2.1	-0.7	7.8	29.7	1	1
146	33	31	-2	71	5	4	50%	75%	5	4	15	8	8	6	2.1	-1.7	5.3	28.5	8	0
147		35		60	0	0			0	1	14	4	9	2	1.4	1.7			7	2
148	38	41	3	59	5	4	50%	100%	1	0	16	8	10	0	1.4	1.7	0.2	36	0	2
149	33	31	-2	72	4	1	0%	100%	9	2	14	7	6	23	1.9	-1.0	10.8	26.3	2	0
150	32	35	3	44	4	3	33%	67%	3	1	16	2	7	0	1.2	0.5	0	39	5	18
151	28	4	-24	48	5	3	67%	100%	6	11	16	6	2	88	2.7	-2.8	9.5	33	10	6
152	28	33	5	64	5	6	50%	83%	2	1	16	9	7	5	1.5	0.5	9	27.3	2	7
153	29	29	0	58	5	2	0%	100%	7	19	19	6	6	26	2.3	-1.8			13	0
154	31	39	8	49	4	3	33%	67%	4	1	18	9	9	0	1.1	1.2	0	36	2	19
155	23	20	-3	62	6	3	33%	100%	7	3	15	8	7	7	2.0	-1.0	4.3	24.3	2	19
156	27	37	10	66	5	5	60%	100%	2	2	15	6	8	0	1.2	0.3	2.5	36.7	0	5

Analysis of Results - May Year Two.

No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
157	33	35	2	74	6	5	40%	100%	5	1	14	10	8	0	1.3	2.0	5.9	30.1	0	0
158	37	41	4	61	5	4	100%	75%	2	3	17	8	9	0	1.1	1.5	0.6	38.4	2	1
159	33	32	-1	50	4	2	0%	100%	6	0	19	7	6	0	1.6	1.0	0.3	34	1	16
160	35	36	1	70	5	6	50%	100%	0	1	15	7	7	9	1.5	0.5	3.9	34.8	0	0
161	20	8	-12	48	4	4	100%	25%	23	11	13	8	3	9	2.2	-0.3	6.5	34.5	2	8
162	23	24	1	65	3	4	75%	75%	4	2	12	10	7	7	2.0	-0.8	4.6	28.7	15	1
163	27	27	0	52	6	7	71%	71%	7	1	13	7	6	3	1.7	-0.3	7.5	21.3	6	9
164	25	12	-13	72	2	3	100%	67%	50	11	17	6	1	11	2.3	-2.3	7	29.1	9	0
166	32	35	3	51	5	4	75%	50%	4	4	16	9	8	2	1.7	-0.2	6.7	27.7	1	5
167	35	34	-1	61	6	2	0%	100%	15	2	14	8	3	4	1.7	0.4	5.4	33.9	5	2
168	36	36	0	64	2	3	67%	33%	1	1	17	7	6	0	1.4	1.5	9.9	31.3	1	1
169	25	20	-5	60	4	9	56%	67%	17	4	12	5	4	36	2.4	-2.0			9	4
170	33	37	4	56	1	2	100%	100%	4	0	16	5	9	0	1.3	1.5	9.6	30.2	0	26
171	30	35	5	62	3	3	100%	67%	12	0	15	9	6	1	1.6	0.2	6.6	33	7	0
172	24	22	-2	57	5	2	50%	100%	1	0	12	6	8	0	1.4	0.5	4.5	35	2	12
174	34	36	2	61	7	3	67%	67%	12	0	20	8	10	7	1.7	0.0	7.2	31.7	0	8
175	30	32	2	63	5	6	67%	83%	13	0	18	7	6	1	1.6	0.7	0.1	38	1	2
176	37	38	1	67	5	6	67%	100%	0	0	16	6	7	0	1.3	2.3	2.8	32.2	1	3
177	30	29	-1	57	5	6	83%	67%	5	0	18	7	8	0	1.6	0.2	8	33	0	10
178	27	27	0	53	4	4	50%	100%	7	2	13	9	8	8	1.9	-2.3	16	19.6	23	0
179	34	31	-3	59	5	3	33%	100%	19	7	19	9	6	2	1.8	1.0	6.6	33	0	0
180	30	30	0	59	0	0			3	4	13	8	9	23	1.9	-0.7	12.5	24.3	8	5
181	27	16	-11	64	5	3	0%	100%	7	1	14	9	7	12	2.0	-1.5	15	18.5	3	0
182	24	24	0	65	3	1	0%	100%	5	2	14	6	6	7	2.0	-1.7	8	26.1	6	13
183	27	28	1	58	4	2	0%	100%	0	1	19	6	5	5	1.7	-0.2	6	33.6	12	0
184	33	25	-8	63	3	1	0%	100%	20	1	14	7	8	9	1.9	-0.5	12.2	24	6	8
186	31	29	-2	68	3	5	80%	40%	8	2	17	9	9	12	1.9	0.2	6.3	30.8	2	1
187	36	35	-1	63	4	5	60%	80%	1	6	17	10	9	2	1.3	1.7	7.6	26.4	1	1

Analysis of Results - May Year Two.

	No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
	188	31	28	-3	71	6	4	75%	50%	7	2	15	8	8	21	2.1	-0.8	8.8	27.1	5	9
	189	30	14	-16	63	3	3	100%	67%	6	9	9	4	4	22	2.1	-2.3	7.5	27.8	1	16
	190	17	4	-13	58	4	5	60%	60%	15	9	17	8	3	26	2.4	-1.0	9	28	23	0
	191	34	37	3	65	3	7	57%	100%	11	0	15	4	4	1	1.6	-0.2	3.8	34.6	10	0
	192	29	37	8	60	5	6	67%	50%	13	2	15	7	9	0	1.3	2.3	20.3	26.4	1	4
Top		38.7	42.0	9.9	74.0	7.0	10.0	1.0	1.0	50.0	23.0	21.0	10.0	10.0	88.0	3.0	2.7	37.7	41.0	23.0	26.0
Avg		30.0	29.5	-0.6	60.7	4.2	4.1	0.5	0.9	7.0	4.4	15.6	7.5	6.8	8.8	1.7	0.1	7.3	30.3	5.1	4.4
Bot		15.3	4.0	-24.1	41.0	0.0	0.0	0.0	0.3	0.0	0.0	9.0	2.0	1.0	0.0	1.1	-2.8	0.0	18.5	0.0	0.0
St. Dev		4.7	9.4	6.6	7.3	1.5	2.1	0.3	0.2	7.3	5.8	2.3	1.7	2.1	13.6	0.4	1.3	5.5	5.4	5.6	6.0

Analysis of Results - May Year Two.

	No.	Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																					
		Ability	S.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	S.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability			0.77	0.40	0.19	0.16	0.03	0.03	0.00	-0.23	-0.26	0.10	0.07	0.32	-0.37	-0.52	0.41	-0.29	0.29	-0.36	-0.11
S.Ex		0.77		0.89	0.18	0.17	0.11	-0.02	0.05	-0.32	-0.40	0.21	0.16	0.51	-0.63	-0.79	0.65	-0.30	0.34	-0.39	-0.12
Diff.		0.40	0.89		0.13	0.17	0.16	-0.06	0.07	-0.29	-0.39	0.25	0.21	0.51	-0.65	-0.76	0.63	-0.23	0.29	-0.31	-0.09
Soc.		0.19	0.18	0.13		0.11	0.26	0.10	-0.06	0.12	-0.08	0.03	0.32	0.02	-0.24	-0.08	0.06	-0.07	-0.06	-0.32	-0.45
EC D		0.16	0.17	0.17	0.11		0.41	-0.10	0.05	0.03	-0.10	0.13	0.36	0.06	-0.17	-0.18	0.14	-0.25	0.25	-0.21	-0.10
EC #		0.03	0.11	0.16	0.26	0.41		0.34	-0.16	-0.03	0.12	0.14	0.28	0.07	-0.13	-0.15	0.13	-0.26	0.19	-0.18	-0.26
IvT		0.03	-0.02	-0.06	0.10	-0.10	0.34		-0.50	0.07	0.00	-0.14	0.05	0.04	-0.09	-0.05	0.06	-0.19	0.10	-0.14	0.02
CvN		0.00	0.05	0.07	-0.06	0.05	-0.16	-0.50		-0.16	0.03	0.06	-0.04	0.10	0.09	-0.02	0.04	0.07	-0.07	0.13	-0.01
Atten.		-0.23	-0.32	-0.29	0.12	0.03	-0.03	0.07	-0.16		0.20	0.00	0.07	-0.27	0.08	0.28	-0.23	0.07	-0.08	0.12	-0.10
Late		-0.26	-0.40	-0.39	-0.08	-0.10	0.12	0.00	0.03	0.20		0.06	0.05	-0.29	0.47	0.42	-0.30	0.19	-0.21	0.24	-0.14
Attr.		0.10	0.21	0.25	0.03	0.13	0.14	-0.14	0.06	0.00	0.06		0.14	0.24	-0.15	-0.21	0.27	-0.19	0.21	-0.19	-0.11
S.Est		0.07	0.16	0.21	0.32	0.36	0.28	0.05	-0.04	0.07	0.05	0.14		0.20	-0.23	-0.14	0.17	0.04	-0.08	-0.05	-0.38
A.Est		0.32	0.51	0.51	0.02	0.06	0.07	0.04	0.10	-0.27	-0.29	0.24	0.20		-0.46	-0.56	0.51	-0.15	0.07	-0.33	0.06
P.Pts		-0.37	-0.63	-0.65	-0.24	-0.17	-0.13	-0.09	0.09	0.08	0.47	-0.15	-0.23	-0.46		0.72	-0.55	0.28	-0.22	0.46	0.02
RBG		-0.52	-0.79	-0.76	-0.08	-0.18	-0.15	-0.05	-0.02	0.28	0.42	-0.21	-0.14	-0.56	0.72		-0.84	0.37	-0.49	0.54	0.00
RBC		0.41	0.65	0.63	0.06	0.14	0.13	0.06	0.04	-0.23	-0.30	0.27	0.17	0.51	-0.55	-0.84		-0.25	0.46	-0.50	-0.08
FPP		-0.29	-0.30	-0.23	-0.07	-0.25	-0.26	-0.19	0.07	0.07	0.19	-0.19	0.04	-0.15	0.28	0.37	-0.25		-0.70	0.34	-0.17
FER		0.29	0.34	0.29	-0.06	0.25	0.19	0.10	-0.07	-0.08	-0.21	0.21	-0.08	0.07	-0.22	-0.49	0.46	-0.70		-0.37	0.09
Bully		-0.36	-0.39	-0.31	-0.32	-0.21	-0.18	-0.14	0.13	0.12	0.24	-0.19	-0.05	-0.33	0.46	0.54	-0.50	0.34	-0.37		-0.21
Victim		-0.11	-0.12	-0.09	-0.45	-0.10	-0.26	0.02	-0.01	-0.10	-0.14	-0.11	-0.38	0.06	0.02	0.00	-0.08	-0.17	0.09	-0.21	

Analysis of Results - January Year Three.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=86																					
	101	38	42	4	50					0	0	13	8	8	1		9.0	0	36		
	102	39	35	-4	62					8	0	18	7	8	1		5.5	1.1	31		
	103	24	24	0	59					5	30	14	9	7	9		-0.5	3.7	19.7		
	104	32	38	6	65					8	14	19	10	10	0		8.5	1.5	31.8		
	105	23	13	-10	56					1	2	15	5	3	15		-5.5	1.2	28.5		
	106	31	40	9	65					7	0	20	9	8	0		6.5	0.3	36.7		
	107	24	25	1	70					12	4	18	10	8	0		2.5	3.4	32.3		
	108	31	32	1	69					3	0	15	8	4	0		1.5	3.8	25.4		
	109	35	36	1	48					0	7	16	7	5	0		9.0	0	39		
	110	32	33	1	60					2	7	17	4	9	3		5.0	3	22.3		
	111	32	28	-4	38					1	0	15	8	5	3		0.5	0	32.3		
	112	26			56					18	5				0		1.0	0.5	25.5		
	114	31	29	-2	64					0	2	16	10	5	0		3.5	2	29.7		
	115	32	36	4	62					2	0	18	9	10	0		9.5	1	35.5		
	116	28	25	-3	63					3	2	19	8	7	2		2.0	1.5	31.8		
	117	30	33	3	53					0	3	15	5	6	1		3.0	4.7	25.3		
	118	34	33	-1	64					3	6	14	8	9	1		5.0	1.2	30.3		
	119	32	37	5	46					1	1	12	9	7	0		6.0	0.7	27.7		
	120	25	5	-20	63					3	0	14	8	3	1		-2.0	4	28.8		
	121	27	32	5	48					0	0	16	7	8	0		5.0	0.1	37.7		
	122	32	17	-15	55					3	0	15	10	7	1		-4.0	1.2	30.8		
	123	31	27	-4	48					0	0	14	7	5	0		7.0				
	124	26	27	1	63					0	0	14	9	6	0		-4.0	1.3	26.7		
	125	34	38	4	60					1	1	17	7	8	0		9.0	0.5	37		
	126	29	27	-2	35					3	14	14	5	3	11		-1.0				
	127	27	31	4	38					0	1	18	8	5	0		0.5	3	28		
	128	33	37	4	38					0	1	18	9	9	0		10.0	0.3	36.7		

Analysis of Results - January Year Three.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
129	33	28	-5	59					2	0	13	8	3	0		4.0	2	31		
130	30	26	-4	46					0	1	18	9	4	0		1.5	0.5	29.3		
131	31	23	-8	60					3	12	15	10	2	3		-2.0	1	27.7		
132	29	24	-5	47					7	4	13	9	2	1		-1.5	0.3	29.8		
133	27	29	2	52					0	3	17	8	5	5		3.0	5	27.5		
134	31	31	0	50					0	7	16	8	6	0		0.5	0	32.5		
136	35	39	4	59					3	1	13	8	6	0		8.5	0.5	36.8		
137	27	32	5	60					1	1	10	0	3	2		2.0	2.3	28.3		
138	29	34	5	63					0	1	16	10	6	1		5.5	1.8	29.5		
139	36	36	0	48					0	4	15	7	7	0		8.0	0.3	36.3		
140	35	24	-11	61					4	0	16	7	7	1		3.5	0.8	30.5		
141	36	38	2	60					4	0	14	8	10	1		8.5	0.4	32.4		
142	15	14	-1	52					0	0	18	8	7	2		0.0				
143	29	29	0	46					17	3				3		3.0				
144	32	41	9	51					1	3	18	5	9	0		9.5	0	31		
145	28	29	1	70					6	5	19	7	7	4		4.0	1.6	31.3		
146	33	31	-2	65					5	3	15	8	8	5		-0.5	1.7	30.1		
147		32		51					0	0	11	2	8	1		5.5				
148	38	41	3	56					0	0	18	9	10	0		9.5	0.4	35.9		
149	33	34	1	67					3	2	14	7	5	4		1.5	1.3	28.7		
150	32	37	5	39					0	0	17	6	10	0		9.5	0	36.3		
151	28	5	-23	53					11	9	7	7	2	15		-6.5	2	31		
152	28	34	6	61					0	2	15	9	6	3		5.5	2.3	34.3		
153	29	28	-1	52					2	1	18	6	5	2		-3.0	0	32		
154	31	38	7	39					3	0	20	8	9	0		10.0	0	34.5		
155	23	24	1	61					8	3	15	9	8	4		-3.0	2.2	27.7		
156	27	30	3	56					1	2	16	8	7	0		4.5	0	37		
157	33	34	1	74					5	1	12	10	9	0		9.0	1.9	30.3		

Analysis of Results - January Year Three.

No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
158	37	39	2	51					1	3	16	8	9	0		10.0	0.2	35		
159	33	32	-1	56					0	0	20	8	6	0		5.0	0.8	34.6		
160	35	33	-2	57					3	2				2		3.0				
161	20			45					14	17				0		-6.0				
162	23	29	6	60					1	0	15	7	6	0		-1.5	1.3	30.2		
163	27	29	2	54					2	1	12	8	8	1		-1.0	3	18		
166	32	33	1	45					2	0	16	8	9	0		5.5	1.5	33.5		
167	35			53					16	1				1		-0.5				
168	36	39	3	63					0	0	18	7	7	0		9.5	2.3	32.8		
169	25	22	-3	54					7	3	24	8	5	9		1.0	4.5	28.7		
170	33	37	4	54					1	0	12	3	7	0		8.0	3.2	25.8		
171	30	28	-2	42					1	0	18	7	6	0		0.0	1	32		
172	24	27	3	57					0	0	11	9	9	0		8.0	3.5	28.5		
174	34	38	4	60					0	0	19	9	10	3		7.0	1.8	34.2		
175	30	32	2	56					4	0	17	10	5	1		-0.5	2.3	34.4		
176	37	41	4	65					2	0	16	7	7	0		8.5	1.2	34.6		
177	30	32	2	54					0	1	18	9	6	1		5.5	0.2	37.6		
178	27	22	-5	48					4	4	14	8	4	1		1.5	1.5	20.3		
179	34	27	-7	46					8	3	19	9	5	1		4.0	0.3	26.3		
180	30			48					11	3	16	8	6	3		-2.0	4.3	27		
181	27	12	-15	64					0	0	19	9	6	2		-3.0	4.6	27.2		
182	24	26	2	66					2	1	18	6	4	1		-3.5	1	30.1		
183	27	29	2	42					0	0	18	9	6	0		5.0	0.5	28.5		
184	33	27	-6	50					2	2	13	7	7	2		1.5	0	39		
186	31	31	0	68					1	2	20	10	8	2		7.0	3.6	30.3		
187	36	39	3	63					2	9	15	9	9	1		8.5	5	25		
188	31	29	-2	66					2	0	14	9	5	1		-0.5	0.4	30.6		
189	30	26	-4	59					0	3	13	6	5	6		-5.0	2.5	27		

Analysis of Results - January Year Three.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
	190	17	10	-7	59					4	13	21	10	4	3		-2.5	2.5	25.5		
	191	34	26	-8	47					2	1	13	3	2	0		5.0				
	192	29			62					13	2				0		8.5				
Top		38.7	42.0	9.1	74.0					18.0	30.0	24.0	10.0	10.0	15.0		10.0	5.0	39.0		
Avg		30.2	29.9	-0.5	55.5					3.2	2.8	15.9	7.7	6.4	1.7		3.2	1.6	30.7		
Bot		15.3	5.0	-23.1	35.0					0.0	0.0	7.0	0.0	2.0	0.0		-6.5	0.0	18.0		
St. Dev		4.5	7.8	5.8	8.6					4.2	4.7	2.8	1.9	2.2	3.0		4.5	1.4	4.4		

Analysis of Results - January Year Three.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																					
		Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	S.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability			0.69	0.17	0.00					-0.15	-0.26	-0.09	-0.08	0.33	-0.28		0.60	-0.35	0.43		
C.Ex		0.69		0.83	-0.02					-0.23	-0.19	0.10	-0.07	0.59	-0.50		0.79	-0.31	0.40		
Diff		0.17	0.83		0.00					-0.23	-0.11	0.22	-0.03	0.54	-0.43		0.60	-0.16	0.23		
Soc.		0.00	-0.02	0.00						0.09	-0.01	0.01	0.20	0.12	-0.01		0.00	0.33	-0.14		
EC D																					
EC #																					
IvT																					
CvN																					
Atten.		-0.15	-0.23	-0.23	0.09						0.30	0.03	0.20	-0.06	0.15		-0.25	0.10	-0.22		
Late		-0.26	-0.19	-0.11	-0.01					0.30		-0.04	0.10	-0.12	0.40		-0.25	0.21	-0.36		
Attr.		-0.09	0.10	0.22	0.01					0.03	-0.04		0.33	0.24	-0.16		0.15	-0.03	0.21		
S.Est		-0.08	-0.07	-0.03	0.20					0.20	0.10	0.33		0.17	-0.15		0.00	0.01	0.07		
A.Est		0.33	0.59	0.54	0.12					-0.06	-0.12	0.24	0.17		-0.36		0.63	-0.12	0.28		
P.Pts		-0.28	-0.50	-0.43	-0.01					0.15	0.40	-0.16	-0.15	-0.36			-0.49	0.28	-0.27		
RBG																					
RBC		0.60	0.79	0.60	0.00					-0.25	-0.25	0.15	0.00	0.63	-0.49			-0.24	0.47		
FPP		-0.35	-0.31	-0.16	0.33					0.10	0.21	-0.03	0.01	-0.12	0.28		-0.24		-0.60		
FER		0.43	0.40	0.23	-0.14					-0.22	-0.36	0.21	0.07	0.28	-0.27		0.47	-0.60			
Bully																					
Victim																					

Analysis of Results - May Year Three.

	No.	Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
n=86																					
	101	38	42	4	59	3	3	67%	67%	0	0	15	7	6	1		8.8	0.8	35.7	1	2
	102	39	39	0	59	4	1	0%	100%	12	0	14	7	8	4		5.0	1.3	30.5	2	1
	103	24	25	1	64	6	4	50%	75%	15	50	15	10	6	14		-2.0	8.6	27.1	0	8
	104	32	38	6	68	6	5	40%	100%	19	23	18	10	9	1		9.0	3.4	33.8	0	0
	105	23	21	-2	55	1	1	0%	100%	1	3	15	6	5	21		-7.0	2.7	29.3	4	19
	106	31	41	10	63	3	4	75%	75%	8	0	19	10	9	0		8.3	1.5	37.3	1	1
	107	24	31	7	70	5	8	75%	88%	18	6	18	10	8	0		0.8	4.4	30.7	8	0
	108	31	32	1	64	5	2	50%	50%	4	0	15	9	8	0		2.3	1.7	30.5	2	1
	109	35	39	4	53	1	1	100%	0%	0	7	17	8	8	1		7.8	1.3	28.7	2	4
	110	32	34	2	63	2	2	50%	100%	5	15	15	8	7	3		4.8	4.4	32.0	1	11
	111	32	32	0	48	3	1	0%	100%	2	0	16	10	5	4		-0.3	5.3	36.7	10	1
	112	26	25	-1	59	6	4	25%	100%	30	13	17	8	4	0		2.0	2.8	32.2	7	0
	114	31	30	-1	65	6	3	67%	100%	1	3	17	10	5	1		4.3	3.5	32.5	4	0
	115	32	37	5	61	6	2	50%	100%	9	0	18	10	10	0		9.8	0.3	35.5	2	2
	116	28	32	4	62	5	1	0%	100%	13	10	18	9	8	2		2.0	6.3	36.0	2	1
	117	30	35	5	50	5	1	0%	100%	0	7	14	5	6	3		4.0	9.5	29.5	4	8
	118	34	36	2	64	3	4	75%	100%	10	13	15	9	9	3		3.3	3.6	32.4	6	5
	119	32	36	4	55	6	2	50%	50%	2	1	13	9	6	1		3.5	3.2	32.0	14	2
	120	25	17	-8	63	5	5	60%	80%	3	4	15	4	4	1		-2.8	5.3	31.2	9	1
	121	27	33	6	51	5	2	50%	100%	1	0	17	7	8	0		6.8	0.1	37.4	3	7
	122	32	32	0	60	1	3	100%	67%	12	0	17	9	5	2		-2.3	3.8	33.2	8	0
	123	31	31	0	54	4	2	50%	100%	3	0	12	9	5	0		6.3	2.3	35.8	3	1
	124	26	25	-1	59	2	1	100%	100%	4	1	15	8	7	0		-4.0	3.1	31.0	13	1
	125	34	37	3	51	3	3	100%	67%	1	1	15	5	8	0		9.0	0.8	39.4	2	3
	126	29	28	-1	35	1	1	100%	100%	9	27	15	6	7	12		0.0	14.0	25.0	13	16
	127	27	36	9	51	1	1	0%	100%	3	2	17	7	7	1		0.5	4.0	34.5	6	3
	128	33	39	6	52	5	3	33%	67%	2	2	18	9	10	0		8.8	0.4	37.4	9	17

Analysis of Results - May Year Three.

No.	Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
129	33	32	-1	59	5	1	0%	100%	5	0	13	8	4	2		3.5	3.2	33.2	13	0
130	30	33	3	56	4	4	25%	100%	4	2	15	7	6	0		1.3	3.2	32.5	5	1
131	31			58	0	0			20	15				3		-1.8			5	1
132	29	31	2	60	5	6	50%	100%	9	9	13	9	4	2		-2.5	4.7	34.3	1	1
133	27	34	7	57	2	1	0%	100%	1	6	17	7	6	5		2.0	5.7	29.3	9	1
134	31	33	2	61	5	6	50%	100%	4	16	16	8	7	1		-0.5	8.0	37.0	4	2
136	35	37	2	55	2	3	100%	67%	5	1	19	8	9	0		8.8	1.4	38.0	1	1
137	27	34	7	61	3	5	20%	80%	2	1	16	7	6	3		3.5	3.8	30.3	10	1
138	29	37	8	62	6	6	67%	83%	3	1	18	9	5	1		6.3	6.7	34.3	8	1
139	36	37	1	52	5	3	33%	100%	2	5	16	7	8	1		8.3	0.3	36.8	5	22
140	35	35	0	63	0	0			12	1	15	7	8	3		-1.0	1.5	31.5	3	0
141	36	41	5	53	3	3	100%	67%	8	0	15	7	10	1		8.3	1.2	37.2	0	3
142	15	18	3	51	1	1	100%	100%	0	0	16	7	8	2		0.5			1	22
143	29	33	4	53	5	1	0%	100%	17	6	17	9	5	11		0.3	3.8	34.3	13	1
144	32	42	10	61	4	3	33%	100%	2	4	18	6	7	0		9.8	0.0	37.0	2	2
145	28	30	2	68	3	5	40%	60%	8	6	19	8	4	10		2.0	5.4	30.9	3	0
146	33	39	6	62	5	2	50%	100%	9	4	17	6	8	16		-1.5	1.1	31.7	13	0
147		35		62	0	0			1	0	10	1	5	1		5.8	7.0	34.0	5	1
148	38	42	4	54	5	3	67%	100%	3	0	19	8	9	0		9.3	1.2	37.7	1	12
149	33	36	3	67	5	2	50%	100%	4	3	18	7	6	10		2.0	1.6	33.0	11	0
150	32	37	5	45	2	3	67%	67%	4	0	15	4	9	0		8.3	0.0	38.8	4	17
151	28	19	-9	51	2	1	0%	100%	19	24	11	6	1	32		-6.3	7.5	32.3	3	3
152	28	38	10	61	4	4	50%	75%	0	3	16	10	9	4		7.3	5.0	32.0	4	0
153	29	30	1	55	1	2	0%	100%	9	8	16	6	6	7		-5.0	6.5	26.5	8	1
154	31	38	7	44	6	3	67%	67%	6	0	18	8	9	0		10.3	0.0	37.3	4	20
155	23	25	2	59	6	1	0%	100%	14	3	17	7	9	7		-4.5	3.7	29.8	0	19
156	27	33	6	65	5	6	67%	100%	6	4	17	8	6	0		2.3	1.7	37.9	1	2
157	33	35	2	69	4	7	57%	100%	10	1	12	10	9	0		8.5	2.8	32.2	0	1

Analysis of Results - May Year Three.

No.	Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
158	37	42	5	64	4	4	75%	100%	6	3	13	8	10	0		10.0	0.3	37.4	2	1
159	33	34	1	53	2	1	0%	100%	0	0	16	7	7	1		4.0	7.0	30.0	0	19
160	35	39	4	61	5	3	67%	100%	5	4	15	7	8	12		3.5	2.5	33.4	1	6
161	20	8	-12	48	1	1	100%	0%	30	27	19	8	4	4		-7.8	0.5	37.5	4	13
162	23	31	8	63	3	3	67%	100%	3	0	15	7	9	0		-2.0	3.4	30.9	17	0
163	27	29	2	43	5	3	67%	100%	4	1	15	9	8	3		-1.0	4.5	22.0	5	4
166	32	36	4	51	1	1	0%	100%	11	0	17	7	9	0		7.3	1.7	29.7	4	5
167	35	35	0	59	4	2	0%	100%	19	2	17	7	2	3		0.5	1.6	31.8	1	1
168	36	38	2	58	2	1	0%	100%	0	0	19	6	8	1		9.5	8.0	30.9	0	0
169	25	22	-3	51	4	3	33%	67%	13	11	12	7	5	14		0.3	3.3	33.7	12	4
170	33	41	8	58	1	1	100%	100%	1	0	13	3	8	0		9.0	7.3	25.0	0	24
171	30	35	5	53	7	4	75%	50%	2	0	13	7	6	4		0.3	3.7	33.5	16	2
172	24	28	4	57	3	3	67%	100%	0	0	12	9	8	0		7.3	5.0	29.5	0	3
174	34	36	2	62	6	7	57%	86%	0	0	18	8	8	5		7.3	8.3	30.0	0	3
175	30	34	4	60	4	4	50%	100%	7	0	18	8	6	3		1.0	1.6	38.2	1	7
176	37	40	3	64	5	3	67%	100%	2	1	17	5	8	0		8.8	4.3	35.0	0	2
177	30	36	6	54	3	3	100%	67%	3	3	17	7	8	3		3.0	0.3	35.8	1	15
178	27	30	3	53	5	3	33%	67%	8	4	15	10	4	2		1.3	2.8	30.0	15	0
179	34	29	-5	54	5	1	0%	100%	12	3	18	9	3	2		5.0	1.6	33.7	0	2
180	30	32	2	49	3	2	50%	100%	20	6	16	10	6	3		0.3	5.0	33.7	5	9
181	27	19	-8	60	6	5	60%	100%	4	0	15	7	7	2		-4.0	6.6	31.4	3	1
182	24	26	2	65	2	3	67%	67%	3	3	16	6	7	1		-4.0	1.3	30.3	1	18
183	27	31	4	47	6	2	0%	100%	2	0	17	9	4	0		6.0	2.0	33.6	12	2
184	33	29	-4	50	5	1	0%	100%	5	3	13	6	7	6		1.5	1.0	25.0	2	11
186	31	36	5	68	2	2	0%	100%	2	4	16	10	7	2		5.5	5.1	33.6	1	0
187	36	38	2	62	7	5	80%	80%	7	16	14	9	9	1		8.0	6.8	31.6	1	2
188	31	29	-2	62	7	4	50%	75%	10	2	13	8	4	1		-4.5	1.1	34.9	4	9
189	30	31	1	60	1	1	0%	100%	3	8	12	7	6	13		-5.0	3.3	29.0	3	8

Analysis of Results - May Year Three.

	No.	Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
	190	17	12	-5	58	3	5	40%	60%	18	31	18	9	6	4		-2.0	9.7	29.7	9	1
	191	34	32	-2	53	3	6	50%	83%	6	1	12	8	6	0		0.0	0.0	31.0	19	2
	192	29			53	0	0			85	2				0		5.0			1	4
Top		38.7	42.0	10.1	70.0	7.0	8.0	1.0	1.0	85.0	50.0	19.0	10.0	10.0	32.0		10.3	14.0	39.4	19.0	24.0
Avg		30.2	32.6	2.3	57.4	3.7	2.8	0.5	0.9	7.7	5.2	15.7	7.6	6.8	3.3		2.9	3.6	32.8	4.8	5.0
Bot		15.3	8.0	-12.4	35.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	1.0	1.0	0.0		-7.8	0.0	22.0	0.0	0.0
St. Dev		4.5	6.7	4.2	6.5	1.9	1.8	0.3	0.2	10.7	8.4	2.1	1.7	1.9	5.3		4.7	2.8	3.5	4.8	6.5

Analysis of Results - May Year Three.

	No.	Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Correlation.																					
		Ability	J.Cert	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	S.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
Ability			0.80	0.20	0.06	0.10	-0.05	0.01	0.08	-0.16	-0.32	-0.04	-0.08	0.26	-0.19		0.58	-0.28	0.25	-0.22	-0.14
J.Cert		0.80		0.75	0.15	0.10	0.03	0.06	0.13	-0.40	-0.43	0.11	-0.01	0.49	-0.34		0.74	-0.28	0.29	-0.18	-0.11
Diff		0.20	0.75		0.17	0.06	0.12	0.09	0.13	-0.39	-0.34	0.25	0.09	0.52	-0.34		0.55	-0.16	0.19	-0.04	-0.02
Soc.		0.06	0.15	0.17		0.19	0.42	0.03	0.12	-0.03	0.01	0.07	0.18	0.07	-0.10		0.03	-0.01	0.04	-0.22	-0.42
EC D		0.10	0.10	0.06	0.19		0.49	-0.07	0.10	-0.15	-0.01	0.09	0.37	-0.01	-0.11		0.15	-0.09	0.16	0.08	-0.16
EC #		-0.05	0.03	0.12	0.42	0.49		0.34	-0.08	-0.12	0.08	0.08	0.33	0.09	-0.20		0.10	0.05	0.15	0.02	-0.24
IvT		0.01	0.06	0.09	0.03	-0.07	0.34		-0.43	-0.09	0.01	0.03	0.00	0.36	-0.28		0.17	-0.12	0.19	-0.07	0.13
CvN		0.08	0.13	0.13	0.12	0.10	-0.08	-0.43		-0.09	-0.15	-0.12	-0.07	0.01	0.09		0.02	0.21	-0.12	-0.08	-0.05
Atten.		-0.16	-0.40	-0.39	-0.03	-0.15	-0.12	-0.09	-0.09		0.30	0.15	0.27	-0.27	0.09		-0.19	0.00	0.00	-0.05	-0.10
Late		-0.32	-0.43	-0.34	0.01	-0.01	0.08	0.01	-0.15	0.30		0.01	0.17	-0.19	0.42		-0.33	0.46	-0.20	-0.02	0.03
Attr.		-0.04	0.11	0.25	0.07	0.09	0.08	0.03	-0.12	0.15	0.01		0.28	0.19	-0.20		0.18	-0.12	0.26	-0.15	0.01
S.Est		-0.08	-0.01	0.09	0.18	0.37	0.33	0.00	-0.07	0.27	0.17	0.28		0.04	-0.14		0.04	-0.08	0.10	0.04	-0.30
A.Est		0.26	0.49	0.52	0.07	-0.01	0.09	0.36	0.01	-0.27	-0.19	0.19	0.04		-0.36		0.52	-0.19	0.10	-0.27	0.22
P.Pts		-0.19	-0.34	-0.34	-0.10	-0.11	-0.20	-0.28	0.09	0.09	0.42	-0.20	-0.14	-0.36			-0.50	0.27	-0.29	0.11	0.08
RBG																					
RBC		0.58	0.74	0.55	0.03	0.15	0.10	0.17	0.02	-0.19	-0.33	0.18	0.04	0.52	-0.50			-0.23	0.36	-0.33	-0.02
FPP		-0.28	-0.28	-0.16	-0.01	-0.09	0.05	-0.12	0.21	0.00	0.46	-0.12	-0.08	-0.19	0.27		-0.23		-0.49	0.05	-0.07
FER		0.25	0.29	0.19	0.04	0.16	0.15	0.19	-0.12	0.00	-0.20	0.26	0.10	0.10	-0.29		0.36	-0.49		-0.14	-0.06
Bully		-0.22	-0.18	-0.04	-0.22	0.08	0.02	-0.07	-0.08	-0.05	-0.02	-0.15	0.04	-0.27	0.11		-0.33	0.05	-0.14		-0.23
Victim		-0.14	-0.11	-0.02	-0.42	-0.16	-0.24	0.13	-0.05	-0.10	0.03	0.01	-0.30	0.22	0.08		-0.02	-0.07	-0.06	-0.23	

Class Grouping Analysis - Class 1.

	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1 Max	36.4	40	10.6	71					10	12	7	12	17	35	2.2	5	8.7	38		
J. Yr1 Avg	28.7	31.4	2.7	59.2					2.7	1.4	0.9	9.8	11.6	4.9	1.7	0.8	4.1	31.7		
J. Yr1 Min	17.1	10	-10.1	45					0	0	-4	4	7	0	1.2	-3	1	24		
M. Yr1 Max	36.4	41.0	8.6	73.0	6.0	9.0	0.8	1.0	21.0	24.0	21.0	10.0	10.0	66.0	2.2	5.8	19.0	36.7	15.0	14.0
M. Yr1 Avg	28.7	32.1	3.4	59.4	4.8	5.2	0.5	0.8	7.4	5.4	16.1	7.5	6.4	11.6	1.8	1.4	9.3	33.1	3.6	3.0
M. Yr1 Min	17.1	12.0	-7.1	47.0	3.0	2.0	0.0	0.3	0.0	0.0	9.0	0.0	0.0	0.0	1.2	-2.2	1.0	28.0	0.0	0.0
J. Yr2 Max	36.4	39.0	9.9	72.0					12.0	12.0	20.0	10.0	10.0	40.0	2.5	2.3	14.0	35.0		
J. Yr2 Avg	28.7	28.0	-0.8	60.3					3.0	2.7	16.0	8.1	6.3	6.5	1.9	-0.1	5.9	28.0		
J. Yr2 Min	17.1	4.0	-18.3	44.0					0.0	0.0	12.0	4.0	1.0	0.0	1.4	-4.0	1.0	17.5		
M. Yr2 Max	36.4	38.0	7.9	74.0	7.0	10.0	1.0	1.0	24.0	23.0	20.0	10.0	10.0	88.0	2.7	2.3	37.7	35.0	23.0	19.0
M. Yr2 Avg	28.7	25.6	-3.1	61.2	4.0	4.1	0.5	0.8	8.1	6.2	15.3	7.6	6.7	14.4	1.8	-0.3	10.9	26.1	5.7	4.3
M. Yr2 Min	17.1	4.0	-24.1	41.0	0.0	0.0	0.0	0.3	0.0	0.0	9.0	4.0	2.0	0.0	1.3	-2.8	4.3	18.5	0.0	0.0
J. Yr3 Max	36.4	39.0	6.4	70.0					18.0	30.0	24.0	10.0	10.0	15.0		9.5	5.0	39.0		
J. Yr3 Avg	28.7	27.4	-1.3	58.5					4.2	5.3	15.7	7.8	6.2	3.2		2.2	2.7	28.1		
J. Yr3 Min	17.1	5.0	-23.1	35.0					0.0	0.0	7.0	0.0	2.0	0.0		-6.5	0.0	18.0		
M. Yr3 Max	36.4	38.0	9.6	70.0	7.0	8.0	1.0	1.0	85.0	50.0	19.0	10.0	9.0	32.0		9.5	14.0	33.8	15.0	19.0
M. Yr3 Avg	28.7	30.1	1.5	58.0	3.8	2.9	0.4	0.9	11.1	9.7	15.6	8.1	6.5	5.5		2.0	5.5	30.4	4.6	3.9
M. Yr3 Min	17.1	12.0	-9.1	35.0	0.0	0.0	0.0	0.6	0.0	0.0	11.0	5.0	1.0	0.0		-6.3	1.0	22.0	0.0	0.0

Class Grouping Analysis - Class 2.

	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1 Max	37.7	42	11.1	72					10	6	8	12	17	26	2	7.3	7.8	42		
J. Yr1 Avg	30.8	35	4.2	61					2	1.2	1.2	9.4	12.2	3.5	1.6	3.9	3.1	35.6		
J. Yr1 Min	17.8	17	-6.3	43					0	0	-4	2	4	0	1.2	0	0	30.5		
M. Yr1 Max	37.7	42.0	12.6	78.0	6.0	9.0	1.0	1.0	22.0	14.0	19.0	10.0	10.0	40.0	2.1	7.7	17.0	41.0	18.0	16.0
M. Yr1 Avg	30.8	35.8	5.0	60.5	4.6	4.6	0.5	0.9	6.2	3.0	16.4	8.0	7.0	6.9	1.5	4.3	5.8	36.3	2.5	2.7
M. Yr1 Min	17.8	21.0	-0.6	41.0	2.0	1.0	0.0	0.3	0.0	0.0	14.0	2.0	2.0	0.0	1.1	0.3	0.5	29.0	0.0	0.0
J. Yr2 Max	37.7	42.0	12.5	71.0					13.0	11.0	20.0	10.0	10.0	42.0	2.4	2.7	11.0	39.0		
J. Yr2 Avg	30.7	34.1	3.4	57.9					2.5	2.3	16.7	7.6	6.4	4.0	1.6	0.7	2.4	35.0		
J. Yr2 Min	17.8	13.0	-7.4	46.0					0.0	0.0	12.0	4.0	0.0	0.0	1.1	-1.0	0.0	23.3		
M. Yr2 Max	38.0	42.0	9.9	70.0	6.0	10.0	1.0	1.0	23.0	22.0	19.0	10.0	9.0	53.0	2.3	1.7	16.3	41.0	18.0	19.0
M. Yr2 Avg	30.9	33.4	2.4	57.8	4.3	4.0	0.4	0.9	5.9	3.9	15.8	7.4	6.8	5.7	1.5	0.6	5.3	34.5	4.9	4.0
M. Yr2 Min	17.8	4.0	-13.8	44.0	0.0	0.0	0.0	0.3	0.0	0.0	13.0	2.0	3.0	0.0	1.1	-0.3	0.0	21.0	0.0	0.0
J. Yr3 Max	38.0	42.0	8.9	57.0					17.0	17.0	20.0	9.0	10.0	3.0		10.0	3.0	39.0		
J. Yr3 Avg	31.4	32.4	0.6	46.5					2.9	2.3	15.9	7.3	6.6	0.5		4.6	0.4	33.0		
J. Yr3 Min	20.4	24.0	-8.2	38.0					0.0	0.0	11.0	2.0	2.0	0.0		-6.0	0.0	26.3		
M. Yr3 Max	38.0	42.0	9.9	65.0	7.0	6.0	1.0	1.0	30.0	27.0	19.0	10.0	10.0	12.0		10.3	8.0	38.8	19.0	22.0
M. Yr3 Avg	31.4	34.3	2.9	54.5	3.9	2.7	0.4	0.8	6.0	3.6	15.6	7.5	6.4	1.8		4.1	2.2	34.8	5.6	5.2
M. Yr3 Min	20.4	8.0	-12.4	44.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	1.0	2.0	0.0		-7.8	0.0	28.7	0.0	1.0

Class Grouping Analysis - Class 3.

	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1 Max	38.7	42	7.2	71					16	4	5	12	17	18	2.4	6.7	4.3	38.5		
J. Yr1 Avg	30.2	31.9	1.7	57.3					2.8	0.7	0.5	9	11.7	2	1.6	2	1.8	33.9		
J. Yr1 Min	15.3	8	-16.6	34					0	0	-5	3	4	0	1.2	-3.3	0	30.2		
M. Yr1 Max	38.7	42.0	11.1	76.0	6.0	8.0	1.0	1.0	29.0	6.0	19.0	10.0	10.0	25.0	2.3	6.7	15.0	38.8	17.0	29.0
M. Yr1 Avg	30.2	32.5	2.3	61.5	4.2	4.8	0.6	0.8	7.5	1.5	15.2	7.4	7.0	5.9	1.7	2.6	5.9	34.1	3.7	3.2
M. Yr1 Min	15.3	5.0	-13.5	43.0	1.0	1.0	0.0	0.3	0.0	0.0	11.0	2.0	2.0	0.0	1.2	-1.8	1.2	21.4	0.0	0.0
J. Yr2 Max	38.7	42.0	9.1	73.0					25.0	7.0	22.0	10.0	10.0	22.0	3.0	3.3	8.0	39.4		
J. Yr2 Avg	30.6	31.9	1.1	60.6					2.5	1.3	16.6	7.6	6.8	2.9	1.9	-0.1	2.5	33.6		
J. Yr2 Min	15.3	5.0	-18.1	43.0					0.0	0.0	13.0	3.0	0.0	0.0	1.1	-5.3	0.0	28.0		
M. Yr2 Max	38.7	41.0	9.1	74.0	7.0	9.0	1.0	1.0	50.0	19.0	21.0	10.0	10.0	47.0	3.0	2.7	10.0	38.3	15.0	26.0
M. Yr2 Avg	30.6	29.6	-1.0	62.8	4.3	4.1	0.6	0.9	6.9	3.0	15.8	7.4	6.9	6.2	1.8	0.0	5.4	30.7	4.7	4.9
M. Yr2 Min	15.3	5.0	-18.1	44.0	1.0	1.0	0.0	0.5	0.0	0.0	11.0	3.0	1.0	0.0	1.1	-2.7	0.1	22.5	0.0	0.0
J. Yr3 Max	38.7	41.0	9.1	74.0					8.0	6.0	20.0	10.0	10.0	15.0		9.5	4.0	37.6		
J. Yr3 Avg	30.8	30.0	-0.8	60.7					2.4	0.7	15.9	7.9	6.6	1.3		3.1	1.3	31.7		
J. Yr3 Min	15.3	5.0	-19.6	52.0					0.0	0.0	12.0	3.0	3.0	0.0		-5.5	0.0	25.4		
M. Yr3 Max	38.7	42.0	10.1	69.0	7.0	7.0	1.0	1.0	13.0	13.0	19.0	10.0	10.0	21.0		9.8	7.3	39.4	17.0	24.0
M. Yr3 Avg	30.8	33.3	2.5	59.4	3.3	2.7	0.6	0.9	5.9	2.0	15.9	7.3	7.4	2.6		2.6	2.9	33.2	4.2	5.9
M. Yr3 Min	15.3	17.0	-7.6	51.0	0.0	0.0	0.0	0.5	0.0	0.0	12.0	3.0	4.0	0.0		-7.0	0.3	25.0	0.0	0.0

Overall Individual Student Results.

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	101	38	42	4	65					0	0	-1	9	4	0	1.4	6	7	34.8		
M. Yr1	101	38	42	4	67	6	6	50%	83%	2	0	18	7	9	0	1.2	6.3	2.6	37.4	0	1
J. Yr2	101	38	42	4	62					1	0	16	8	7	0	1.1	1.7	0.2	37		
M. Yr2	101	38	41	3	60	5	4	50%	75%	6	0	15	8	8	0	1.1	1.3	1.8	38.5	1	3
J. Yr3	101	38	42	4	50					0	0	13	8	8	1		9.0	0	36		
M. Yr3	101	38	42	4	59	3	3	67%	67%	0	0	15	7	6	1		8.8	0.8	35.7	1	2
J. Yr1	102	39	38	-1	61					1	0	-2	6	10	0	1.4	4.3	1.3	32		
M. Yr1	102	39	40	1	69	5	5	40%	100%	3	0	17	7	8	0	1.4	4.5	5.7	35.2	2	0
J. Yr2	102	39	38	-1	68					3	0	18	7	9	1	1.8	1	4	33.7		
M. Yr2	102	39	34	-5	64	4	2	50%	100%	5	0	18	7	9	2	1.7	1.3	8	26.3	5	4
J. Yr3	102	39	35	-4	62					8	0	18	7	8	1		5.5	1.1	31		
M. Yr3	102	39	39	0	59	4	1	0%	100%	12	0	14	7	8	4		5.0	1.3	30.5	2	1
J. Yr1	103	24	30	6	54					5	12	3	12	15	3	1.8	0.7	1.3	37.3		
M. Yr1	103	24	30	6	63	5	5	80%	100%	16	21	17	7	8	7	1.9	0.5	5.6	35.4	3	0
J. Yr2	103	24	29	5	63					12	8	15	8	8	1	1.7	1.7	3.4	30		
M. Yr2	103	24	23	-1	66	6	5	40%	100%	24	19	17	10	9	8	1.7	-0.2	8.9	27.3	1	1
J. Yr3	103	24	24	0	59					5	30	14	9	7	9		-0.5	3.7	19.7		
M. Yr3	103	24	25	1	64	6	4	50%	75%	15	50	15	10	6	14		-2.0	8.6	27.1	0	8
J. Yr1	104	32	36	4	60					5	2	3	11	17	0	1.2	4	4.2	36.4		
M. Yr1	104	32	38	6	61	5	9	56%	67%	14	14	16	10	10	1	1.2	4	5.4	36.3	0	1
J. Yr2	104	32	37	5	66					3	11	20	10	10	0	1.4	2.3	7.5	33		
M. Yr2	104	32	38	6	69	5	6	33%	83%	10	23	20	10	9	1	1.4	2.0	7.3	29.4	1	0
J. Yr3	104	32	38	6	65					8	14	19	10	10	0		8.5	1.5	31.8		
M. Yr3	104	32	38	6	68	6	5	40%	100%	19	23	18	10	9	1		9.0	3.4	33.8	0	0

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	105	23	22	-1	64					3	4	4	10	5	18	2.4	-3.3	1.3	33.8		
M. Yr1	105	23	10	-13	48	3	3	33%	33%	10	6	13	5	3	25	2.3	-1.5	9.7	30.3	11	18
J. Yr2	105	23	5	-18	43					2	6	17	4	2	22	3.0	-5.3	8	30		
M. Yr2	105	23	5	-18	44	4	1	0%	100%	9	13	12	3	2	47	3.0	-2.6	7	31.3	10	22
J. Yr3	105	23	13	-10	56					1	2	15	5	3	15		-5.5	1.2	28.5		
M. Yr3	105	23	21	-2	55	1	1	0%	100%	1	3	15	6	5	21		-7.0	2.7	29.3	4	19
J. Yr1	106	31	38	7	57					2	0	1	9	14	0	1.3	6.7	0.3	37.3		
M. Yr1	106	31	42	11	66	5	6	83%	67%	4	0	17	9	9	0	1.3	6.7	1.5	38.8	0	0
J. Yr2	106	31	40	9	66					6	0	17	9	8	0	1.4	2	0.1	35.7		
M. Yr2	106	31	40	9	68	5	5	80%	80%	13	0	20	9	9	0	1.3	1.4	0.5	35.5	0	0
J. Yr3	106	31	40	9	65					7	0	20	9	8	0		6.5	0.3	36.7		
M. Yr3	106	31	41	10	63	3	4	75%	75%	8	0	19	10	9	0		8.3	1.5	37.3	1	1
J. Yr1	107	24	34	10	68					5	0	3	12	17	1	1.5	3.3	2.4	30.9		
M. Yr1	107	24	32	8	66	4	6	33%	100%	15	0	15	9	8	1	1.7	2.8	5.7	34.8	0	1
J. Yr2	107	24	31	7	66					8	0	15	10	7	1	1.7	1.7	3.8	29.4		
M. Yr2	107	24	23	-1	73	6	10	60%	90%	13	1	16	9	8	2	1.7	0.8	10.1	29.6	2	0
J. Yr3	107	24	25	1	70					12	4	18	10	8	0		2.5	3.4	32.3		
M. Yr3	107	24	31	7	70	5	8	75%	88%	18	6	18	10	8	0		0.8	4.4	30.7	8	0
J. Yr1	108	31	33	2	57					9	0	0	10	11	4	2	-1.3	1.3	33		
M. Yr1	108	31	35	4	56	3	5	60%	60%	19	0	17	8	8	13	2	0.7	8.6	27.4	12	0
J. Yr2	108	31	32	1	63					5	0	17	9	7	3	2.1	-1	3.7	28.3		
M. Yr2	108	31	30	-1	66	3	2	100%	50%	10	0	15	7	7	6	2.0	-0.8	10	27.7	7	2
J. Yr3	108	31	32	1	69					3	0	15	8	4	0		1.5	3.8	25.4		
M. Yr3	108	31	32	1	64	5	2	50%	50%	4	0	15	9	8	0		2.3	1.7	30.5	2	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	109	35	39	4	60					0	1	-1	8	8	2	1.4	5.7	6	36		
M. Yr1	109	35	39	4	57	3	4	100%	75%	1	6	15	5	6	2	1.3	5.7	11	33	1	4
J. Yr2	109	35	39	4	54					1	8	18	5	7	1	1.3	1.7	0	39		
M. Yr2	109	35	38	3	56	4	5	80%	60%	3	13	15	5	6	1	1.3	0.7			1	5
J. Yr3	109	35	36	1	48					0	7	16	7	5	0		9.0	0	39		
M. Yr3	109	35	39	4	53	1	1	100%	0%	0	7	17	8	8	1		7.8	1.3	28.7	2	4
J. Yr1	110	32	35	3	55					0	0	0	10	7	1	1.7	2.3	1	36.5		
M. Yr1	110	32	37	5	56	6	3	67%	100%	2	1	16	5	7	10	1.7	2.5	1	36	0	7
J. Yr2	110	32	35	3	59					6	0	16	5	5	2	1.8	1.5	2.3	25.7		
M. Yr2	110	32	35	3	61	1	1	100%	100%	8	1	12	7	9	7	1.6	0.6	6.5	23.5	2	12
J. Yr3	110	32	33	1	60					2	7	17	4	9	3		5.0	3	22.3		
M. Yr3	110	32	34	2	63	2	2	50%	100%	5	15	15	8	7	3		4.8	4.4	32.0	1	11
J. Yr1	111	32	33	1	51					5	1	0	12	13	8	1.9	0	4.5	32		
M. Yr1	111	32	32	0	51	3	4	50%	75%	11	2	18	10	9	11	1.8	2	17	29	12	1
J. Yr2	111	32	33	1	51					2	3	14	9	5	6	1.9	0	11	23.3		
M. Yr2	111	32	34	2	52	4	1	0%	100%	9	5	14	10	8	11	1.8	0.3	16.3	21	18	1
J. Yr3	111	32	28	-4	38					1	0	15	8	5	3		0.5	0	32.3		
M. Yr3	111	32	32	0	48	3	1	0%	100%	2	0	16	10	5	4		-0.3	5.3	36.7	10	1
J. Yr1	112	26	31	5	57					7	0	3	10	8	0	1.7	-0.3	5.7	29.7		
M. Yr1	112	26	33	7	60	6	3	33%	100%	21	0	13	9	5	3	1.8	0.2	12	32.9	5	0
J. Yr2	112	26			58					9	2	16	9	7	0	1.5	1	7	18.3		
M. Yr2	112	26	26	0	61	5	3	33%	100%	23	3	13	9	6	0	1.5	0.6	14.7	24.3	8	1
J. Yr3	112	26			56					18	5				0		1.0	0.5	25.5		
M. Yr3	112	26	25	-1	59	6	4	25%	100%	30	13	17	8	4	0		2.0	2.8	32.2	7	0

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	113	25	24	-1	61					6	1	0	12	15	26	1.9	0	1.9	36.1		
M. Yr1	113	25	27	2	62	6	4	50%	100%	12	1	17	10	9	40	1.9	1.2	8.4	36.1	7	1
J. Yr2	113	25	25	0	49					11	11	15	4	0	42	2.2	1				
J. Yr1	114	31	32	1	65					0	0	3	9	8	5	1.7	0.7	4.9	30.4		
M. Yr1	114	31	36	5	63	6	7	57%	86%	2	3	16	8	2	15	1.8	1.5	13	29.2	0	2
J. Yr2	114	31	26	-5	68					0	12	17	8	2	7	1.9	-1.7	9.5	17.5		
M. Yr2	114	31	29	-2	70	5	7	71%	86%	1	21	19	10	3	10	1.9	-0.5	13.7	24.1	2	1
J. Yr3	114	31	29	-2	64					0	2	16	10	5	0		3.5	2	29.7		
M. Yr3	114	31	30	-1	65	6	3	67%	100%	1	3	17	10	5	1		4.3	3.5	32.5	4	0
J. Yr1	115	32	37	5	63					4	0	1	11	17	0	1.3	5	1.2	34.8		
M. Yr1	115	32	37	5	61	4	3	0%	100%	9	0	12	9	10	0	1.2	5.5	2.3	38.8	0	0
J. Yr2	115	32	39	7	63					0	0	15	8	10	0	1.1	3.3	1.3	37		
M. Yr2	115	32	35	3	65	5	3	33%	100%	10	0	16	8	10	0	1.1	2.7	5.2	33.3	0	2
J. Yr3	115	32	36	4	62					2	0	18	9	10	0		9.5	1	35.5		
M. Yr3	115	32	37	5	61	6	2	50%	100%	9	0	18	10	10	0		9.8	0.3	35.5	2	2
J. Yr1	116	28	27	-1	64					4	3	-3	7	10	2	1.7	0.3	0.8	34.8		
M. Yr1	116	28	32	4	69	3	6	50%	83%	10	6	19	8	4	8	1.8	1.3	4.6	36.6	3	0
J. Yr2	116	28	24	-4	67					0	0	18	9	5	4	2.1	0	1.8	35.7		
M. Yr2	116	28	30	2	68	4	3	0%	100%	10	2	21	8	7	8	2.0	-0.3	6	29.4	3	0
J. Yr3	116	28	25	-3	63					3	2	19	8	7	2		2.0	1.5	31.8		
M. Yr3	116	28	32	4	62	5	1	0%	100%	13	10	18	9	8	2		2.0	6.3	36.0	2	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	117	30	36	6	66					1	2	-2	9	12	2	1.4	3.3	3.3	32.2		
M. Yr1	117	30	34	4	54	6	4	50%	100%	3	5	18	8	6	5	1.6	3.7	3.5	32.5	4	3
J. Yr2	117	30	32	2	56					0	2	15	7	4	4	1.8	0.3	9	31		
M. Yr2	117	30	31	1	57	6	5	20%	100%	1	6	17	5	7	8	1.7	-0.2	5	23	3	4
J. Yr3	117	30	33	3	53					0	3	15	5	6	1		3.0	4.7	25.3		
M. Yr3	117	30	35	5	50	5	1	0%	100%	0	7	14	5	6	3		4.0	9.5	29.5	4	8
J. Yr1	118	34	40	6	58					3	2	-3	10	12	0	1.5	3.3	1	34.3		
M. Yr1	118	34	37	3	64	6	4	50%	100%	11	5	14	7	8	1	1.5	4.7	4.4	36.2	0	1
J. Yr2	118	34	37	3	67					2	7	14	8	9	1	1.8	-1.3	2.3	32.7		
M. Yr2	118	34	31	-3	66	1	5	80%	80%	6	12	11	8	7	4	1.9	-1.0	5	31.1	4	1
J. Yr3	118	34	33	-1	64					3	6	14	8	9	1		5.0	1.2	30.3		
M. Yr3	118	34	36	2	64	3	4	75%	100%	10	13	15	9	9	3		3.3	3.6	32.4	6	5
J. Yr1	119	32	39	7	70					2	2	1	10	13	2	1.4	5.7	4.1	35.5		
M. Yr1	119	32	39	7	73	6	7	43%	100%	6	3	16	10	8	3	1.3	5.3	14	34.4	1	0
J. Yr2	119	32	35	3	60					1	0	12	8	6	0	1.5	1	2.8	35.5		
M. Yr2	119	32	39	7	62	6	3	67%	100%	3	1	15	9	4	1	1.4	0.8	8.7	33.7	4	0
J. Yr3	119	32	37	5	46					1	1	12	9	7	0		6.0	0.7	27.7		
M. Yr3	119	32	36	4	55	6	2	50%	50%	2	1	13	9	6	1		3.5	3.2	32.0	14	2
J. Yr1	120	25	8	-17	52					11	2	5	11	15	2	2	0				
M. Yr1	120	25	27	2	71	6	7	71%	86%	14	4	15	9	6	6	2	0	8	32.2	1	0
J. Yr2	120	25	22	-3	66					2	4	16	7	2	2	2.2	-2.3	3.8	28		
M. Yr2	120	25	11	-14	66	4	7	57%	71%	5	7	16	7	9	6	2.0	-0.8	8	22.5	2	3
J. Yr3	120	25	5	-20	63					3	0	14	8	3	1		-2.0	4	28.8		
M. Yr3	120	25	17	-8	63	5	5	60%	80%	3	4	15	4	4	1		-2.8	5.3	31.2	9	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	121	27	38	11	71					1	0	8	11	15	1	1.3	6	3.9	37.3		
M. Yr1	121	27	40	13	66	3	5	60%	80%	3	0	17	9	8	1	1.3	6.5	1.9	37.8	0	0
J. Yr2	121	27	37	10	64					0	0	16	10	10	0	1.3	1.7	0.2	37.6		
M. Yr2	121	27	35	8	62	5	6	50%	83%	5	0	17	10	8	0	1.2	1.2	1.4	37.4	0	1
J. Yr3	121	27	32	5	48					0	0	16	7	8	0		5.0	0.1	37.7		
M. Yr3	121	27	33	6	51	5	2	50%	100%	1	0	17	7	8	0		6.8	0.1	37.4	3	7
J. Yr1	122	32	36	4	62					0	0	-2	11	17	2	1.6	2.7	3.3	32.2		
M. Yr1	122	32	37	5	62	4	8	63%	88%	1	0	16	10	10	6	1.7	2.3	6.3	31.8	4	0
J. Yr2	122	32	32	0	58					0	1	19	9	7	4	2.1	-3	4.3	29.8		
M. Yr2	122	32	29	-3	59	5	9	67%	89%	0	3	17	10	7	10	2.1	-2.7	6.3	27.3	12	2
J. Yr3	122	32	17	-15	55					3	0	15	10	7	1		-4.0	1.2	30.8		
M. Yr3	122	32	32	0	60	1	3	100%	67%	12	0	17	9	5	2		-2.3	3.8	33.2	8	0
J. Yr1	123	31	34	3	66					0	0	0	11	10	0	1.5	4	1.8	36.3		
M. Yr1	123	31	36	5	61	3	1	0%	100%	2	0	18	9	6	0	1.5	5.3	6.6	36	1	1
J. Yr2	123	31	30	-1	57					0	0	13	7	5	0	1.5	0.3	0.6	36.8		
M. Yr2	123	31	31	0	55	5	4	0%	100%	0	0	15	7	7	0	1.4	0.3	5.8	34.5	2	0
J. Yr3	123	31	27	-4	48					0	0	14	7	5	0		7.0				
M. Yr3	123	31	31	0	54	4	2	50%	100%	3	0	12	9	5	0		6.3	2.3	35.8	3	1
J. Yr1	124	26	30	4	63					2	2	0	12	14	3	1.8	1.7	3.3	33		
M. Yr1	124	26	30	4	67	3	5	60%	80%	6	4	15	9	8	8	1.8	2.2	5	34.3	4	0
J. Yr2	124	26	27	1	60					1	1	14	9	6	3	2.2	-1.7	2.8	30.2		
M. Yr2	124	26	23	-3	67	4	5	60%	80%	2	3	15	8	4	8	2.0	-1.0	6.6	27.8	11	1
J. Yr3	124	26	27	1	63					0	0	14	9	6	0		-4.0	1.3	26.7		
M. Yr3	124	26	25	-1	59	2	1	100%	100%	4	1	15	8	7	0		-4.0	3.1	31.0	13	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	125	34	38	4	55					2	0	0	11	16	1	1.4	5.7	0	37.3		
M. Yr1	125	34	41	7	60	5	8	88%	75%	2	0	15	8	8	1	1.3	5.7	4.2	35	0	1
J. Yr2	125	34	42	8	59					1	1	17	7	10	0	1.4	3.3	0.1	37.1		
M. Yr2	125	34	40	6	63	7	7	86%	86%	1	1	16	8	8	1	1.3	2.3	0.2	36.8	0	0
J. Yr3	125	34	38	4	60					1	1	17	7	8	0		9.0	0.5	37		
M. Yr3	125	34	37	3	51	3	3	100%	67%	1	1	15	5	8	0		9.0	0.8	39.4	2	3
J. Yr1	126	29	31	2	50					0	2	5	8	11	16	2	-0.7	4	27.8		
M. Yr1	126	29	31	2	54	3	5	60%	100%	3	4	15	5	5	38	2.1	-2	9.8	33.8	15	1
J. Yr2	126	29	28	-1	50					3	8	12	6	6	15	2.2	-0.3	7	18.3		
M. Yr2	126	29	25	-4	41	2	4	75%	100%	8	20	16	5	8	34	2.1	-1.2	9	20.5	23	2
J. Yr3	126	29	27	-2	35					3	14	14	5	3	11		-1.0				
M. Yr3	126	29	28	-1	35	1	1	100%	100%	9	27	15	6	7	12		0.0	14.0	25.0	13	16
J. Yr1	127	27	31	4	55					3	1	3	11	15	2	1.7	1.3	3.8	35.6		
M. Yr1	127	27	34	7	60	3	1	0%	100%	10	2	18	7	7	4	1.7	1.5	7.3	38.7	5	1
J. Yr2	127	27	38	11	55					1	0	18	7	7	2	1.6	2	3.3	35.5		
M. Yr2	127	27	34	7	50	4	2	0%	100%	3	1	17	6	8	10	1.5	1.2	14	30	9	1
J. Yr3	127	27	31	4	38					0	1	18	8	5	0		0.5	3	28		
M. Yr3	127	27	36	9	51	1	1	0%	100%	3	2	17	7	7	1		0.5	4.0	34.5	6	3
J. Yr1	128	33	42	9	55					1	1	0	8	14	0	1.4	6.3	1	38		
M. Yr1	128	33	41	8	54	5	6	67%	67%	3	2	19	9	10	0	1.2	6.7	1	40	2	8
J. Yr2	128	33	37	4	49					1	0	20	9	10	1	1.3	1.3	0	36.5		
M. Yr2	128	33	40	7	49	5	5	40%	80%	2	0	18	9	9	1	1.2	1.0	2	38	7	13
J. Yr3	128	33	37	4	38					0	1	18	9	9	0		10.0	0.3	36.7		
M. Yr3	128	33	39	6	52	5	3	33%	67%	2	2	18	9	10	0		8.8	0.4	37.4	9	17

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	129	33	34	1	64					0	0	0	12	7	2	1.5	5.3	4.3	30.5		
M. Yr1	129	33	35	2	62	6	6	33%	100%	3	0	18	8	4	8	1.6	5.2	4.4	35.2	4	0
J. Yr2	129	33	32	-1	63					2	0	14	6	3	7	2.0	-1.3	2.4	32.5		
M. Yr2	129	33	34	1	66	5	2	50%	50%	3	1	12	8	1	9	1.9	-1.2	8.3	27.8	8	2
J. Yr3	129	33	28	-5	59					2	0	13	8	3	0		4.0	2	31		
M. Yr3	129	33	32	-1	59	5	1	0%	100%	5	0	13	8	4	2		3.5	3.2	33.2	13	0
J. Yr1	130	30	41	11	70					0	0	4	11	15	0	1.4	5.7	5.7	34		
M. Yr1	130	30	37	7	66	5	6	33%	100%	2	2	15	10	7	2	1.3	6.5	5	35.8	1	0
J. Yr2	130	30	37	7	62					1	0	17	8	5	0	1.7	0.7	4.6	33.2		
M. Yr2	130	30	34	4	62	4	6	33%	100%	3	1	15	9	7	2	1.6	0.8	8.5	34.5	2	5
J. Yr3	130	30	26	-4	46					0	1	18	9	4	0		1.5	0.5	29.3		
M. Yr3	130	30	33	3	56	4	4	25%	100%	4	2	15	7	6	0		1.3	3.2	32.5	5	1
J. Yr1	131	31	34	3	54					4	3	-2	11	12	1	1.7	-0.7	8.7	27		
M. Yr1	131	31	34	3	52	5	6	33%	100%	7	24	15	9	6	2	1.8	-0.3	11	28	12	1
J. Yr2	131	31	26	-5	55					2	8	14	9	3	3	2.0	-0.3	9.4	22		
M. Yr2	131	31	14	-17	59	4	4	50%	100%	5	14	15	10	5	10	1.9	-0.7	15.2	27.8	12	0
J. Yr3	131	31	23	-8	60					3	12	15	10	2	3		-2.0	1	27.7		
M. Yr3	131	31			58	0	0			20	15				3		-1.8			5	1
J. Yr1	132	29	30	1	72					1	4	8	9	15	5	2	0.3	4.2	33.6		
M. Yr1	132	29	28	-1	69	5	5	40%	80%	14	14	18	7	4	12	1.9	0.8	8.2	35.4	0	1
J. Yr2	132	29	29	0	64					1	10	15	7	2	12	2.0	0.3	5.4	32.8		
M. Yr2	132	29	31	2	67	4	10	60%	100%	3	22	16	9	7	22	1.9	0.2	4.6	33.4	0	1
J. Yr3	132	29	24	-5	47					7	4	13	9	2	1		-1.5	0.3	29.8		
M. Yr3	132	29	31	2	60	5	6	50%	100%	9	9	13	9	4	2		-2.5	4.7	34.3	1	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	133	27	32	5	57					0	0	7	10	13	3	1.8	-0.3	6.8	29		
M. Yr1	133	27	33	6	59	4	4	50%	100%	1	5	19	5	7	6	1.9	1.2	11	29	4	2
J. Yr2	133	27	31	4	58					0	4	15	10	7	9	2.1	0.7	5.5	29.5		
M. Yr2	133	27	29	2	51	2	1	0%	100%	0	5	14	6	6	19	2.0	0.0	37.7	19	7	3
J. Yr3	133	27	29	2	52					0	3	17	8	5	5		3.0	5	27.5		
M. Yr3	133	27	34	7	57	2	1	0%	100%	1	6	17	7	6	5		2.0	5.7	29.3	9	1
J. Yr1	134	31	37	6	67					0	0	6	5	11	1	1.6	4.3	2.5	34		
M. Yr1	134	31	34	3	72	5	3	33%	100%	0	0	15	5	6	2	1.6	4.7	2.5	38	2	0
J. Yr2	134	31	35	4	65					0	0	17	6	9	1	1.5	1.7	0	35.5		
M. Yr2	134	31	34	3	66	4	6	50%	100%	4	0	17	7	7	3	1.6	1.0	8	34.3	4	0
J. Yr3	134	31	31	0	50					0	7	16	8	6	0		0.5	0	32.5		
M. Yr3	134	31	33	2	61	5	6	50%	100%	4	16	16	8	7	1		-0.5	8.0	37.0	4	2
J. Yr1	135	18	24	6	59					2	0	0	12	14	9	1.9	0	2.7	33.2		
M. Yr1	135	18	24	6	48	5.5	4	75%	75%	9	3	17	10	3	31	2	0.3	11	32	18	1
J. Yr2	135	18	21	3	49					2	7	18	6	3	30	2.4	-1	6.3	32		
M. Yr2	135	18	4	-14	50	3	3	67%	100%	6	15	14	7	5	53	2.3	0.8	11	34	18	1
J. Yr1	136	35	38	3	54					0	1	2	11	7	0	1.4	4.7	2	30.6		
M. Yr1	136	35	41	6	55	2	4	75%	25%	0	2	11	5	7	3	1.3	4.8	13	32.5	5	1
J. Yr2	136	35	40	5	55					0	2	13	7	6	0	1.4	2.7	1.3	36.7		
M. Yr2	136	35	40	5	62	4	5	100%	80%	1	2	11	8	6	0	1.4	1.8	0.4	36.2	1	2
J. Yr3	136	35	39	4	59					3	1	13	8	6	0		8.5	0.5	36.8		
M. Yr3	136	35	37	2	55	2	3	100%	67%	5	1	19	8	9	0		8.8	1.4	38.0	1	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	137	27	37	10	64					0	0	2	4	7	5	1.7	0	5.3	28.9		
M. Yr1	137	27	35	8	61	6	4	0%	100%	1	3	9	0	1	16	1.8	0.7	18	32.8	6	2
J. Yr2	137	27	31	4	60					0	1	20	7	4	14	1.9	1	3	26		
M. Yr2	137	27	32	5	62	0	4	25%	100%	2	5	20	7	5	24	1.8	0.5	10	21.5	8	3
J. Yr3	137	27	32	5	60					1	1	10	0	3	2		2.0	2.3	28.3		
M. Yr3	137	27	34	7	61	3	5	20%	80%	2	1	16	7	6	3		3.5	3.8	30.3	10	1
J. Yr1	138	29	35	6	62					0	0	1	10	12	0	1.6	5	3.8	30.2		
M. Yr1	138	29	34	5	64	6	5	60%	100%	0	0	17	10	9	6	1.7	3.8	4	36.4	9	0
J. Yr2	138	29	36	7	64					2	0	20	9	6	2	1.9	-0.7	3.4	31.3		
M. Yr2	138	29	35	6	69	7	5	80%	100%	4	1	14	9	6	4	1.8	0.5	9.2	27.2	11	1
J. Yr3	138	29	34	5	63					0	1	16	10	6	1		5.5	1.8	29.5		
M. Yr3	138	29	37	8	62	6	6	67%	83%	3	1	18	9	5	1		6.3	6.7	34.3	8	1
J. Yr1	139	36	38	2	65					0	0	7	11	13	0	1.7	2.7	2	36.3		
M. Yr1	139	36	38	2	57	6	3	33%	67%	3	0	16	10	7	2	1.5	4.3	2.6	36.8	2	10
J. Yr2	139	36	37	1	58					5	3	17	7	7	0	1.5	0	0.4	38.2		
M. Yr2	139	36	38	2	58	6	5	20%	100%	10	4	15	9	7	6	1.4	0.3	0.3	38.3	3	18
J. Yr3	139	36	36	0	48					0	4	15	7	7	0		8.0	0.3	36.3		
M. Yr3	139	36	37	1	52	5	3	33%	100%	2	5	16	7	8	1		8.3	0.3	36.8	5	22
J. Yr1	140	35	28	-7	53					6	0	2	8	12	1	2	-1	2	31.3		
M. Yr1	140	35	34	-1	56	4	4	50%	75%	17	0	14	8	7	7	2	-0.7	14	21.4	17	0
J. Yr2	140	35	31	-4	57					3	0	15	6	7	2	2.2	-2.3	4	31		
M. Yr2	140	35	31	-4	62	4	3	67%	100%	8	0	16	6	8	3	2.1	-1.5	8.5	27.2	8	2
J. Yr3	140	35	24	-11	61					4	0	16	7	7	1		3.5	0.8	30.5		
M. Yr3	140	35	35	0	63	0	0			12	1	15	7	8	3		-1.0	1.5	31.5	3	0

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	141	36	39	3	50					1	1	-2	9	11	0	1.4	4.3	0.3	37		
M. Yr1	141	36	41	5	59	5	5	100%	80%	1	1	15	8	8	0	1.2	5.5	1.7	37	0	4
J. Yr2	141	36	39	3	58					6	0	15	7	10	0	1.4	2.7	0.1	37.6		
M. Yr2	141	36	39	3	55	6	8	88%	75%	9	1	17	8	10	0	1.3	2.0	0.5	38.3	0	3
J. Yr3	141	36	38	2	60					4	0	14	8	10	1		8.5	0.4	32.4		
M. Yr3	141	36	41	5	53	3	3	100%	67%	8	0	15	7	10	1		8.3	1.2	37.2	0	3
J. Yr1	142	15	17	2	34					0	1	4	3	8	2	2.1	-2				
M. Yr1	142	15	8	-7	43	3	5	60%	80%	4	2	18	7	5	10	2	-1.8			3	20
J. Yr2	142	15	5	-10	44					0	1	22	10	6	0	1.9	0				
M. Yr2	142	15	10	-5	46	2	2	100%	100%	0	2	19	6	8	0	1.9	-0.2			0	17
J. Yr3	142	15	14	-1	52					0	0	18	8	7	2		0.0				
M. Yr3	142	15	18	3	51	1	1	100%	100%	0	0	16	7	8	2		0.5			1	22
J. Yr1	143	29	36	7	62					1	6	-2	10	13	13	2	0	1.7	32.7		
M. Yr1	143	29	40	11	58	5	3	33%	67%	5	8	17	9	7	21	1.9	1.2	10	34	7	0
J. Yr2	143	29	37	8	63					4	6	19	8	6	7	2.1	-0.3	4.4	33.8		
M. Yr2	143	29	30	1	54	5	3	0%	100%	13	9	15	9	6	14	2.1	-0.2	7	33.8	14	0
J. Yr3	143	29	29	0	46					17	3				3		3.0				
M. Yr3	143	29	33	4	53	5	1	0%	100%	17	6	17	9	5	11		0.3	3.8	34.3	13	1
J. Yr1	144	32	42	10	49					2	0	0	10	17	0	1.2	7.3	0.3	39.3		
M. Yr1	144	32	42	10	58	3	4	50%	100%	6	1	18	4	9	0	1.1	7.7	1	39	0	4
J. Yr2	144	32	42	10	56					0	2	18	7	9	0	1.1	1.7	0	37		
M. Yr2	144	32	42	10	62	3	3	0%	100%	0	3	18	5	9	0	1.1	1.5	0	41	2	4
J. Yr3	144	32	41	9	51					1	3	18	5	9	0		9.5	0	31		
M. Yr3	144	32	42	10	61	4	3	33%	100%	2	4	18	6	7	0		9.8	0.0	37.0	2	2

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	145	28	33	5	64					3	2	1	9	12	15	2.1	-1.7	2.4	35		
M. Yr1	145	28	34	6	68	3	6	83%	67%	9	8	19	8	5	21	2.1	-1.3	7.1	34	0	2
J. Yr2	145	28	28	0	72					0	6	15	6	6	13	2.2	-1	8.3	32.1		
M. Yr2	145	28	17	-11	74	2	3	33%	67%	5	10	17	7	4	25	2.1	-0.7	7.8	29.7	1	1
J. Yr3	145	28	29	1	70					6	5	19	7	7	4		4.0	1.6	31.3		
M. Yr3	145	28	30	2	68	3	5	40%	60%	8	6	19	8	4	10		2.0	5.4	30.9	3	0
J. Yr1	146	33	36	3	67					0	2	1	10	11	0	1.5	2.7	2.7	32.8		
M. Yr1	146	33	37	4	76	3	1	0%	100%	8	2	16	7	8	6	1.5	3.7	5	34.4	1	2
J. Yr2	146	33	33	0	72					3	2	14	7	7	4	2.2	-2.3	2.7	32.5		
M. Yr2	146	33	31	-2	71	5	4	50%	75%	5	4	15	8	8	6	2.1	-1.7	5.3	28.5	8	0
J. Yr3	146	33	31	-2	65					5	3	15	8	8	5		-0.5	1.7	30.1		
M. Yr3	146	33	39	6	62	5	2	50%	100%	9	4	17	6	8	16		-1.5	1.1	31.7	13	0
J. Yr2	147		36		69					0	1	15	4	3	1	1.6	1.3	2.5	33.8		
M. Yr2	147		35		60	0	0			0	1	14	4	9	2	1.4	1.7			7	2
J. Yr3	147		32		51					0	0	11	2	8	1		5.5				
M. Yr3	147		35		62	0	0			1	0	10	1	5	1		5.8	7.0	34.0	5	1
J. Yr1	148	38	39	1	56					0	0	2	10	17	0	1.3	4	1.8	32.9		
M. Yr1	148	38	41	3	54	4	6	67%	100%	0	0	17	10	10	0	1.3	5.2	3.7	35.9	1	7
J. Yr2	148	38	40	2	55					0	0	17	8	10	0	1.5	2	0.1	37.4		
M. Yr2	148	38	41	3	59	5	4	50%	100%	1	0	16	8	10	0	1.4	1.7	0.2	36	0	2
J. Yr3	148	38	41	3	56					0	0	18	9	10	0		9.5	0.4	35.9		
M. Yr3	148	38	42	4	54	5	3	67%	100%	3	0	19	8	9	0		9.3	1.2	37.7	1	12

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	149	33	36	3	71					2	1	0	11	9	2	1.8	1.3	3	31.8		
M. Yr1	149	33	35	2	73	6	3	33%	67%	8	1	14	8	7	6	1.8	0.8	9.3	32.8	0	1
J. Yr2	149	33	31	-2	69					5	0	13	9	4	6	2.0	-1.3	5	29.5		
M. Yr2	149	33	31	-2	72	4	1	0%	100%	9	2	14	7	6	23	1.9	-1.0	10.8	26.3	2	0
J. Yr3	149	33	34	1	67					3	2	14	7	5	4		1.5	1.3	28.7		
M. Yr3	149	33	36	3	67	5	2	50%	100%	4	3	18	7	6	10		2.0	1.6	33.0	11	0
J. Yr1	150	32	38	6	52					1	0	4	2	11	0	1.4	6	0	42		
M. Yr1	150	32	38	6	51	5	9	56%	89%	6	4	15	3	8	1	1.4	6.5	0.5	41	0	12
J. Yr2	150	32	35	3	49					3	1	16	4	7	0	1.3	0.7	0.3	37.7		
M. Yr2	150	32	35	3	44	4	3	33%	67%	3	1	16	2	7	0	1.2	0.5	0	39	5	18
J. Yr3	150	32	37	5	39					0	0	17	6	10	0		9.5	0	36.3		
M. Yr3	150	32	37	5	45	2	3	67%	67%	4	0	15	4	9	0		8.3	0.0	38.8	4	17
J. Yr1	151	28	18	-10	53					0	1	0	8	11	35	2.1	-3	1	34		
M. Yr1	151	28	21	-7	50	5	7	57%	57%	4	15	13	3	0	66	2.2	-2.2	7.5	34.5	10	6
J. Yr2	151	28	21	-7	57					1	4	18	8	5	40	2.5	-2	6.2	32.6		
M. Yr2	151	28	4	-24	48	5	3	67%	100%	6	11	16	6	2	88	2.7	-2.8	9.5	33	10	6
J. Yr3	151	28	5	-23	53					11	9	7	7	2	15		-6.5	2	31		
M. Yr3	151	28	19	-9	51	2	1	0%	100%	19	24	11	6	1	32		-6.3	7.5	32.3	3	3
J. Yr1	152	28	39	11	65					4	0	2	11	14	1	1.4	1.3	4.4	35.8		
M. Yr1	152	28	37	9	64	4	6	50%	83%	12	0	17	10	8	4	1.5	3.2	7.4	34.4	2	2
J. Yr2	152	28	34	6	62					1	0	16	10	8	2	1.7	1	4	35		
M. Yr2	152	28	33	5	64	5	6	50%	83%	2	1	16	9	7	5	1.5	0.5	9	27.3	2	7
J. Yr3	152	28	34	6	61					0	2	15	9	6	3		5.5	2.3	34.3		
M. Yr3	152	28	38	10	61	4	4	50%	75%	0	3	16	10	9	4		7.3	5.0	32.0	4	0

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	153	29	30	1	50					1	0	0	11	15	7	1.9	-1	1.5	33		
M. Yr1	153	29	33	4	59	3	3	67%	67%	1	1	17	7	7	15	2	-1.2	1.5	36	12	1
J. Yr2	153	29	30	1	56					1	7	17	7	6	18	2.3	-1.7				
M. Yr2	153	29	29	0	58	5	2	0%	100%	7	19	19	6	6	26	2.3	-1.8			13	0
J. Yr3	153	29	28	-1	52					2	1	18	6	5	2		-3.0	0	32		
M. Yr3	153	29	30	1	55	1	2	0%	100%	9	8	16	6	6	7		-5.0	6.5	26.5	8	1
J. Yr1	154	31	37	6	47					0	0	1	4	12	0	1.3	6.3	1	38		
M. Yr1	154	31	40	9	41	5	7	57%	71%	8	0	19	8	8	0	1.3	5.3	2	38	1	16
J. Yr2	154	31	39	8	46					1	1	18	9	10	0	1.2	1	0.5	36.5		
M. Yr2	154	31	39	8	49	4	3	33%	67%	4	1	18	9	9	0	1.1	1.2	0	36	2	19
J. Yr3	154	31	38	7	39					3	0	20	8	9	0		10.0	0	34.5		
M. Yr3	154	31	38	7	44	6	3	67%	67%	6	0	18	8	9	0		10.3	0.0	37.3	4	20
J. Yr1	155	23	24	1	54					3	0	-4	11	13	6	1.8	0.3	2.3	25		
M. Yr1	155	23	30	7	59	5	5	20%	100%	8	1	21	6	7	11	1.9	1.7	10	29.5	0	8
J. Yr2	155	23	19	-4	61					1	0	15	8	6	3	1.9	-0.3	1	31		
M. Yr2	155	23	20	-3	62	6	3	33%	100%	7	3	15	8	7	7	2.0	-1.0	4.3	24.3	2	19
J. Yr3	155	23	24	1	61					8	3	15	9	8	4		-3.0	2.2	27.7		
M. Yr3	155	23	25	2	59	6	1	0%	100%	14	3	17	7	9	7		-4.5	3.7	29.8	0	19
J. Yr1	156	27	37	10	71					0	0	1	10	11	3	1.4	5	2.4	34.9		
M. Yr1	156	27	36	9	67	5	7	86%	71%	4	3	17	9	8	4	1.4	4.7	1.7	37.7	0	1
J. Yr2	156	27	40	13	63					0	0	15	8	9	0	1.3	0.3	1	34.6		
M. Yr2	156	27	37	10	66	5	5	60%	100%	2	2	15	6	8	0	1.2	0.3	2.5	36.7	0	5
J. Yr3	156	27	30	3	56					1	2	16	8	7	0		4.5	0	37		
M. Yr3	156	27	33	6	65	5	6	67%	100%	6	4	17	8	6	0		2.3	1.7	37.9	1	2

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	157	33	39	6	62					1	0	2	9	15	1	1.3	3.7	3.4	33.4		
M. Yr1	157	33	40	7	72	6	5	0%	100%	7	0	16	6	10	2	1.2	5.7	5.4	34.5	1	0
J. Yr2	157	33	38	5	73					1	1	14	9	8	0	1.4	2	3.1	33.6		
M. Yr2	157	33	35	2	74	6	5	40%	100%	5	1	14	10	8	0	1.3	2.0	5.9	30.1	0	0
J. Yr3	157	33	34	1	74					5	1	12	10	9	0		9.0	1.9	30.3		
M. Yr3	157	33	35	2	69	4	7	57%	100%	10	1	12	10	9	0		8.5	2.8	32.2	0	1
J. Yr1	158	37	42	5	54					1	1	0	10	16	0	1.2	6.3	1	40.3		
M. Yr1	158	37	41	4	56	5	9	89%	78%	2	4	14	9	10	2	1.1	5.8	2	38.5	0	2
J. Yr2	158	37	39	2	62					0	2	18	8	9	0	1.1	2.7	0.7	39		
M. Yr2	158	37	41	4	61	5	4	100%	75%	2	3	17	8	9	0	1.1	1.5	0.6	38.4	2	1
J. Yr3	158	37	39	2	51					1	3	16	8	9	0		10.0	0.2	35		
M. Yr3	158	37	42	5	64	4	4	75%	100%	6	3	13	8	10	0		10.0	0.3	37.4	2	1
J. Yr1	159	33	37	4	57					1	1	2	7	10	0	1.5	3	0.5	38.5		
M. Yr1	159	33	34	1	57	5	3	33%	100%	1	1	14	9	6	0	1.5	4	5.3	36.8	2	1
J. Yr2	159	33	35	2	55					0	0	19	8	8	0	1.5	1.7	0	39.4		
M. Yr2	159	33	32	-1	50	4	2	0%	100%	6	0	19	7	6	0	1.6	1.0	0.3	34	1	16
J. Yr3	159	33	32	-1	56					0	0	20	8	6	0		5.0	0.8	34.6		
M. Yr3	159	33	34	1	53	2	1	0%	100%	0	0	16	7	7	1		4.0	7.0	30.0	0	19
J. Yr1	160	35	36	1	72					6	2	-4	11	7	6	1.7	3.7	4.1	35.2		
M. Yr1	160	35	38	3	78	6	4	50%	100%	9	4	18	7	5	12	1.7	3.5	10	33.4	0	0
J. Yr2	160	35	34	-1	71					0	1	19	8	5	5	1.7	0.7	1.8	36.7		
M. Yr2	160	35	36	1	70	5	6	50%	100%	0	1	15	7	7	9	1.5	0.5	3.9	34.8	0	0
J. Yr3	160	35	33	-2	57					3	2				2		3.0				
M. Yr3	160	35	39	4	61	5	3	67%	100%	5	4	15	7	8	12		3.5	2.5	33.4	1	6

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	161	20	17	-3	43					5	4	0	12	12	13	2	1				
M. Yr1	161	20	21	1	44	3	4	100%	25%	22	14	14	6	2	30	2.1	1.5	2	39	1	12
J. Yr2	161	20	13	-7	46					13	3	16	8	6	1	2.0	-0.5	6	33		
M. Yr2	161	20	8	-12	48	4	4	100%	25%	23	11	13	8	3	9	2.2	-0.3	6.5	34.5	2	8
J. Yr3	161	20			45					14	17				0		-6.0				
M. Yr3	161	20	8	-12	48	1	1	100%	0%	30	27	19	8	4	4		-7.8	0.5	37.5	4	13
J. Yr1	162	23	28	5	71					1	0	4	10	13	3	2	-2	2.6	33.7		
M. Yr1	162	23	28	5	68	5	7	71%	71%	4	1	14	8	7	9	1.9	1.2	6.5	32.8	0	0
J. Yr2	162	23	27	4	59					1	0	15	7	7	3	2.2	-1	4	29.2		
M. Yr2	162	23	24	1	65	3	4	75%	75%	4	2	12	10	7	7	2.0	-0.8	4.6	28.7	15	1
J. Yr3	162	23	29	6	60					1	0	15	7	6	0		-1.5	1.3	30.2		
M. Yr3	162	23	31	8	63	3	3	67%	100%	3	0	15	7	9	0		-2.0	3.4	30.9	17	0
J. Yr1	163	27	29	2	45					1	0	-2	9	12	1	1.8	0	6	24		
M. Yr1	163	27	33	6	47	5	5	60%	60%	8	4	11	8	8	5	1.8	2.2	6	31	3	2
J. Yr2	163	27	28	1	56					2	0	13	9	8	2	1.8	0.3	1	29		
M. Yr2	163	27	27	0	52	6	7	71%	71%	7	1	13	7	6	3	1.7	-0.3	7.5	21.3	6	9
J. Yr3	163	27	29	2	54					2	1	12	8	8	1		-1.0	3	18		
M. Yr3	163	27	29	2	43	5	3	67%	100%	4	1	15	9	8	3		-1.0	4.5	22.0	5	4
J. Yr1	164	25	32	7	65					7	1	2	11	12	1	1.9	0.3	4.3	30.5		
M. Yr1	164	25	33	8	68	3	3	67%	100%	19	3	16	9	3	4	1.9	1	4.7	35	3	0
J. Yr2	164	25			68					25	4	18	7	0	1	2.3	-3	3.6	30.8		
M. Yr2	164	25	12	-13	72	2	3	100%	67%	50	11	17	6	1	11	2.3	-2.3	7	29.1	9	0
J. Yr1	165	19	17	-2	59					16	1	0	9	4	2	2	-1.3				
M. Yr1	165	19	5	-14	61	3	2	50%	50%	29	3	11	2	2	11	2	-0.5	10	34.5	4	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	166	32	34	2	51					0	4	-1	3	13	1	1.2	5.3				
M. Yr1	166	32	37	5	53	4.5	8	88%	50%	0	4	14	9	8	2	1.2	6	2	40	1	3
J. Yr2	166	32	36	4	47					2	3	14	8	10	1	1.9	-0.3	0	39		
M. Yr2	166	32	35	3	51	5	4	75%	50%	4	4	16	9	8	2	1.7	-0.2	6.7	27.7	1	5
J. Yr3	166	32	33	1	45					2	0	16	8	9	0		5.5	1.5	33.5		
M. Yr3	166	32	36	4	51	1	1	0%	100%	11	0	17	7	9	0		7.3	1.7	29.7	4	5
J. Yr1	167	35	40	5	64					8	0	0	10	8	2	1.7	4.3	4	32.9		
M. Yr1	167	35	39	4	64	6	3	0%	100%	17	0	14	9	3	3	1.6	4.7	9.3	33.7	0	0
J. Yr2	167	35	34	-1	64					4	1	17	10	4	1	1.8	0.7	6	31.8		
M. Yr2	167	35	34	-1	61	6	2	0%	100%	15	2	14	8	3	4	1.7	0.4	5.4	33.9	5	2
J. Yr3	167	35			53					16	1				1		-0.5				
M. Yr3	167	35	35	0	59	4	2	0%	100%	19	2	17	7	2	3		0.5	1.6	31.8	1	1
J. Yr1	168	36	40	4	64					0	0	0	11	14	1	1.3	4.7	3.9	34.5		
M. Yr1	168	36	41	5	64	6	7	71%	43%	3	0	19	8	8	1	1.3	5.8	9	31.6	1	3
J. Yr2	168	36	38	2	64					0	0	20	10	9	0	1.5	1.7	11	29.9		
M. Yr2	168	36	36	0	64	2	3	67%	33%	1	1	17	7	6	0	1.4	1.5	9.9	31.3	1	1
J. Yr3	168	36	39	3	63					0	0	18	7	7	0		9.5	2.3	32.8		
M. Yr3	168	36	38	2	58	2	1	0%	100%	0	0	19	6	8	1		9.5	8.0	30.9	0	0
J. Yr1	169	25	28	3	61					4	0	7	10	7	4	1.9	0	6.3	34.8		
M. Yr1	169	25	19	-6	60	4	5	80%	60%	13	8	18	9	3	7	1.9	1.2	10	36.7	2	1
J. Yr2	169	25	23	-2	62					6	1	20	4	1	15	2.5	-2.3	14	31		
M. Yr2	169	25	20	-5	60	4	9	56%	67%	17	4	12	5	4	36	2.4	-2.0			9	4
J. Yr3	169	25	22	-3	54					7	3	24	8	5	9		1.0	4.5	28.7		
M. Yr3	169	25	22	-3	51	4	3	33%	67%	13	11	12	7	5	14		0.3	3.3	33.7	12	4

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	170	33	38	5	34					0	0	0	5	16	1	1.3	4.3				
M. Yr1	170	33	38	5	45	3	4	75%	75%	5	0	14	3	10	2	1.3	5.2			2	29
J. Yr2	170	33	40	7	50					0	0	21	3	9	0	1.4	1.7	3	33.3		
M. Yr2	170	33	37	4	56	1	2	100%	100%	4	0	16	5	9	0	1.3	1.5	9.6	30.2	0	26
J. Yr3	170	33	37	4	54					1	0	12	3	7	0		8.0	3.2	25.8		
M. Yr3	170	33	41	8	58	1	1	100%	100%	1	0	13	3	8	0		9.0	7.3	25.0	0	24
J. Yr1	171	30	35	5	59					0	0	4	10	15	2	1.6	5	1.5	39.5		
M. Yr1	171	30	36	6	62	2	6	67%	100%	2	1	15	8	10	4	1.6	4.8	2	36.4	3	0
J. Yr2	171	30	34	4	61					2	0	18	8	8	0	1.7	0.3	1	34.5		
M. Yr2	171	30	35	5	62	3	3	100%	67%	12	0	15	9	6	1	1.6	0.2	6.6	33	7	0
J. Yr3	171	30	28	-2	42					1	0	18	7	6	0		0.0	1	32		
M. Yr3	171	30	35	5	53	7	4	75%	50%	2	0	13	7	6	4		0.3	3.7	33.5	16	2
J. Yr1	172	24	25	1	49					7	0	-4	11	9	1	1.9	1.3	6	24		
M. Yr1	172	24	28	4	53	5	3	0%	100%	12	1	16	7	8	4	1.9	1.8	9	35	1	5
J. Yr2	172	24	22	-2	55					0	0	14	7	9	0	1.6	-0.3	1	32.5		
M. Yr2	172	24	22	-2	57	5	2	50%	100%	1	0	12	6	8	0	1.4	0.5	4.5	35	2	12
J. Yr3	172	24	27	3	57					0	0	11	9	9	0		8.0	3.5	28.5		
M. Yr3	172	24	28	4	57	3	3	67%	100%	0	0	12	9	8	0		7.3	5.0	29.5	0	3
J. Yr1	173	31	33	2	49					10	0	-2	8	9	0	1.5	3.7				
M. Yr1	173	31	36	5	58	2	1	0%	100%	14	5	16	2	7	1	1.6	3	4	36	2	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	174	34	37	3	60					0	0	2	12	16	4	1.6	2	4.5	33.8		
M. Yr1	174	34	34	0	59	6	5	80%	60%	0	0	19	9	10	7	1.7	2.7	19	33.8	1	7
J. Yr2	174	34	37	3	66					5	0	17	7	10	3	1.7	-0.3	10	30.6		
M. Yr2	174	34	36	2	61	7	3	67%	67%	12	0	20	8	10	7	1.7	0.0	7.2	31.7	0	8
J. Yr3	174	34	38	4	60					0	0	19	9	10	3		7.0	1.8	34.2		
M. Yr3	174	34	36	2	62	6	7	57%	86%	0	0	18	8	8	5		7.3	8.3	30.0	0	3
J. Yr1	175	30	27	-3	54					8	0	-5	8	13	3	1.7	0.7	3.5	34.5		
M. Yr1	175	30	28	-2	64	1	2	100%	50%	25	0	17	7	8	5	1.8	0.7	4.5	37.5	1	2
J. Yr2	175	30	30	0	59					5	0	20	8	7	1	1.7	1	0.5	38.8		
M. Yr2	175	30	32	2	63	5	6	67%	83%	13	0	18	7	6	1	1.6	0.7	0.1	38	1	2
J. Yr3	175	30	32	2	56					4	0	17	10	5	1		-0.5	2.3	34.4		
M. Yr3	175	30	34	4	60	4	4	50%	100%	7	0	18	8	6	3		1.0	1.6	38.2	1	7
J. Yr1	176	37	42	5	60					1	0	1	7	12	0	1.2	4	0.5	37.5		
M. Yr1	176	37	41	4	66	6	7	71%	71%	6	0	14	3	7	0	1.2	5.3	3	37	0	1
J. Yr2	176	37	40	3	63					0	0	15	8	8	0	1.4	3	0	39		
M. Yr2	176	37	38	1	67	5	6	67%	100%	0	0	16	6	7	0	1.3	2.3	2.8	32.2	1	3
J. Yr3	176	37	41	4	65					2	0	16	7	7	0		8.5	1.2	34.6		
M. Yr3	176	37	40	3	64	5	3	67%	100%	2	1	17	5	8	0		8.8	4.3	35.0	0	2
J. Yr1	177	30	33	3	54					1	0	1	4	7	0	1.4	2	0.3	38.5		
M. Yr1	177	30	32	2	53	6	7	71%	71%	2	0	16	5	7	5	1.6	2.8	1.2	37.2	1	0
J. Yr2	177	30	36	6	53					0	0	17	7	7	0	1.6	0.3	0.1	38		
M. Yr2	177	30	29	-1	57	5	6	83%	67%	5	0	18	7	8	0	1.6	0.2	8	33	0	10
J. Yr3	177	30	32	2	54					0	1	18	9	6	1		5.5	0.2	37.6		
M. Yr3	177	30	36	6	54	3	3	100%	67%	3	3	17	7	8	3		3.0	0.3	35.8	1	15

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	178	27	29	2	61					1	1	-4	10	12	4	1.7	2.3	8.7	33.3		
M. Yr1	178	27	32	5	63	5	3	0%	100%	3	1	15	10	7	12	1.8	2.3	17	31.7	7	1
J. Yr2	178	27	25	-2	44					0	2	15	8	8	5	1.9	-4	6	27		
M. Yr2	178	27	27	0	53	4	4	50%	100%	7	2	13	9	8	8	1.9	-2.3	16	19.6	23	0
J. Yr3	178	27	22	-5	48					4	4	14	8	4	1		1.5	1.5	20.3		
M. Yr3	178	27	30	3	53	5	3	33%	67%	8	4	15	10	4	2		1.3	2.8	30.0	15	0
J. Yr1	179	34	35	1	65					2	1	-1	10	9	2	1.8	4.7	3.2	34.4		
M. Yr1	179	34	35	1	67	5	3	0%	100%	5	1	16	10	7	5	1.6	5.3	11	34.6	1	0
J. Yr2	179	34	31	-3	60					13	2	20	9	3	1	2.0	0	4.3	32.5		
M. Yr2	179	34	31	-3	59	5	3	33%	100%	19	7	19	9	6	2	1.8	1.0	6.6	33	0	0
J. Yr3	179	34	27	-7	46					8	3	19	9	5	1		4.0	0.3	26.3		
M. Yr3	179	34	29	-5	54	5	1	0%	100%	12	3	18	9	3	2		5.0	1.6	33.7	0	2
J. Yr1	180	30	35	5	62					1	1	-1	11	13	5	1.9	-2.7	3.5	30.8		
M. Yr1	180	30	34	4	56	5	8	50%	88%	4	4	17	8	9	18	1.9	-0.3	6.3	33	7	1
J. Yr2	180	30	32	2	57					1	2	16	8	7	11	2.1	-0.7	6	31		
M. Yr2	180	30	30	0	59	0	0			3	4	13	8	9	23	1.9	-0.7	12.5	24.3	8	5
J. Yr3	180	30			48					11	3	16	8	6	3		-2.0	4.3	27		
M. Yr3	180	30	32	2	49	3	2	50%	100%	20	6	16	10	6	3		0.3	5.0	33.7	5	9
J. Yr1	181	27	21	-6	59					1	0	4	11	14	5	1.9	-0.3	5.3	30		
M. Yr1	181	27	26	-1	59	6	6	67%	83%	4	0	18	9	7	15	2	0.3	13	31	3	0
J. Yr2	181	27	21	-6	61					2	0	18	9	9	6	1.9	-1.5	3.3	22.7		
M. Yr2	181	27	16	-11	64	5	3	0%	100%	7	1	14	9	7	12	2.0	-1.5	15	18.5	3	0
J. Yr3	181	27	12	-15	64					0	0	19	9	6	2		-3.0	4.6	27.2		
M. Yr3	181	27	19	-8	60	6	5	60%	100%	4	0	15	7	7	2		-4.0	6.6	31.4	3	1

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	182	24	21	-3	56					1	2	1	12	11	2	1.8	0.7	0.8	34.8		
M. Yr1	182	24	27	3	63	3	4	50%	50%	1	5	14	9	5	9	1.9	-1	15	27.3	5	8
J. Yr2	182	24	24	0	63					1	1	14	8	8	1	2.0	-1.7	5.5	31		
M. Yr2	182	24	24	0	65	3	1	0%	100%	5	2	14	6	6	7	2.0	-1.7	8	26.1	6	13
J. Yr3	182	24	26	2	66					2	1	18	6	4	1		-3.5	1	30.1		
M. Yr3	182	24	26	2	65	2	3	67%	67%	3	3	16	6	7	1		-4.0	1.3	30.3	1	18
J. Yr1	183	27	32	5	69					0	4	-1	10	13	1	1.7	1.7	4.1	33.3		
M. Yr1	183	27	34	7	66	6	3	33%	100%	2	4	17	8	3	3	1.7	3.3	11	35.2	4	0
J. Yr2	183	27	31	4	59					0	1	18	9	5	3	1.9	-0.7	3.7	34		
M. Yr2	183	27	28	1	58	4	2	0%	100%	0	1	19	6	5	5	1.7	-0.2	6	33.6	12	0
J. Yr3	183	27	29	2	42					0	0	18	9	6	0		5.0	0.5	28.5		
M. Yr3	183	27	31	4	47	6	2	0%	100%	2	0	17	9	4	0		6.0	2.0	33.6	12	2
J. Yr1	184	33	29	-4	55					10	1	-2	10	7	8	1.8	1.3	4.5	27		
M. Yr1	184	33	32	-1	53	3	2	50%	50%	11	2	15	5	6	18	1.9	1	5.5	34.3	10	9
J. Yr2	184	33	27	-6	56					12	0	13	7	6	4	1.9	-0.3	7.5	26		
M. Yr2	184	33	25	-8	63	3	1	0%	100%	20	1	14	7	8	9	1.9	-0.5	12.2	24	6	8
J. Yr3	184	33	27	-6	50					2	2	13	7	7	2		1.5	0	39		
M. Yr3	184	33	29	-4	50	5	1	0%	100%	5	3	13	6	7	6		1.5	1.0	25.0	2	11
J. Yr1	185	33	27	-6	66					3	2	3	10	13	2	1.6	3.3	7.8	30.5		
M. Yr1	185	33	34	1	63	4.5	5	60%	100%	4	3	17	10	8	6	1.6	4.3	5.4	36	0	0

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	186	31	33	2	65					5	1	3	11	16	4	2	-1.7	4.7	34.6		
M. Yr1	186	31	35	4	70	5	6	83%	67%	8	2	16	7	7	8	1.8	0.2	17	31.9	0	2
J. Yr2	186	31	29	-2	68					2	0	18	8	7	10	1.9	0	6.5	21.5		
M. Yr2	186	31	29	-2	68	3	5	80%	40%	8	2	17	9	9	12	1.9	0.2	6.3	30.8	2	1
J. Yr3	186	31	31	0	68					1	2	20	10	8	2		7.0	3.6	30.3		
M. Yr3	186	31	36	5	68	2	2	0%	100%	2	4	16	10	7	2		5.5	5.1	33.6	1	0
J. Yr1	187	36	39	3	59					0	0	0	11	14	1	1.4	4.3	1	33.7		
M. Yr1	187	36	40	4	62	5	7	57%	86%	0	4	18	9	8	1	1.3	4.8	4.8	34.3	0	1
J. Yr2	187	36	36	0	62					1	1	14	10	8	1	1.4	2	1.6	27		
M. Yr2	187	36	35	-1	63	4	5	60%	80%	1	6	17	10	9	2	1.3	1.7	7.6	26.4	1	1
J. Yr3	187	36	39	3	63					2	9	15	9	9	1		8.5	5	25		
M. Yr3	187	36	38	2	62	7	5	80%	80%	7	16	14	9	9	1		8.0	6.8	31.6	1	2
J. Yr1	188	31	33	2	59					2	0	-2	6	9	4	1.9	-1	1	32.5		
M. Yr1	188	31	30	-1	67	5	7	43%	86%	9	1	13	10	6	13	2	-0.2	8.9	31.4	6	1
J. Yr2	188	31	30	-1	71					2	1	16	9	5	8	2.0	0	3.2	30.8		
M. Yr2	188	31	28	-3	71	6	4	75%	50%	7	2	15	8	8	21	2.1	-0.8	8.8	27.1	5	9
J. Yr3	188	31	29	-2	66					2	0	14	9	5	1		-0.5	0.4	30.6		
M. Yr3	188	31	29	-2	62	7	4	50%	75%	10	2	13	8	4	1		-4.5	1.1	34.9	4	9
J. Yr1	189	30	31	1	52					3	9	1	6	7	6	2	0.3	3	30.5		
M. Yr1	189	30	29	-1	54	5	5	80%	80%	4	21	13	7	5	17	2	-0.7	6.7	31.7	2	14
J. Yr2	189	30	12	-18	58					2	4	16	9	2	5	2.1	-2.3	3	30.7		
M. Yr2	189	30	14	-16	63	3	3	100%	67%	6	9	9	4	4	22	2.1	-2.3	7.5	27.8	1	16
J. Yr3	189	30	26	-4	59					0	3	13	6	5	6		-5.0	2.5	27		
M. Yr3	189	30	31	1	60	1	1	0%	100%	3	8	12	7	6	13		-5.0	3.3	29.0	3	8

	No.	Ability	C.Ex	Diff.	Social	E.C (D)	E.C (#)	I v T	C v N	Atten.	Lates	Attr.	Soc.Est	Ac.Est	P.Points	RBG	RBC	FPP	FER	Bully	Victim
J. Yr1	190	17	10	-7	67					6	4	0	11	12	6	2.2	-2.3	4.5	33.3		
M. Yr1	190	17	12	-5	63	3	3	67%	33%	14	10	21	10	6	24	2.1	-1.8	8.8	33.8	9	0
J. Yr2	190	17	4	-13	62					2	4	20	8	5	13	2.5	-1.7	7	27.3		
M. Yr2	190	17	4	-13	58	4	5	60%	60%	15	9	17	8	3	26	2.4	-1.0	9	28	23	0
J. Yr3	190	17	10	-7	59					4	13	21	10	4	3		-2.5	2.5	25.5		
M. Yr3	190	17	12	-5	58	3	5	40%	60%	18	31	18	9	6	4		-2.0	9.7	29.7	9	1
J. Yr1	191	34	37	3	70					0	0	-1	11	12	3	1.3	6.7	1.1	35.8		
M. Yr1	191	34	36	2	67	6	2	50%	100%	3	0	15	10	7	4	1.4	5.7	2	37.3	2	0
J. Yr2	191	34	34	0	63					3	0	16	10	8	1	1.7	-0.7	1.2	33.4		
M. Yr2	191	34	37	3	65	3	7	57%	100%	11	0	15	4	4	1	1.6	-0.2	3.8	34.6	10	0
J. Yr3	191	34	26	-8	47					2	1	13	3	2	0		5.0				
M. Yr3	191	34	32	-2	53	3	6	50%	83%	6	1	12	8	6	0		0.0	0.0	31.0	19	2
J. Yr1	192	29	37	8	61					4	0	0	5	10	0	1.4	5	1.5	38		
M. Yr1	192	29	37	8	57	3	9	56%	67%	12	0	15	8	9	0	1.4	5.7	10	36.3	1	6
J. Yr2	192	29	39	10	58					5	0	15	9	9	0	1.4	2	6.5	32.8		
M. Yr2	192	29	37	8	60	5	6	67%	50%	13	2	15	7	9	0	1.3	2.3	20.3	26.4	1	4
J. Yr3	192	29			62					13	2				0		8.5				
M. Yr3	192	29			53	0	0			85	2				0		5.0			1	4