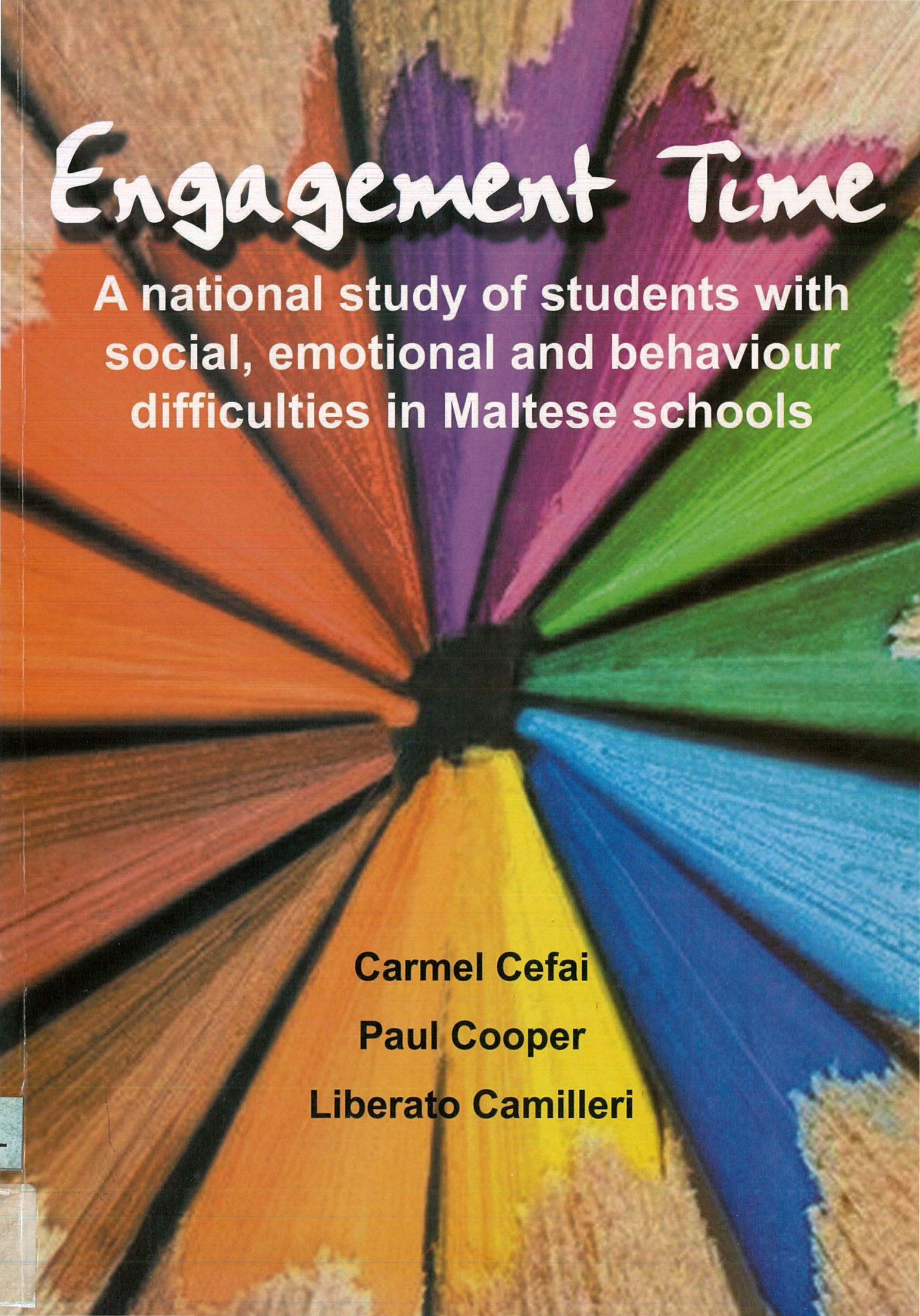
Engagement Time
A national study of students with social, emotional and behaviour difficulties in Maltese schools
Carmel Cefai
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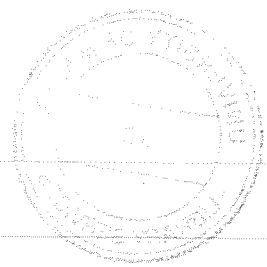

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The Authors

CARMEL CEFAI is a lecturer in psychology at the Faculty of Education and Director of the European Centre for Educational Resilience and Socio-Emotional Health, University of Malta. He studied education and psychology in various universities in Malta and the UK, completing his PhD studies on educational resilience at the University of London. He is co-chair of the European Network for Social and Emotional Competence. His research interests include social, emotional and behaviour difficulties in school children, educational resilience and socio-emotional health in childhood and adolescence.

PAUL COOPER is a professor of education at the School of Education, University of Leicester, UK, and previous Director of the School of Education and the Centre for Innovation in Raising Educational Achievement at the University of Leicester. He is co-chair of the European Network for Social and Emotional Competence. He has published widely on the topic of social, emotional and behavioural difficulties in schools, and he is editor of the quarterly international journal *Emotional, Behavioural Difficulties*. His research interests include social, emotional and behaviour difficulties, and ADHD.

LIBERATO CAMILLERI is a lecturer in statistics at the Statistics Department at the University of Malta. He studied Mathematics and Statistics at the University of Malta, and received his PhD in Applied Statistics in 2005 from Lancaster University. His research specialization areas are related to statistical models, which include Generalized Linear models, Latent Class models, Multi-Level models and Random Coefficient models.

Foreword

Listening to students, their parents and professionals working in schools has brought us to a profound awareness of the need for an integrated, multi-faceted approach to educational provision. Many are asking and recognising the need of new methodologies and services to cater not solely for the academic needs of students, but also to address the holistic development of the student as a person, as a citizen in a country that is experiencing social and economic growth. The Maltese educational system, in the form of Colleges and Directorates is committed to supporting an educational system that helps each and every child remain in school, achieve the best level of skills possible according to their potential. We want our students to have the skills, attributes, qualifications and opportunities they need to succeed.

The reality we experience in our Colleges is that each and every child brings with them a wealth of experience that often enhances the teaching and learning process. The reality we experience in our schools also teaches us that a number of children are influenced by a number of factors that interfere in their learning journey and often impede the acquisition of skills and attitudes that allow them to grow healthily in a calm and serene manner. Educators have often discussed the reality of challenging behaviour and while the majority of children go to school every day and benefit fruitfully from the educational provision they receive, a number of students struggle with the pain they hold within that creates obstacles and often manifests itself in challenging behaviour. Stakeholders often end up trying to find the cause of this behaviour. Services and programmes are developed in order to help such students access education in the best way possible. However, a vacuum of data and analysis of such data has impeded further growth in this area.

Cefai, Cooper and Camilleri's work is undoubtedly not only an asset to Malta's educational system but provides a sound basis that needs to be discussed, reflected upon and translated into strategic frameworks of policy and services. Quality educational systems require strong leadership and governance, effective teaching and learning processes and well-planned services that are based on profound research. This study will form part of the development of our schools in years to come. The Directorate for Educational Services augurs that all educators critically reflect on this study and work towards entrenching the findings and recommendations into services and programmes that solely aim at making schools more relevant to students who manifest challenging behaviour.

Educators are often troubled when faced with a child who manifests behaviour that is challenging. It is not solely the behaviour itself that troubles educators, but more so the fact that a child is evidently not happy with life. It is our hope that this study serves as a tool for us educators to understand this reality further and work together to improve current services and provision that ultimately leads to the success of each and every child.

Micheline Sciberras

Director General

Directorate for Educational Services

1

Introduction

Behaviour difficulties in schools, such as defiant and oppositional behaviour, violence, anti social behaviour and bullying, have become an increasing cause for concern in many countries, including Malta. The increase in the frequency of these difficulties is reflected in epidemiological studies (Rutter and Smith 1995) and in the international literature on behaviour problems and exclusion from schools (Cooper *et al.* 2000; Mooij 1999; Parsons 1999). Currently, taking the widest definition of social, emotional and behavioral difficulties (SEBD), it is estimated that between ten to twenty percent of school aged children experience significant problems of these kinds at any time (BMA 2006; Young Minds 1999).

The various episodes of behaviour difficulties which occurred in Maltese schools in recent years have put this issue high at the top of the agenda of the local educational authorities, school staff and teachers' union (Cefai and Cooper 2006; MUT 2006; Office of the Commissioner for Children 2006; Sciberras 2006). These episodes have been followed by an intense debate about the nature and causes of such difficulties and the most effective ways for responding to the difficulties. The debate has been frequently characterised by divergent views, entrenched positions and blaming approaches. Issues of lack of respect towards adults, of children having too many rights, of changing values leading to a more permissive society, crossed fire with positions asserting the right of children and young people to have a say in decisions affecting their lives, and the need for schools to become more emancipatory, democratic and empowering social organisations. The traditional debates of nature versus nurture and who is to blame for children's difficulties, of inclusion versus segregation and exclusion, of discipline and authority versus positive behaviour management, raised their heads again. Suggestions for the introduction of reactive strategies such as harsher discipline, exclusion and segregation for difficult children contrasted with more preventative ones such as staff training and education, parent training and support, and curricular review and restructuring of the educational system, amongst others.

The lack of local data, however, constituted a barrier to effective interventions to prevent the rising problem from further exacerbation and to tackle it at its roots. For instance, the lack of epidemiological data on the distribution and nature of SEBD in Maltese schools made it difficult for the educational authorities to draw an effective plan of action based on the needs of the local situation. While some data on very challenging behaviour amongst school age children suggested significantly lower rates when compared to international figures (e.g. Pisani *et al.* 2006; Sciberras 2006), it was evident that the data sets on which these figures were based were not representative of the school children in Malta and had to be treated with great caution.

In view of this situation and the rising incidents and reports of misbehaviour in schools, the Education Directorates, the Faculty of Education at the University of Malta and the School of Education at the University of Leicester, started a three-year national study on social, emotional and behaviour difficulties in Maltese schools. The objectives of the study were to examine the nature and distribution of students with SEBD in primary and secondary schools in Malta, to explore the relationships between the nature and distribution of SEBD and socio-cultural factors as reflected in the school context and family/community factors, and to identify the associated protective and risk factors for SEBD. The study aimed to make a significant contribution to the development of new ways of understanding and preventing SEBD in Maltese schools, seeking to propose various interventions at both preventative and remedial levels to address this social phenomenon confronting not only the educational system but Maltese society as a whole.

The project was organised in two major phases, namely a study on the nature and distribution of SEBD in Maltese schools (first phase), and a longitudinal study seeking to identify the risk and protective factors for SEBD in school. This publication reports on the first phase of the study (2005-2008). The next phase of data collection in relation to the longitudinal study will take place in 2009. The first phase of the study was a survey to identify the national patterns of distribution of children and young persons with social, emotional and behavioural difficulties in primary and secondary schools in Malta. The sample constituted ten per cent of the entire school population, making it a very important study not only for the local educational context but for the international field as well, having one of the largest and most representative data sets in international research. The specific objectives of the study were to provide data on the following:

- the number of school children having SEBD
- the pattern of their distribution within different schools (primary and secondary, state and non state)

- the relationship between distribution and individual, school, family and socio-economic factors
- the risk and protective factors for SEBD

The following chapters present the findings of the study in various stages. The next chapter provides more details on the participants and methods used to collect and analyse the data. Chapter 3 presents the prevalence rate and general results of the study, providing descriptive statistics for the total difficulty scores, the four symptom scores and prosocial scores. Chapter 4 describes the relationship between SEBD and a range of individual, classroom, school and home variables, and Chapter 5 provides a similar portrait with regards to prosocial behaviour. Chapter 6 outlines a multilevel model of SEBD and prosocial behaviour, describing a three-level analysis of the data, with children nested in classrooms and classrooms nested in schools. The final chapter provides a summary of the key findings in the study and discusses the implications of the findings to the local educational context. Recommendations are then made on how various sections of Maltese society may take proactive steps not only to prevent and respond effectively to SEBD, but to promote a culture of positive and prosocial behaviour in Maltese schools.

This report should be of interest to all those involved in the education of children and young persons. It may help to inform policy development, with particular reference to the education of students with social, emotional and behaviour difficulties, and the promotion of positive and prosocial behaviour in school. School administration teams will find various strategies which may be useful in their school improvement efforts, while classroom practitioners may utilise the suggestions on how they may respond effectively to SEBD and promote positive behaviour in the classroom. The report should also be of interest to educational support services, support staff and professionals, initial and continuing staff educators, and researchers in the area. Some of the readers may find parts of the book somewhat technical and not relevant to their needs. Given the potential broad range of readership of this report, it was decided to include all the present chapters, but readers may wish to focus more on the findings in Chapters 4 and 5, and on Chapter 7, which provides a summary of all the findings followed by a discussion of the results and recommendations for policy, practice and research.

2

Methodology

This chapter describes the methods of data collection and analysis employed in the study. It provides information on the research instruments used in the study, namely the Strengths and Difficulties Questionnaire, and its translation into Maltese, providing psychometric information on the translated version, and the supplementary questionnaires. It then describes how the various participants in the study were selected and approached in the data collection processes. The final section presents the various statistical techniques used in the analysis of the data.

2.1 Instruments

2.1.1 The Strengths and Difficulties Questionnaire

A Maltese revised version of the Strengths and Difficulties Questionnaire (SDQ) (Goodman 1997) was used as a measure of the students' level of social, emotional and behaviour difficulties. The SDQ is a brief screening questionnaire which has been used by many researchers in education to measure social, emotional and behaviour difficulties in children and young persons and to identify students with mental health difficulties (Appendix 1). It is also used in educational and clinical settings as a screening device to identify children and young persons from 3 to 16 years who may be at risk for social, emotional and behaviour difficulties. It is a highly validated and reliable questionnaire, and has been translated into numerous languages, including Maltese.

The SDQ comprises four difficulty subscales, each consisting of five items, measuring emotional, hyperactivity, conduct and peer difficulties respectively. Emotional difficulties relate to anxiety and depression; hyperactivity to restlessness, over-activity and inattention; conduct to behaviour problems such as fighting, cheating and lying; and peer problems to bullying, loneliness, and having problems in relating with peers. The SDQ also includes a fifth subscale measuring prosocial behaviour, such as being considerate, helpful, caring and kind to

others. The SDQ is completed by teachers and parents in primary school, and by teachers, parents and students (self report) in secondary school. The score for each subscale ranges from 0 to 10, while a total difficulty score, which ranges from 0 to 40, is generated by summing the scores of the four subscales.

The parents, teachers, and students (secondary) SDQ versions were used in the study. The Maltese versions were translated through a process of forward and backward translations and then piloted with a number of teachers, parents and students (Appendix 2). Robert Goodman who is the author of the SDQ, assisted in the translation. In seeking to establish the degree of content validity of the SDQ for the Maltese context, a series of interviews were held with sixty students, sixty teachers and sixty parents respectively, asking them about the child's emotional state, conduct, hyperactivity, peer problems and prosocial behaviour. On the basis of the interview data, independent raters then scored the SDQs for the sixty children in each group. A content validity of the scale, comparing the interview responses with those of the completed SDQs, gave a Cronbach's Alpha coefficients ranging from 0.713 to 0.893 on the five subscales for the teacher, parent and self report evaluations (Table 2.1). This suggested a reasonably satisfactory content validity of the test for the Maltese population.

Table 2.1: Cronbach's Alpha for the five subscales by teacher, parent and self report evaluations

	Teacher evaluation	Parent evaluation	Student evaluation
Emotion	0.770	0.713	0.753
Conduct	0.813	0.789	0.805
Hyperactivity	0.893	0.831	0.792
Peer	0.723	0.713	0.759
Prosocial	0.761	0.753	0.792

The reliability of the Maltese SDQ versions was assessed using the split half method. Sixty randomly selected school teachers were asked to complete the SDQ in English and in Maltese, allowing a two week interval between the administrations of the two versions. Half of the teachers were asked to complete the Maltese version first, while the other half were asked to complete the English version first. A split-half reliability of 0.799 was obtained, indicating that the two questionnaires provided similar results. Moreover, the reliability of the Maltese version was measured item by item using Cronbach's Alpha. The Cronbach's Alpha for each item ranged from 0.657 to 0.920. Table 2.2 displays the ranges of Cronbach's Alpha obtained for the 25 items.

The individual variables may be further subdivided into three groups, namely biological variables such as age, gender and diagnosis, social variables such as ethnicity, religion, mother language and home region, and school related variables such as attainment, attendance, communication, formal assessment and psychological and educational interventions.

Table 2.5 List of the individual, classroom, school and home variables and their categories

Individual Variables	
Gender	Male – Female
Age	Year 1 to Year 6 (Primary level) Form 1 to Form 5 (Secondary level)
Home Region	Inner harbour - Outer harbour - South eastern - Western - Northern – Gozo
First language	Maltese only - English only – Bilingual
Ethnic group	Maltese - Other ethnic group
Religion	Roman Catholic - Other religion
Attendance	Regular – Irregular
Attainment	Very good - Average - Poor
Communication	Very good - Adequate - Poor
Formal assessment	Statemented – Non-statemented - Support
Child diagnosis	Yes – No
Child condition/illness	Yes – No
Child medication	Yes – No
Child intervention	Yes – No

Classroom Variables	
Classroom size	11 to 15 - 16 to 20 - 21 to 25 - 26 to 30
Classroom space	Spacious – Average - Limited
Streaming	Streamed - Mixed ability (Primary level) Streamed – Set for subject - Mixed ability (Secondary level)
Stream level	Top - Middle – Low
Teacher experience	Less than 5 years - 6 to 10 years - 11 to 20 years - Over 20 years
Teacher qualifications	B Ed / PGCE - College Cert - Diploma - Pedagogical Course

School Variables	
School region	Inner harbour - Outer harbour - South eastern - Western - Northern – Gozo
School type	State - Church - Independent (Primary level) Area Secondary - Junior lyceum - Church - Independent (Secondary level)
School size	100 to 300 – 301 to 500 - 501 to 700 - 701 to 1000 - Over 1000
School environment	Attractive - Needs improvement - Unattractive
School space	Spacious – Average - Limited
School play space	Spacious – Average - Limited

Home Variables	
Residence type	Flat - Maisonette - House - Villa
Residence ownership	Owned – Rented
Residence space	1 bedroom - 2 bedrooms - 3 bedrooms – More than 4 bedrooms
Family structure	Two parents – One parent
Family size	1 child - 2 to 3 children – More than 4 children
Relatives	No Relatives - Have relatives living with the family
Father occupation	Professional/Managerial/Administration - Technical/Clerical - Skilled/Semi skilled - State Income
Mother occupation	Professional/Managerial/Administration - Technical/Clerical - Skilled/Semi skilled - House carer
Father education	Primary - Secondary - Post secondary – Tertiary
Mother education	Primary - Secondary - Post secondary – Tertiary
Family Income	Less than 125 Euro - 125 to 250 Euro - Over 250 Euro

2.2 Sampling

A random sample of approximately 7000 students was selected to participate in this study. This sample, which amounted to 10% of the whole school population in 2005-2006, was stratified mainly by school type, school region and school level, and included age and gender factors as well. The student population was first divided into a number of non-overlapping subgroups, and then random samples of school children were selected from each group. To ensure a representative sample of students, the strata were sampled in proportion to their size in the student population. The parents, teachers and Heads of school of the selected students were also asked to participate in the study by providing essential information about the student, classroom, school and home backgrounds.

In this multistage sampling procedure, 69 primary schools and 44 secondary schools were selected from Malta and Gozo, providing a proportional representation of the school population both with respect to school type and region. Cluster sampling was used to choose classes within the selected schools; however, for small schools all the classes were considered. Random sampling was then used to choose students within the selected classes, aided by school registers, and the school administrative and clerical staff. Table 2.6 provides a breakdown of the number of schools included in the study categorized by school type and school level.

Table 2.6: Number of schools included in the study

	State	Church	Independent	Total
Primary	47	14	8	69
Secondary	28	12	4	44
Total	75	26	12	113

Table 2.7 shows the number of students in the study by school level and school region. A large proportion of the selected students attended schools in the Inner and Outer Harbour regions where most of the schools are located.

Table 2.7: Number of students in the study by school region and school level

	Primary Schools		Secondary Schools	
	Frequency	Percentage	Frequency	Percentage
Inner harbour	794	23.5%	1602	45.1%
Outer harbour	925	27.4%	986	27.8%
South Eastern	445	13.2%	116	3.3%
Western	416	12.3%	317	8.9%
Northern	536	15.8%	194	5.5%
Gozo	264	7.8%	334	9.4%
Total	3380	100%	3549	100%

Table 2.8 displays the number of students in the study by school level and gender. The sample consisted of 3489 male and 3440 female students; of which 3380 attended primary schools and the remaining 3549 attended secondary schools.

Table 2.8: Number of students in the study by school level and gender

	Primary Schools		Secondary Schools	
	Frequency	Percentage	Frequency	Percentage
Males	1626	48.1%	1863	52.5%
Females	1754	51.9%	1686	47.5%

Table 2.9 displays the number of students in the study by school level and school type. More than 60% of the selected students, at both primary and secondary levels, attended state schools. The sample proportions are representative of those in the general school population.

Table 2.9: Number of students in the study by school type and school level

	Secondary Schools	
	Frequency	Percentage
State	2047	60.6%
Church	847	25.1%
Independent	486	14.3%

	Secondary Schools	
	Frequency	Percentage
Area Secondary	1054	29.7%
Junior Lyceum	1289	36.3%
Church	933	26.3%
Independent	273	7.7%

The parents' SDQs and supplementary questionnaires were sent by the school administration and returned to the research team in self addressed envelopes, while those of the teachers were distributed at the school with the assistance of the administrative and clerical staff, and returned in stamped self addressed envelopes. Similarly, the heads of school returned their completed questionnaires in self addressed envelopes. The students completed the questionnaires at the school and returned them directly to the research team.

From the 6929 questionnaires that were posted to the parents, 3163 (45.6%) completed questionnaires were returned, and 2827 (89.4%) of the students who were given consent by their parents, completed the questionnaires. A total of 5200 (75.0%) of the questionnaires were returned by the teachers, while 93 out of 113 Heads of school completed their respective questionnaires. Though the response rate is lower than the projected 10% of the school population, particularly in the case of the parents, it was considered adequate for the study as it still represented a relatively large, representative sample of the school population Table 2.10 provides the response rate of the parents, students and teachers categorized by school level.

Table 2.10: Response rate of teachers, parents and students by school level

	Primary Schools		Secondary Schools	
	Number	Percentage	Number	Percentage
Teachers	2703	79.22%	2497	70.26%
Parents	1946	57.03%	1217	34.24%
Students	1713	88.03%	1114	91.54%

2.3 Data Analysis

This section provides details of the statistical techniques employed to analyze the data set. Hypothesis testing was carried out via the One-way ANOVA and Chi-Square tests. For both tests a 0.05 level of significance was employed. Statistical modelling was conducted via Generalized Linear Regression and Multilevel models. Factor analysis was used as a data reduction technique to group the subscales representing emotional, hyperactivity, conduct and peer difficulties.

2.3.1 One-way ANOVA test

The One-way ANOVA test was used to compare the mean total difficulty or prosocial scores across the categories of the individual, classroom, school and home variables. This test assumes that the observations are independent, follow a normal distribution and have equal variances. The null hypothesis specifies that the population mean total difficulty and mean prosocial

scores are equal across the different categories. The null hypothesis is accepted if the P-value exceeds the 0.05 level of significance (see Chapters 4 and 5).

2.3.2 Chi-Square test

The Chi-Square test is used to inspect associations between two categorical variables in a two-way contingency table. It entails the estimation of probabilities for each category combination and the comparison of observed and expected frequencies. The null hypothesis specifies that the two variables are independent, which implies that there is no association between the variables. The null hypothesis is accepted if the P-value exceeds the 0.05 level of significance. This test was used to determine whether the associations between individual, classroom, school and home variables were significant (see Chapters 4 and 5).

2.3.3 Generalized Linear models

The One-Way ANOVA test identifies the individual, classroom, school and home variables where the mean total difficulty or prosocial scores varied considerably between the categories of these explanatory variables. The major limitation of the One-way ANOVA test is that these predictors are assessed one at a time. It is well known that a lone predictor could be rendered a very important contributor in explaining variations in the total difficulty or prosocial scores, but would be rendered unimportant in the presence of other predictors. In other words, the appropriateness of a predictor often depends on what other predictors are included with it. To identify the most relevant predictors that explained the variations in the total difficulty or prosocial scores, several Generalized Linear models were fitted using the teacher, parent and self report evaluations in both primary and secondary schools. A backward procedure was employed and the contribution of each predictor in explaining the variation in the total difficulty or prosocial scores was measured by the P-value. A predictor is rendered a significant contributor in the model fit if its corresponding P-value is less than the 0.05 level of significance.

2.3.4 Multilevel Models

Multilevel models are hierarchical linear models or random coefficient models that provide an extremely flexible approach to the analysis of a wide array of social science data. Research on multilevel modelling originated in the field of education where an obvious hierarchy consists of students nested in classes, and classes nested in schools. These models, in contrast to Generalized Linear models, assume more than one level of nesting and include more than one error term. Using the total difficulty and prosocial scores elicited from teachers, parents and students, several multilevel models were fitted to estimate the variance component at the

individual, classroom and school levels of nesting (see Chapter 6). An appropriate approach of assessing the contribution of each explanatory variable is to enter these predictors in the model fit one at a time and record the change in deviance. Predictors that reduce the deviance by a large amount contribute significantly in improving the model fit. Since the change in deviance has a chi square distribution, then a p-value can be computed given the degrees of freedom. The smaller the p-value the bigger the contribution of the predictor in the model fit. These models were used to identify risk and protective factors for students in primary and secondary schools.

2.3.5 Factor Analysis

The study sought to discover the patterns of relationships between the four difficulty subscales, namely emotional, hyperactivity, conduct and peer problems. Factor analysis was firstly employed to find a small number of factors that accounted for much of the variability of the emotional, hyperactivity, conduct and peer difficulties scores using the teacher evaluations of primary school students. Only factors with an eigenvalue greater than one were retained because these accounted for a large percentage of the total variance.

Table 2.11: Factor loadings of the four subscales according to primary teachers' evaluations

	Factor 1	Factor 2
Emotion	0.587	0.633
Conduct	0.741	-0.493
Hyperactivity	0.765	-0.430
Peer	0.671	0.481

The first two factors, both of which had an eigenvalue greater than one, explained 74.70% of the total variance. Table 2.11 displays the unrotated factor loadings of these two factors. The first factor measured the severity of social, emotional, and behaviour difficulties, since all four scales had comparable positive factor loadings. This factor, which explained 48.21% of the total variance, represented total difficulty because it contrasted students with high scores against students with low scores on all the four subscales. The second factor contrasted students who were more likely to have conduct-hyperactivity problems against those who were more likely to have emotional-peer problems. The factor loadings of emotional-peer were positive and contrasted with the negative factor loadings of conduct-hyperactivity. This factor explained 26.49% of the total variance.

Factor analysis was again carried out to extract the most important factors that accounted for much of the total variance in the four scales using teacher, parent and self report evaluations in

primary and secondary schools. These results, displayed in Table 2.12, reveal that there was an agreement between teachers, parents and students in both primary and secondary schools concerning the relationships and contrasts among the four subscales. In all cases, the same two dominant factors emerged that explained over 70% of the total variance. The first factor contrasted students with abnormal behaviour who scored high in all the four subscales against those students with normal behaviour who scored low in all the scales. The second factor contrasted students with abnormal emotional-peer difficulties but who hardly exhibited any conduct-hyperactivity problems, against students with abnormal conduct-hyperactivity difficulties but who hardly displayed any emotion-peer problems.

Table 2.12: Factor loadings of the four subscales by different groups of respondents

	Parent evaluation of primary students	
	Factor 1	Factor 2
Emotion	0.683	0.445
Conduct	0.736	-0.420
Hyperactivity	0.699	-0.512
Peer	0.625	0.581

	Teacher evaluation of secondary students	
	Factor 1	Factor 2
Emotion	0.656	0.540
Conduct	0.800	-0.445
Hyperactivity	0.793	-0.467
Peer	0.540	0.690

	Parent evaluation of secondary students	
	Factor 1	Factor 2
Emotion	0.709	0.411
Conduct	0.738	-0.417
Hyperactivity	0.701	-0.517
Peer	0.563	0.674

	Self report by secondary students	
	Factor 1	Factor 2
Emotion	0.570	0.546
Conduct	0.766	-0.355
Hyperactivity	0.691	-0.532
Peer	0.567	0.578

Factor analysis was used to examine how these two factors were related to the various individual, classroom, school and home variables selected in the study (Chapter 4). For each student, a factor score was generated for each derived factor. Using the factors scores, students were classified into one of two clusters. For Factor 1, the students whose factor scores were positive, were classified as more likely to have social, emotional, and behaviour difficulties; whereas, the students whose factor scores were negative were classified as less likely to have social, emotional, and behaviour difficulties. For Factor 2, the students whose factor scores were positive, were classified as being more likely to have conduct-hyperactivity difficulties; whereas, the students whose factor scores were negative were classified as more likely to have emotional-peer problems. Associations between the derived factors and the individual, classroom, school and home variables were tested using the chi square test.

3

Prevalence rates and general results

This chapter presents the general results of the study, providing descriptive statistics for the total difficulty scores, the four symptom scores and the prosocial scores. It firstly presents the prevalence rates of social, emotional and behaviour difficulties (SEBD) for male and female students in primary and secondary school, based on the teacher evaluations. Using these prevalence rates, score ranges were computed for the four subscale difficulties and prosocial behaviour categorized by school level and gender. The second part of the chapter presents a detailed review of the frequency distributions of the difficulty and prosocial scores, followed by a comparison of the Maltese and British mean SDQ scores.

3.1 Prevalence rates of SEBD

The teacher version of SDQ Impact Supplement (Appendix 1, 2) was used to determine the prevalence rate of SEBD in Maltese schools. The Impact Supplement included three items on overall distress and social impairment on a 2-point scale, measuring the severity by which the difficulties upset or distressed the child and interfered with his or her peer relationships and classroom learning. The sum of the three items measuring generated an impact score that ranged from 0 to 6. Using these impact scores, the students were classified into one of three bands, namely normal, borderline or abnormal. An impact score of 0 corresponded to normal; a score of 1 to borderline; and a score of at least 2 to abnormal.

The study revealed that according to teachers, 81.7% of the students were in the normal band; 8.59% were borderline, and the remaining 9.71% in the abnormal band. The 9.7% proportion constituting the 'abnormal' category of children with SEBD is very close to the 10% proportion established by Goodman and his colleagues in the UK (Goodman 1997; Meltzer *et al.* 2000). Young Minds on the other hand suggests a broad range between 10% to 20% of primary and

secondary school students having SEBD in the UK (Cooper 1999). A study based on Danish teachers' perceptions, suggest that 10% of the school population has serious behaviour difficulties (Egelund and Hansen 2000), while Dutch teachers estimated that about 11% of students exhibited SEBD (Smeets et al. 2007). Kauffman (2004) provides a lower estimate of American students with serious behaviour difficulties (3% to 6%), but other diagnostic criteria besides teachers' perceptions have been used to arrive at these figures. Table 3.1 and Figure 3.1 display the prevalence rate by gender and school level according to teachers. There are a higher proportion of female students attending primary schools in the normal band compared to other categories, while there are a higher proportion of male students attending secondary schools in the abnormal band. Taking male and female students combined, there are more difficulties in secondary (10.27%) than primary schools (9.05%), with a ratio of 7: 6. There are more difficulties amongst boys (10.46%) than girls (8.86%), in both primary and secondary school, the ratio being 7:6. In primary school, the male-female ratio is 8:7 and in secondary school, it is 6:5. SEBD are thus more likely to be found in boys' secondary school and the least in girls' primary schools. These results complement the mean SDQ scores for total difficulty and prosocial behaviour scores categorized by gender and age presented in Tables 3.8 and 3.9.

Table 3.1 Prevalence of SEBD in Maltese schools by gender and school level

	Normal	Borderline	Abnormal
Boys in Primary Schools	81.68%	8.61%	9.71%
Girls in Primary Schools	82.90%	8.71%	8.39%
Boys in Secondary Schools	80.26%	8.52%	11.21%
Girls in Secondary Schools	82.23%	8.44%	9.32%

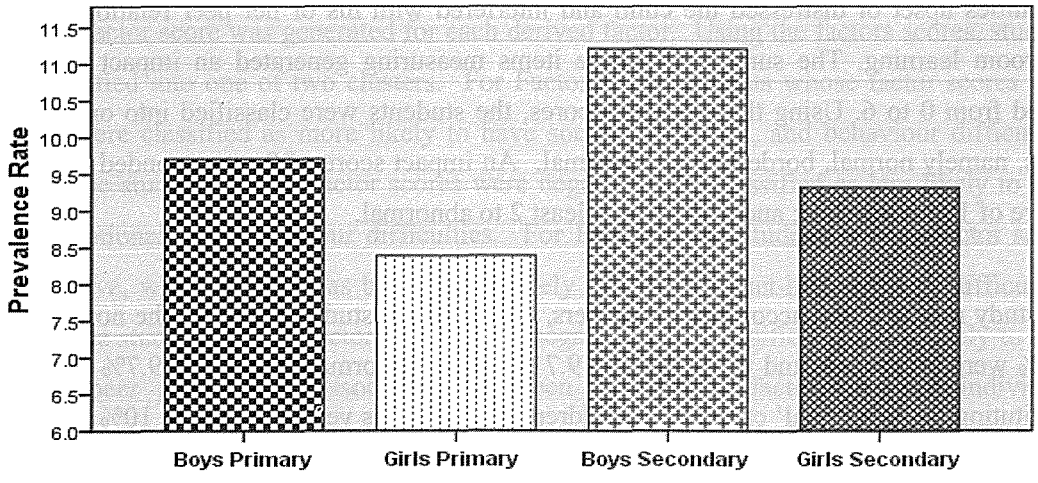


Figure 3.1: Prevalence of SEBD in Maltese schools by gender and school level

3.1.1 Ranges for Symptoms Scores for teacher completed SDQ

Table 3.2 provides caseness criteria to classify the difficulty and prosocial scores into 'normal', 'borderline' and 'abnormal' categories based on the prevalence rate for Maltese students according to teachers. Using the ranges provided below, an abnormal total difficulty score can be used to identify likely difficulties in psychosocial development and consequent social, emotional and behaviour difficulties in children and young persons (Goodman 1997, 1999). In addition, the banding criteria for total difficulty scores, for the four difficulties scores and the prosocial score are also categorized by age and gender (Table 3.3). The symptom score ranges for the borderline and abnormal categories are one to two points higher than those for the UK.

This is only a "rough and ready" (Youth in Mind 2001) method for screening and identification of children and young persons with SEBD, and great care must be taken in diagnosing and labeling children solely on the basis of these criteria. We agree with Goodman on the need to set the threshold higher to avoid false positives and lower to avoid false negatives (op.cit.) It is also important to compare the category scores with the mean scores, presented in the subsequent section. Apart from screening and research purposes, the SDQ may also be used for clinical assessment; in such cases it is strongly recommended that the information provided by the SDQ is supported by other forms of evaluation such as direct observation, interviewing and use of other tests and checklists (cf. Kelley, Reitman and Noell 2003).

Table 3.2: SDQ symptom score ranges (Teachers)

SDQ Scales	Normal	Borderline	Abnormal
Total Difficulties Score	0-14	15-17	18-40
Emotional Symptoms Score	0-3	4-5	6-10
Conduct Problems Score	0-2	3-4	5-10
Hyperactivity Score	0-6	7-8	9-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	5-10	4	0-3

Table 3.3: SDQ symptom score ranges by gender and school level (Teachers)

Males Primary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-18	19-40
Emotional Symptoms Score	0-3	4-5	6-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-7	8	9-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	5-10	4	0-3

Females Primary	Normal	Borderline	Abnormal
Total Difficulties Score	0-12	13-16	17-40
Emotional Symptoms Score	0-4	5	6-10
Conduct Problems Score	0-2	3	4-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	6-10	5	0-4

Males Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-18	19-40
Emotional Symptoms Score	0-3	4	5-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-6	7-8	9-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	5-10	4	0-3

Females Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-13	14-17	18-40
Emotional Symptoms Score	0-3	4-5	6-10
Conduct Problems Score	0-2	3-4	5-10
Hyperactivity Score	0-5	6-7	8-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	6-10	5	0-4

3.1.2 Ranges for Symptoms Scores for parent and self-completed SDQs

The prevalence rates of social, emotional and behaviour difficulties were computed solely from teacher evaluations. Since the prevalence rates for Maltese students were very close to 10% as specified by Goodman (1997), it was decided to compute the score ranges for parent and self completed evaluations on the 80% normal, 10% borderline and 10% abnormal criteria suggested by Goodman. Tables 3.4 and 3.5 present the score ranges, computed from parent evaluations, categorized by gender and school level. However, one must be careful of making classifications when the scores are close to the cut-off points separating the categories. In such instances, it is advisable to specify that the classification was a borderline case.

Table 3.4: SDQ symptom score ranges (Parents)

SDQ Scales	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-18	19-40
Emotional Symptoms Score	0-4	5-6	7-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-6	7	8-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	8-10	7	0-6

Table 3.5: SDQ symptom score ranges by gender and school level (Parents)

Males Primary	Normal	Borderline	Abnormal
Total Difficulties Score	0-16	17-19	20-40
Emotional Symptoms Score	0-4	5	6-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-7	8	9-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	7-10	6	0-5

Females Primary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-19	20-40
Emotional Symptoms Score	0-4	5-6	7-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-6	7	8-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	8-10	7	0-6

Males Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-18	19-40
Emotional Symptoms Score	0-4	5	6-10
Conduct Problems Score	0-2	3-4	5-10
Hyperactivity Score	0-6	7	8-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	7-10	6	0-5

Females Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-17	18-40
Emotional Symptoms Score	0-5	6	7-10
Conduct Problems Score	0-2	3	4-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	8-10	7	0-6

Tables 3.6 and 3.7 present the score ranges worked out from self report responses. These norms may be used as a general indication of the student's level of difficulty, particularly if they complement those of the teachers and if they are provide clear cut information. Moreover, besides finding the cut off points to determine the likelihood of difficulty, it is important to compare the scores with the computed means for parent and self report evaluations.

Table 3.6: SDQ symptom score ranges (Self report)

SDQ scales	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-17	18-40
Emotional Symptoms Score	0-4	5	6-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	7-10	6	0-5

Table 3.7: SDQ symptom score ranges by gender and school level (Self report)

Males Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-15	16-18	19-40
Emotional Symptoms Score	0-4	5	6-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	6-10	5	0-4

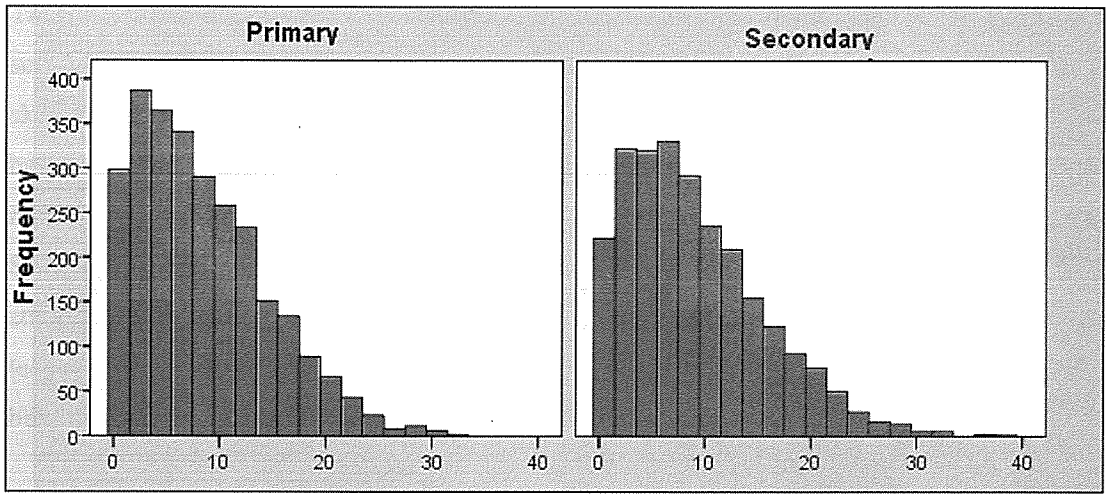
Females Secondary	Normal	Borderline	Abnormal
Total Difficulties Score	0-14	15-17	18-40
Emotional Symptoms Score	0-5	6	7-10
Conduct Problems Score	0-3	4	5-10
Hyperactivity Score	0-5	6	7-10
Peer Problems Score	0-3	4	5-10
Prosocial Behaviour Score	8-10	7	0-6

3. 2 General SDQ results

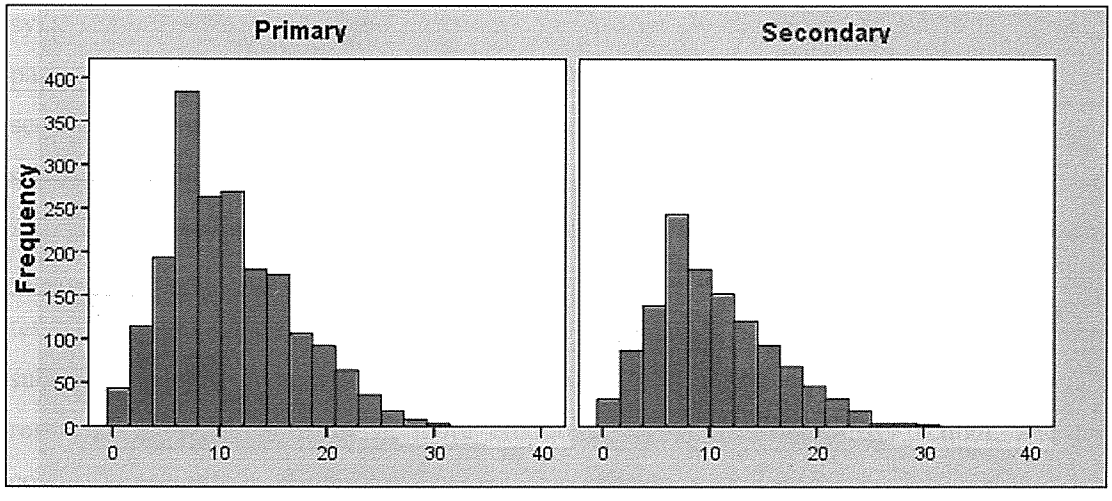
The first part of this section presents frequency distributions of the total difficulty and prosocial scores for primary and secondary school students elicited from the teacher, parent and self report SDQ questionnaires. The second part provides descriptive statistics for the total difficulty score, the four symptom scores and the prosocial score categorized by gender and school level. The mean scores for the SDQ subscales may be useful in the identification of students with SEBD in primary and secondary school.

3.2.1 Frequency distributions of total difficulty and prosocial scores

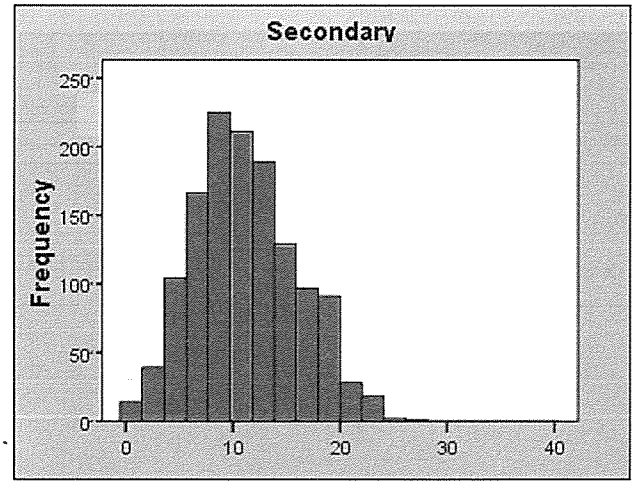
The histograms displayed in Figure 3.2 exhibit the distributions of total difficulty scores for primary and secondary students drawn from teacher, parent and self-report SDQs. All distributions are right skewed implying that low scores are more frequent than high scores. The mean total difficulty scores elicited from teachers in primary and secondary schools are 8.39 and 9.06 respectively, while the corresponding scores based on parent evaluations are 10.93 and 10.32 respectively. Teachers tend to give lower scores than parents for total difficulty. Teachers also indicate that secondary school students have more social, emotional and behaviour difficulties than primary school children; whereas, parents suggest the opposite trend, though the pattern is not as marked as that suggested by teachers. The mean total difficulty score for secondary students using self-report SDQs is 11.00, suggesting that the students perceive more social, emotional and behaviour difficulties than their teachers and parents.



Distribution of Total Difficulty scores for teacher SDQs

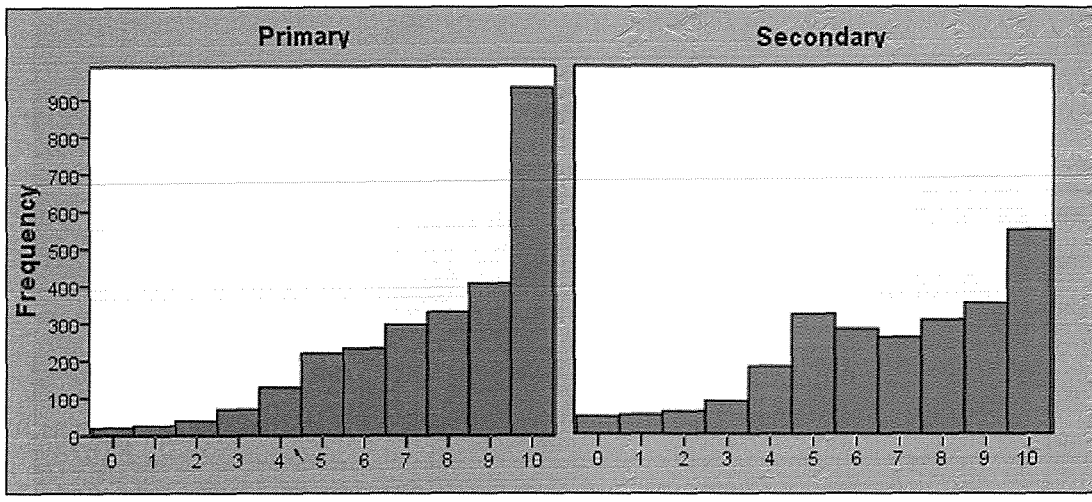


Distribution of Total Difficulty scores for parent SDQs

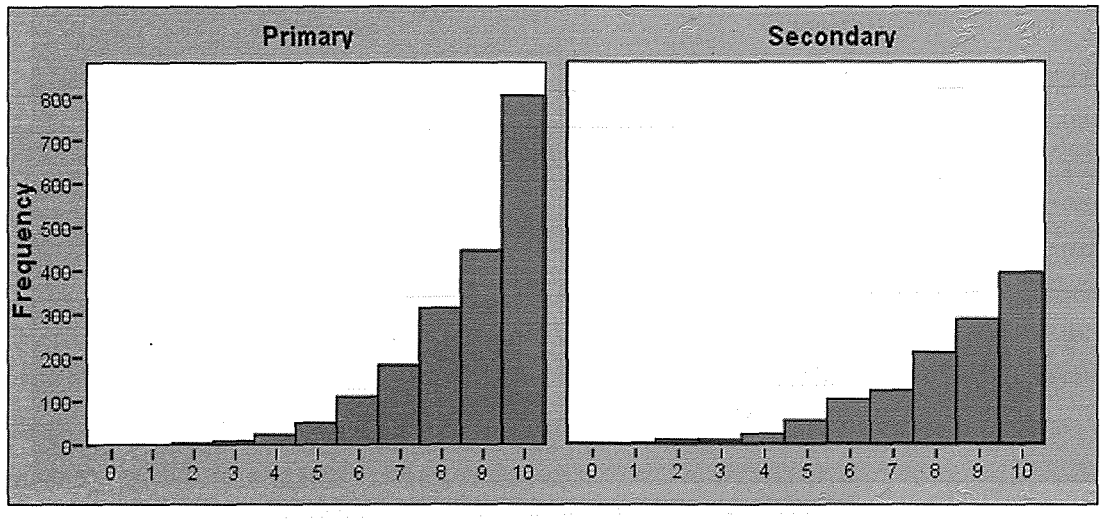


Distribution of Total Difficulty scores for self-report SDQs

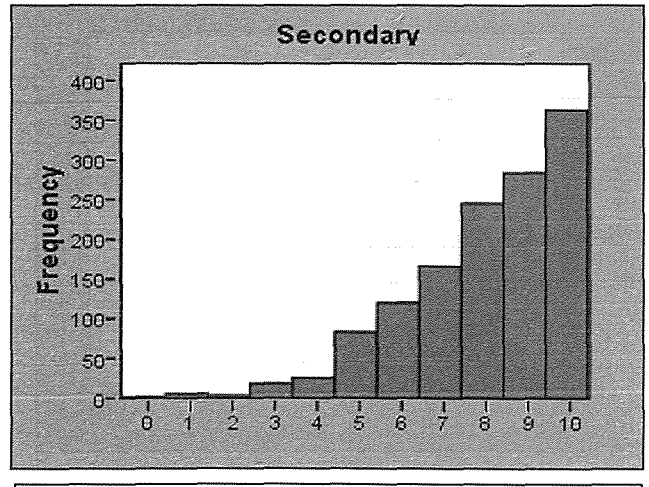
Figure 3.2: Distributions of the SDQ Total Difficulty scores for primary and secondary students



Distribution of Prosocial scores for teacher SDQs



Distribution of Prosocial scores for parent SDQs



Distribution of Prosocial scores for self-report SDQs

Figure 3.3: Distributions of the SDQ prosocial scores for primary and secondary students

The histograms in Figure 3.3 display the distributions of prosocial scores for primary and secondary students using teacher, parent and self-report SDQs. All distributions are left skewed implying that high scores are more frequent than low scores. The mean prosocial scores based on the teacher evaluations in primary and secondary school are 7.78 and 6.95 respectively, while those elicited from parents are 8.67 and 8.3 respectively. As in the case of SEBD, teachers tend to give lower scores than parents for prosocial behaviour. Parents and students indicate that students' prosocial behaviour is higher than that suggested by their teachers, while teachers and parents agree that primary school children have better prosocial behaviour than secondary school students.

3.2.2 Descriptive statistics for SDQ scores

Table 3.8 presents the means and standard deviations of the total difficulty scores, the four symptom scores and the prosocial scores for primary and secondary school students using parent, teacher and self-report SDQs. The teachers provide the lowest mean total difficulty scores, followed by parents and students respectively; this pattern is similar in most of the other scales, including the prosocial scale. A look at the total difficulty scores suggests that teachers see more difficulties in secondary rather primary level, whereas parents' mean scores are less discriminative, though with indications of more difficulties in primary school. According to teacher, parent and self report evaluations, the highest mean scores amongst the four difficulty subscales are in hyperactivity, followed by emotional, peer and conduct difficulties respectively. Teachers perceive more emotional difficulties in primary school, and more conduct, hyperactivity and peer problems in secondary school.

Table 3.8: Teacher, parent and self report mean SDQ scores by school level

		Teacher SDQ		Parent SDQ		Student SDQ	
		5-10 years	11-16 years	5-10 years	11-16 years	5-10 years	11-16 years
Total Difficulty	Mean	8.39	9.06	10.93	10.32	N/A	11.00
	St.Dev	6.151	6.452	5.726	5.512		4.839
Emotion	Mean	2.04	1.93	2.72	2.82	N/A	2.95
	St.Dev	2.176	2.130	2.261	2.311		2.074
Conduct	Mean	1.33	1.55	1.83	1.74	N/A	2.24
	St.Dev	1.894	2.110	1.662	1.565		1.663
Hyperactivity	Mean	3.35	3.51	4.48	3.80	N/A	3.61
	St.Dev	2.944	2.983	2.624	2.458		2.078
Peer	Mean	1.67	2.08	1.91	1.96	N/A	2.20
	St.Dev	1.775	1.830	1.752	1.720		1.605
Prosocial	Mean	7.78	6.95	8.67	8.33	N/A	8.07
	St.Dev	2.358	2.607	1.555	1.745		1.842

Parents on the other hand, indicate more emotional and peer difficulties in secondary school, and more conduct and hyperactivity problems in primary school. Moreover, parents tend to give higher scores for prosocial behaviour, followed by students and teachers respectively. Both teachers' and parents' mean scores in prosocial behaviour are higher in primary school when compared to secondary school.

Table 3.9: Teacher, parent and self report mean SDQ scores by gender

		Teacher SDQ		Parent SDQ		Student SDQ	
		Male	Female	Male	Female	Male	Female
Total Difficulty	Mean	9.60	7.81	10.81	10.61	11.33	10.68
	St.Dev	6.443	6.040	5.656	5.647	5.003	4.661
Emotion	Mean	1.93	2.06	2.56	2.93	2.63	3.26
	St.Dev	2.112	2.199	2.149	2.380	1.973	2.121
Conduct	Mean	1.66	1.21	1.85	1.75	2.50	2.00
	St.Dev	2.121	1.846	1.659	1.595	1.762	1.526
Hyperactivity	Mean	3.99	2.84	4.47	4.00	3.81	3.42
	St.Dev	3.075	2.725	2.681	2.472	2.106	2.035
Peer	Mean	2.01	1.71	1.93	1.93	2.40	2.01
	St.Dev	1.888	1.721	1.759	1.722	1.731	1.452
Prosocial	Mean	6.87	7.90	8.25	8.79	7.50	8.61
	St.Dev	2.627	2.280	1.735	1.506	1.959	1.542

Table 3.9 presents the means and standard deviations of the total difficulty scores, the four symptom scores and the prosocial scores for male and female students in primary and secondary school, using parent, teacher and self-report SDQs. Male students have higher mean scores than females on total difficulty. The largest difference is observed amongst teacher responses, followed by students and parents respectively. Female students have higher mean scores on the emotional scale when compared to the male students, while the opposite is true on the conduct and hyperactivity scales. In peer relationships, males have higher mean scores than females according to teachers and students, but parent evaluations exhibit no gender bias. The findings suggest that while females have more emotional problems, boys have more difficulties in conduct and hyperactivity and possibly in peer relationships. Females engage in more prosocial behaviour than males. The teacher, parent and self report evaluations all show that female students have significantly higher mean prosocial scores than their male counterparts.

Table 3.10 presents the means and standard deviations of the difficulties and prosocial scores for male and female students in primary and secondary schools using parent, teacher and self-report SDQs. The findings are also illustrated in Figures 3.4 - 3.6. Teachers, parents and students agree that female students in both primary and secondary schools have more emotional

problems than males. Teachers and parents agree that emotional problems decrease slightly for male students as they progress from primary to secondary schools but, while teachers perceive a similar pattern for females, parents suggest the opposite trend.

Teachers, parents and students agree that male students in both primary and secondary school have more conduct problems than females. According to teachers, conduct problems deteriorate for both gender groups in secondary school. However, parent responses suggest that conduct problems decrease for male students but remain fairly stable for female students as they move from primary to secondary school.

Table 3.10: Teacher, parent and self report mean SDQ scores by age and gender

Total Difficulty Score							
		Teacher SDQs		Parent SDQs		Student SDQs	
Gender	Age	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev
Male	5-10 yrs	9.37	6.423	11.17	5.628		
	11-16 yrs	9.82	6.457	10.24	5.657	11.33	5.003
Female	5-10 yrs	7.48	5.753	10.74	5.804		
	11-16 yrs	8.21	6.341	10.40	5.382	10.68	4.661
Emotion							
Male	5-10 yrs	1.95	2.157	2.61	2.122		
	11-16 yrs	1.90	2.068	2.48	2.191	2.63	1.973
Female	5-10 yrs	2.13	2.198	2.81	2.376		
	11-16 yrs	1.97	2.197	3.12	2.374	3.26	2.121
Conduct							
Male	5-10 yrs	1.61	2.055	1.94	1.687		
	11-16 yrs	1.71	2.185	1.70	1.604	2.50	1.762
Female	5-10 yrs	1.06	1.685	1.73	1.635		
	11-16 yrs	1.38	2.008	1.77	1.529	2.00	1.526
Hyperactivity							
Male	5-10 yrs	4.08	3.076	4.74	2.718		
	11-16 yrs	3.91	3.072	4.04	2.567	3.81	2.106
Female	5-10 yrs	2.66	2.637	4.26	2.519		
	11-16 yrs	3.05	2.812	3.58	2.337	3.42	2.035
Peer							
Male	5-10 yrs	1.72	1.832	1.87	1.744		
	11-16 yrs	2.30	1.899	2.01	1.780	2.40	1.731
Female	5-10 yrs	1.62	1.721	1.94	1.758		
	11-16 yrs	1.82	1.714	1.92	1.664	2.01	1.452
Prosocial							
Male	5-10 yrs	7.33	2.447	8.41	1.679		
	11-16 yrs	6.43	2.721	8.01	1.795	7.50	1.959
Female	5-10 yrs	8.20	2.191	8.91	1.398		
	11-16 yrs	7.55	2.333	8.61	1.650	8.61	1.542

Teachers, parents and students agree that male students in both primary and secondary school exhibit more hyperactive behaviour than females. According to parent responses, hyperactivity decreases considerably for both genders as they progress from primary to secondary school; however, teachers claim that students' hyperactivity remains fairly the same.

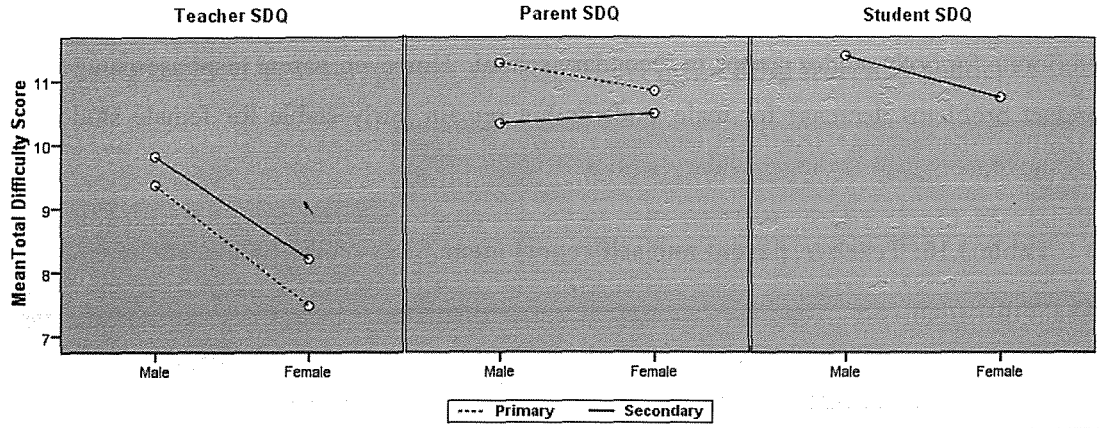
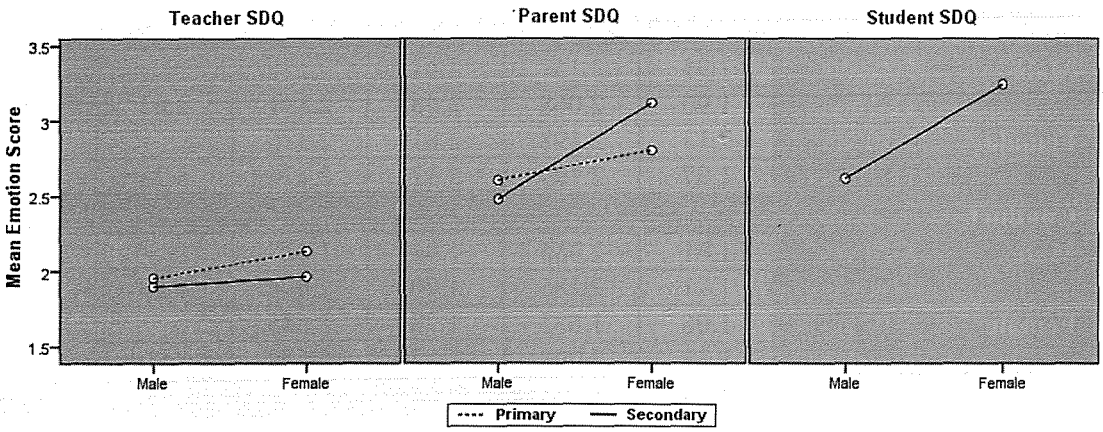
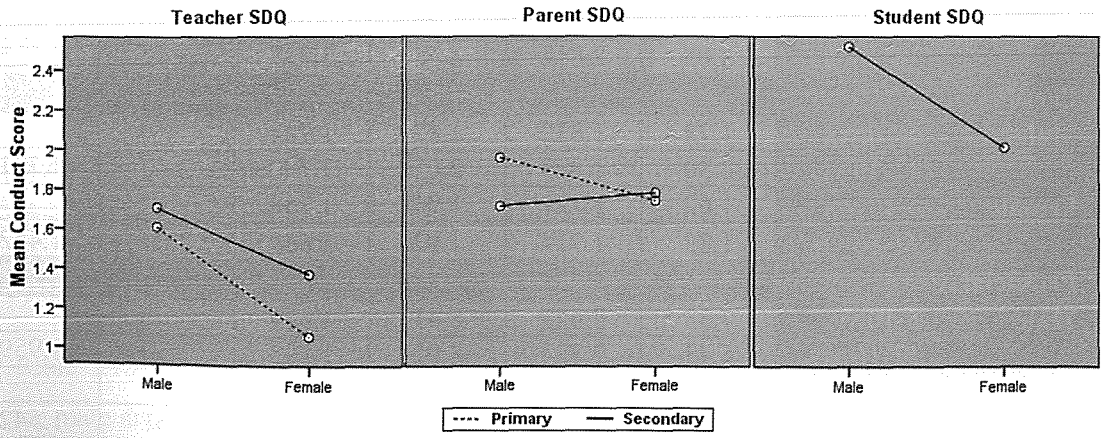


Figure 3.4: Mean Total Difficulty scores by gender and school level





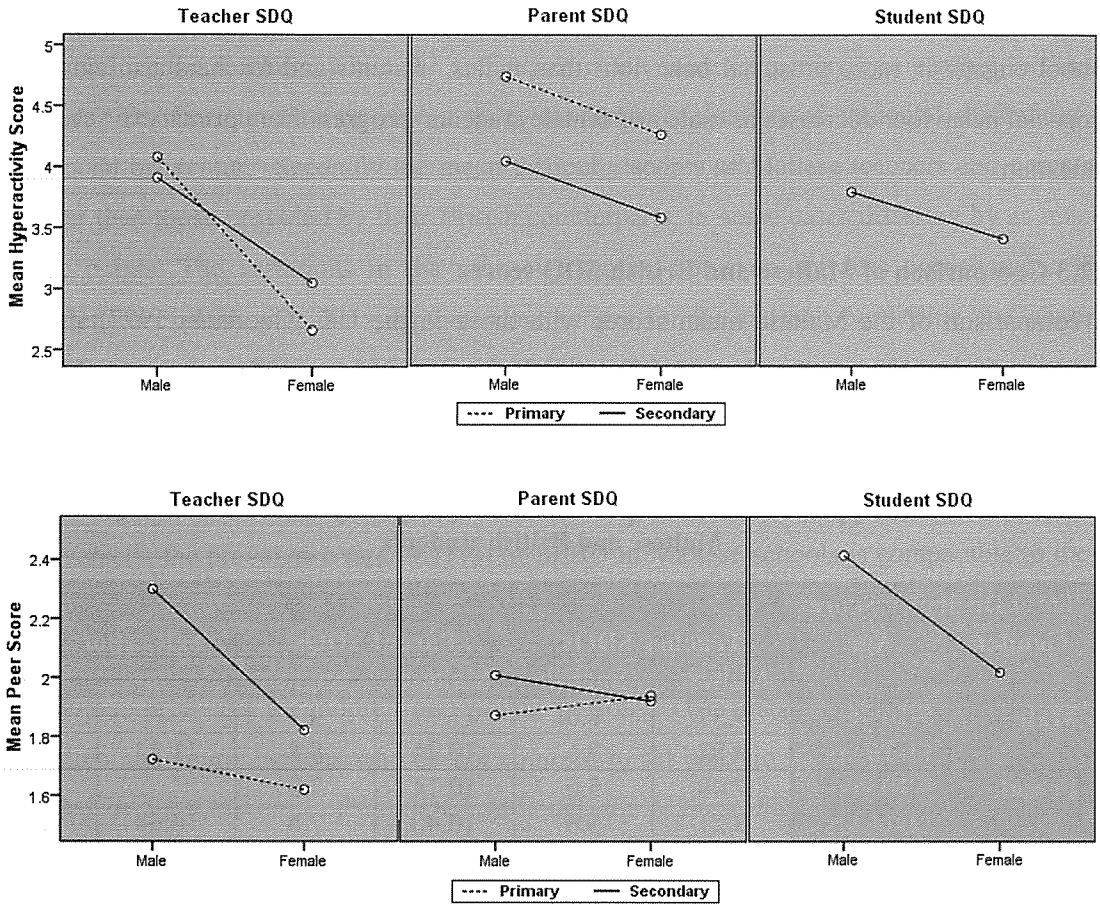


Figure 3.5: Mean scores for difficulty subscales by gender and school level

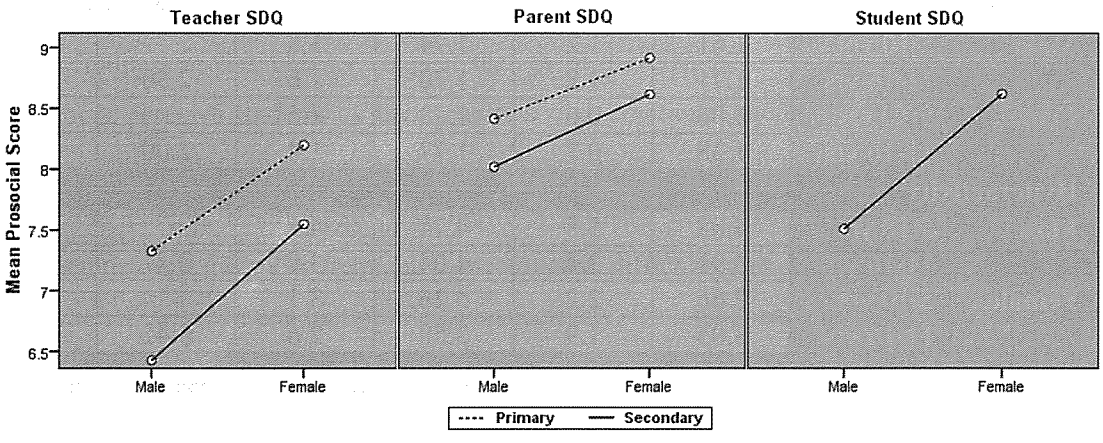


Figure 3.6 Mean prosocial scores by gender and school level

Teachers and students suggest that males have more peer problems than female students. Moreover, teacher responses indicate that these difficulties are more conspicuous in secondary school in contrast to the primary school. On the other hand, parents hardly discriminate between male and female peer difficulties both in primary and secondary schools.

Finally, teachers, parents and students agree that female students in both primary and secondary school engage in more prosocial behaviour than males. Parents and teachers also agree that prosocial behaviour decreases as male and female students' progress from primary to secondary education.

3.2.3 Comparison of Maltese and British SDQ scores

A comparison of the Maltese mean scores with those in the UK (Goodman 1997) shows a number of interesting similarities and differences between the two sets of mean scores shown in Table 3.11.

Table 3.11: Teacher, parent and self report mean SDQ scores by school level and gender for Maltese and British students

Total Difficulty Score							
Gender	Age	Teacher SDQs		Parent SDQs		Self report SDQs	
		Maltese	English	Maltese	English	Maltese	English
Male	5-10 yrs	9.37	8.0	11.17	9.3		
	11-16 yrs	9.82	7.6	10.24	8.8	11.33	10.5
Female	5-10 yrs	7.48	5.6	10.74	7.9		
	11-16 yrs	8.21	5.0	10.40	7.6	10.68	10.0
Emotion							
Male	5-10 yrs	1.95	1.5	2.61	1.8		
	11-16 yrs	1.90	1.3	2.48	1.8	2.63	2.6
Female	5-10 yrs	2.13	1.5	2.81	2.0		
	11-16 yrs	1.97	1.3	3.12	2.1	3.26	3.0
Conduct							
Male	5-10 yrs	1.61	1.2	1.94	1.8		
	11-16 yrs	1.71	1.2	1.70	1.6	2.50	2.4
Female	5-10 yrs	1.06	0.6	1.73	1.5		
	11-16 yrs	1.38	0.7	1.77	1.4	2.00	2.0
Hyperactivity							
Male	5-10 yrs	4.08	3.8	4.74	4.1		
	11-16 yrs	3.91	3.4	4.04	3.8	3.81	3.9
Female	5-10 yrs	2.66	2.2	4.26	3.1		
	11-16 yrs	3.05	1.9	3.58	2.6	3.42	3.6
Peer							
Male	5-10 yrs	1.72	1.5	1.87	1.5		
	11-16 yrs	2.30	1.6	2.01	1.6	2.40	1.6
Female	5-10 yrs	1.62	1.2	1.94	1.3		
	11-16 yrs	1.82	1.2	1.92	1.5	2.01	1.4
Prosocial							
Male	5-10 yrs	7.33	6.7	8.41	8.4		
	11-16 yrs	6.43	6.4	8.01	8.3	7.50	7.5
Female	5-10 yrs	8.20	8.0	8.91	8.9		
	11-16 yrs	7.55	8.8	8.61	8.8	8.61	8.5

Firstly, in both countries, the mean scores elicited from parents are always higher than those provided by the teachers, while the self report mean scores are more comparable to those of parents. Teachers tend to provide a more moderate evaluation of students' difficulties and prosocial behaviour. Secondly the mean difficulty scores of Maltese teachers and parents are higher than those provided by their British counterparts, in some cases differing by as much as three points. The variations in the prosocial scores, however, are less conspicuous. These differences explain why the symptom score ranges for the normal, borderline and abnormal bands are one to two points higher for the Maltese islands when compared to UK. The mean difficulty scores and the mean prosocial scores elicited from self report evaluations in the two countries are more comparable.

Conversely, the prevalence rate (9.71%) of SEBD in Maltese schools is comparable to the UK prevalence rate (10%) suggested by Goodman (1997). It may be argued that rather than there being more difficulties in Maltese schools, the Maltese may be less tolerant and more critical of behaviour problems in children and young persons. Thus they may tend to penalize more children and young persons who do not conform to set behaviour rules. Another possibility is related to the translation of the SDQ. Although the Maltese SDQ version has been found to have good validity and reliability, it is possible that some of the observed difference between the two sets of scores may be accounted for by the translation process.

3.3 Conclusion

The findings in this chapter suggest that as in the UK, parents and students, in contrast to teachers, perceive students as having more social, emotional and behaviour difficulties, but also as exhibiting more prosocial behaviour. Teachers see more difficulties in secondary schools, whereas parents discriminate less between primary and secondary students. Hyperactivity difficulties are the most frequently encountered difficulties in Maltese schools, followed by emotional, peer and conduct problems respectively. Both teachers and parents agree that female students engage in more prosocial behaviour than males, and that primary students have higher prosocial scores than their counterparts in secondary school. Female students in both primary and secondary schools have more emotional problems than males, while male students have more conduct and hyperactivity problems at both school levels. Peer problems increase for both genders in secondary school, with the suggestion that males may have slightly more peer difficulties than females according to teachers' and students' perceptions. The next two chapters describe the relationship between difficulty and prosocial scores with a range of individual, classroom, school and home variables.

4

Analyzing SEBD by individual, classroom, school and home variables

4.1 Introduction

This chapter explores the relationship between social, emotional and behaviour difficulties and a range of individual, class, school and home variables. The teacher, parent and self report SDQ mean total difficulty scores were compared across several individual, classroom, school and home variables. Factor analysis was then used to explore the relationship between the type of difficulty and these variables, grouping the four types of difficulties into two clusters, namely conduct-hyperactivity and emotional-peer difficulties respectively. To identify the most relevant predictors that explain the variations in the difficulty scores, several Generalized Linear regression models (GLM) were fitted using a backward procedure. The first section of this chapter presents the teacher, parent and self report mean total difficulty scores in primary and secondary school according to the various individual, class, school and home variables. The significant relationships between the emotional-peer and hyperactivity-conduct difficulties and these variables are also presented in section 4.2. The second part of this chapter presents the results of the GLM analysis which identifies the significant individual, classroom, school and home predictors that best explain the variations in the total difficulty scores. It is important to underline at this stage that the findings are based on inferences about relationships between the total difficulty scores and the predictors. A significant association between two predictors indicates that they are related; however it does not specify the direction of the relationship. The reader is also reminded that this study is based on teachers', parents' and students' perceptions, and that what is being discussed in these chapters is related to these perceptions rather than to any direct observations of student behaviour in school.

4.2 SEBD by individual, classroom, school and home variables

Tables 4.1-4.4 and 4.5-4.8 provide descriptive statistics for the total difficulty scores by individual, class, school and home variables for primary and secondary school students respectively. This section describes the relationship between the total difficulty score and each explanatory variable (predictor). Moreover, it also identifies associations between emotion-peer/conduct-hyperactivity-behaviour difficulties and these variables.

Table 4.1: Mean Total Difficulty scores for primary students (Individual variables)

Individual Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender						
Male	9.37	6.423	0.000*	11.17	5.628	0.103
Female	7.48	5.753		10.74	5.804	
Age						
Year 1	7.96	6.124	0.366	9.97	4.945	0.035*
Year 2	8.58	6.144		11.18	5.469	
Year 3	8.27	6.104		11.05	5.601	
Year 4	8.20	6.198		11.36	6.099	
Year 5	8.68	6.185		11.16	5.908	
Year 6	8.70	6.194		10.87	6.115	
Home Region						
Inner harbour	8.11	6.397	0.013*	11.60	5.526	0.088
Outer harbour	7.06	5.882		10.57	5.785	
South eastern	8.01	5.622		11.17	5.810	
Western	8.13	5.891		11.36	5.491	
Northern	7.83	6.133		10.57	5.830	
Gozo	9.21	6.436		10.55	5.799	
Home Language						
Maltese only	7.88	5.837	0.534	11.20	5.733	0.000*
English only	8.13	7.679		10.07	5.716	
Bilingual	7.46	6.310		9.81	5.597	
Ethnic Group						
Maltese	8.42	6.166	0.693	11.01	5.683	0.640
Other	8.12	6.188		10.60	5.902	
Religion						
Roman Catholic	8.36	6.134	0.925	10.93	5.698	0.927
Other	8.46	6.604		11.07	3.882	
Attendance						
Regular	8.21	6.107	0.000*	10.87	5.648	0.000*
Irregular	12.53	6.041		14.47	6.181	
Attainment						
Very good	5.42	4.648	0.000*	9.39	5.087	0.000*
Average	9.24	5.749		11.69	5.554	
Poor	13.99	5.985		14.79	5.984	
Communication						
Very good	6.45	5.369	0.000*	10.03	5.316	0.000*
Adequate	10.80	5.959		12.45	5.873	
Poor	14.72	5.731		14.10	6.069	

Formal Assessment						
Statemented	9.57	6.552	0.000*	11.39	5.882	0.000*
Non statemented	8.26	6.076		10.84	5.496	
Support	11.51	6.277		13.90	6.498	
Child Diagnosis						
Yes	10.63	6.023	0.000*	14.51	6.074	0.000*
No	7.42	5.925		10.44	5.528	
Child Condition/Illness						
Yes	8.17	6.225	0.326	12.31	6.205	0.000*
No	7.69	5.966		10.68	5.662	
Child Medication						
Yes	8.33	6.244	0.249	12.31	5.984	0.001*
No	7.71	5.994		10.71	5.680	
Child Intervention						
Yes	11.68	6.315	0.000*	15.12	5.696	0.000*
No	7.47	5.885		10.51	5.586	

* Significant at 0.05 level of significance

Table 4.2: Mean Total Difficulty scores for primary students (Classroom variables)

Classroom Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Classroom Size						
11 – 15	11.01	6.891	0.000*	13.06	6.430	0.000*
16 – 20	8.60	6.330		10.88	5.547	
21 – 25	7.87	6.013		10.66	5.536	
26 – 30	7.77	5.675		10.54	5.609	
Classroom Space						
Spacious	8.63	6.009	0.191	11.40	6.205	0.579
Average	8.75	6.303		11.03	5.560	
Limited	8.14	6.147		11.00	5.831	
Streaming						
Streamed	9.06	6.387	0.005*	11.27	5.826	0.218
Mixed ability	8.18	6.102		10.80	5.639	
Stream Level						
Top	7.68	5.782	0.000*	10.30	5.484	0.000*
Middle	8.72	5.526		10.96	5.801	
Low	11.15	7.375		14.05	6.044	
Teaching Experience						
Less than 5 years	8.74	6.177	0.095	11.00	5.750	0.912
6 - 10 years	8.03	6.036		10.72	5.469	
11 – 20 years	8.11	6.104		10.87	5.734	
More than 20 years	8.62	6.461		10.94	5.803	
Teacher Qualifications						
B Ed / PGCE	8.19	6.117	0.004*	10.79	5.717	0.086
College Certificate	8.32	6.300		11.37	5.772	
Diploma	8.84	6.705		10.30	4.544	
Pedagogical Course	9.41	6.116		11.19	5.615	

* Significant at 0.05 level of significance

Table 4.3: Mean Total Difficulty scores for primary students (School variables)

School Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
School Region						
Inner harbour	8.62	6.243	0.015*	11.53	5.579	0.000*
Outer harbour	7.75	6.249		10.14	5.635	
South eastern	8.79	5.890		11.46	5.941	
Western	8.11	5.838		11.71	5.684	
Northern	8.58	6.326		10.44	5.727	
Gozo	9.19	6.039		10.68	5.775	
School Type						
State	8.81	6.244	0.000*	11.47	5.866	0.000*
Church	8.13	5.776		10.70	5.666	
Independent	6.92	6.182		9.26	4.896	
School Size						
100 - 300	9.46	6.354	0.002*	11.98	5.959	0.002*
301 - 500	8.32	6.206		10.88	5.688	
501 - 700	8.11	5.872		10.49	5.685	
701 - 1000	8.62	6.948		12.10	5.247	
School Environment						
Attractive	8.57	6.173	0.037*	11.10	5.708	0.851
Needs improvement	8.23	6.090		11.21	6.072	
Unattractive	10.04	7.021		10.78	5.706	
School Space						
Spacious	8.72	6.274	0.111	11.33	5.855	0.228
Average	8.59	6.054		10.76	5.596	
Limited	7.73	6.299		11.05	5.902	
School Play Space						
Spacious	8.91	6.370	0.067	11.45	5.966	0.094
Average	8.19	6.036		10.72	5.590	
Limited	8.59	6.150		11.09	5.649	

* Significant at 0.05 level of significance

Table 4.4: Mean Total Difficulty scores for primary students (Home variables)

Home Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type						
Flat	7.70	5.816	0.599	11.19	5.813	0.017*
Maisonette	7.82	6.023		11.13	5.762	
House	7.92	6.090		10.88	5.685	
Villa	6.49	5.355		8.72	4.929	
Residence Ownership						
Owned	7.56	5.828	0.001*	10.67	5.681	0.000*
Rented	9.39	6.895		12.81	5.716	
Residence Space						
1 bedroom	9.54	7.125	0.110	12.91	5.855	0.004*
2 bedrooms	8.44	6.523		11.72	6.120	
3 bedrooms	7.72	5.843		10.85	5.581	
At least 4 bedrooms	7.24	5.986		10.14	5.929	

Family structure						
Two parent	7.59	5.843	0.000*	10.67	5.631	0.000*
One parent	10.24	7.154		13.67	6.160	
One Parent						
Deceased	5.73	4.777	0.067	11.85	4.845	0.565
Separated/Divorced	10.34	6.842		13.55	6.627	
Single	11.47	8.207		13.97	5.451	
Relatives						
No Relatives	8.05	5.947	0.232	11.19	5.837	0.001*
There are relatives	8.93	6.422		13.27	5.642	
Family Size						
1 child	8.65	6.250	0.033*	11.40	5.593	0.243
2-3 children	7.60	5.954		10.81	5.711	
At least 4 children	7.74	5.764		10.92	6.148	
Father Occupation						
Professional/Managerial	7.20	5.816	0.004*	10.09	5.617	0.001*
Technical/Clerical	7.61	5.682		10.88	5.695	
Skilled/Semi skilled	7.85	5.783		11.11	5.554	
State Income	10.42	7.992		12.38	5.634	
Mother Occupation						
Professional/Managerial	6.85	5.210	0.040*	9.56	5.309	0.000*
Technical/Clerical	7.75	6.130		10.51	5.347	
Skilled/Semi skilled	8.36	6.349		11.75	5.917	
House Carer	7.91	6.059		11.19	5.806	
Father Education						
Primary	8.45	6.935	0.001*	11.83	5.603	0.000*
Secondary	8.20	5.958		11.47	5.618	
Post secondary	7.11	5.644		10.45	5.817	
Tertiary	6.70	5.738		8.83	4.726	
Mother Education						
Primary	9.26	6.753	0.030*	11.67	5.747	0.000*
Secondary	8.06	5.997		11.42	5.693	
Post secondary	7.58	6.010		10.71	5.905	
Tertiary	6.84	5.733		8.63	4.929	
Family Income						
Less than 120 Euro	10.74	7.519	0.000*	13.53	6.471	0.000*
120 – 240 Euro	7.99	5.970		11.27	5.514	
Over 240 Euro	6.90	5.463		9.91	5.542	

* Significant at 0.05 level of significance

Table 4.5: Mean Total Difficulty scores for secondary students (Individual variables)

Individual Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender									
Male	9.82	6.457	0.000*	10.24	5.657	0.629	11.33	5.003	0.015*
Female	8.21	6.341		10.40	5.382		10.68	4.661	

Age									
Form 1	9.00	6.367	0.646	10.52	5.491	0.178	11.15	5.232	0.477
Form 2	9.48	6.719		10.94	5.439		10.95	5.033	
Form 3	9.07	6.250		9.84	5.181		11.20	4.401	
Form 4	9.03	6.534		10.01	5.770		10.56	4.612	
Form 5	8.82	6.433		10.24	5.677		11.25	4.780	
Home Region									
Inner harbour	8.07	6.143	0.086	10.85	5.837	0.832	11.44	5.109	0.139
Outer harbour	7.58	4.999		10.10	5.303		10.07	4.538	
South eastern	6.90	5.947		10.52	5.668		11.14	5.287	
Western	7.02	5.564		10.35	5.553		10.30	5.109	
Northern	7.66	6.814		10.40	5.476		10.57	4.651	
Gozo	9.04	6.440		10.18	5.732		9.80	4.903	
Home Language									
Maltese only	7.59	5.923	0.666	10.49	5.438	0.138	10.45	4.795	0.634
English only	7.00	5.573		10.53	6.127		11.23	6.286	
Bilingual	7.95	6.060		9.56	5.843		10.71	5.061	
Ethnic Group									
Maltese	8.98	6.418	0.044*	10.28	5.598	0.527	10.95	4.765	0.363
Other	11.00	8.033		9.25	6.312		11.90	5.691	
Religion									
Roman Catholic	8.96	6.406	0.069	10.27	5.580	0.457	10.97	4.760	0.564
Other	11.27	8.526		11.67	7.467		11.71	5.941	
Attendance									
Regular	8.43	6.181	0.000*	10.22	5.588	0.086	10.94	4.815	0.148
Irregular	14.42	6.341		11.76	5.995		11.76	4.427	
Attainment									
Very good	4.93	4.093	0.000*	8.76	5.407	0.000*	9.43	4.569	0.000*
Average	8.95	5.527		10.56	5.161		11.01	4.442	
Poor	15.15	6.607		13.17	6.275		13.33	5.072	
Communication									
Very good	6.22	5.015	0.000*	9.19	5.386	0.000*	10.22	4.638	0.000*
Adequate	10.50	6.132		11.23	5.595		11.24	4.731	
Poor	15.78	6.925		12.66	5.858		13.14	5.005	
Formal Assessment									
Statemented	8.92	6.026	0.000*	10.32	5.585	0.054	11.00	4.785	0.073
Non statemented	8.77	6.386		10.01	5.477		10.78	4.793	
Support	14.63	8.321		12.91	7.097		12.65	5.964	
Child Diagnosis									
Yes	9.61	6.827	0.000*	12.59	6.335	0.000*	11.98	5.349	0.004*
No	7.34	5.771		10.10	5.355		10.34	4.811	
Child Condition/Illness									
Yes	8.01	6.193	0.548	10.88	5.823	0.300	10.61	4.513	0.842
No	7.57	5.920		10.29	5.430		10.48	4.951	
Child Medication									
Yes	9.48	7.695	0.150	11.97	6.342	0.010*	11.21	4.799	0.273
No	7.54	5.825		10.27	5.438		10.44	4.913	
Child Intervention									
Yes	12.33	5.791	0.000*	13.76	6.805	0.000*	13.79	5.572	0.001*
No	7.49	5.934		10.26	5.438		10.40	4.886	

* Significant at 0.05 level of significance

Table 4.6: Mean Total Difficulty scores for secondary students (Classroom variables)

Classroom Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Classroom size									
11 - 15	11.95	7.910	0.000*	10.50	5.722	0.376	11.67	5.317	0.155
16 - 20	10.78	6.926		11.19	6.300		11.60	4.845	
21 - 25	8.47	6.053		10.24	5.463		10.98	4.639	
26 - 30	8.50	6.220		10.09	5.652		10.69	4.816	
Classroom Space									
Spacious	7.78	6.055	0.000*	9.41	5.632	0.000*	10.39	4.981	0.003*
Average	9.92	6.747		11.00	5.533		11.64	4.772	
Limited	9.14	6.079		10.64	5.223		11.25	4.781	
Streaming									
Streamed	9.44	6.838	0.002*	10.79	5.176	0.454	11.16	4.872	0.935
Set for subject	8.19	5.679		10.22	5.171		11.00	4.375	
Mixed ability	9.32	6.647		10.19	5.928		11.04	4.901	
Stream Level									
Top	7.71	5.636	0.000*	10.46	5.352	0.266	10.76	4.358	0.179
Middle	8.04	5.801		10.38	5.141		11.13	4.886	
Low	12.69	7.443		11.68	5.938		12.01	5.223	
Teaching Experience									
Less than 5 years	9.71	6.729	0.028*	10.51	5.767	0.231	11.03	4.725	0.923
6 - 10 years	8.66	6.126		10.17	5.760		11.11	4.753	
11 – 20 years	9.15	6.887		9.94	5.752		10.99	4.940	
More than 20 years	9.15	6.080		11.16	4.812		11.31	4.774	
Teacher Qualifications									
B Ed / PGCE	8.87	6.357	0.000*	10.25	5.754	0.382	10.95	4.675	0.032*
College Certificate	8.93	6.609		10.06	5.209		11.28	5.013	
Diploma	10.34	7.588		11.76	5.328		11.38	5.555	
Pedagogical Course	11.66	6.906		11.48	5.379		12.22	5.144	

* Significant at 0.05 level of significance

Table 4.7: Mean Total Difficulty scores for secondary students (School variables)

School Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
School Region									
Inner harbour	9.38	6.646	0.000*	10.35	5.497	0.887	11.35	5.197	0.069
Outer harbour	8.32	5.957		10.13	5.263		11.08	4.576	
South eastern	5.33	4.618		10.17	5.058		11.03	4.398	
Western	8.92	6.016		10.49	5.435		10.87	4.906	
Northern	9.92	7.480		10.98	6.965		10.81	4.408	
Gozo	10.22	6.383		10.29	5.632		9.87	4.729	
School Type									
Area Secondary	11.82	6.770	0.000*	12.13	5.387	0.000*	12.01	4.739	0.000*
Junior Lyceum	8.00	6.017		10.31	5.212		10.45	4.526	
Church	7.54	5.744		9.60	5.654		9.56	4.806	
Independent	8.41	6.090		9.27	5.787		10.53	5.875	

School Size									
100 - 300	9.54	6.654	0.000*	10.28	5.649	0.124	11.65	4.988	0.001*
301 - 500	9.72	6.564		10.68	5.803		11.82	5.038	
501 - 700	8.65	6.065		9.52	5.592		10.31	4.759	
701 - 1000	7.88	6.182		10.26	4.944		10.74	4.566	
Over 1000	8.26	6.137		10.78	5.306		10.49	4.296	
School Environment									
Attractive	7.72	5.927	0.000*	9.79	5.357	0.000*	10.38	4.804	0.000*
Needs improvement	10.88	6.543		11.55	5.679		12.36	4.799	
Unattractive	10.85	6 596		11.92	5.522		11.81	4.684	
School Space									
Spacious	8.71	6.390	0.000*	10.16	5.505	0.222	10.76	4.864	0.001*
Average	8.32	5.988		10.07	5.415		11.22	4.622	
Limited	10.31	6.592		10.94	5.475		12.26	4.999	
School Play Space									
Spacious	8.36	6.299	0.000*	9.90	5.438	0.049*	10.66	4.901	0.000*
Average	9.04	6.076		10.66	5.683		10.90	4.788	
Limited	10.35	6.815		10.90	5.393		12.55	4.630	

* Significant at 0.05 level of significance

Table 4.8: Mean Total Difficulty scores for secondary students (Home variables)

	Teacher SDQs			Parent SDQs			Self-Report SDQs		
Home Variables	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type									
Flat	8.01	6.004	0.869	11.33	5.798	0.018*	11.18	5.159	0.120
Maisonette	7.63	5.828		10.75	5.478		10.96	4.793	
House	7.62	5.960		10.16	5.447		10.16	4.699	
Villa	6.94	5.532		9.37	5.377		9.62	5.539	
Residence Ownership									
Owned	7.54	5.926	0.168	10.24	5.492	0.011*	10.34	4.804	0.004*
Rented	8.33	5.935		11.82	5.658		12.15	5.478	
Residence Space									
1 bedroom	7.12	5.515	0.666	12.00	4.811	0.456	11.17	7.333	0.147
2 bedrooms	7.85	5.311		10.92	5.774		11.55	5.237	
3 bedrooms	7.47	5.969		10.29	5.570		10.36	4.755	
At least 4 bedrooms	8.09	6.283		10.22	5.127		10.31	4.968	
Family structure									
Two parent	7.53	5.868	0.264	10.23	5.463	0.001*	10.35	4.831	0.001*
One parent	8.35	6.578		12.22	5.961		12.64	5.318	
One Parent									
Deceased	10.45	5.558	0.212	13.16	5.650	0.806	11.00	5.114	0.153
Separated/Divorced	8.53	6.519		12.35	5.897		13.17	4.997	
Single	14.67	13.317		13.75	7.632		16.50	6.658	
Relatives									
No Relatives	7.62	5.930	0.926	10.23	5.482	0.001*	10.47	4.843	0.470
There are relatives	7.69	6.029		12.37	5.851		10.98	5.624	
Family Size									
1 child	9.28	7.327	0.005*	10.99	6.252	0.136	11.24	5.620	0.010*
2-3 children	7.29	5.596		10.19	5.430		10.21	4.698	
At least 4 children	7.98	6.202		10.93	5.367		11.63	5.097	

Father Occupation									
Professional	7.10	5.700	0.052	9.26	5.395	0.000*	9.27	4.889	0.022*
Technical/Clerical	6.89	5.317		10.06	5.674		9.29	4.624	
Skilled/Semi skilled	8.13	6.126		10.88	5.443		10.80	4.729	
State Income	8.16	5.288		11.71	5.810		10.83	5.296	
Mother Occupation									
Professional	6.54	6.579	0.089	9.53	5.662	0.010*	9.78	5.028	0.485
Technical/Clerical	6.53	5.848		9.00	5.308		9.77	4.865	
Skilled/Semi skilled	8.00	5.734		10.85	5.511		11.13	5.113	
House Carer	7.39	5.669		10.57	5.487		10.51	4.829	
Father Education									
Primary	8.23	6.952	0.156	11.89	5.424	0.000*	12.11	4.666	0.008*
Secondary	7.78	5.920		10.63	5.436		10.44	4.852	
Post secondary	7.26	5.872		9.96	5.636		9.97	4.820	
Tertiary	6.59	5.076		8.84	5.535		9.82	4.859	
Mother Education									
Primary	8.20	7.384	0.160	11.53	4.854	0.000*	12.02	5.924	0.027*
Secondary	7.82	5.717		10.73	5.424		10.61	4.692	
Post secondary	6.73	5.565		9.30	5.491		9.72	4.877	
Tertiary	7.09	6.190		9.21	5.989		9.70	5.374	
Family Income									
Less than 120 Euro	8.02	6.010	0.365	11.68	5.138	0.000*	12.73	5.136	0.000*
120 – 240 Euro	7.81	5.686		10.95	5.405		10.61	4.804	
Over 240 Euro	7.29	6.028		9.44	5.645		9.99	4.757	

* Significant at 0.05 level of significance

4.2.1 Individual variables

Gender

According to teacher responses, boys have more social, emotional and behaviour difficulties than girls in both primary and secondary school. The mean total difficulty scores for male and female students differed significantly at both school levels.

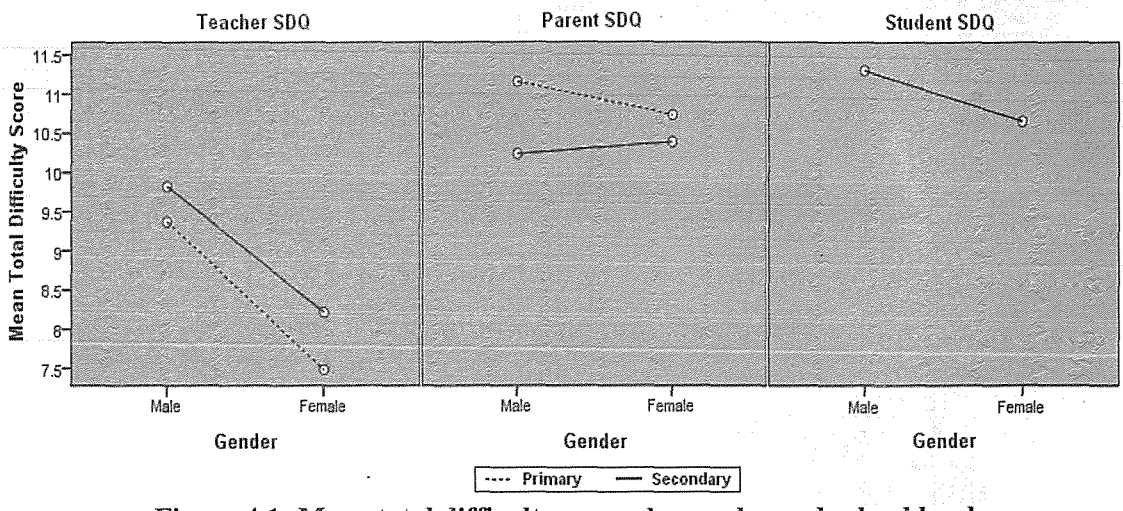


Figure 4.1: Mean total difficulty scores by gender and school level

This result is complemented by their responses of the secondary school students. Parents, however, discriminate less between the two gender groups. Figure 4.1 displays the contrast between teacher, parent and student perceptions with regards to gender differences in primary and secondary school.

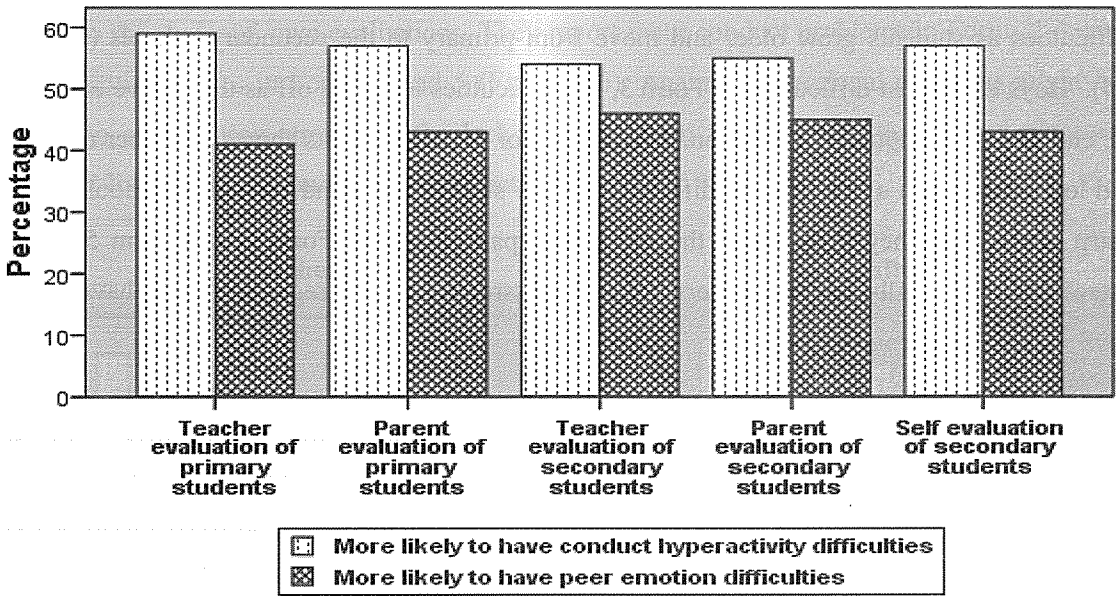


Figure 4.2: Percentage of male students by type of difficulty

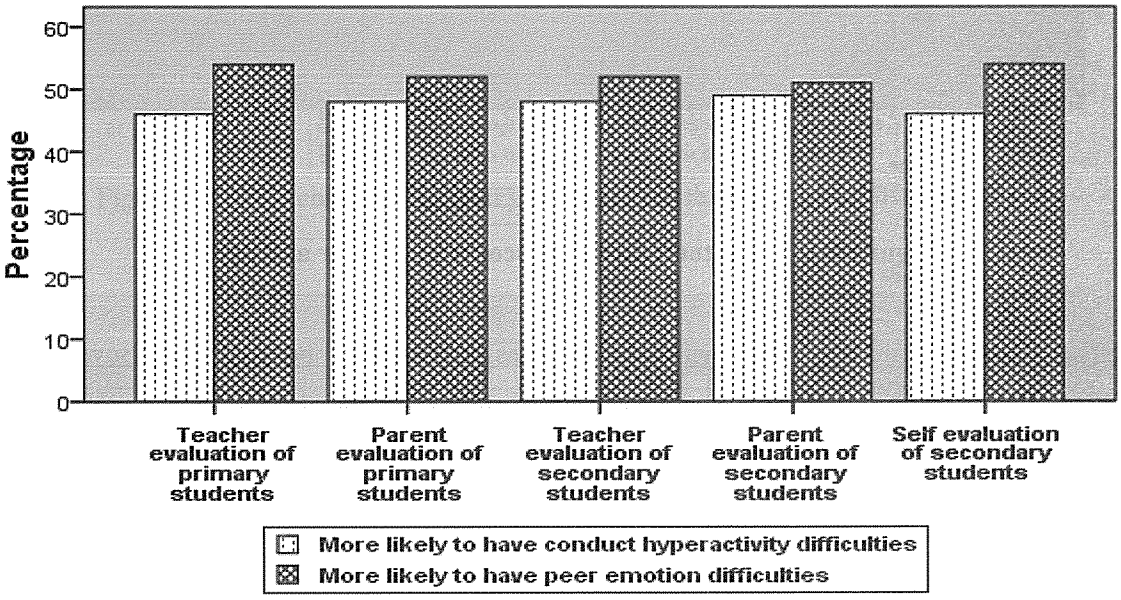


Figure 4.3: Percentage of female students by type of difficulty

The analysis by type of difficulty suggests that while boys are more likely to exhibit conduct and hyperactivity problems, girls tend to have more emotional and peer problems. This association is consistent in the teacher, parent and self report evaluations in both primary and secondary levels (Figures 4.2 and 4.3 respectively).

Age

SEBD does not seem to be related to student age according to teacher and self report evaluations. Parents of primary students perceive most difficulties in Year 4 and least in Year 1. If one examines the progression of students from Year 1 in primary school to Form 5 in secondary school some interesting patterns emerge. Teacher evaluations indicate increasing difficulties as students grow older and move from primary to the secondary schools (Figure 4.4). Boys have most difficulties in Form 3, the difficulties levelling off as they move towards the end of their compulsory education. The pattern for female students shows a number of high and low peaks, with a low level of difficulty as they start primary and secondary school, but a sharp increase as they progress in the secondary, particularly in Form 2 and Form 5. This agrees with the usually reported observations of classroom teachers regarding the behaviour of boys and girls in secondary school.

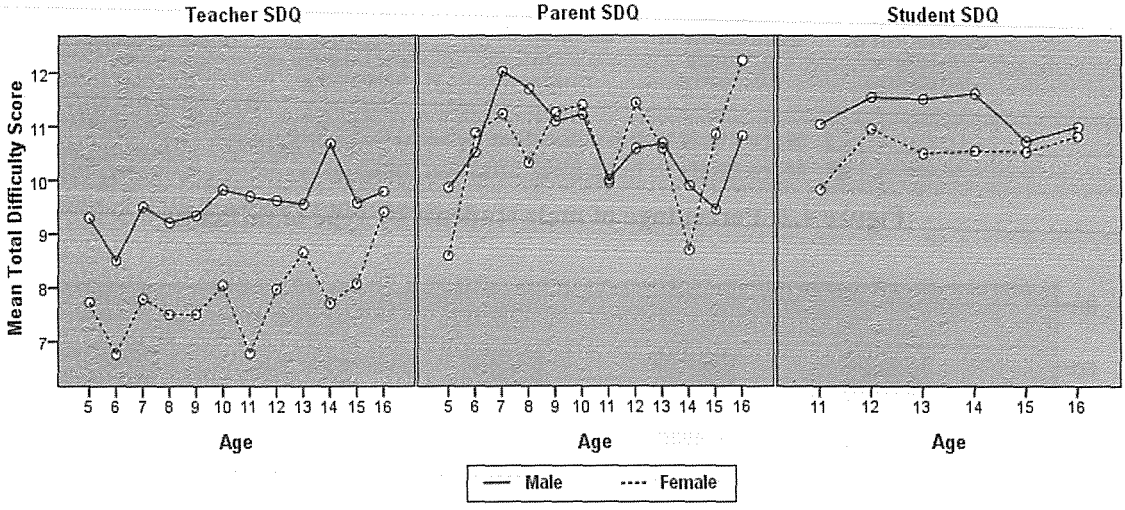


Figure 4.4: Mean total difficulty scores by gender and age

Parents' responses are less linear with various highs and lows for both genders. Boys have more problems in primary school, reaching the highest point at age 7, then levelling off until the end of primary school and increasing again in secondary school. Girls have a more uneven profile, with peaks at ages 7 and 9-10 (primary) and then at 12 and 16 (secondary). Self report scores elicited by secondary students indicate less dramatic changes in behaviour than parents' or teachers' scores, with boys' behaviour being relatively stable until Form 3, following which there is a decline in difficulties (as in teachers'); girls show an increase in difficulties from Form 1 to Form 2 but then remain fairly stable.

Factor analysis shows a significant difference between emotional and behaviour problems between Years 1-5 and Year 6 in primary school, with the latter exhibiting more emotional

difficulties and the former more conduct problems (Figure 4.5). This finding goes against international trends with more emotional problems in the early years and more conduct problems in the junior years. This may be a reflection of the pressures that the Junior Lyceum examination and streaming may be having on pupils in the final year of primary school. While no clear pattern emerges from the results in secondary school, an interesting significant finding relates to the students' own evaluations. They report more conduct problems in Forms 2-4 and more emotional ones in Forms 1 and 5 (Figure 4.6). Again the emotional problems might be related to examination stress and the lack of preparation for the transitions taking place in students' lives at Form 1 and Form 5 respectively.

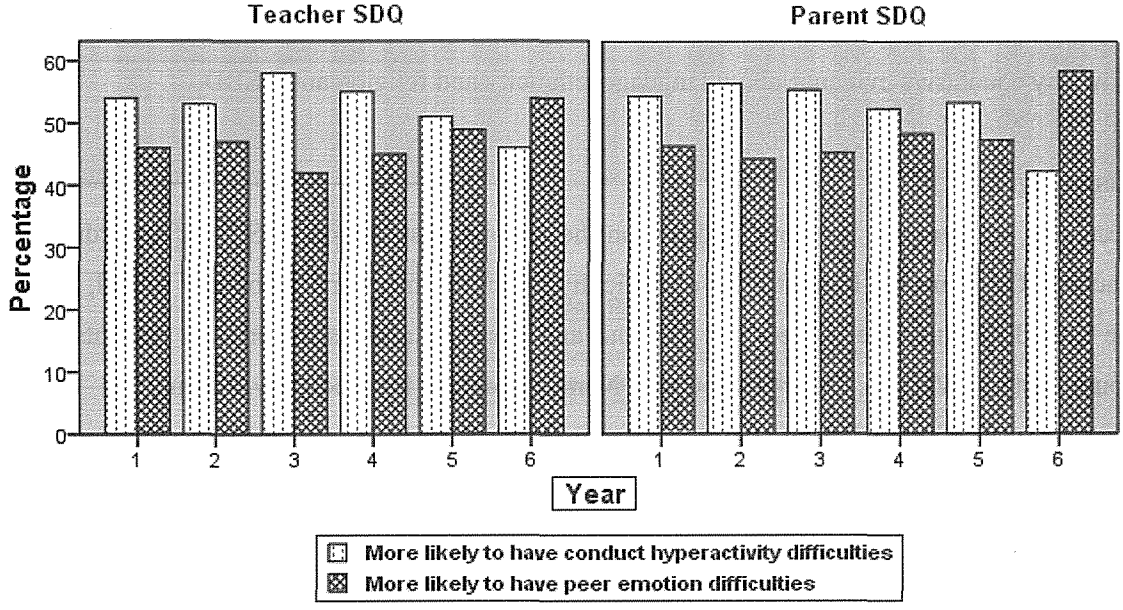


Figure 4.5: Percentage of primary students exhibiting type of difficulty by age

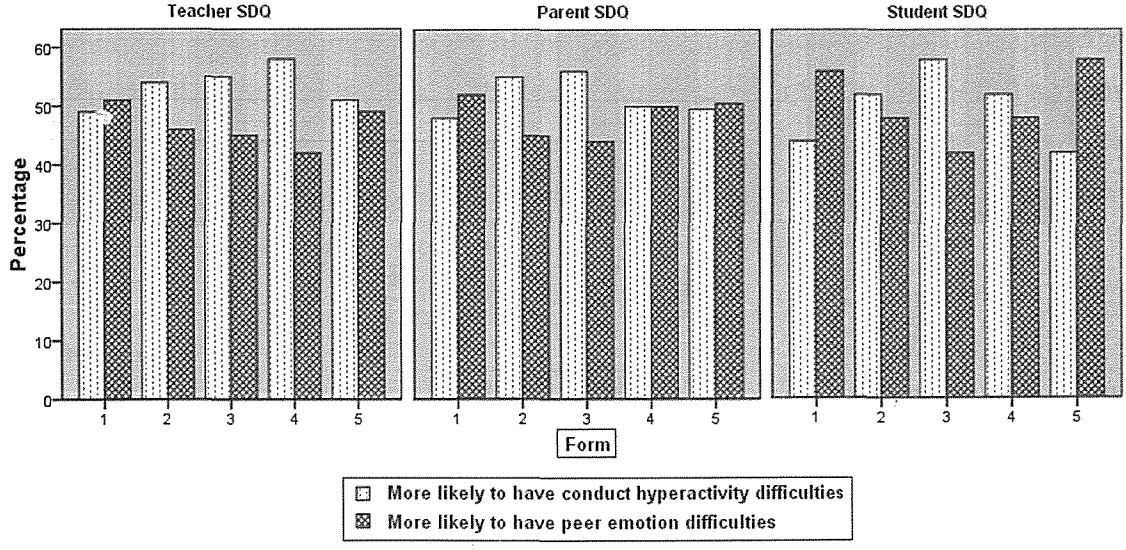


Figure 4.6: Percentage of secondary students exhibiting type of difficulty by age

Home Language, ethnicity and religion

On the whole, home language, ethnicity and religion do not appear to be related to social, emotional and behaviour problems in Maltese schools. The only significant difference between Maltese speaking and non-Maltese speaking children results from primary parent evaluations which suggest more difficulties in students who speak only Maltese in contrast to bi-lingual or English-speaking ones. At type of difficulty level, there are some indications that students coming from English speaking homes may have more conduct and hyperactivity problems. On the other hand, teachers indicate a higher level of difficulty amongst non-Maltese and non-Catholic secondary school students; this pattern is similar for self report evaluations (though not significant). However, the small number of non-Maltese speaking and non-Catholic students in the sample make it difficult to discern particular trends in the population and to draw any conclusive evidence about language, ethnicity and religion and SEBD.

Home region

Teachers' and parents' perceptions differ on the regional distribution of SEBD. According to teachers, Gozo has the highest level of difficulty in both primary and secondary school, while the least difficulties are in the Outer Harbour and Northern regions for primary students, and South Eastern, Western, Outer Harbour and Northern regions for secondary students.

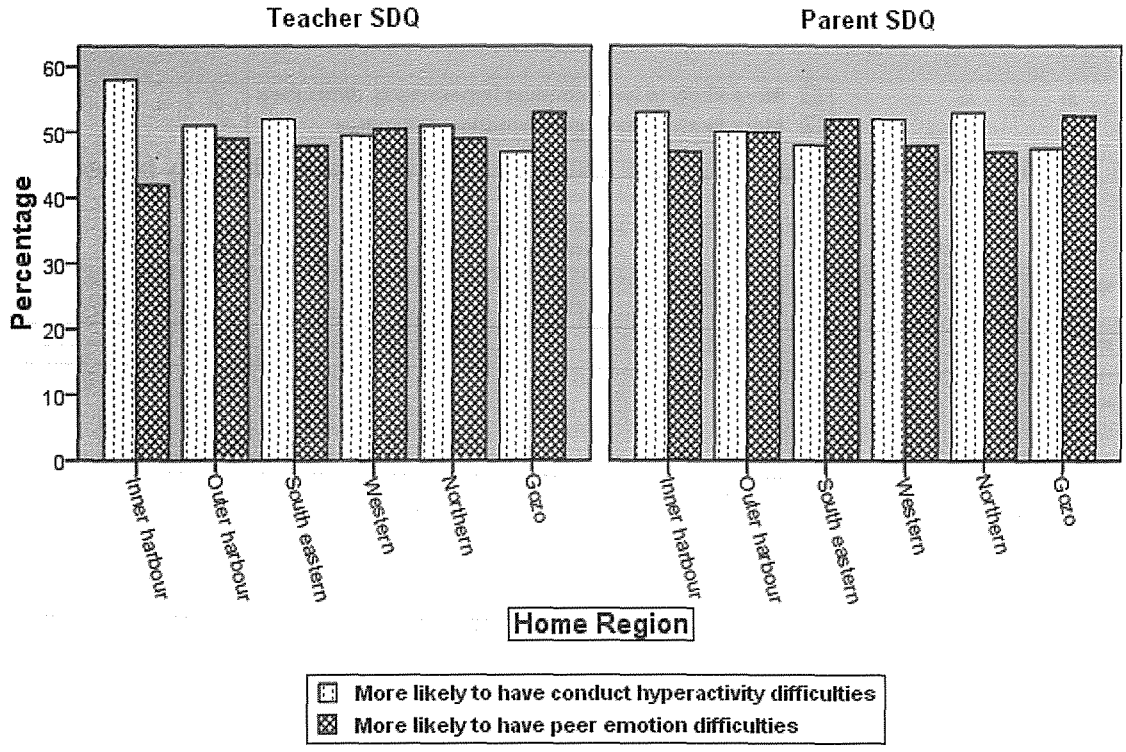


Figure 4.7: Percentage of primary students exhibiting type of difficulty by home region

The parent responses on the other hand, point to the Inner Harbour region, traditionally the most socially disadvantaged region of the Maltese islands, as having most difficulties (though not significant in secondary school), with Gozo, Northern and Outer Harbour regions having the least difficulties, particularly at the primary level.

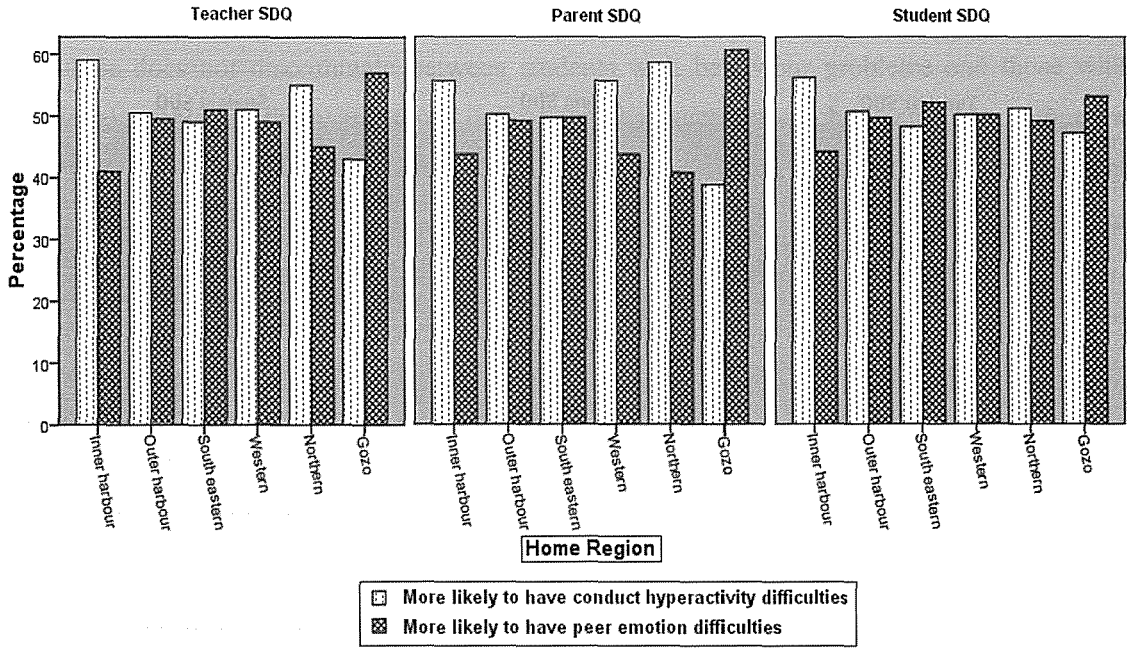


Figure 4.8: Percentage of secondary students exhibiting type of difficulty by home region

Factor analysis reveals an interesting picture. Gozo has the highest level of emotional-peer problems and the lowest conduct-hyperactivity difficulties, while the opposite is true of the Inner Harbour and Northern regions. This finding is evident in both primary and secondary schools (Figures 4.7 and 4.8). One explanation for this association in Gozo could be the examination pressure, particularly the Junior Lyceum examination, young children undergo in the small village primary schools on the island. An explanation for the unexpected high levels of SEBD in the Northern region is the internal migration taking place in the last decades in Malta. Recent demographic statistics, for instance, suggest a shift of younger adults from the Inner Harbour areas to other regions such as the Northern region (NSO 2007b).

Attendance

Figure 4.9 shows that primary and secondary students with irregular attendance are more likely to have social, emotional and behaviour difficulties, with consistent results in the teacher, parent and self report evaluations. Though the relationship between attendance and SEBD is likely to be reciprocal, the literature suggests that students who absent themselves regularly from school are more likely to experience difficulties at school, including learning difficulties,

bullying, and autocratic behaviour management (Cefai and Cooper 2008; Clarke *et al.* 2005). A higher proportion of students with irregular attendance are more likely to have peer and emotional problems than conduct and hyperactivity difficulties in primary school, while no clear pattern emerges in secondary school (Figure 4.10). This is an interesting finding, suggesting possible links between emotional and peer problems such as bullying, which leads to absenteeism particularly in primary school.

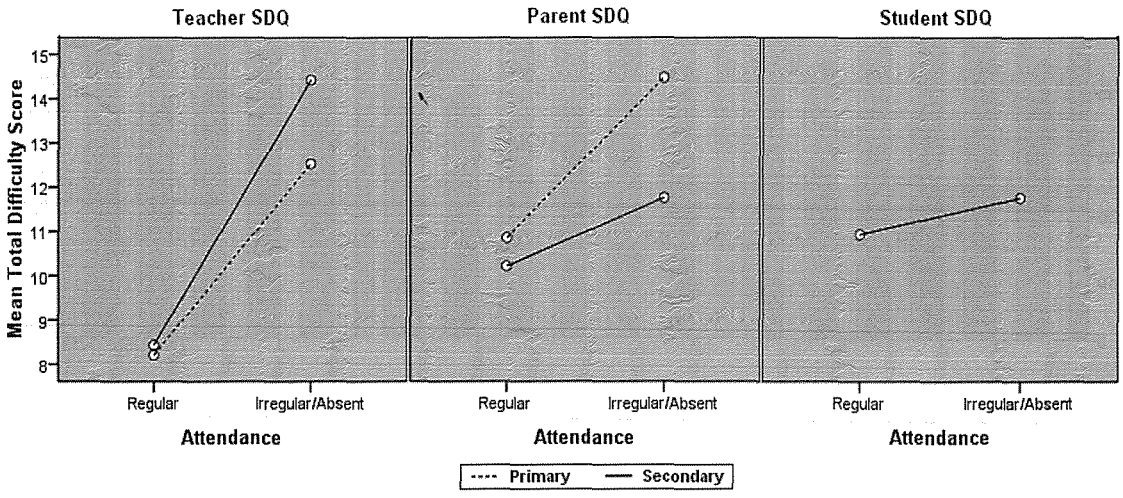


Figure 4.9: Mean total difficulty scores by attendance and school level

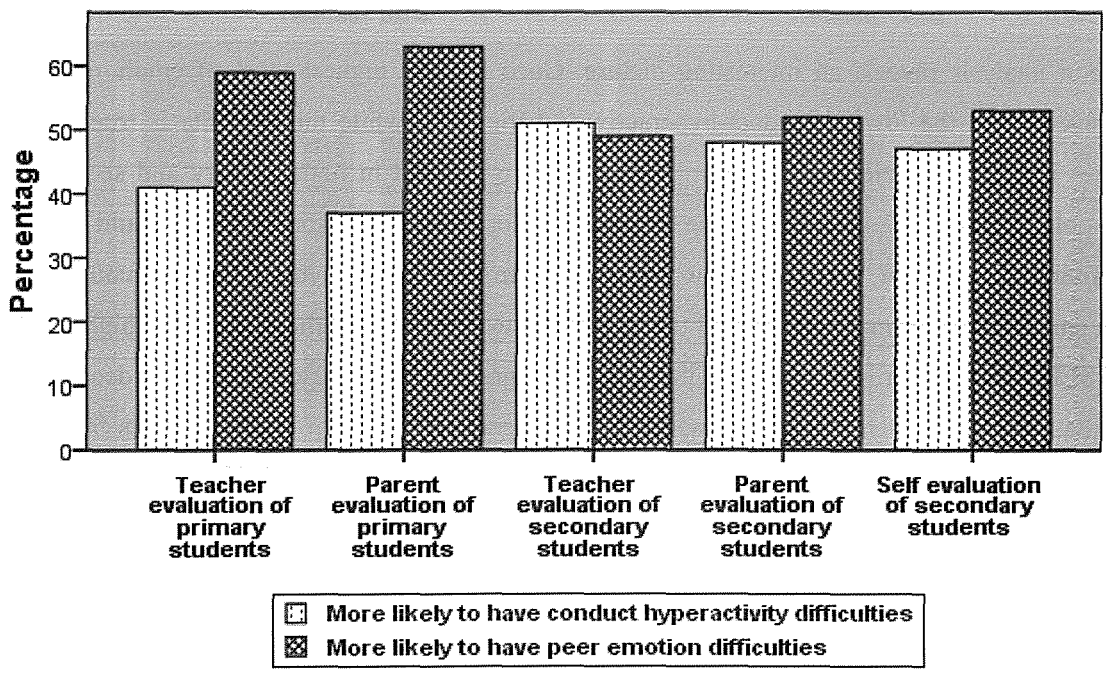


Figure 4.10: Percentage of students with irregular attendance exhibiting type of difficulty

Attainment

One of the strongest and most consistent findings in the study is that students with poor attainment are more likely to have social, emotional and behaviour difficulties. Significant findings were derived for this relationship for all three groups of respondents at both primary and secondary levels (Figure 4.11). The international literature has repeatedly underlined the inextricable link between learning and behaviour difficulties in school. Although attainment on the whole does not discriminate between students with behaviour problems and those with emotional problems, there are some indications that secondary school students with poor attainment are more likely to have behaviour problems, while those with high attainment experience more emotional ones. This may be explained by the hypothesis suggested earlier that high attainment may be associated with academic pressure and examination stress.

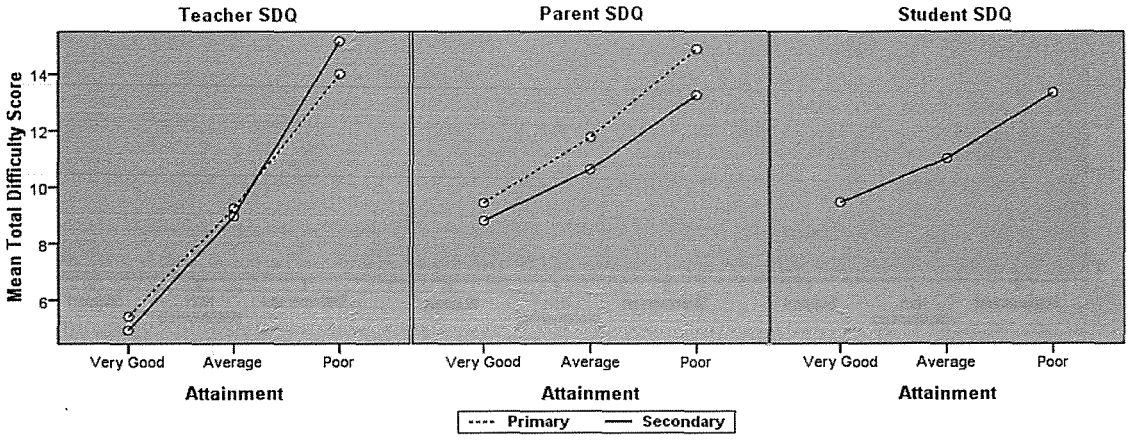


Figure 4.11: Mean total difficulty scores by attainment and school level

Communication

Figure 4.12 shows that students with poor communication skills are more likely to have social, emotional and behaviour difficulties in contrast to those with good communication skills.

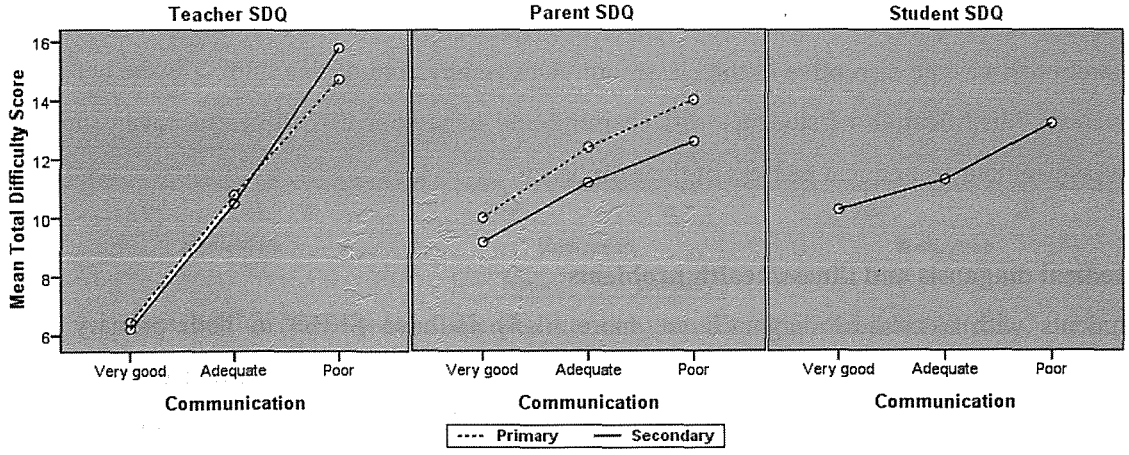


Figure 4.12: Mean total difficulty scores by communication and school level

This finding is consistent at both primary and secondary school levels for the three groups of respondents. There are some indications that poor communication may be more related to emotional and peer problems than to conduct and hyperactivity, particularly according to the teachers.

Formal assessment

Of the three groups of students (statemented, supported without Statement, and not statemented/ supported), students with support but without a Statement appear to be most likely to experience SEBD (Figure 4.13).

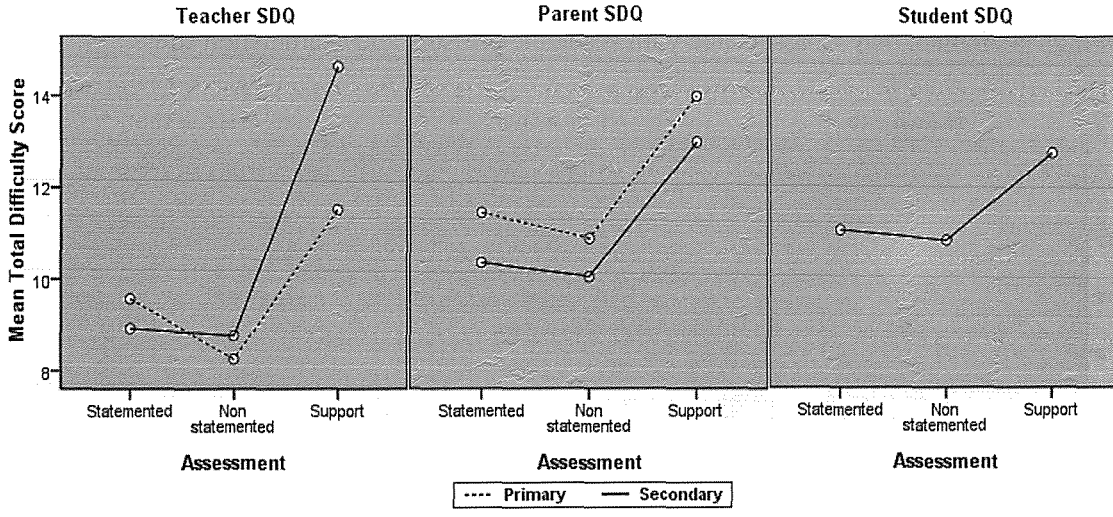


Figure 4.13: Mean total difficulty scores by assessment and school level

While it is evident that statemented students and students with support have more learning and/or behaviour problems than non-statemented/supported students, the difference between statemented and non-statemented-supported-students is interesting. It could be that there may be more statemented children with learning difficulties than with behaviour difficulties, while there are more supported students with behaviour than learning problems. Possibly support without Statement is more likely to be provided to students with behaviour difficulties, who would otherwise be disruptive in the classroom. One implication of this finding is the need for the early identification of students with learning and behaviour difficulties to ensure proper assessment and consequent address of their needs.

Medical diagnosis and illness/health problems

Students with a medical diagnosis are more likely to have SEBD in both primary and secondary, with significant findings for teacher, parent and self report evaluations (Figure 4.14). There are indications of a similar pattern for children with illness and health problems, particularly in the primary, though this relationship does not appear to be as strong and

consistent as the former one. Though there is no clear finding regarding the type of difficulty, it is indicative that medical diagnosis may be particularly linked to emotional difficulties. A possible explanation is that students with a medical diagnosis might have accompanying emotional difficulties secondary to, or as a consequence of, the diagnosis. For instance, there is a clear body of research showing that bullying appears to be quite common amongst children with disability and other difficulties (Children's Commissioner 2006; Mencap 2007)

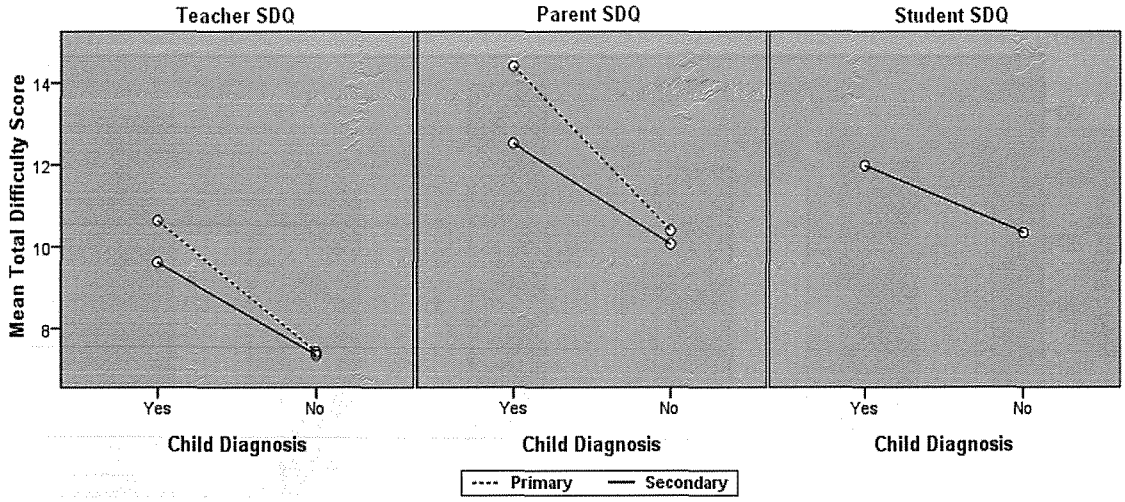


Figure 4.14: Mean total difficulty scores by child medical diagnosis and school level

Medication and other interventions

Medication is not a strong factor in predicting SEBD in school, though there are some indications that children on medication may have more difficulties (Figure 4.15).

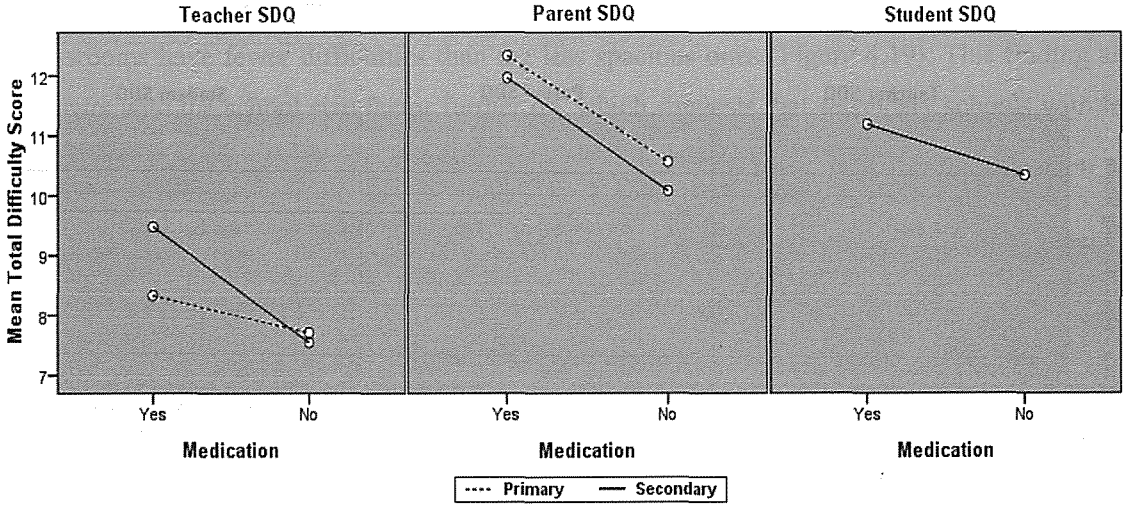


Figure 4.15: Mean total difficulty scores by medication and school level

Moreover, children receiving other forms of psychological and educational interventions, experience more difficulties in primary and secondary school (Figure 4.17), particularly

emotional problems (Figure 4.16). This may be explained by the schools' referrals to support services; for instance half of the referrals to the School Psychological Service in 1990 were for behaviour difficulties (Bartolo 1991). Moreover, students may be receiving interventions related to their SEBD, such as complementary lessons for learning difficulties emanating from behaviour problems. It could also be that the interventions and diagnoses themselves may be contributing to emotional difficulties, such as poor self-esteem, labelling and stigmatisation, and possibly bullying.

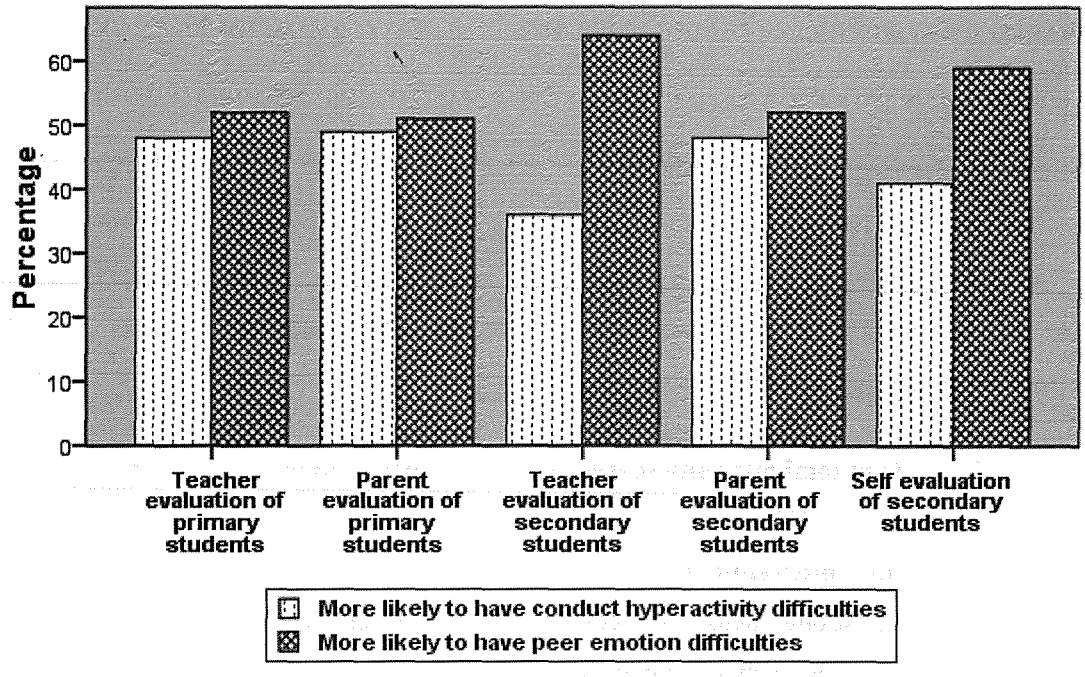


Figure 4.16: Percentage of students exhibiting emotional or behaviour difficulties who receive psychological and educational interventions

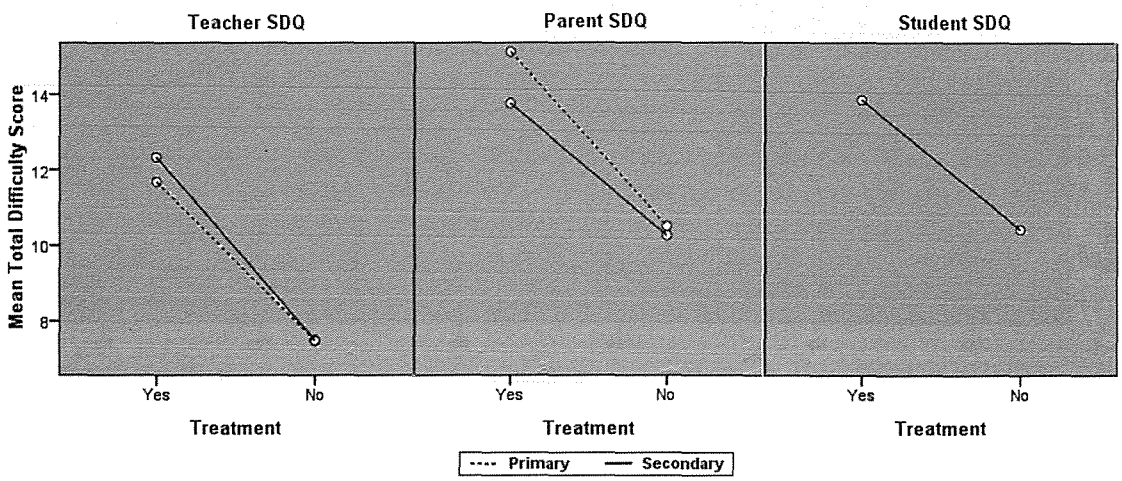


Figure 4.17: Mean total difficulty scores by intervention and school level

4.2.2 Classroom variables

Classroom size

In bigger classrooms one expects to find more students with SEBD. However, the findings of this study show that smaller classrooms have more students with such difficulties than classrooms with twenty students or more. When classroom size was controlled for streaming, however, it was evident that there were a higher proportion of small classrooms that were streamed (Figure 4.18), suggesting that streaming, rather than classroom size, was related to SEBD.

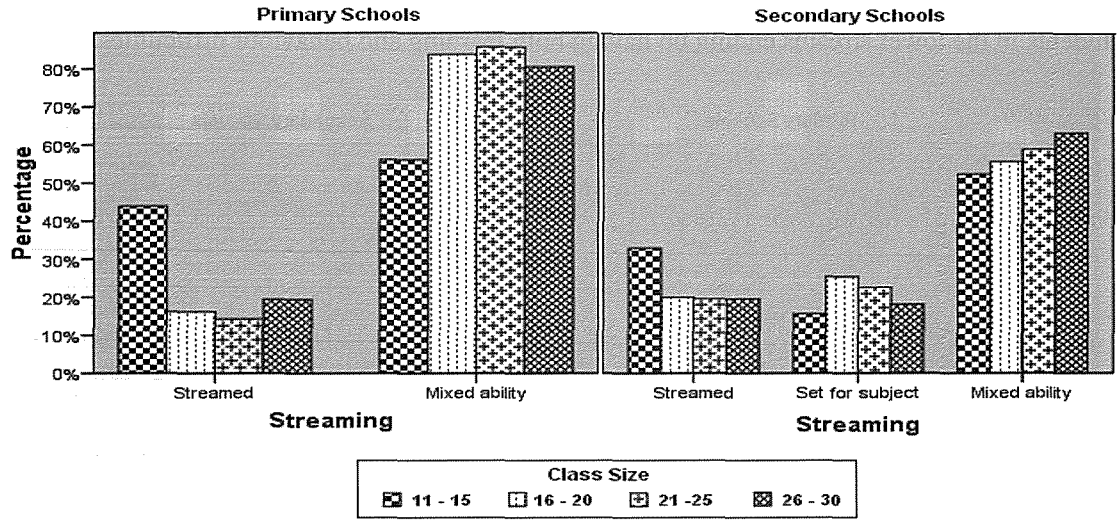


Figure 4.18: Percentage of students by school level, class size and streaming

Classroom space

Classroom space was not related to SEBD in primary school, but spacious secondary classrooms have fewer difficulties than the less spacious ones (Figure 4.19). This finding also concurs with the school size factor further on, which suggests that secondary schools with less space may have more students with SEBD.

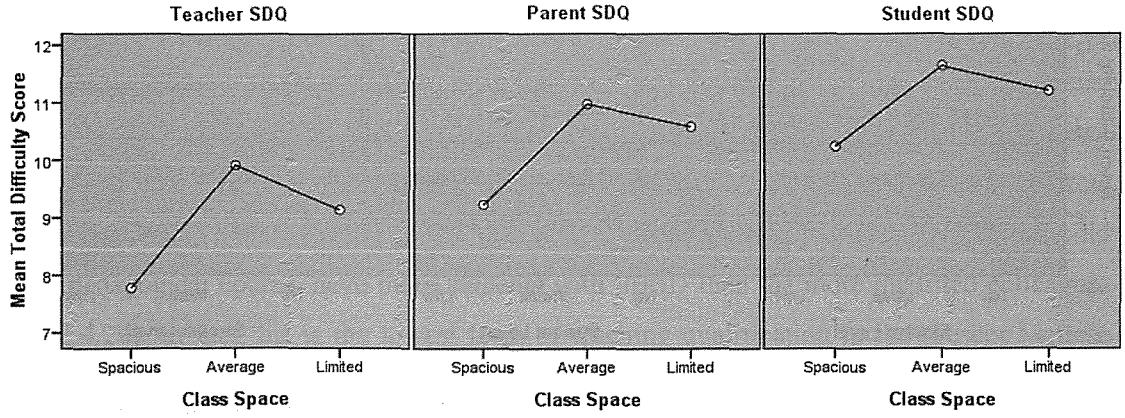


Figure 4.19: Mean total difficulty scores by class space in secondary schools

Streaming

Students placed in streamed classes are more likely to have SEBD than those in mixed ability classrooms or in classrooms where setting is in place. This finding is significant for primary school teachers. In the secondary, set classrooms are the least likely to have SEBD (Figure 4.20). There are more students with SEBD in the lower streams when compared to the upper streams in both primary and secondary school; teacher evaluations are very clear about the negative effects of streaming (Figure 4.21). While the relationship is likely to be reciprocal, grouping students with SEBD together may lead to a deterioration of behaviour. It is also indicative that unaddressed learning difficulties might contribute to behaviour difficulties, with students in the lower streams ending up having both learning and behaviour difficulties.

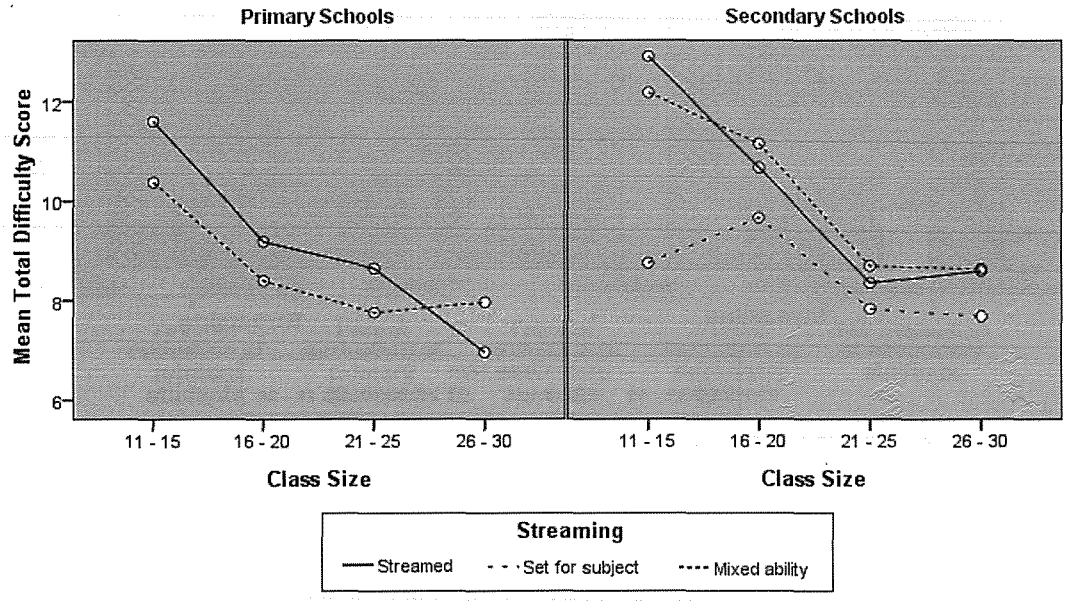


Figure 4.20: Mean total difficulty scores (teacher) by class size, stream and school level

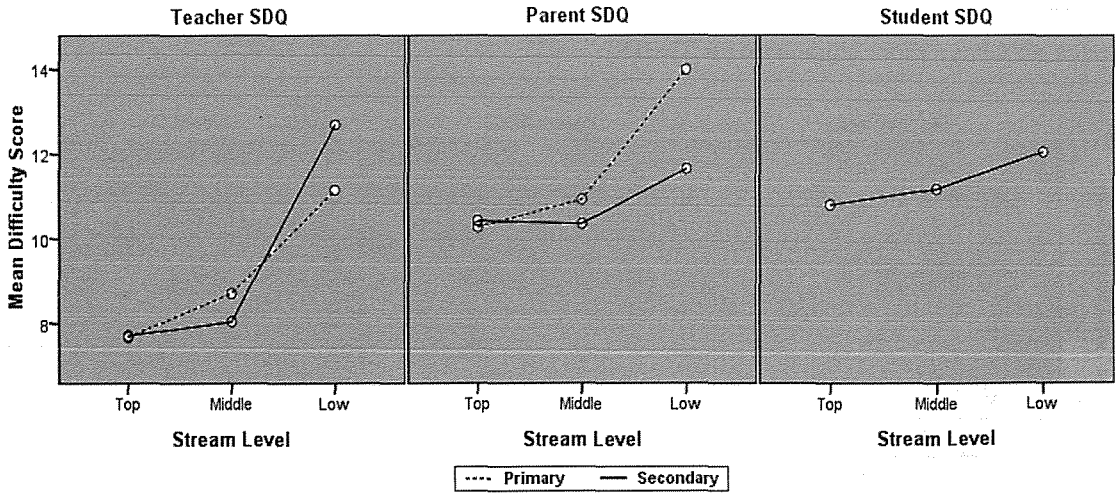


Figure 4.21: Mean total difficulty scores by stream level and school level

The results at type of difficulty level are inconsistent, but there are some indications from teacher responses that while conduct problems are more frequent in the lower streams, the upper streams have more emotional problems (Figure 4.22). Such a finding would complement other findings in the study that learning difficulties may lead to behaviour problems, while a heavy emphasis on academic pressure and examinations may result in stress and emotional problems. This finding however, has to be treated with caution as it is not significant; moreover the student self reports suggested the opposite, namely more conduct problems in upper streams and more emotional difficulties in the lower streams.

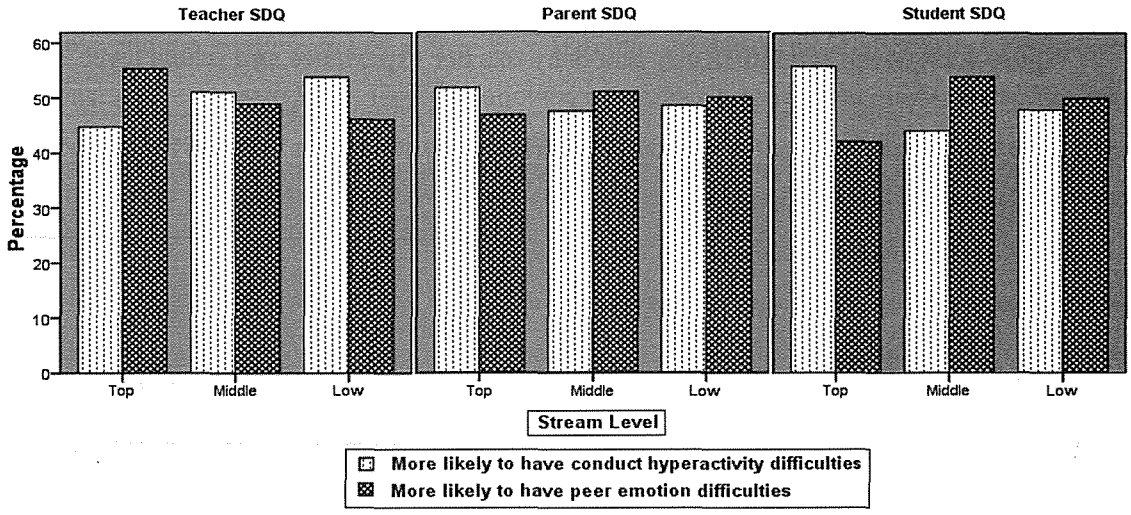


Figure 4.22: Percentage of secondary students exhibiting type of difficulty by stream level

Teacher experience and qualification

The association between teacher experience and social, emotional and behaviour difficulties is significant only in secondary school according to teacher responses. The less experienced secondary teachers, namely those with less than five years teaching experience, may have more students with SEBD, particularly students with behaviour problems. Parent responses, on the other hand, indicate that teachers with more than twenty years experience followed by those with less than five years experience have most difficulties (Figure 4.23). Such findings may be attributed to schools assigning new teachers the more difficult and lower streamed classrooms, but also the lack of mentoring and induction for newly qualified teachers. It is also possible that the older teachers may be less tolerant of behaviour difficulties amongst school children. Teacher and student responses agree that the less qualified teachers, particularly those who did only a pedagogical course, have more students with SEBD than the more qualified colleagues (Figure 4.24). In fact, his is the lowest form of teaching qualification in the present Maltese educational system, with teachers being recruited without initial teacher education and getting in-house training instead.

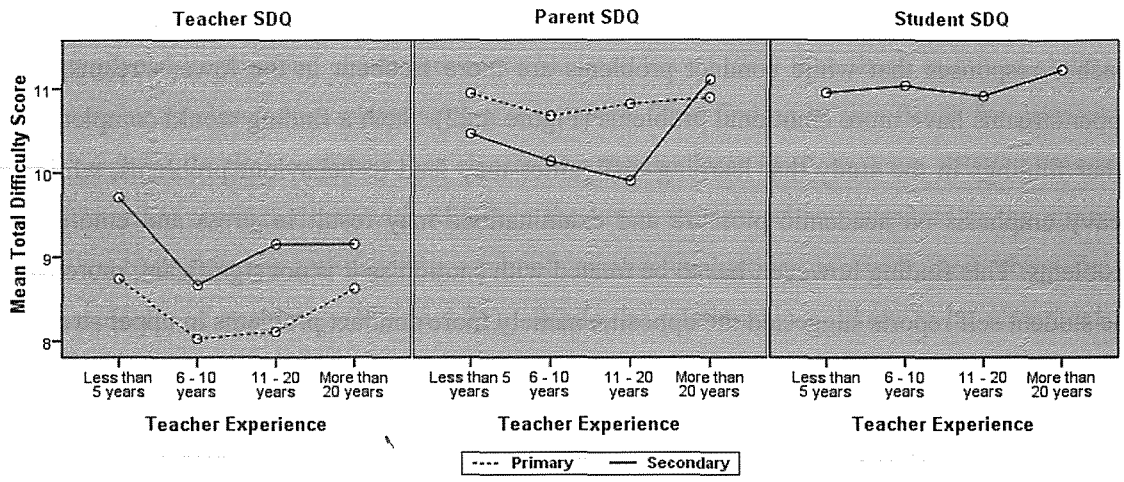


Figure 4.23: Mean total difficulty scores by teacher experience and school level

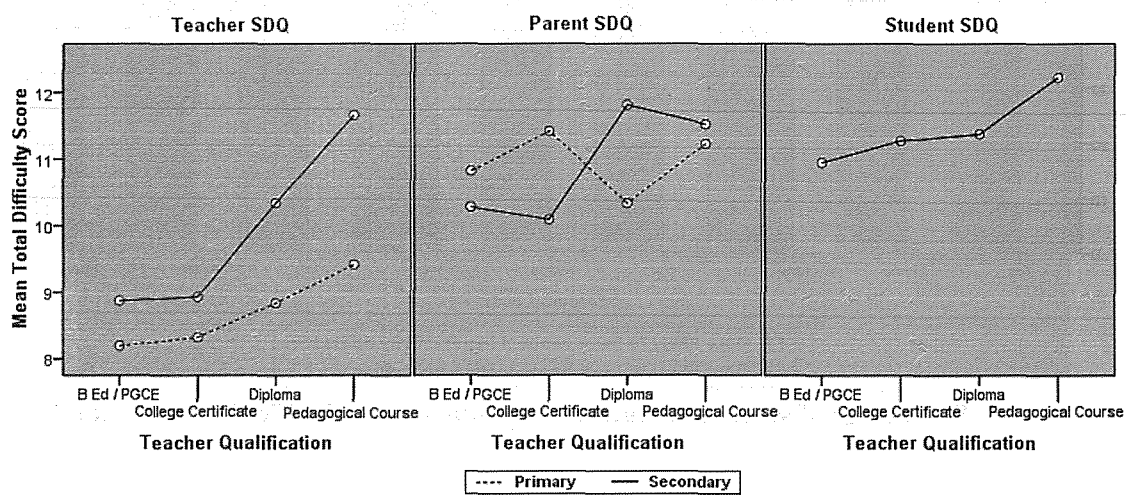


Figure 4.24: Mean total difficulty scores by teacher qualification and school level

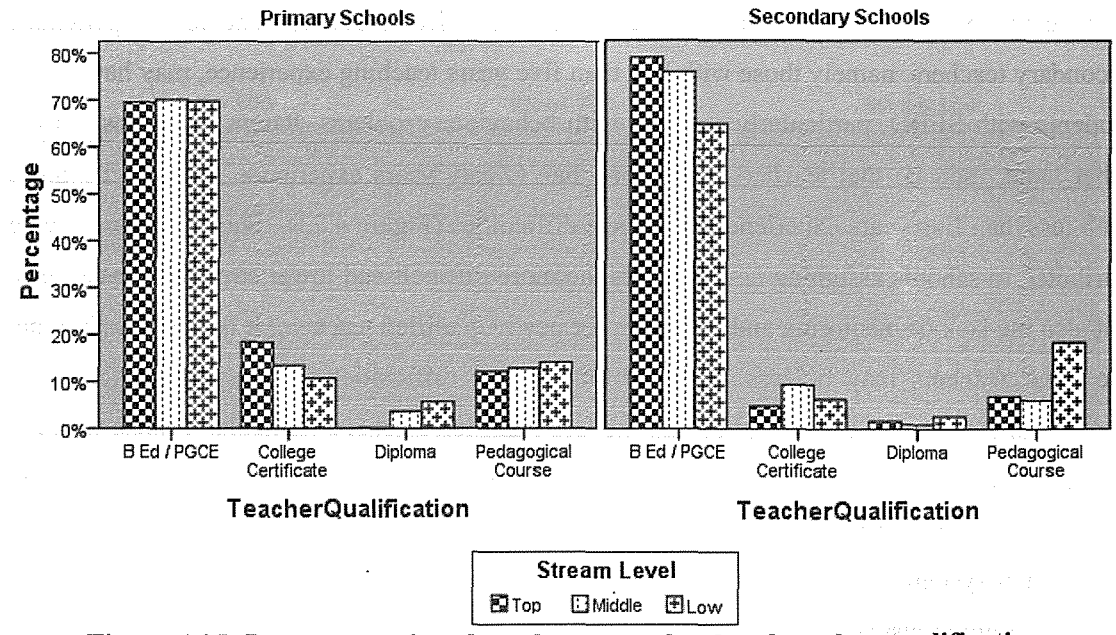


Figure 4.25: Percentage of students by stream level and teacher qualification

However, this finding is partly explained by streaming as Figure 4.25 illustrates. There are a higher proportion of less qualified teachers that teach the lower stream levels, particularly in secondary schools.

4.2.3 School variables

School region

There is no clear pattern with regards to school region and SEBD, with teachers and parents having different views on which school regions have most difficulties. As in home region, teacher responses in both primary and secondary school, indicate most problems in Gozitan schools, and the least in schools in the Outer Harbour (primary) and South Eastern (secondary) regions. At the primary level, Gozo is followed by South Eastern, Inner Harbour and Northern regions as having most problems, while secondary schools in the Northern and Inner Harbour regions appear to have most difficulties according to teachers. Parents on the other hand, indicate that primary schools in the Western, Inner Harbour and South Eastern regions, and secondary schools in the Northern region, have most difficulties. Contrastingly, the self report evaluations suggest that the Inner Harbour schools have most SEBD and those in Gozo the least difficulties (Figure 4.27). The type of school, however, might explain some of the effect of school region. Figure 4.26 displays a higher proportion of primary students attending state schools in contrast to church or independent schools in Gozo, South Eastern, and Northern regions. The figure also displays that secondary students attending schools in the South Eastern region are all Junior Lyceum students which may explain the dip in the mean total difficulty score for this region.

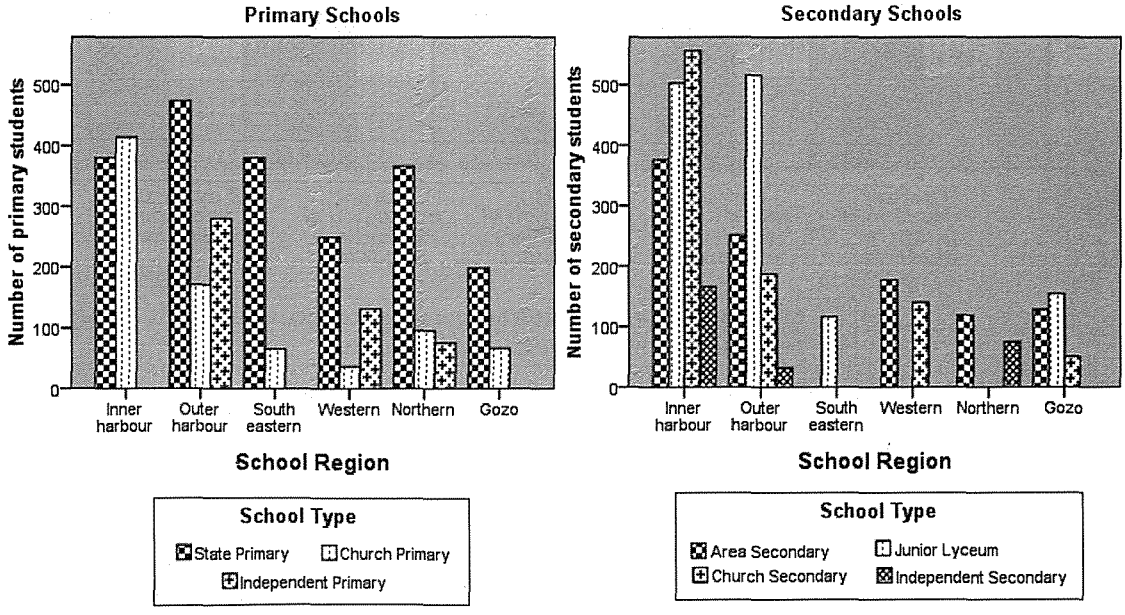


Figure 4.26: Number of students by school region and type of school

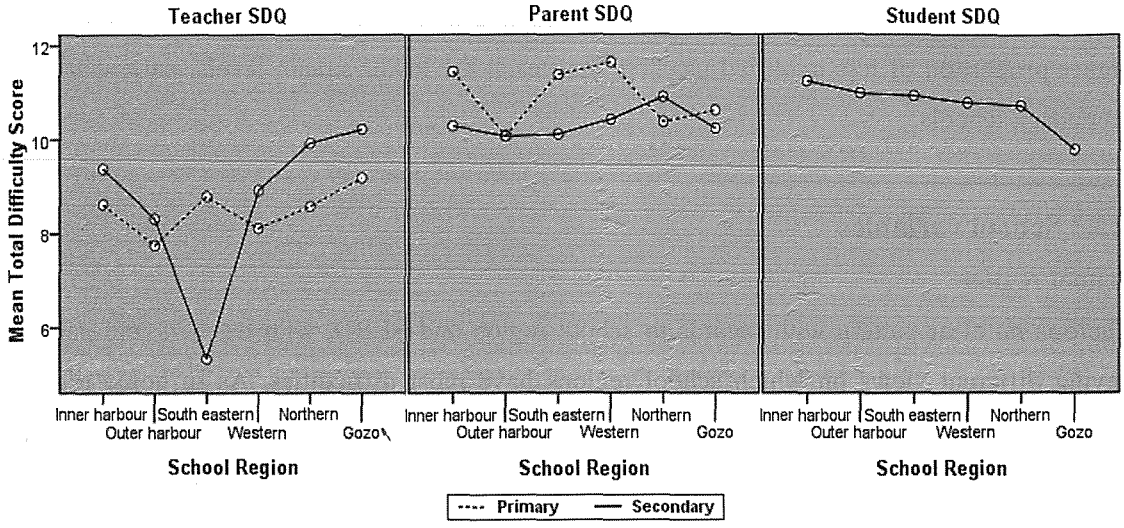


Figure 4.27: Mean total difficulty scores by school region and school level

Though the association between type of difficulty and school region is not strong, some patterns emerge. The responses of teachers, parents and students agree that Gozitan schools have the highest proportion of emotional difficulties and least conduct problems (Figure 4.28). Most conduct problems are found in schools in the Northern region according to primary teachers and parents, and in the Western region according to secondary teachers and parents.

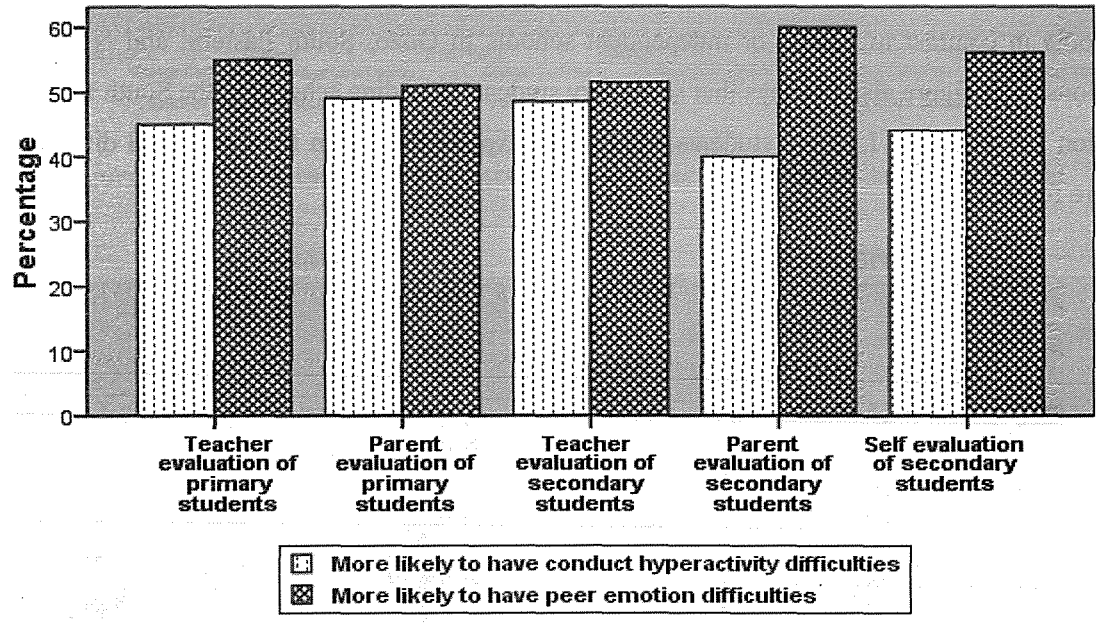


Figure 4.28: Percentage of Gozitan students exhibiting emotional and behaviour difficulties

School Type

There is a consistent significant finding across the three groups of respondents in both primary and secondary schools that state schools are more likely to have SEBD than church or independent schools. Area secondary schools have the highest level of difficulty (Figure 4.29),

while difficulties in Junior Lyceums, church and independent secondary schools are comparable. Teachers and parents agree that independent primary schools have the least difficulties. Various factors may explain such a finding, including student intake, with a higher proportion of high achieving and better behaved students attending church and independent schools. There are also indications from this study that very often more resources are pooled into Junior Lyceums and non state schools than in Area Secondary schools.

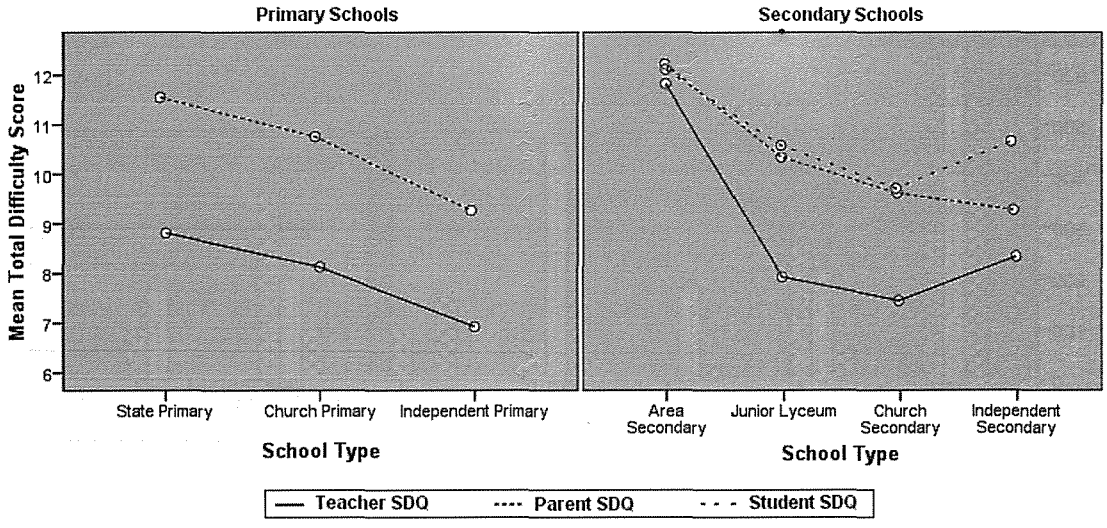


Figure 4.29: Mean total difficulty scores (teacher) by school type and school level

School size

In general, the smaller and the bigger primary schools appear to have more problems than the medium sized schools. Schools with less than 300 and more than 700 students have more difficulties than the average sized ones (Figure 4.30).

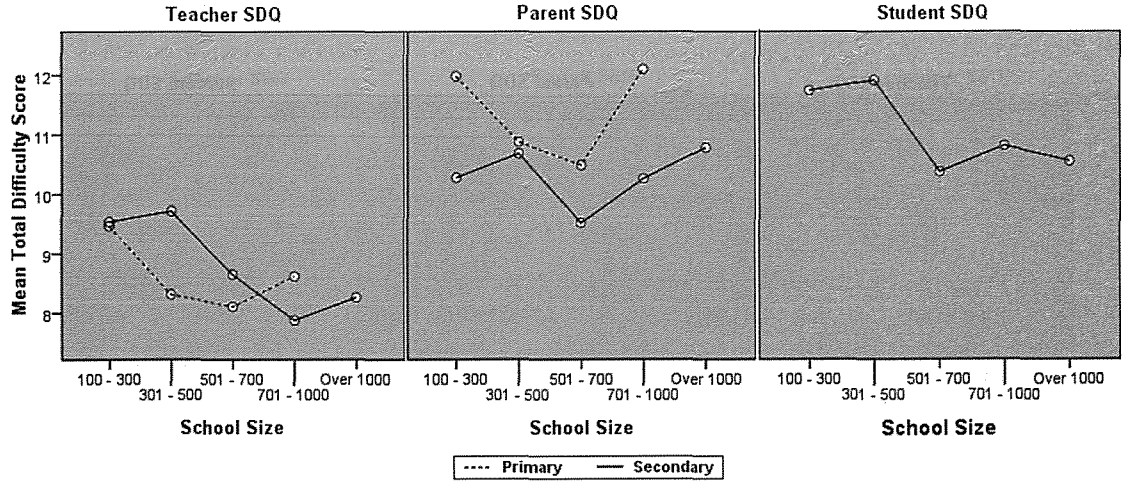


Figure 4.30: Mean total difficulty scores by school size and school level

This may have some implications for the current policy of joining A and B primary schools in the same locality into one school, though this finding needs to be treated cautiously. Secondary schools with less than 500 students have more problems than the larger ones, particularly according to the responses of teachers and students. However, this is partly explained by type of school, with a large proportion of the smaller secondary schools being Area Secondary schools, whereas a large proportion of the larger schools are Junior Lyceums (Figure 4.31).

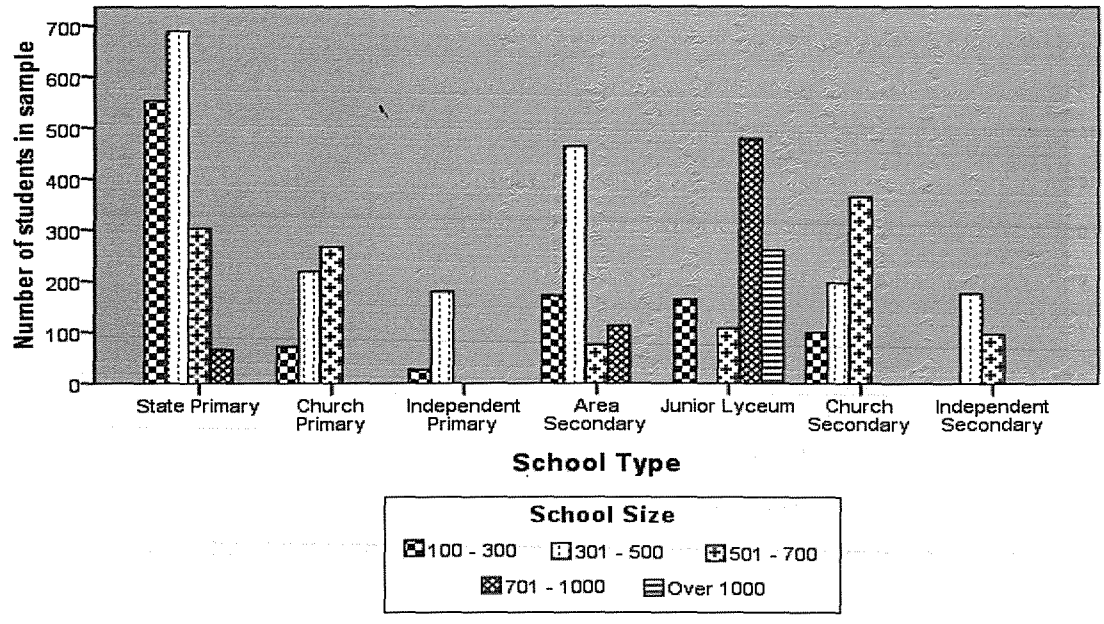


Figure 4.31: Number of students by school type and school size

School environment, space and play space

Schools with an unattractive environment or whose environment needs improvement, have more difficulties than those with better environments. Secondary schools with limited space and limited play space have more SEBD than the more spacious schools (Figure 4.32 and 4.33).

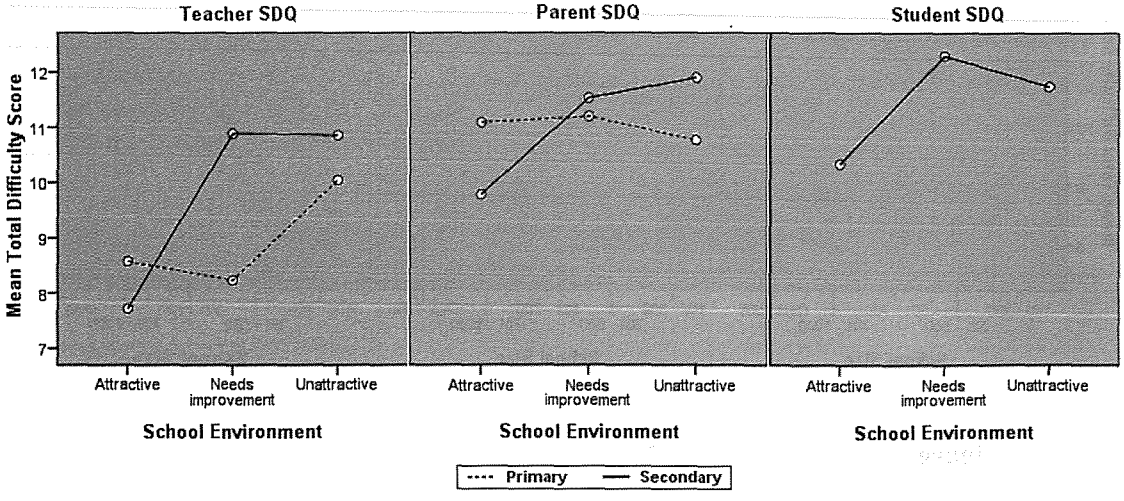


Figure 4.32: Mean total difficulty scores by school environment and school level

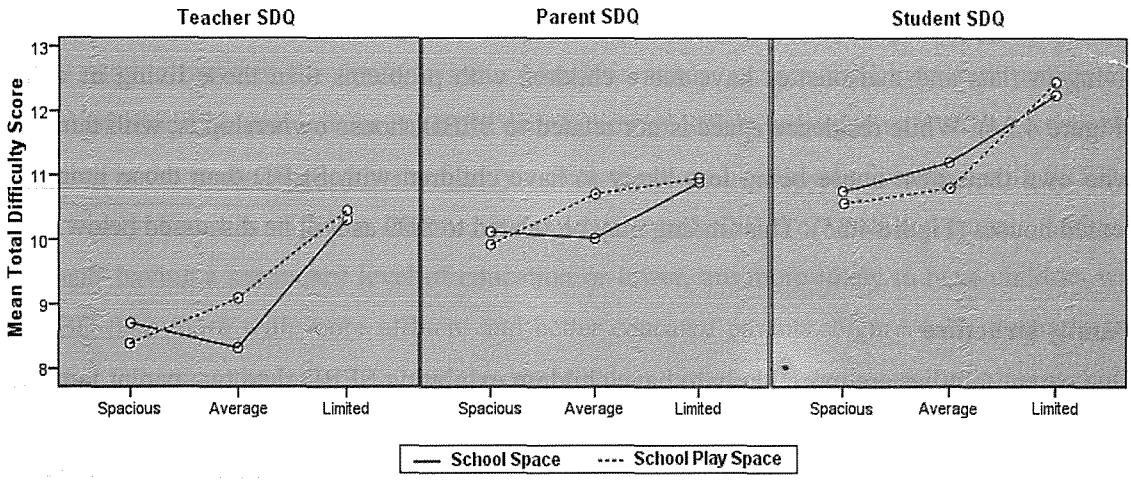


Figure 4.33: Mean total difficulty scores for secondary students by school space and play space

4.2.4 Home variables

Residence type, space and ownership

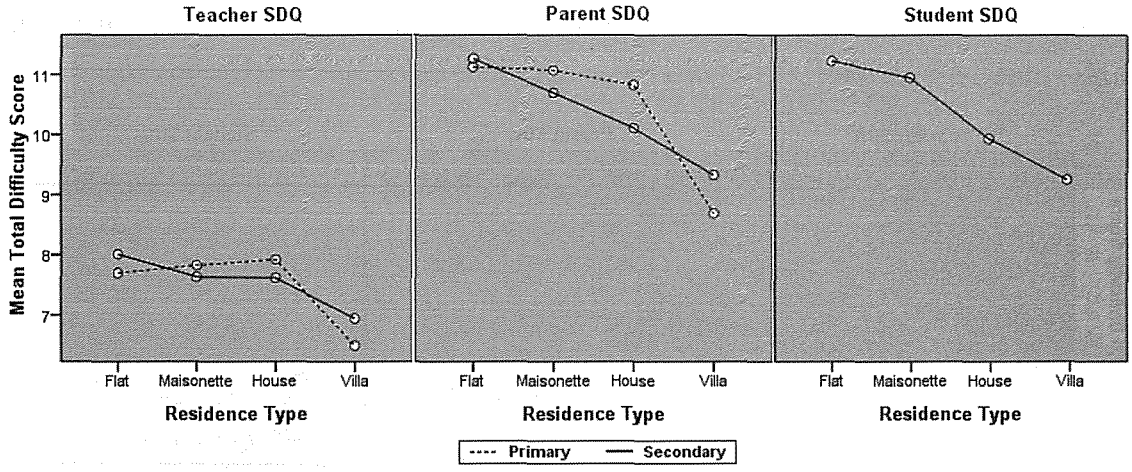


Figure 4.34: Mean total difficulty scores by type of residence and school level

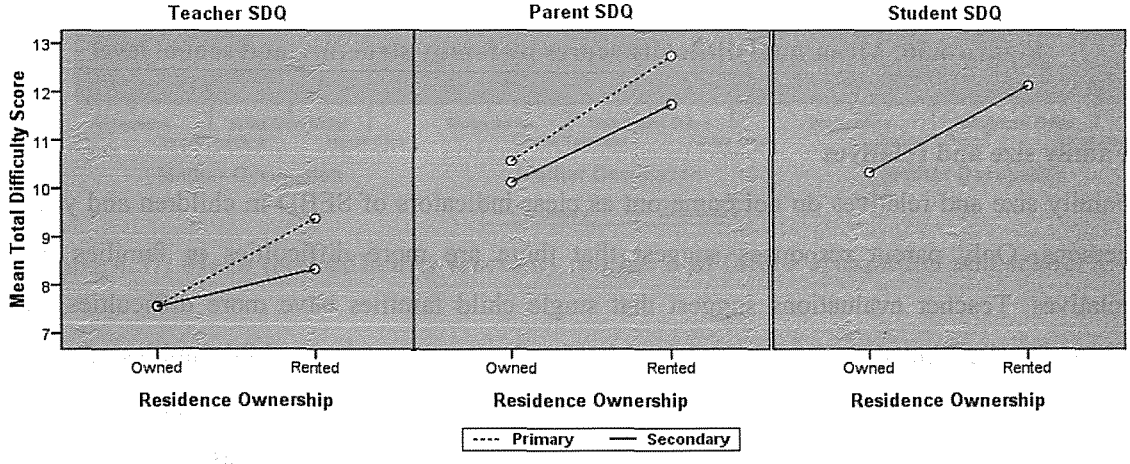


Figure 4.35: Mean total difficulty scores by residence ownership and school level

Residence type is significant only according to the parents of primary school children. Families living in flats and maisonettes have more children with problems than those living in villas (Figure 4.34). While residence space is not related to SEBD, house ownership is, with families who own their own house being less likely to have children with SEBD than those living in rented houses (Figure 4.35). This finding may be related to SES as will be discussed below.

Family structure

One parent families are more likely to have children exhibiting SEBD than two parent families as Figure 4.36 illustrates, with most of the relationships being significant. The difficulties appear to be more salient in primary school, possibly underlining the difficulties young children may be going through. There is no conclusive evidence on the relationship between the structure of the family and type of difficulty, however, though there are some indications that one-parent families may have more conduct problems. There is some evidence, particularly in primary schools, that children of deceased parents have fewer difficulties than those of single or separated parents. However, this result cannot be generalized due to the relative small sample size.

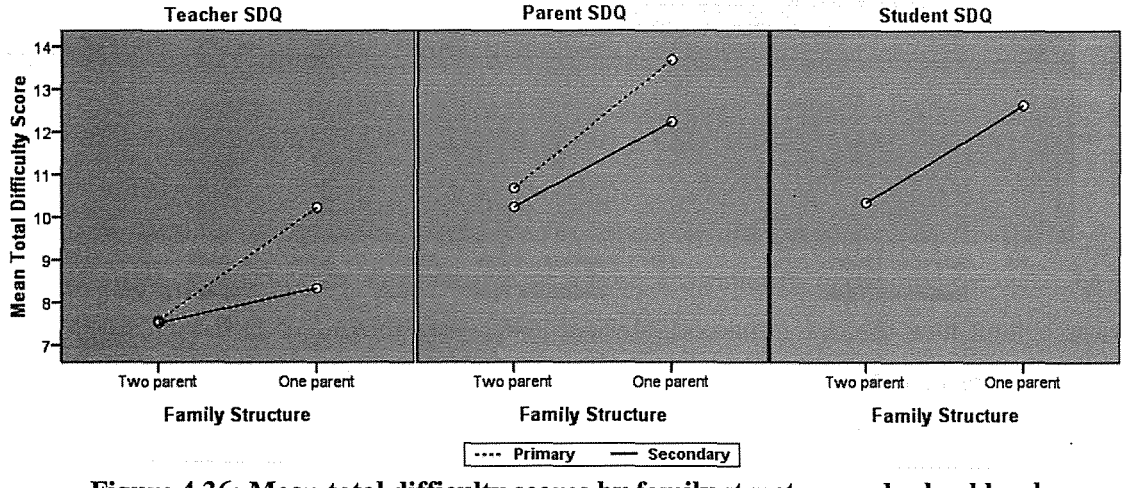


Figure 4.36: Mean total difficulty scores by family structure and school level

Family size and relatives

Family size and relatives do not come out as clear indicators of SEBD in children and young persons. Only parent responses suggest that there are more difficulties in families with relatives. Teacher evaluations suggest that single child families have more difficulties than larger families, but this may be explained by family structure (single child families are more likely to be single parent families). According to self report evaluations, families with 2 to 3 children have the least difficulties; whereas families with 1 child or at least 4 children have more difficulties.

Socio-economic status (parental occupation, education and income)

The relation between the family's socio economic status, as measured by parent occupation, level of education and income, and the distribution of SEBD, emerged as a strong, consistent finding in the study. The lower the family's SES, the more likelihood of children with SEBD in the family. Families with low income, unemployed, semi skilled or unskilled parents, and with parents having a secondary level of education or lower, are more likely to have children with SEBD than those with more affluent and better educated parents. Figure 4.37 illustrates that having fathers on the lower levels of the career ladder, either on state income or in lower skilled jobs, may make children more vulnerable to SEBD. Similarly, children and young persons are more likely to have such difficulties in families with skilled or semi skilled mothers.

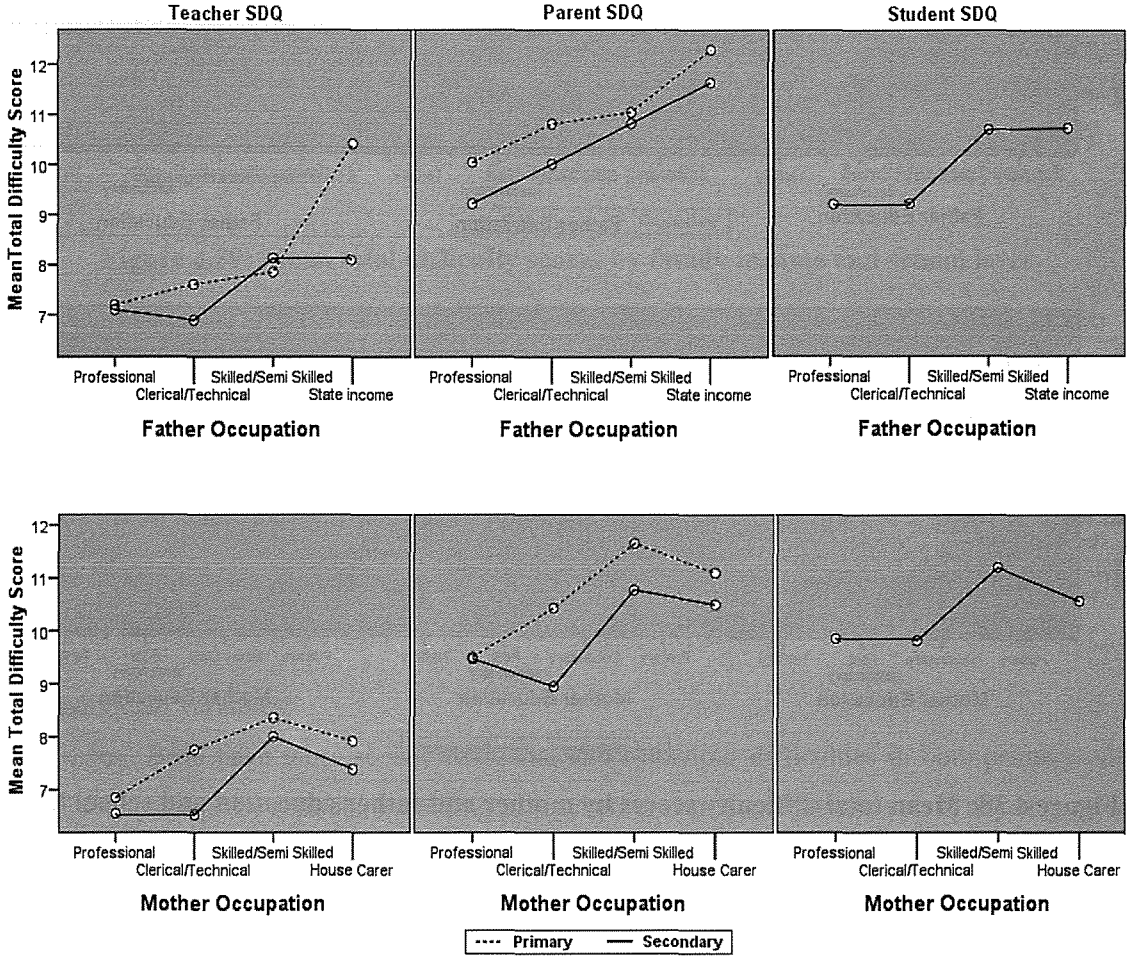


Figure 4.37: Mean total difficulty scores by mother and father occupation and school level

The parents' level of education complements the finding on parental occupation, with lower levels of parental education being related to higher levels of difficulties in children. Children and young persons are more likely to have SEBD when their father's and/or mother's level/s of education do not reach beyond the secondary school (Figure 4.38). The children most at risk

would be those whose mother's and father's levels of education are either at primary or secondary school level only. Clearly, education is a key mechanism in maintaining or breaking the cycle of poverty, social exclusion, and SEBD. An interesting observation with regards to parent and self report evaluations is that secondary school students, whose parents have a post secondary or tertiary level of education, may have more conduct than emotional problems in contrast to those whose parents have a lower level of education.

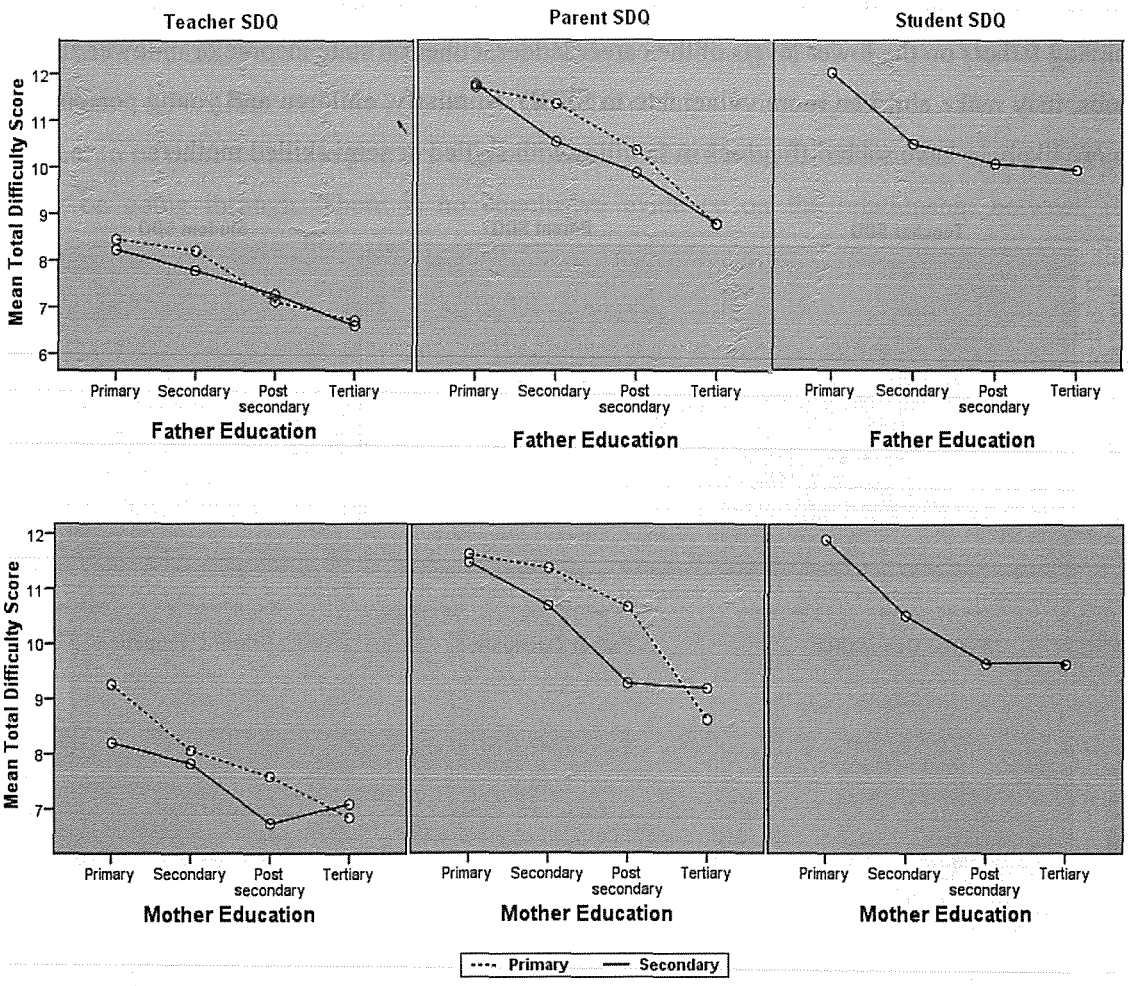


Figure 4.38: Mean total difficulty scores by mother and father education and school level

Family Income

Family income is another strong predictor of SEBD in children and young persons. Low family income, particularly as one approaches the poverty line, is significantly related to more difficulties in both primary and secondary school (Figure 4.39). There are some indications from parent responses that poor children are particularly at risk for emotional problems. The general finding complements the other conclusions from SES indicators discussed earlier on, such as home ownership, single parent families, and parental occupation and level of education.

Indeed a recent report on poverty and social exclusion underlined the risks of Maltese families living in poverty (Deguara 2008). These are some of the most vulnerable families and children in Maltese society, with clear risks for school failure, absenteeism, mental health difficulties, unemployment and social exclusion.

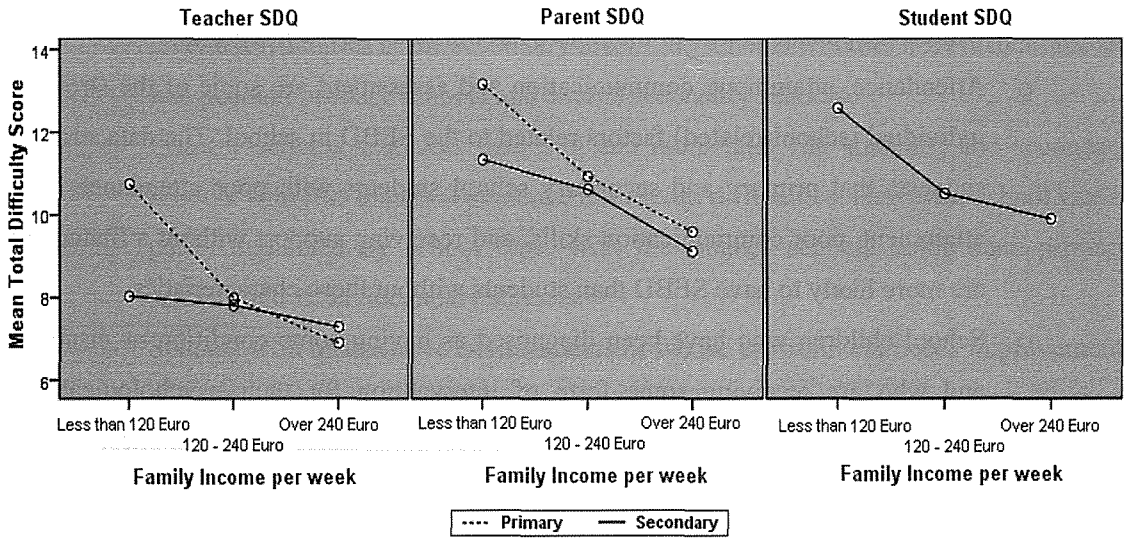


Figure 4.39: Mean total difficulty scores by family income and school level

4.2.5 Summary

The main findings in this chapter are summarised below according to individual, classroom, home and school variables. As already mentioned in Chapter 2, the individual factors may be subdivided in three, namely the more biological factors such as age and gender, the social factors such as language, ethnicity, religion and region, and the school- related variables such as attendance, attainment, communication, formal assessment and intervention.

- Individual variables:
    - Boys have more social, emotional and behaviour difficulties in both primary and secondary schools, according to teachers and students themselves. They engage in more behaviour problems while girls exhibit more emotional difficulties.
    - There are indications of increasing difficulties as the students move from the primary to the secondary level according to teacher responses, with Forms 2 and 3 being the most difficult years. In primary school, Year 1 to Year 5 students exhibit more behaviour difficulties, while Year 6 is characterised by more emotional ones.
    - There is little evidence that mother language, ethnicity and religion play a key role in the development of SEBD in Maltese schools, though teachers indicate that non-Maltese, non-Catholic secondary school students may exhibit more difficulties.

- There is no consistent pattern between students' home region and SEBD; while teacher responses suggest that Gozo is the region with the highest level of difficulties, parent responses indicate the Inner Harbour region. An analysis of the type of difficulty provides a more consistent view, indicating that Gozo has the highest emotional-peer problems and the lowest behaviour-hyperactivity problems, while the opposite is true of the Inner Harbour and Northern regions.
- Attendance, attainment, communication and assessment are some of the strongest individual (school-related) factors related to the SEBD in school. The data strongly suggests that primary and secondary school students with poor attendance, poor attainment, poor communication skills, and receiving support without a Statement, are more likely to have SEBD than students without these characteristics.
- School children who have been diagnosed as having some condition or disability and who are receiving some form of intervention for their psychological and educational difficulties, have more difficulties, particularly emotional ones.

- Classroom variables
  - Smaller classrooms have more problems, but this may be related more to these being lower streamed classrooms rather than to classroom size.
  - Streamed classrooms have more difficulties than mixed ability or set classrooms, and there are more students with SEBD in the lower streamed classrooms.
  - Secondary school classrooms with average or limited space have more difficulties than the more spacious ones.
  - Teachers with less than five years teaching experience may face more difficulties in their classroom, but this may be related to other factors, such as newly qualified teachers being assigned the more difficult classes, than to experience.
  - More significantly related is teacher qualification, with the least/poorly qualified teachers having more students with SEBD in their classroom; again this is partly explained by such teachers being placed in schools such as Area Secondary schools where there are more students with SEBD.

- School variables
  - Teacher responses indicate that there are more difficulties in Gozitan schools in both primary and secondary, while parents indicate primary schools in the Western, Inner Harbour and South Eastern regions as having most difficulties. But these findings may be partly explained by type of school, with more state schools in the more problematic regions. Again there is a clear indication that Gozitan schools

have the highest proportion of emotional difficulties and the least behaviour problems, while the opposite is true for schools in the Northern and to a lesser extent the Western regions.

- There are more problems in state schools than in church and independent schools, both in primary and secondary levels. Area Secondary schools have the highest level of difficulties at the secondary level. The schools with the least difficulties are independent primary schools and church secondary schools.
- Primary schools with less than 300 and more than 700 students, and secondary schools with less than 500 students, have more difficulties. However, school size is partly explained by school type, with the smaller schools being state primary schools and Area Secondary schools.
- Schools with unattractive environments or whose environment needs improvement, and secondary schools with limited space and limited play space, are more likely to have higher levels of difficulties.

- Home variables
  - Home residence does not appear to be strongly related to SEBD in children and young persons, with the exception of whether the home is owned or not, but this may be more related to SES than to type of home.
  - One parent families have more children and young persons with SEBD than two parent families.
  - While family size and relatives do not come out as evident indicators of difficulty, SES on the other hand is one of the strongest and most consistent home-related variables. The lower the family's SES, the more likelihood of children and young persons with difficulties in the family. Families where one or both parents have semi-skilled or unskilled jobs and a low level of education, where the father is unemployed, and whose income is relatively poor, are more at risk for SEBD.

4.3 Generalized Linear Regression Analysis

4.3.1 Teacher evaluations of primary school students

For the teacher evaluations of primary school children, the One-Way ANOVA tests identified twenty four variables where the mean total difficulty scores differed significantly across the categories of each predictor. These included gender, home region, attendance, communication, attainment, assessment, child diagnosis and intervention, school region, school type, school size, school environment, classroom size, teacher qualification, streaming, stream level,

residence ownership, family structure, family size, father and mother occupation, father and mother education and family income (see Tables 4.1- 4.4). However, when these predictors were analyzed collectively, the Generalized Linear model (GLM) revealed that the eight dominant predictors that explained most of the variation in the total difficulty scores were streaming followed by school type, teacher qualification, family structure, attainment, assessment and residence ownership (Table 4.9). According to teachers, streamed primary children with support, who attend small-sized state schools, and who live with a single parent, in a rented house, have more difficulties. Conversely, non-statemented primary children, in mixed ability classes, attending medium-sized independent schools, and who live with two parents in an owned house, exhibit less SEBD.

Table 4.9: Significant predictors in primary school according to teacher evaluations

Predictor	F-statistic	P-value
Streaming	11.698	0.000
School type	19.053	0.000
Teacher qualification	7.027	0.000
School size	7.628	0.000
Family structure	10.498	0.002
Attainment	6.646	0.002
Formal assessment	6.191	0.003
Residence ownership	4.438	0.037

4.3.2 Parent evaluations of primary school students

An analysis of the parent evaluations in primary school found twenty five variables where the mean total difficulty scores differed significantly across the categories of each predictor, namely age of student, home language, attendance, attainment, communication, formal assessment, child diagnosis, child condition/illness, medication, intervention, school region, school type, school size, classroom size, stream level, residence type, residence ownership, residence space, family structure, relatives living with family, father and mother occupation, father and mother education and family income (see Tables 4.1 - 4.4). When these predictors were analyzed collectively the Generalized Linear model revealed that the five dominant predictors that explained a large proportion of the variation in the total difficulty scores were intervention followed by mother occupation, attainment, attendance and child condition/ illness (Table 4.10). According to parents, primary children who have illness/health problems, have poor attainment, attend school irregularly, receive psychological and/or educational interventions, and live with mothers that have low skilled jobs, have higher total difficulty scores.

Table 4.10: Significant predictors in primary school according to parent evaluations

Predictor	F-statistic	P-value
Intervention	14.994	0.000
Mother Occupation	7.178	0.000
Attainment	8.038	0.001
Attendance	8.633	0.004
Child condition/illness	4.444	0.037

4.3.3 Teacher evaluations of secondary school students

According to secondary teacher evaluations, there were twenty-one variables where the mean total difficulty scores differed significantly across the categories of each predictor. These included ethnicity, attendance, attainment, formal assessment, communication, child diagnosis, intervention, gender, school region, school type, school size, school environment, school space, school play space, classroom size, classroom space, teacher experience, teacher qualification, streaming, stream level and family size (see Tables 4.5-4.8). When the predictors were analyzed collectively, the GLM revealed that the eight dominant predictors that explained a large proportion of the variation in the total difficulty scores were attainment followed by school size, family size, school region, classroom space, school environment, gender and communication. According to teachers, male secondary school students with poor attainment and communication, who attend small-sized, unattractive schools in the Inner Harbour region, and living in a single child family, have significantly higher total difficulty scores. Conversely, female secondary school students with very good attainment and communication skills, who attend large-sized, attractive schools in the South-eastern region, and live in 2-3-children families, tend to have fewer difficulties (Table 4.11).

Table 4.11: Significant predictors in secondary school according to teacher evaluations

Predictor	F-statistic	P-value
Attainment	17.047	0.000
School size	5.481	0.000
Family size	7.693	0.001
School region	3.523	0.005
Classroom space	5.045	0.008
School environment	4.877	0.009
Gender	5.231	0.024
Communication	3.414	0.036

However, one has to be very cautious when interpreting this result. Small-sized classrooms in small-sized schools are more likely to be found in Area Secondary schools rather than Junior Lyceums, church or independent schools. Moreover, 32.7% of all one-parent families have one child, contrasting with 13.5% of all two-parent families who have one child (Figure 4.40).

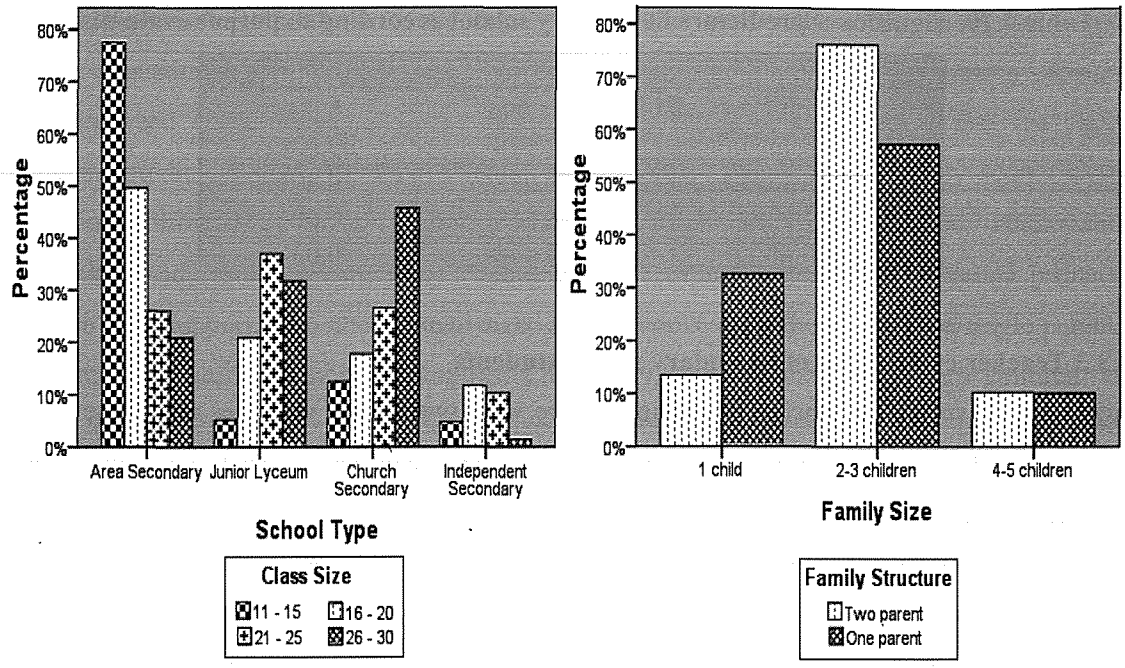


Figure 4.40: Relationship between school type and size and between family size and structure

4.3.4 Parent evaluations of secondary school students

Eighteen variables were identified where the mean total difficulty scores differed significantly across the categories of each predictor. These included attainment, communication, child diagnosis, child medication, intervention, school type, school environment, school play space, classroom space, residence ownership, residence type, family structure, relatives living with family, father and mother occupation, father and mother education, and family income (see Tables 4.5 - 4.8). When these predictors were analyzed collectively the GLM revealed that the four dominant predictors that explained a large proportion of the variation in the total difficulty scores were attainment, followed by relatives living with family, family income and child diagnosis. According to parents, secondary students who have a medical diagnosis and receive psychological and/or educational interventions, and live in a family with relatives and low income, have more difficulties (Table 4.12). Conversely, secondary students with no medical diagnosis or psychological/educational interventions, and who live in a family without relatives and with a high income, have fewer difficulties.

Table 4.12: Significant predictors in secondary school according to parent evaluations

Predictor	F-statistic	P-value
Attainment	12.413	0.000
Relatives	8.147	0.004
Family income	5.431	0.005
Child diagnosis	7.612	0.006

4.3.5 Self report evaluations of secondary school students

In this section, nineteen predictors were identified where the mean total difficulty scores differed significantly across the categories of each predictor. These included attainment, communication, gender, child diagnosis, child intervention, school type, school size, school environment, school space and play space, classroom space, teacher qualification, residence ownership, family structure, family size, father occupation, father and mother education and family income (see Tables 4.5-4.8). However, when these predictors were analyzed collectively the GLM revealed that attainment was the dominant predictor in explaining the variation in the total difficulty score, followed by family income. Secondary students with poor attainment and living in low-income families are more likely to have SEBD, whereas students with very good attainment living in high-income families have lower total difficulty scores. Figure 4.41 shows the above association

Table 4.13: Significant predictors in secondary school according to self report evaluations

Predictor	F-statistic	P-value
Attainment	5.591	0.004
Family income	3.331	0.037

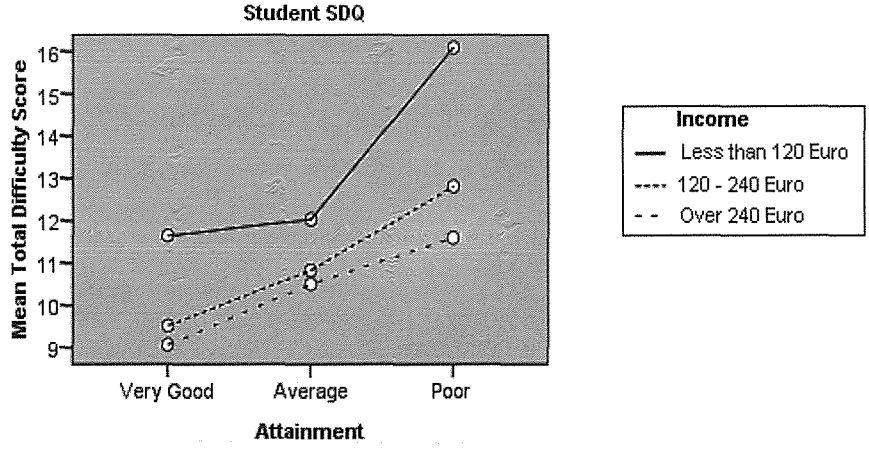


Figure 4.41: Mean total difficulty scores by attainment and family income

4.3.6 Conclusion

As one can see from Figures 4.42 and 4.43, there are relatively few predictors which are common to the three groups of respondents. Teachers in both primary and secondary underline school-related individual variables such as attainment, communication and assessment, and classroom and school variables. The predictors from the parent evaluations on the other hand, are more within-child individual variables, such as diagnosis and intervention, and home variables such as income, occupation and relatives. However, teacher, parent and student responses agree that attainment is one the strongest predictors in SEBD, in both primary and

secondary school. This complements the earlier discussion on the relationship between behaviour and learning difficulties.

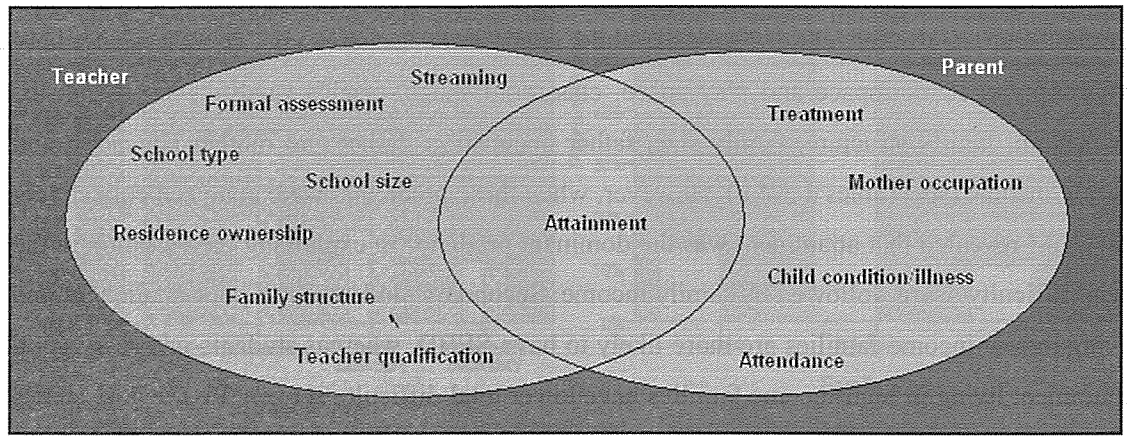


Figure 4.42: Variables that best predict differences in SEBD in primary school

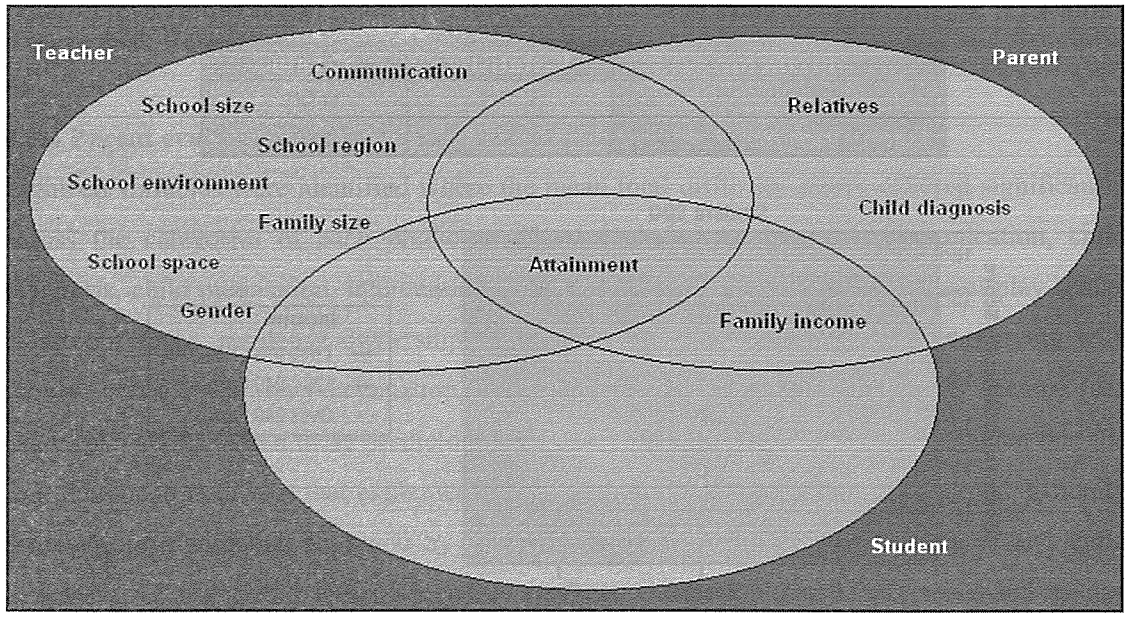


Figure 4.43: Variables that best predict differences in SEBD in secondary school

On the whole, most of the predictors are individual variables and most of these are related to school, such as attainment and communication. This is followed by the school and classroom variables such as streaming, space, and type of school (particularly teachers) and subsequently by home variables, such as family income, structure and residence ownership (parents). The data suggests that schools have a major influence on students' behaviour and that tackling such issues as streaming and selection, addressing learning, communication and other difficulties, providing more space and more attractive environments, and investing more in staff's professional development, is likely to lead to behaviour improvement in primary and secondary school. These findings will be discussed further in Chapter 7.

5

Prosocial Behaviour

5.1 Introduction

Besides measuring social, emotional and behaviour difficulties, the SDQ also provides information on the students' prosocial behaviour, such as sharing, helping peers, being considerate of others' feelings, and being kind to younger children. These strengths may be considered as the reverse sides of the difficulties and may serve as protective factors for children and young persons in their psychosocial development. This chapter compares the teacher, parent and self report mean prosocial scores in primary and secondary schools. The One-Way ANOVA test is used to determine whether the mean prosocial scores differs significantly at the 0.05 level of significance when compared to the various individual, classroom, school and home variables. Tables 5.1-5.4 and 5.5-5.8 provide descriptive statistics for prosocial behaviour scores by individual, classroom, school and home variables for primary and secondary schools respectively.

Table 5.1: Mean prosocial behaviour scores for primary students (Individual variables)

Individual variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender						
Male	7.33	2.447	0.000*	8.41	1.679	0.000*
Female	8.20	2.191		8.91	1.398	
Year						
Year 1	7.82	2.361	0.291	8.56	1.582	0.274
Year 2	7.68	2.449		8.57	1.562	
Year 3	7.62	2.405		8.63	1.569	
Year 4	7.88	2.403		8.80	1.450	
Year 5	7.93	2.175		8.76	1.587	
Year 6	7.70	2.368		8.69	1.582	
Home Region						
Inner harbour	7.71	2.460	0.114	8.60	1.557	0.584
Outer harbour	8.07	2.279		8.74	1.499	
South eastern	8.00	2.155		8.76	1.531	
Western	7.69	2.456		8.64	1.606	
Northern	7.99	2.318		8.66	1.593	
Gozo	7.56	2.619		8.54	1.604	

Home Language						
Maltese only	7.90	2.331	0.875	8.71	1.521	0.235
English only	7.83	2.503		8.52	1.585	
Bilingual	7.97	2.349		8.58	1.698	
Ethnic Group						
Maltese	7.77	2.363	0.502	8.67	1.570	0.986
Other	7.58	2.412		8.67	1.509	
Religion						
Roman Catholic	7.78	2.364	0.686	8.68	1.559	0.720
Other	7.94	1.984		8.53	1.407	
Attendance						
Regular	7.82	2.332	0.000*	8.70	1.543	0.000*
Irregular	6.79	2.739		7.57	1.937	
Attainment						
Very good	8.37	2.100	0.000*	8.76	1.520	0.011*
Average	7.57	2.262		8.65	1.603	
Poor	6.75	2.745		8.41	1.570	
Communication						
Very good	8.35	2.050	0.000*	8.77	1.509	0.001*
Adequate	7.11	2.375		8.55	1.594	
Poor	5.82	2.966		8.22	1.892	
Formal Assessment						
Statemented	7.60	2.367	0.001*	8.70	1.614	0.240
Non statemented	7.80	2.348		8.70	1.517	
Support	7.08	2.563		8.39	1.914	
Child Diagnosis						
Yes	7.40	2.556	0.001*	8.37	1.795	0.003*
No	7.99	2.298		8.72	1.514	
Child Condition/Illness						
Yes	7.80	2.161	0.471	8.66	1.536	0.794
No	7.93	2.355		8.70	1.540	
Child Medication						
Yes	7.74	2.041	0.372	8.65	1.540	0.669
No	7.93	2.378		8.70	1.533	
Child Intervention						
Yes	6.62	2.950	0.000*	8.30	1.697	0.003*
No	8.00	2.272		8.72	1.521	

* Significant at 0.05 level of significance

Table 5.2: Mean prosocial behaviour scores for primary students (Classroom variables)

	Teacher SDQs			Parent SDQs		
Classroom variables	Mean	St Dev	P-Value	Mean	St Dev	**P-value**
Classroom Size						
11 - 15	7.65	2.450	0.208	8.63	1.606	0.426
16 - 20	7.70	2.362		8.66	1.575	
21 - 25	7.91	2.364		8.63	1.637	
26 - 30	7.72	2.347		8.78	1.452	

Classroom Space						
Spacious	7.83	2.324	0.573	8.74	1.462	0.698
Average	7.71	2.416		8.66	1.550	
Limited	7.81	2.380		8.67	1.637	
Streaming						
Streamed	7.87	2.180	0.402	8.82	1.402	0.122
Mixed ability	7.77	2.396		8.66	1.598	
Stream Level						
Top	7.88	2.173	0.897	8.89	1.375	0.280
Middle	7.76	2.193		8.86	1.315	
Low	7.80	2.419		7.36	1.633	
Teaching Experience						
Less than 5 years	7.83	2.354	0.168	8.58	1.642	0.071
6 - 10 years	7.92	2.305		8.84	1.418	
11 – 20 years	7.67	2.442		8.70	1.536	
More than 20 years	7.66	2.369		8.60	1.668	
Teacher Qualifications						
B Ed / PGCE	7.89	2.315	0.025*	8.72	1.538	0.589
College Certificate	7.63	2.386		8.54	1.684	
Diploma	7.83	2.407		8.75	1.566	
Pedagogical Course	7.43	2.596		8.77	1.493	

* Significant at 0.05 level of significance

Table 5.3: Mean prosocial behaviour scores for primary students (School variables)

School Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-Value	Mean	St Dev	P-Value
School Region						
Inner harbour	7.75	2.385	0.130	8.68	1.530	0.701
Outer harbour	7.93	2.336		8.73	1.535	
South eastern	7.83	2.195		8.72	1.541	
Western	7.71	2.438		8.68	1.544	
Northern	7.76	2.361		8.58	1.636	
Gozo	7.39	2.480		8.54	1.587	
School Type						
State	7.73	2.379	0.039*	8.68	1.559	0.955
Church	7.73	2.377		8.67	1.503	
Independent	8.08	2.195		8.65	1.633	
School Size						
100 - 300	7.51	2.502	0.020*	8.76	1.495	0.631
301 - 500	7.86	2.359		8.63	1.561	
501 - 700	7.88	2.267		8.67	1.564	
701 - 1000	7.41	2.649		8.70	1.786	
School Environment						
Attractive	7.77	2.396	0.801	8.67	1.547	0.858
Needs improvement	7.77	2.338		8.71	1.616	
Unattractive	7.60	2.490		8.74	1.354	
School Space						
Spacious	7.76	2.414	0.806	8.64	1.603	0.129
Average	7.73	2.348		8.79	1.409	
Limited	7.86	2.387		8.54	1.692	

School Play Space						
Spacious	7.70	2.388	0.509	8.64	1.586	0.675
Average	7.77	2.362		8.71	1.546	
Limited	7.88	2.444		8.72	1.465	

* Significant at 0.05 level of significance

Table 5.4: Mean prosocial behaviour scores for primary students (Home variables)

Home Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type						
Flat	8.12	2.161	0.418	8.70	1.588	0.472
Maisonette	7.83	2.438		8.66	1.585	
House	7.88	2.328		8.66	1.548	
Villa	7.94	2.367		9.01	1.139	
Residence Ownership						
Owned	7.93	2.345	0.389	8.69	1.563	0.605
Rented	7.94	2.235		8.57	1.529	
Residence Space						
1 bedroom	8.23	2.619	0.609	8.77	1.602	0.980
2 bedrooms	7.78	2.522		8.66	1.561	
3 bedrooms	7.91	2.320		8.68	1.579	
At least 4 bedrooms	8.05	2.170		8.65	1.441	
Family structure						
Two parent	7.94	2.331	0.091	8.71	1.539	0.002*
One parent	7.58	2.441		8.31	1.702	
One Parent						
Deceased	7.82	3.060	0.820	8.46	1.808	0.864
Separated/Divorced	7.48	2.381		8.35	1.761	
Single	7.74	2.403		8.21	1.559	
Relatives						
No Relatives	7.83	2.421	0.229	8.67	1.554	0.866
There are relatives	8.18	2.120		8.70	1.473	
Family Size						
1 child	7.98	2.347	0.690	8.65	1.567	0.632
2-3 children	7.89	2.347		8.68	1.572	
At least 4 children	8.03	2.215		8.78	1.407	
Father Occupation						
Professional/Managerial	8.05	2.281	0.329	8.73	1.471	0.000*
Technical/Clerical	7.85	2.166		8.63	1.652	
Skilled/Semi skilled	7.86	2.429		8.76	1.519	
State Income	7.53	2.676		7.85	1.780	
Mother Occupation						
Professional/Managerial	8.05	2.182	0.601	8.66	1.546	0.138
Technical/Clerical	7.74	2.502		8.53	1.693	
Skilled/Semi skilled	7.94	2.377		8.59	1.690	
House Carer	7.92	2.324		8.76	1.482	
Father Education						
Primary	7.36	2.836	0.051	9.09	1.236	0.107
Secondary	7.87	2.375		8.63	1.586	
Post secondary	7.95	2.259		8.75	1.563	
Tertiary	8.26	2.092		8.64	1.531	

Mother Education						
Primary	7.40	3.089	0.333	8.96	1.460	0.596
Secondary	7.93	2.305		8.69	1.530	
Post secondary	7.83	2.424		8.69	1.562	
Tertiary	8.09	2.116		8.61	1.612	
Family Income						
Less than 120 Euro	7.57	2.484	0.025*	8.52	1.667	0.126
120 – 240 Euro	7.84	2.370		8.74	1.499	
Over 240 Euro	8.10	2.238		8.62	1.598	

* Significant at 0.05 level of significance

Table 5.5: Mean prosocial behaviour scores for secondary students (Individual variables)

Individual variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender									
Male	6.43	2.721	0.000*	8.01	1.795	0.000*	7.50	1.959	0.000*
Female	7.55	2.333		8.61	1.650		8.61	1.542	
Form									
Form 1	7.01	2.503	0.483	8.50	1.700	0.152	8.33	1.619	0.009*
Form 2	6.99	2.621		8.28	1.865		8.05	1.902	
Form 3	6.88	2.691		8.25	1.805		7.78	1.964	
Form 4	6.82	2.660		8.16	1.708		8.05	1.853	
Form 5	7.09	2.554		8.45	1.597		8.16	1.845	
Home Region									
Inner harbour	7.05	2.705	0.365	8.28	2.057	0.854	7.99	1.813	0.144
Outer harbour	7.23	2.379		8.37	1.743		8.32	1.758	
South eastern	7.63	2.360		8.45	1.546		8.08	1.905	
Western	7.56	2.292		8.31	1.726		8.21	1.535	
Northern	7.49	2.484		8.24	1.720		8.39	1.607	
Gozo	7.40	2.601		8.26	1.756		8.62	1.675	
Home Language									
Maltese only	7.42	2.444	0.744	8.36	1.727	0.169	8.33	1.706	0.002*
English only	7.38	2.712		7.94	2.125		7.19	1.815	
Bilingual	7.23	2.393		8.21	1.728		8.27	1.693	
Ethnic Group									
Maltese	6.97	2.605	0.200	8.33	1.749	0.325	8.05	1.847	0.081
Other	6.45	2.615		7.83	2.038		7.33	2.106	
Religion									
Roman Catholic	6.98	2.602	0.068	8.33	1.738	0.440	8.04	1.841	0.217
Other	5.96	2.835		8.78	1.986		7.43	2.377	
Attendance									
Regular	7.16	2.489	0.000*	8.32	1.767	0.557	8.06	1.823	0.135
Irregular	5.16	2.939		8.19	1.267		7.72	2.249	
Attainment									
Very good	8.06	2.195	0.000*	8.28	1.802	0.124	8.11	1.820	0.069
Average	6.98	2.393		8.43	1.659		8.09	1.823	
Poor	5.32	2.823		8.08	1.887		7.76	1.995	

Communication									
Very good	7.90	2.230	0.000*	8.35	1.775	0.292	8.25	1.717	0.001*
Adequate	6.49	2.507		8.34	1.707		7.93	1.871	
Poor	4.71	2.683		8.00	1.809		7.58	2.215	
Formal Assessment									
Statemented	7.15	2.520	0.000*	8.41	1.703	0.424	8.06	1.920	0.450
Non statemented	6.91	2.608		8.30	1.756		8.03	1.795	
Support	5.70	3.100		7.95	1.838		7.65	2.336	
Child Diagnosis									
Yes	6.85	2.717	0.017*	8.22	1.785	0.445	8.08	1.726	0.286
No	7.45	2.414		8.34	1.744		8.30	1.722	
Child Condition/Illness									
Yes	7.03	2.720	0.154	8.67	1.498	0.142	8.36	1.715	0.632
No	7.46	2.405		8.30	1.771		8.26	1.720	
Child Medication									
Yes	6.98	2.924	0.198	8.48	1.563	0.417	8.33	1.568	0.734
No	7.41	2.429		8.31	1.770		8.24	1.744	
Child Intervention									
Yes	6.53	2.776	0.054	8.47	1.600	0.626	7.58	1.954	0.054
No	7.42	2.449		8.32	1.759		8.28	1.721	

* Significant at 0.05 level of significance

Table 5.6: Mean prosocial behaviour scores for secondary students (Classroom variables)

Classroom Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Classroom Size									
11 – 15	6.31	2.720	0.000*	8.20	1.668	0.525	7.20	2.136	0.000*
16 – 20	6.40	2.761		8.17	1.830		7.83	1.929	
21 – 25	7.11	2.546		8.39	1.702		8.18	1.742	
26 – 30	6.98	2.585		8.26	1.726		8.09	1.910	
Classroom Space									
Spacious	7.17	2.541	0.003*	8.27	1.789	0.398	8.03	1.720	0.503
Average	6.79	2.694		8.20	1.731		7.88	2.024	
Limited	6.70	2.682		8.39	1.697		7.89	1.805	
Streaming									
Streamed	7.00	2.639	0.052	8.41	1.678	0.171	8.14	1.781	0.057
Set for subject	7.10	2.415		8.50	1.781		8.24	1.837	
Mixed ability	6.79	2.677		8.24	1.715		7.90	1.899	
Stream Level									
Top	7.32	2.485	0.000*	7.92	1.589	0.111	8.15	1.826	0.418
Middle	7.45	2.368		7.99	1.526		8.26	1.806	
Low	6.29	2.802		6.31	2.057		7.94	1.906	
Teaching Experience									
Less than 5 years	6.56	2.617	0.000*	8.22	1.744	0.214	7.85	1.817	0.186
6 - 10 years	7.08	2.568		8.23	1.775		8.17	1.748	
11 – 20 years	6.91	2.732		8.51	1.525		7.96	2.035	
More than 20 years	7.19	2.465		8.43	1.857		8.07	1.923	

Teacher Qualifications									
B Ed / PGCE	6.97	2.607	0.000*	8.34	1.667	0.552	8.08	1.764	0.011*
College Certificate	7.44	2.325		8.48	2.160		8.28	2.050	
Diploma	5.95	2.589		8.19	2.250		7.17	2.713	
Pedagogical Course	6.18	2.872		8.00	1.646		7.64	2.110	

* Significant at 0.05 level of significance

Table 5.7: Mean prosocial behaviour scores for secondary students (School variables)

School variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
School Region									
Inner harbour	6.82	2.612	0.002*	8.23	1.789	0.048*	7.89	1.948	0.001*
Outer harbour	7.00	2.537		8.51	1.652		8.17	1.768	
South eastern	8.24	2.198		8.68	1.676		9.03	1.135	
Western	6.99	2.504		8.30	1.786		7.91	1.761	
Northern	6.94	2.881		8.04	1.824		7.99	1.760	
Gozo	7.05	2.682		8.20	1.730		8.34	1.910	
School Type									
Area Secondary	6.23	2.840	0.000*	8.44	1.700	0.204	7.86	1.976	0.000*
Junior Lyceum	7.30	2.415		8.39	1.690		8.64	1.503	
Church	7.28	2.412		8.26	1.787		7.65	1.821	
Independent	7.11	2.559		8.06	1.907		7.76	1.853	
School Size									
100 – 300	6.65	2.711	0.000*	7.71	1.717	0.000*	7.34	2.100	0.000*
301 – 500	6.52	2.844		8.21	1.800		7.70	1.939	
501 – 700	7.05	2.480		8.18	1.811		7.91	1.778	
701 – 1000	7.46	2.515		8.60	1.619		8.80	1.462	
Over 1000	7.14	2.399		8.27	1.759		7.98	1.551	
School Environment									
Attractive	7.34	2.433	0.000*	8.35	1.747	0.042*	8.20	1.720	0.000*
Needs improvement	6.02	2.741		7.95	1.794		7.86	1.951	
Unattractive	6.43	2.900		8.33	1.672		7.41	2.042	
School Space									
Spacious	7.00	2.503	0.000*	8.30	1.776	0.042*	8.09	1.824	0.023*
Average	7.24	2.734		8.42	1.668		7.84	1.880	
Limited	6.18	2.793		7.99	1.783		7.73	1.971	
School Play Space									
Spacious	7.17	2.541	0.003*	8.27	1.789	0.398	8.03	1.720	0.503
Average	6.79	2.694		8.20	1.731		7.88	2.024	
Limited	6.70	2.682		8.39	1.697		7.89	1.805	

* Significant at 0.05 level of significance

Table 5.8: Mean prosocial behaviour scores for secondary students (Home variables)

Home Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type									
Flat	7.21	2.630	0.706	8.35	1.888	0.009*	8.07	1.820	0.294
Maisonette	7.29	2.419		8.33	1.655		8.30	1.575	
House	7.46	2.387		8.41	1.701		8.35	1.745	
Villa	7.60	2.468		7.55	1.890		7.83	1.595	

Residence Ownership									
Owned	7.41	2.409	0.233	8.33	1.729	0.902	8.30	1.693	0.268
Rented	6.98	2.812		8.26	1.916		7.96	1.872	
Residence Space									
1 bedroom	6.75	3.012	0.815	9.38	0.744	0.290	8.50	2.074	0.798
2 bedrooms	7.27	2.372		8.21	1.827		8.14	1.944	
3 bedrooms	7.42	2.440		8.33	1.782		8.27	1.679	
At least 4 bedrooms	7.40	2.530		8.37	1.526		8.36	1.708	
Family structure									
Two parent	7.40	2.441	0.930	8.34	1.756	0.419	8.30	1.713	0.227
One parent	7.38	2.481		8.19	1.659		8.00	1.714	
One Parent									
Deceased	6.95	2.743	0.544	8.37	1.832	0.630	7.64	1.823	0.228
Separated/Divorced	7.26	2.341		8.21	1.638		8.13	1.613	
Single	5.67	3.055		9.00	0.816		9.25	0.957	
Relatives									
No Relatives	7.37	2.468	0.297	8.34	1.749	0.283	8.27	1.741	0.694
There are relatives	7.70	2.178		8.12	1.698		8.37	1.509	
Family Size									
1 child	7.33	2.266	0.160	8.56	1.565	0.230	8.03	1.851	0.125
2-3 children	7.47	2.402		8.31	1.752		8.34	1.668	
At least 4 children	6.98	2.902		8.25	1.803		8.05	1.920	
Father Occupation									
Professional	7.46	2.449	0.450	8.34	1.724	0.190	8.12	1.687	0.253
Technical/Clerical	7.64	2.376		8.24	1.802		8.24	1.628	
Skilled/Semi skilled	7.30	2.460		8.38	1.741		8.40	1.737	
State Income	7.15	2.521		7.89	1.984		8.12	1.847	
Mother Occupation									
Professional	7.37	2.517	0.317	8.24	1.720	0.186	8.28	1.649	0.108
Technical/Clerical	7.76	2.447		8.32	1.779		7.73	1.773	
Skilled/Semi skilled	7.65	2.234		8.66	1.475		8.42	1.594	
House Carer	7.30	2.469		8.30	1.785		8.32	1.738	
Father Education									
Primary	7.04	2.553	0.562	8.29	1.886	0.829	8.47	1.590	0.515
Secondary	7.44	2.431		8.32	1.747		8.32	1.778	
Post secondary	7.46	2.485		8.40	1.620		8.18	1.607	
Tertiary	7.50	2.338		8.24	1.872		8.15	1.710	
Mother Education									
Primary	7.43	2.553	0.446	7.95	1.780	0.060	7.98	2.103	0.384
Secondary	7.36	2.439		8.37	1.732		8.35	1.689	
Post secondary	7.63	2.385		8.45	1.735		8.21	1.730	
Tertiary	7.17	2.545		8.02	1.848		8.11	1.664	
Family Income									
Less than 120 Euro	7.09	2.649	0.483	8.17	1.875	0.450	8.41	1.884	0.687
120 – 240 Euro	7.42	2.358		8.39	1.723		8.23	1.722	
Over 240 Euro	7.44	2.486		8.30	1.765		8.30	1.638	

* Significant at 0.05 level of significance

5.2 Prosocial behaviour by individual, classroom, school and home variables

5.2.1 Individual variables

Gender

As already indicated in Chapter 3, female students engage in more prosocial behaviour than male students in both primary and secondary school (Figure 5.1). This is a very consistent finding across the three groups of respondents and reflects the other key finding in the previous chapter that male students exhibit more social, emotional and behaviour difficulties than females.

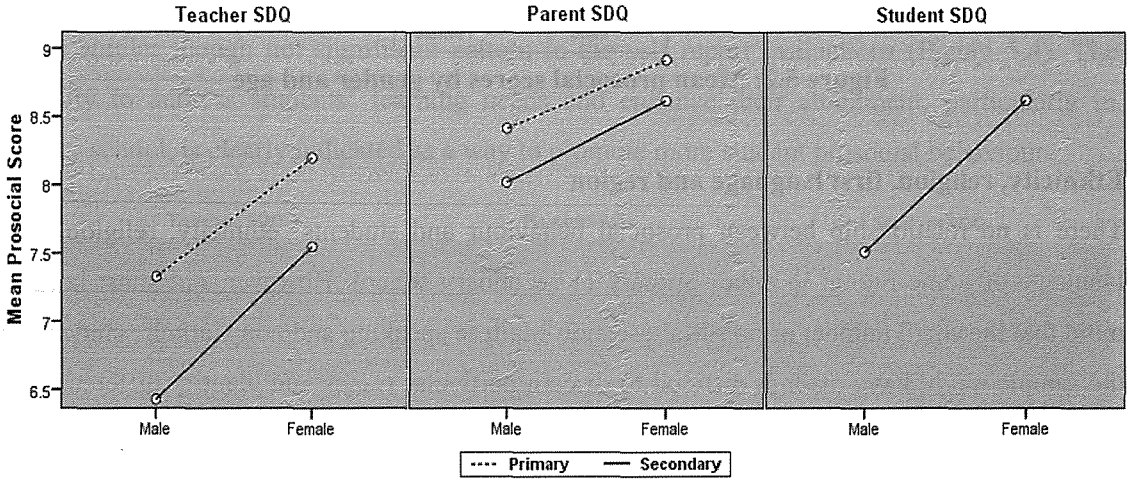


Figure 5.1: Mean prosocial scores by gender and school level

Age and Year/Form

According to both teacher and parent responses, student's age does not appear to be a significant predictor of prosocial behaviour neither in primary nor in secondary school. The differences in the mean scores across students' age are rather small. The only significant finding is that in the self report evaluations: Form 3 students engage in the least prosocial behaviour when compared to the other Forms.

Figure 5.2, which illustrates the trajectory of prosocial behaviour across the school years, shows that prosocial behaviour decreases as students move from primary to secondary school, reaching low ebb around Form 3. This complements the earlier finding that students exhibit more SEBD in Forms 2 and 3. The apparent increase in prosocial behaviour in the last two years in secondary school, particularly according to self report responses, could be the result of students with less prosocial behaviour absenting themselves from school more frequently the closer they get to school leaving age.

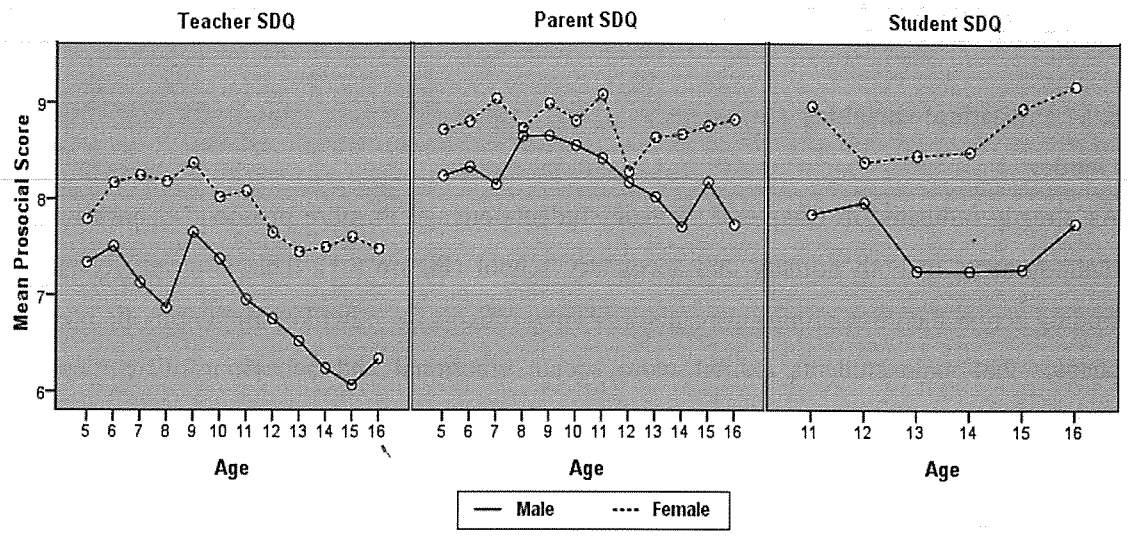


Figure 5.2: Mean prosocial scores by gender and age

Ethnicity, religion, first language and region

There is no relationship between prosocial behaviour and students' ethnicity, religion, first language or home region in either primary or secondary school. However, one must keep in mind that the small number of non-Maltese, non-Maltese speaking and non-Catholic students in the sample might have made it difficult to discern particular trends and identify differences in the population.

Attendance

According to both teacher and parent evaluations, the mean prosocial scores for primary students with regular attendance are significantly higher than those for students with irregular attendance. This also appears to be true in secondary school, though the differences are not significant for parent and self report evaluations (Figure 5.3).

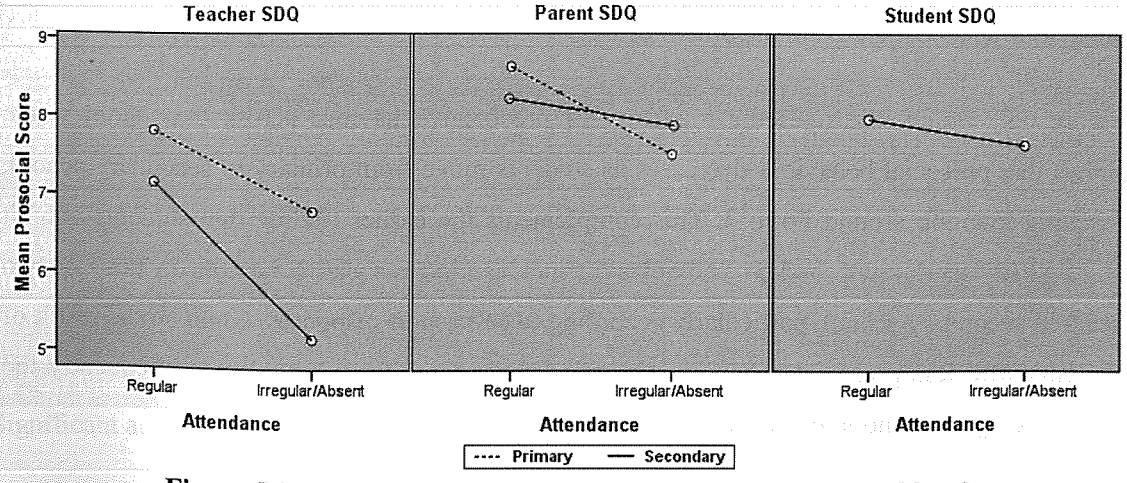


Figure 5.3: Mean prosocial scores by attendance and school level

In general, these findings suggest that students with regular attendance are more likely to engage in prosocial behaviour when compared to their peers with irregular attendance. In view of current data on the relatively high levels of absenteeism in Maltese schools - 4.6% of primary school children and 12.1% of secondary students; 41.2% early school leavers (Eurostat, 2006) -, this has clear implications for seeking to reduce absenteeism in schools to promote more prosocial behaviour.

Attainment

Primary school students with good attainment are more likely to engage in prosocial behaviour than students who have poor attainment. This is also true for secondary teacher evaluations, with a similar though not significant pattern in the self report evaluations (Figure 5.4). The necessity to address students' learning needs and enhance their attainment, particularly in primary school, is clearly indicated as a way to promote more student prosocial behaviour.

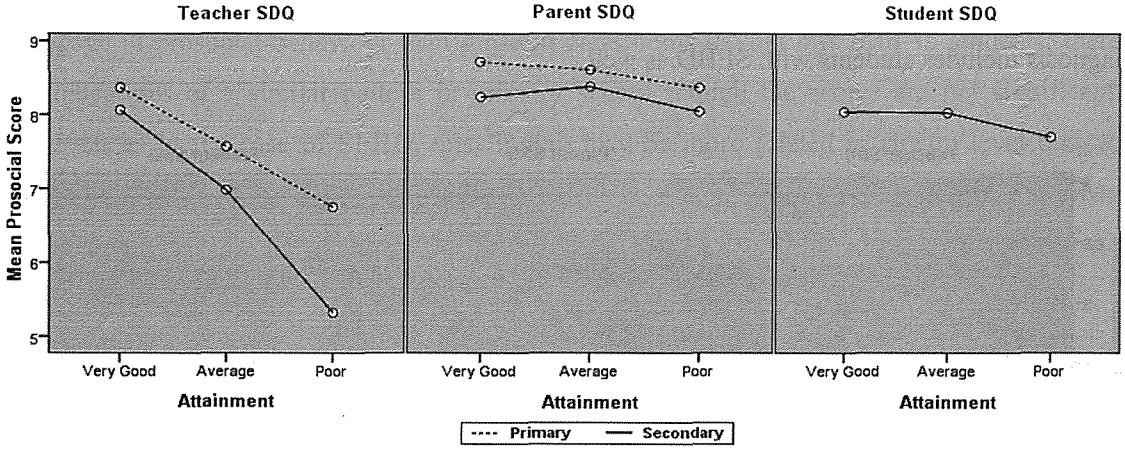


Figure 5.4: Mean prosocial scores by attainment and school level

Formal Assessment

According to teachers in both primary and secondary school, non-statemented students are more likely to engage in prosocial behaviour than those with support; this complements the finding in the previous chapter that non-statemented students with support are more likely to have SEBD than either statemented students or non -statemented students without support.

Communication

Figure 5.5 shows that students with good communication skills are more likely to engage in prosocial behaviour in both primary and secondary school compared to those with poor communication skills. Enhancing students' communication skills may not only help to prevent such students from developing SEBD but promote more prosocial behaviour as well.

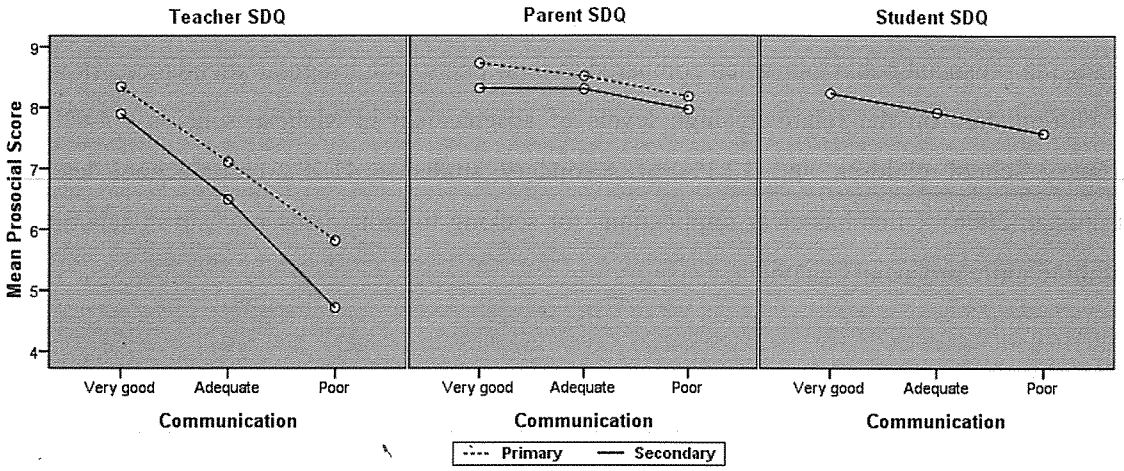


Figure 5.5: Mean prosocial scores by communication and school level

Child Diagnosis and Condition/Illness

Figure 5.6 illustrates that children without diagnosis exhibit more prosocial behaviour in primary school, with a similar but less significant pattern in secondary school. However, the diagnosis includes students with SEBD as well.

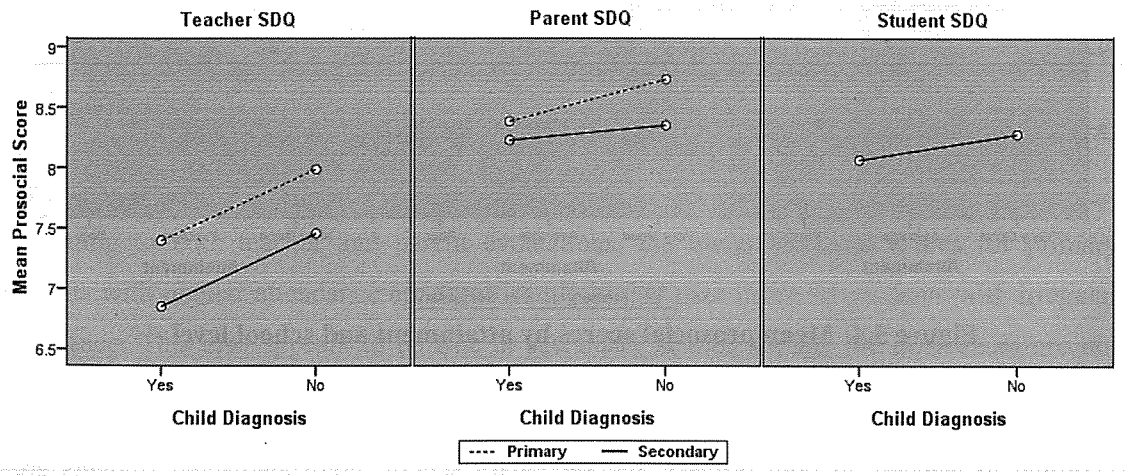


Figure 5.6: Mean prosocial scores by diagnosis and school level

Medication and other interventions

Being on medication does not appear to be related to prosocial behaviour, but students undergoing educational, psychological and other forms of interventions, are less likely to engage in prosocial behaviour, particularly in primary school (Figure 5.7). However, students receiving interventions might be the recipients of intervention because of a SEBD diagnosis. Nevertheless, as pointed elsewhere in this report, such students may need emotional support for potential difficulties resulting from the intervention itself.

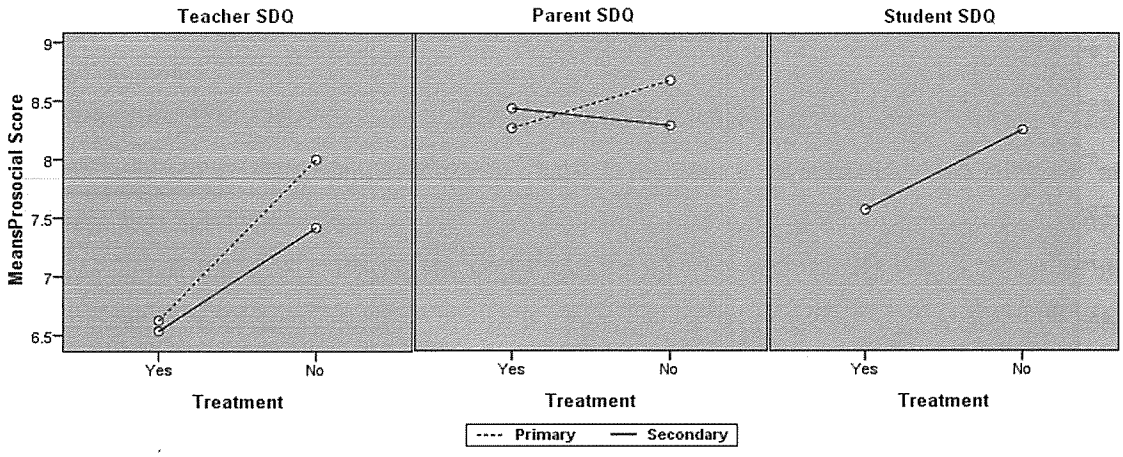


Figure 5.7: Mean prosocial scores by intervention and school level

5.2.2 Classroom variables

Classroom size and space

Secondary school students in classrooms with a population of 20 to 30 students are more likely to engage in prosocial behaviour than those in classrooms having less than 15 students; there are indications of a similar pattern in primary school though the scores are not significant. However, as in the case of SEBD, this finding may be more related to stream level than to classroom size. As Figure 5.8 shows, the smaller classrooms are more likely to be the lower streamed ones in state schools.

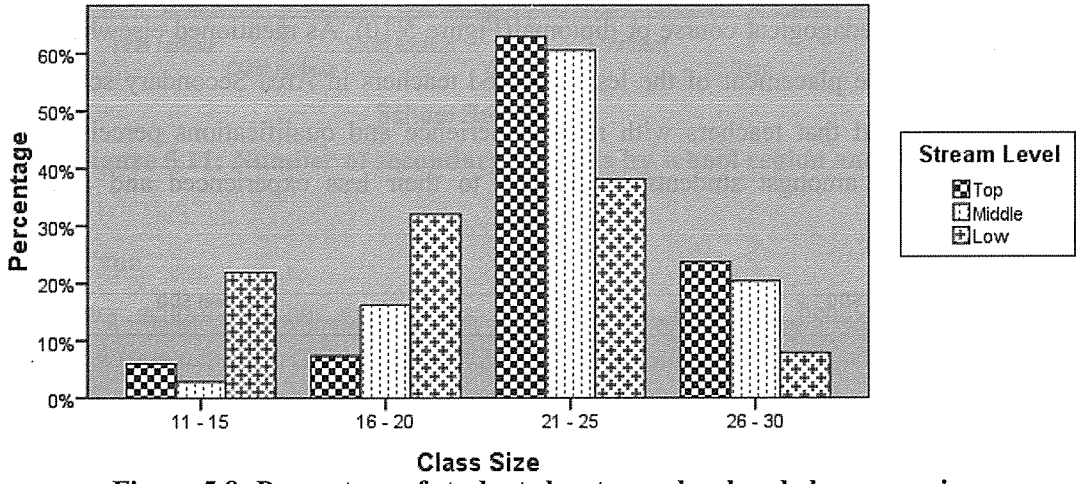


Figure 5.8: Percentage of students by stream level and classroom size

Streaming

Streaming is not significantly related to prosocial behaviour. However, the evaluations of the secondary school teachers suggest that there is less prosocial behaviour in the lower streamed classes; this is also indicated in the mean prosocial scores of parent and self report responses, though the scores are not significant (Figure 5.9).

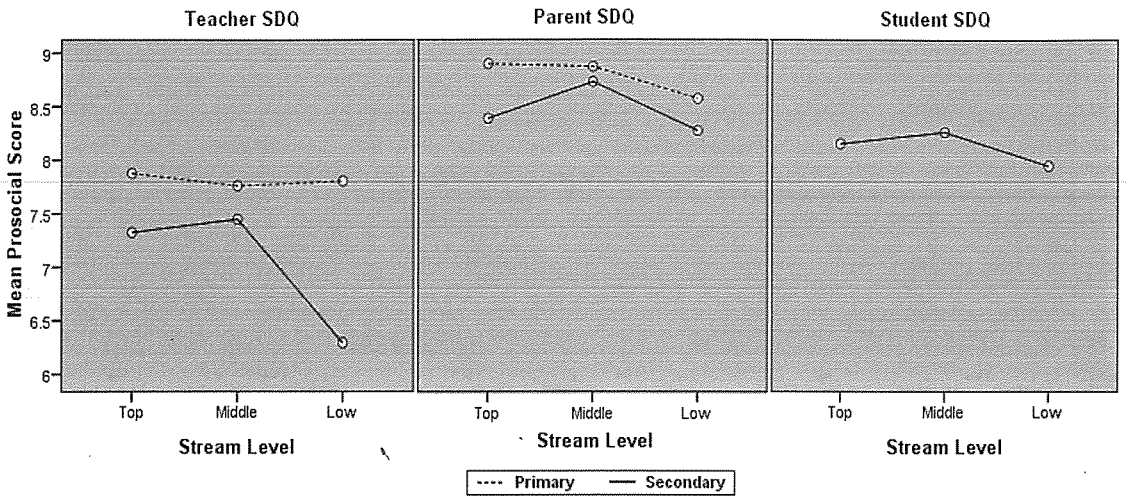


Figure 5.9: Mean prosocial scores by stream level and school level

Teacher experience and qualifications

Teacher experience does not emerge as a strong factor in predicting prosocial behaviour in the classroom. The only significant finding is related to primary school teachers, suggesting more prosocial behaviour in classrooms having teachers with more than twenty years teaching experience. However, this finding has to be treated very cautiously given the lack of support by the other four results related to this variable. On the other hand, more qualified secondary school teachers, namely teachers with education degrees or college certificates have more students with prosocial behaviour in their classrooms than their less qualified colleagues, namely those with pedagogical course or diploma (Figure 5.10). As mentioned elsewhere, this may be related to the placement of the less qualified teachers in Area Secondary schools. It could also be argued that teachers with more experience and qualifications perceive more prosocial behaviour amongst students in contrast to their less experienced and qualified colleagues.

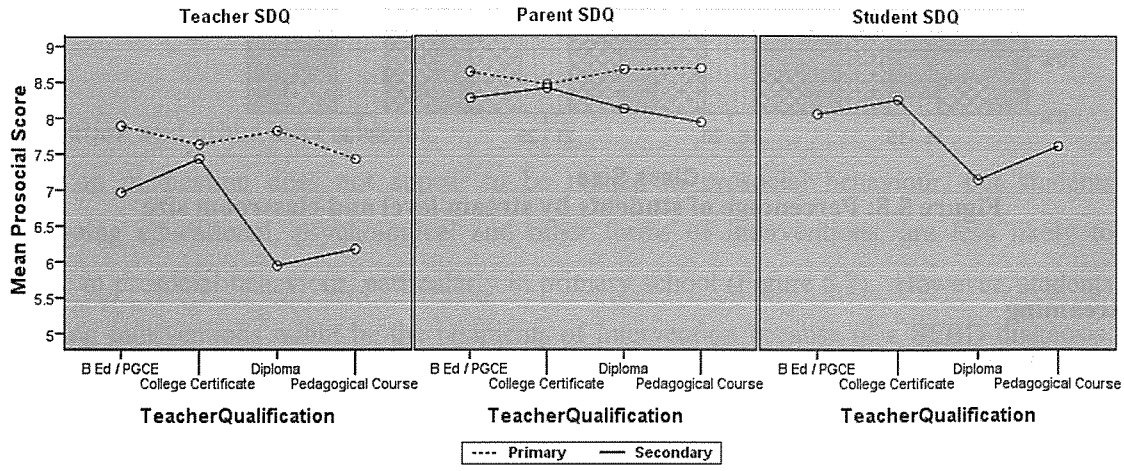


Figure 5.10: Mean prosocial scores by teacher qualification and school level

5.2.3 School variables

School Region

School region does not feature as a strong, consistent predictor of prosocial behaviour. There are no significant relationships at the primary level, while in secondary school there are different findings for the three groups of respondents, making it difficult to identify common patterns across the school regions in Malta and Gozo. This may be partly explained by the distribution of secondary schools in the respective regions, with more Area Secondary schools in one region than in another (Figure 5.11). On the other hand, primary schools are found in every locality and hence the relevance of school region in predicting prosocial behaviour is represented better at this school level.

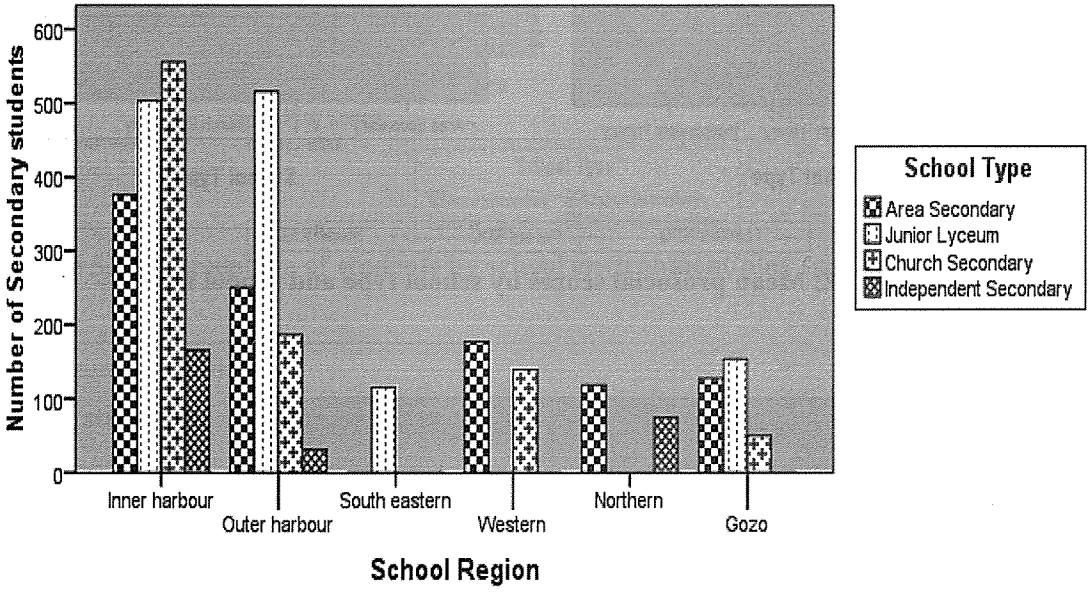


Figure 5.11: Number of secondary students by school region and school type

School Type

In primary school, teacher evaluations suggest more prosocial behaviour in independent schools. At the secondary level, Area Secondary schools appear to have the least prosocial behaviour when compared to the other schools. The self report responses point to the Junior Lyceums as having more prosocial behaviour (Figure 5.12).

School Size

There may be more prosocial behaviour in medium sized primary schools (300-700) in comparison to the smaller (less than 300) or bigger (more than 700) schools according to teacher responses. A more consistent finding is indicated in secondary school, with the larger schools, particularly those between 700-1000, having the highest proportion of prosocial

behaviour, particularly in comparison to schools smaller than 300. Again this finding is also explained by type of school, as the smaller schools are more likely to be Area Secondary schools where there is a preponderance of students with SEBD; whereas, larger schools are more likely to be Junior Lyceums (Figure 5.13).

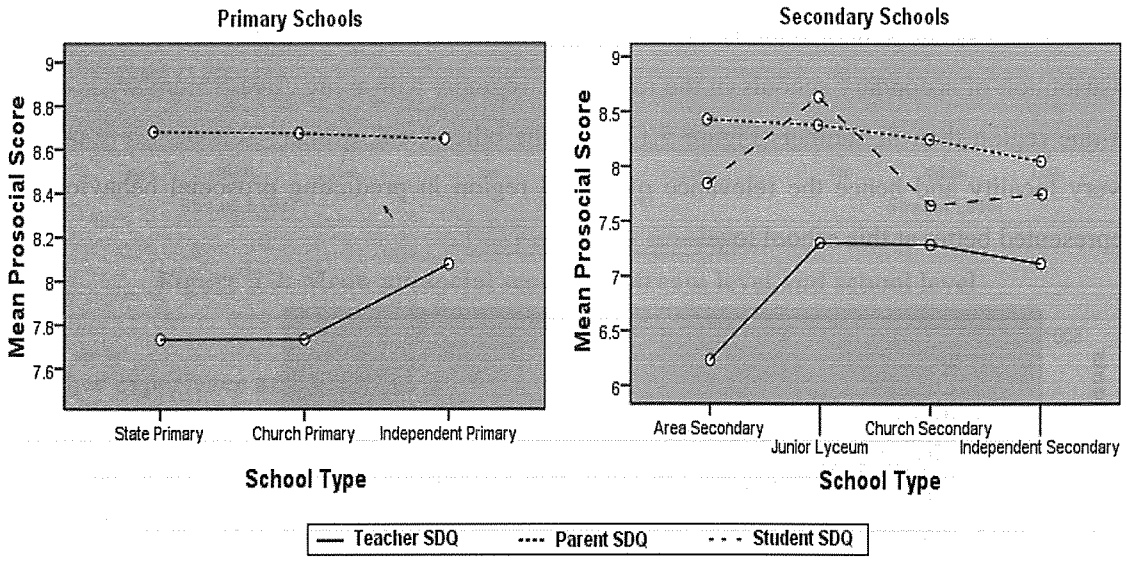


Figure 5.12: Mean prosocial scores by school type and school level

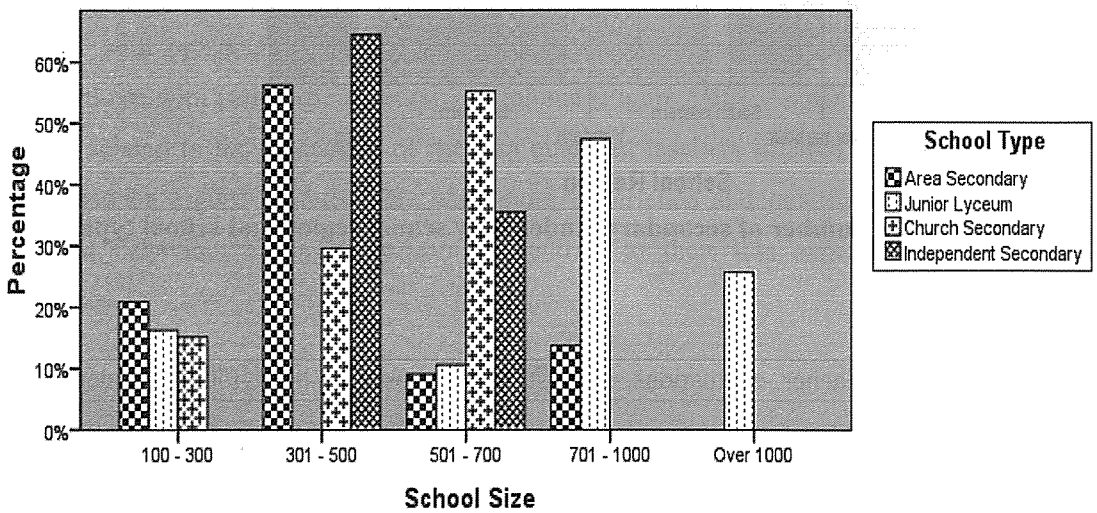


Figure 5.13: Percentage of secondary students by school size and school type

School Environment, space and play space

Overall, the school environment, space and play space appear to be hardly related to prosocial behaviour in primary school. On the other hand, secondary schools with more attractive environments have more prosocial behaviour according to teacher and student responses. Again this finding might be explained by type of school. Figure 5.14 illustrates that a large

proportion of Area Secondary schools have an unattractive environment with limited play space. Moreover, a large proportion of Junior Lyceums, independent and church schools have an attractive environment with spacious play space.

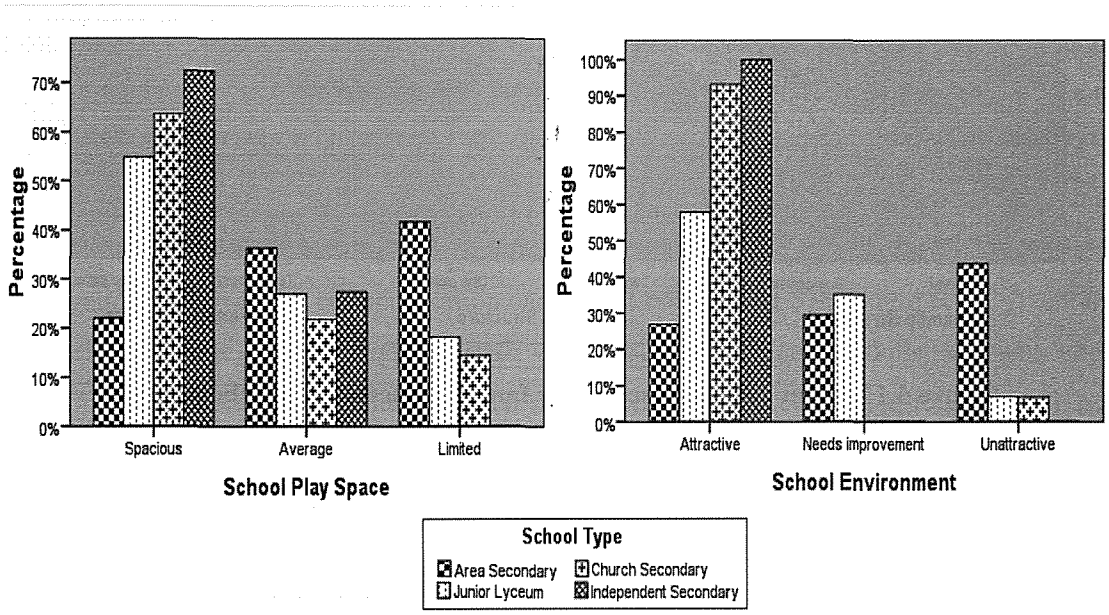


Figure 5.14: Percentage of students by school environment/play space and type of school

5.2.4 Home variables

Family structure

The mean prosocial scores for secondary school students vary only slightly in relation to family structure, suggesting that one-parent or two-parent families do not appear to be a strong factor in predicting prosocial behaviour amongst secondary school students. In primary school, there is a significant difference in the parent evaluations, supported by a similar though not significant trend in teacher responses, indicating more prosocial behaviour amongst pupils living in two-parent families (Figure 5.15). There is no significant relationship in prosocial behaviour for students living in different forms of one-parent families.

Residence type, space and ownership

In general, residence type, space and ownership do not appear to be related to students' prosocial behaviour, the mean prosocial scores varying only slightly. However, residence type results to be a significant predictor of prosocial behaviour for secondary school children according to parent responses: secondary school students living in villas have the least prosocial behaviour.

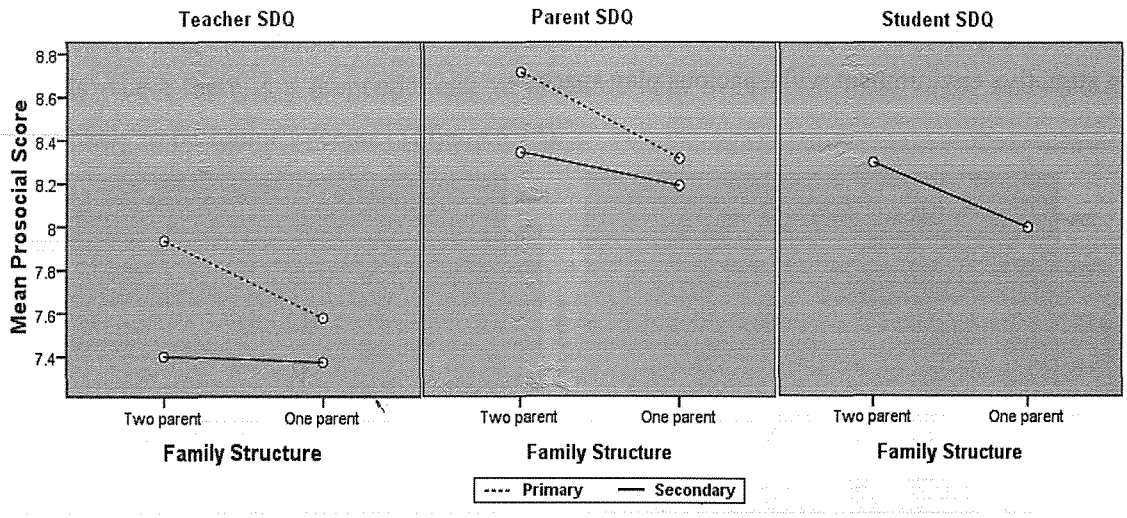


Figure 5.15 Mean prosocial scores by family structure and school level

Socio-economic status (parental occupation, education, and family income)

Father's occupation is significantly related to primary school students' prosocial behaviour according to parent responses, with a similar, though not significant, pattern for teachers. The least prosocial behaviour is found in students whose father is on state income. The mother's occupation and the father's and mother's level of education are not significantly related to prosocial behaviour neither in primary nor in secondary school. Family income is only significant in primary school according to teacher responses, suggesting more prosocial behaviour in the more affluent families in contrast to those living on the poverty line. In contrast to its impact on SEBD, socio-economic status does not come out as a strong predictor of prosocial behaviour.

5.2.5 Summary

Gender and age are two of the factors most strongly related to prosocial behaviour, with better prosocial behaviour in primary school and amongst female students. Students who attend school regularly, have good attainment and communication skills, are not statemented/supported, are not diagnosed and do not receive any form of intervention, exhibit more prosocial behaviour. Students in the upper streamed classrooms who have more qualified secondary school teachers, have higher prosocial scores. Junior Lyceums have more prosocial behaviour than Area Secondary schools, the latter's difficulties compounded by poor physical environment. One -parent families and families with poor income and fathers on state income, have less prosocial behaviour than two-parent and more affluent families.

5.3 Generalized Linear Regression Analysis

5.3.1 Teachers evaluations of primary school students

For primary teacher evaluations, the One-Way ANOVA tests identified eleven predictors, where the mean prosocial scores differed significantly across the categories of each predictor. These included gender, attendance, attainment, communication, assessment, teacher qualification, school type, school size, income, child diagnosis and intervention (see Tables 5.1 - 5.4). However, when these variables were analyzed collectively, the Generalized Linear model (GLM) revealed that the three dominant predictors that explained most of the variation were gender, followed by communication and school type (Table 5.9; Figure 5.16). According to teachers, female primary students, with very good communication skills, and who attend independent schools, have higher prosocial scores; whereas, male primary students, with poor communication skills, and who attend state schools, have lower prosocial scores.

Table 5.9: Significant predictors in primary school according to teacher evaluations

Predictor	F-statistic	P-value
Gender	73.975	0.000
Communication	143.876	0.000
School Type	4.113	0.016

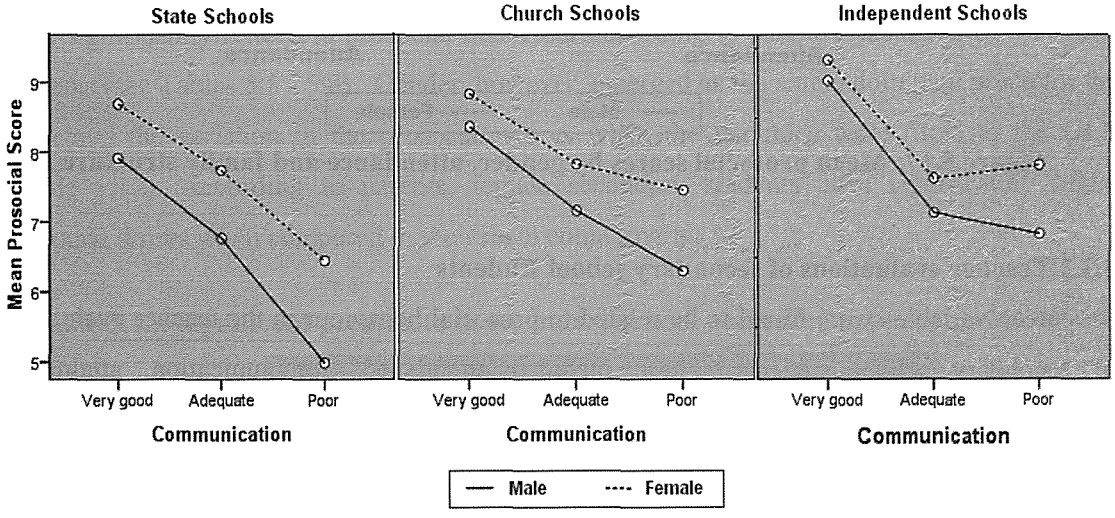


Figure 5.16: Mean prosocial scores by gender, communication and type of school

5.3.2 Parent evaluations of primary school students

According to parent evaluations of primary school students, eight factors were significantly related to prosocial behaviour, namely gender, attendance, attainment, communication, family structure, father occupation, child diagnosis and intervention (see Tables 5.1 - 5.4). When these predictors were analyzed collectively, the GLM revealed that the three dominant predictors that

explained a large proportion of the variation in the prosocial scores were gender, followed by attendance, and family structure (Table 5.10; Figure 5.17). According to parents, female primary students, who attend school regularly, and are brought up in a two-parent family, have higher prosocial scores; whereas male primary students, with irregular school attendance, and living with a single parent, have lower prosocial scores.

Table 5.10: Significant predictors in primary school according to parent evaluations

Predictor	F-statistic	P-value
Gender	21.171	0.000
Attendance	10.200	0.001
Family Structure	4.796	0.029

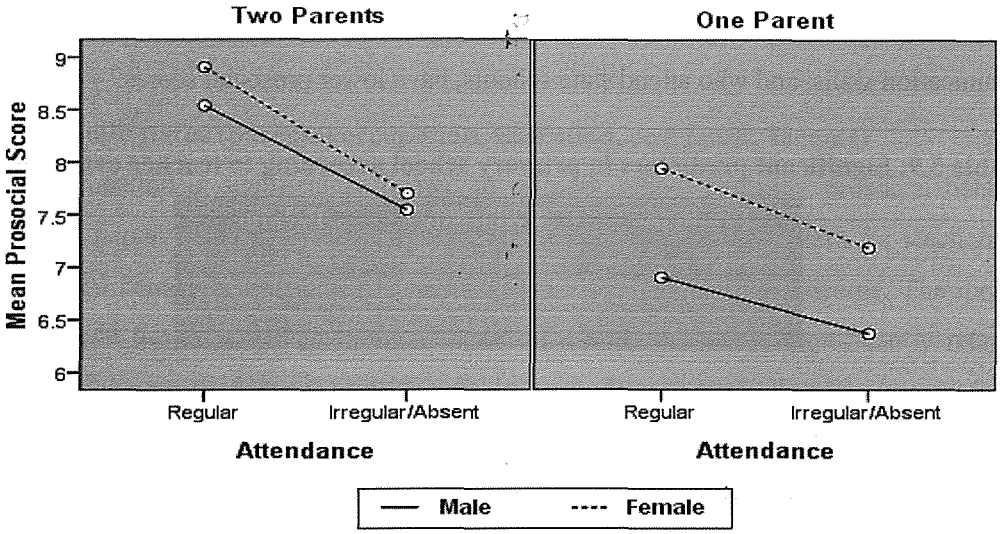


Figure 5.17: Mean prosocial scores by gender, attendance and family structure

5.3.3 Teacher evaluations of secondary school students

Seventeen variables were found to be related to prosocial behaviour in the teacher evaluations of secondary school students. These included attendance, communication, attainment, assessment, gender, classroom size, stream level, teacher experience, teacher qualification, school region, school type, school size, school environment, school space, classroom space, school play space and child diagnosis (see Tables 5.5 - 5.8). When these predictors were analyzed collectively, gender was the dominant predictor in explaining variation in the prosocial scores. This was followed by communication and attainment (Table 5.11; Figure 5.18). According to teachers, female secondary school students, with very good attainment and good communication skills, exhibit more prosocial behaviour; whereas, male secondary school students with very poor attainment and communication skills, engage in less prosocial behaviour.

Table 5.11: Significant predictors in secondary school according to teacher evaluations

Predictor	F-statistic	P-value
Gender	12.277	0.001
Communication	6.364	0.002
Attainment	3.884	0.022

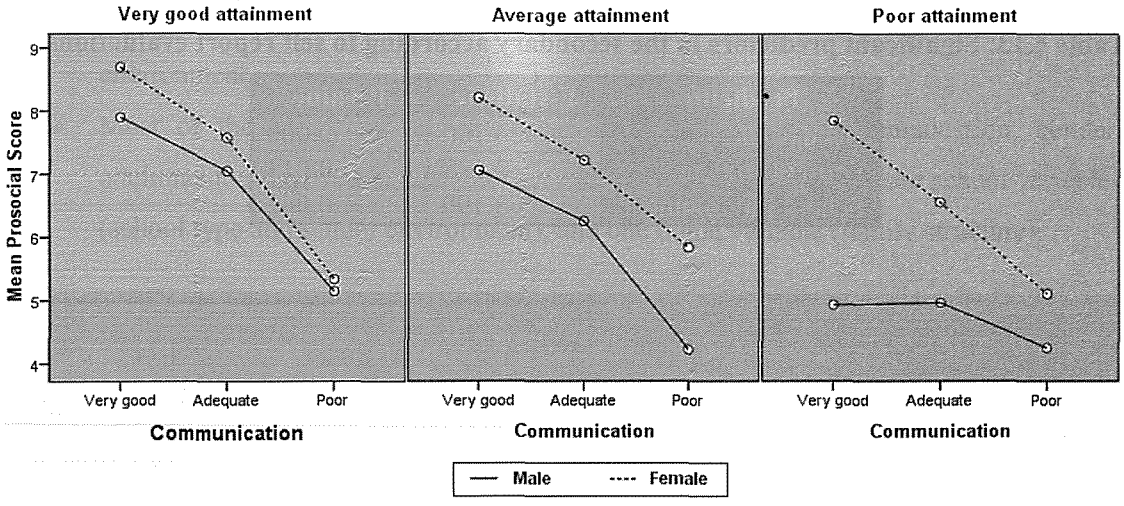


Figure 5.18: Mean prosocial scores by gender, communication and attainment

5.3.4 Parent evaluations of secondary school students

Gender, school region, school size, school environment, school space and type of residence were significantly related to prosocial behaviour according to parent evaluations of secondary students (see Tables 5.5 - 5.8). Gender, however, emerged as the single dominant predictor that explained the variation in the prosocial scores when the variables were fitted to the GLM (Table 5.12). According to parents, female secondary students have significantly higher prosocial scores when compared to their male counterparts.

Table 5.12: Significant predictors in secondary school according to parent evaluations

Predictor	F-statistic	P-value
Gender	36.494	0.000

5.3.5 Self report evaluations of secondary school students

According to student self report evaluations, gender, age, communication, classroom size, teacher qualification, school region, school type, school size, school environment, school space and home language were significantly related to prosocial behaviour in secondary school (see Tables 5.5 - 5.8). However, when analysed collectively, gender, followed by age and school environment, emerged as the dominant predictors in explaining the variation in the prosocial scores (Table 5.13, Figure 5.19). According to students, 12- and 16-year old female students,

who attend schools with an attractive environment, exhibit more prosocial behaviour; whereas, 14-year old male students, who attend schools with an unattractive environment, tend to have lower prosocial scores. However, school environment may be partly explained by type of school. Figure 5.14 illustrates that Area Secondary schools have less prosocial behaviour and less attractive environments when compared to other schools.

Table 5.13: Significant predictors in the secondary according to self report evaluations

Predictor	F-statistic	P-value
Gender	34.700	0.000
Form of student	3.188	0.013
School Environment	3.190	0.042

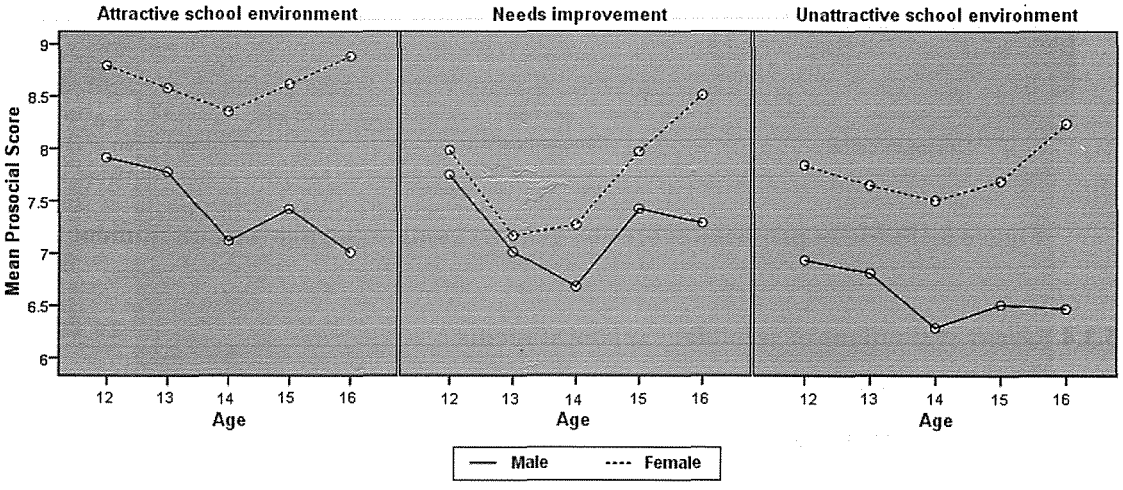


Figure 5.19: Mean prosocial scores by gender, age of student and school environment

5.3.6 Conclusion

Figures 5.20 and 5.21 illustrate the significant predictors of prosocial behaviour according to the three groups of respondents for primary and secondary school students respectively:

- The most evident conclusion of the GLM analysis is that gender always features as a significant predictor of prosocial behaviour, irrespective of who makes the assessment. There is a common agreement between teachers, parents and students that female students have significantly higher prosocial scores when compared to their male counterparts.
- The significant predictors in primary school include gender, communication, attendance, school type and family structure. Gender and communication feature again in secondary school together with school environment, attainment and student age.

- According to teacher evaluations in both primary and secondary school, the significant predictors of prosocial behaviour are gender and communication (common to both school levels) and school type (primary) and attainment (secondary).
- Parent responses on the other hand, indicate gender at both school levels, as well as attendance and family structure.
- The predictors from the self report responses are gender, student age and school environment.
- Most of the predictors are individual variables, namely communication, gender, attainment, attendance and student age. There are also two significant school variables (school type and school environment), and one home variable (family structure).

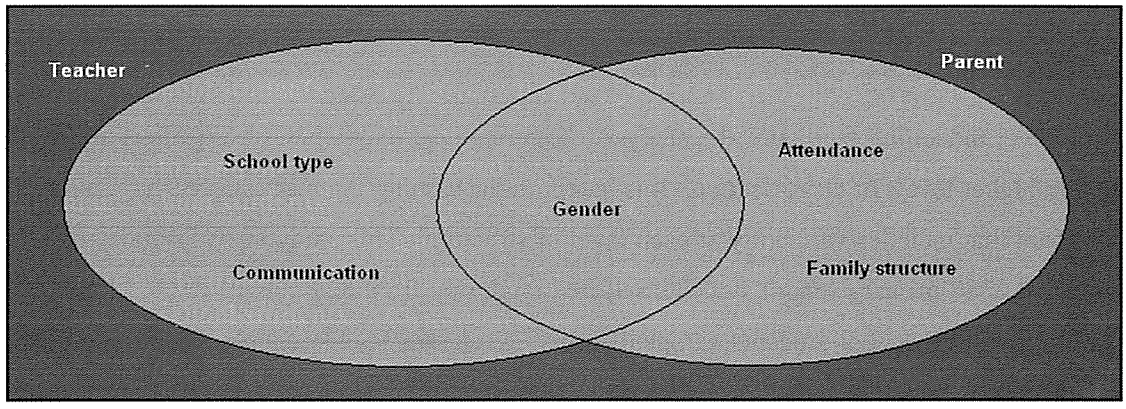


Figure 5.20: Variables that best predict differences in prosocial behaviour in primary school

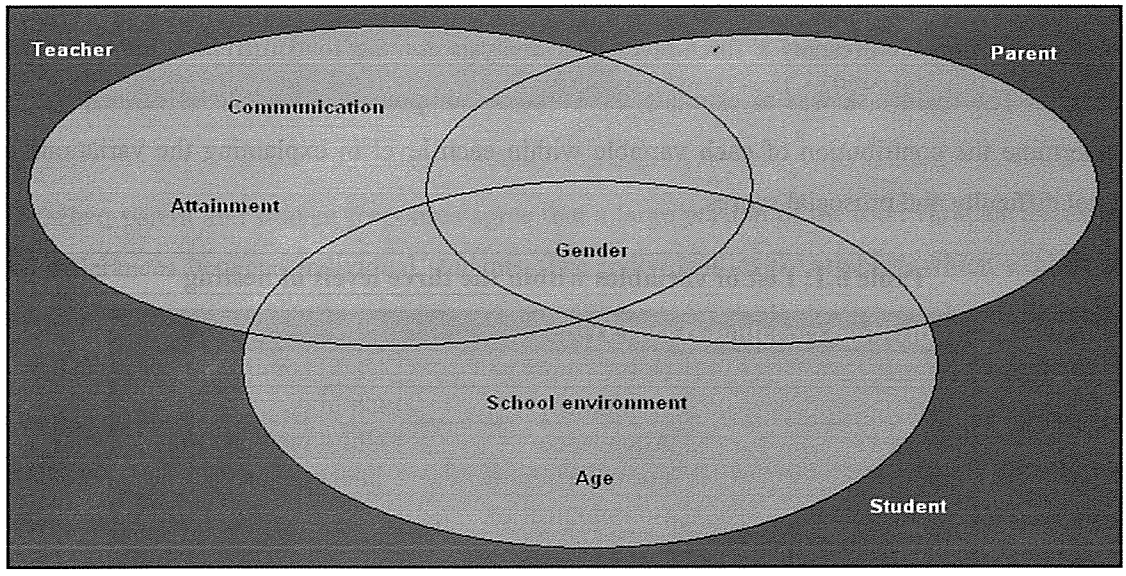


Figure 5.21: Variables that best predict differences in prosocial behaviour in secondary school

6

Multilevel analysis of SEBD and prosocial behaviour

6.1 Introduction

Multilevel modelling facilitates the analysis of hierarchical data when observations are nested within higher levels of classification. It is based on the assumption that data sets have a nesting structure that includes variability at each level of structure. This study analyzes a data set that included 3380 primary school students selected randomly from 829 classes in 68 schools, and 3546 secondary school students sampled from 830 classes in 44 schools. The study design resulted in a three-level data structure, in which individual students (Level 1) were nested within classrooms (Level 2), and classrooms were nested within schools (Level 3). The fitted multilevel models included 14 student variables, 6 class variables and 6 school variables (Table 6.1). This chapter presents a three-level data analysis for the total difficulty and prosocial scores. The main task was to estimate the variance component at each level of nesting and determine the contribution of each variable within each level in explaining the variations of total difficulty and prosocial scores.

Table 6.1: List of variables within the three levels of nesting

Individual variables (Level 1)		
Gender	Home language	Child condition
Age	Attainment	Child diagnosis
Religion	Attendance	Child medication
Ethnicity	Formal assessment	Intervention
Home region	Communication	
Classroom variables (Level 2)		
Classroom size	Streaming	Teacher experience
Classroom space	Stream level	Teacher qualification
School variables (Level 3)		
School type	School region	School play space
School size	School environment	School space

6.2 SEBD

6.2.1 Multilevel analysis of total difficulty score

In assessing how the variance of the total difficulty scores varied at each level of nesting, five multilevel models were fitted, using teacher, parent and self report evaluations of SEBD in primary and secondary schools. Table 6.2 displays the variances and standard errors of the total difficulty scores at the individual student, classroom and school levels for primary and secondary students.

Table 6.2: Variance of total difficulty scores at each level of nesting in primary and secondary schools

		Variance	St. Error	Proportion
Teacher evaluation of primary school students	Individual level	39.53	0.9342	69.85%
	Classroom level	10.14	0.7831	17.92%
	School level	6.921	0.6918	12.23%
Parent evaluation of primary school students	Individual level	32.31	1.3206	72.52%
	Classroom level	6.899	0.7306	15.49%
	School level	5.345	0.6365	11.99%
Teacher evaluation of secondary school students	Individual level	42.42	0.9724	76.78%
	Classroom level	7.184	0.8836	13.01%
	School level	5.643	1.2896	10.21%
Parent evaluation of secondary school students	Individual level	46.05	1.1518	73.64%
	Classroom level	9.456	1.2366	15.12%
	School level	7.031	0.8740	11.24%
Self report evaluation of secondary school students	Individual level	35.28	1.0738	65.64%
	Classroom level	11.01	0.8741	20.48%
	School level	7.459	0.9601	13.88%

Teacher, parent and student responses agree that a large portion of the total variance arises due to differences between individual students. The individual-level variables, which explain the within-classroom variability, include also school-related and classroom-related individual variables such as attendance, attainment and communication. Teachers, parents and students are also in agreement that the portion of the total variance attributable to differences between classrooms is larger than that due to differences between schools. The size of the variance component within classrooms, which is explained by student variables, is more than three times the size of the variance component between classrooms. Moreover, the size of the variance component within schools, which is explained by student and class variables, is more than six times the size of the variance component between schools. This finding implies that classroom variables have more impact on student behaviour than school variables. Streaming, teacher

qualification and classroom size, and other related variables such as child attainment, communication, formal assessment and attendance, enhance the prediction of SEBD more than school variables such as type of school, school size, school region and school environment. This reflects international school effectiveness research which shows that classrooms are more important than schools in determining students' academic and social behaviour (Kyriakides, Campbell and Gagatsis 2000; Muijs and Reynolds 2005).

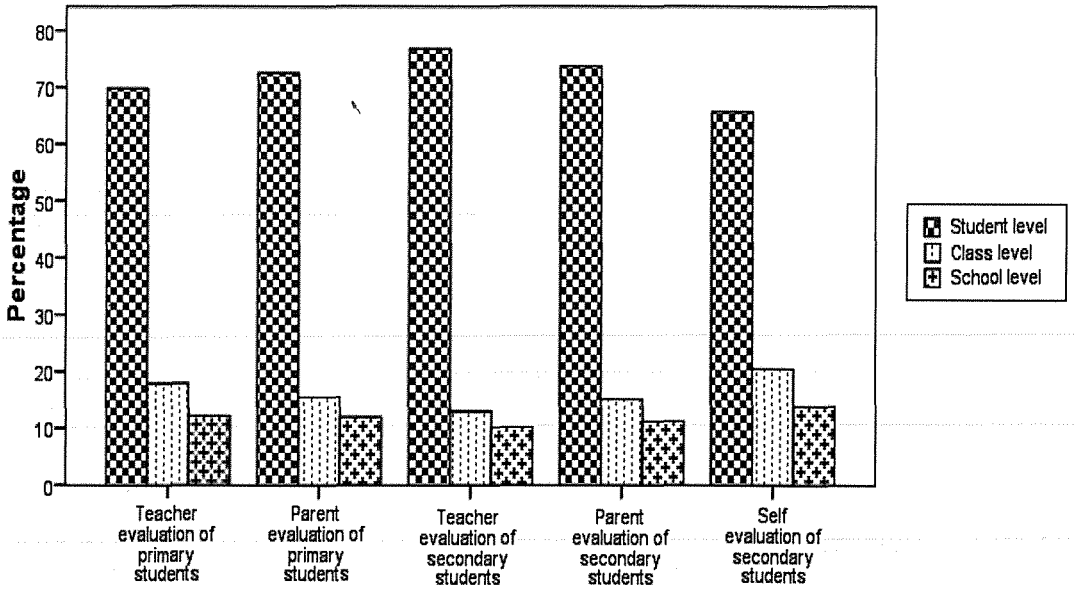


Figure 6.1: Percentage variance explained at each level of nesting for total difficulty scores

6.2.2 Differences within levels

A further task in this chapter was to identify the individual, classroom, school and home variables that contributed significantly to the variations in the total difficulty scores using a multilevel framework. The contribution of each predictor was assessed through a technique that measured the change in deviance (see section 2.3.4 in Chapter 2). The analysis was carried out for each of the four groups of variables using teacher, parent and self report evaluations in primary and secondary school. The predictors in each group were then ranked according to their contribution, first for primary students (Table 6.3) and then for secondary students (Tables 6.4). Figures 6.2 and 6.3 provide a graphical illustration of the significant predictors, in each of the four groups of variables, that best predict differences in SEBD according to teachers, parents and students in primary and secondary schools respectively.

Primary teacher and parent evaluations suggest that school- and classroom-related individual variables such as attainment, assessment, interventions and attendance, are the key determinants of SEBD. Socially related individual variables such as home language, region,

ethnicity, or religion are less relevant. Primary school students with poor attainment and attendance, who have support (without a Statement of educational needs), and receive educational and/or psychological interventions, have higher SEBD scores. Together with gender and diagnosis, attainment, communication, attendance, and intervention feature again as the key predictors of SEBD in secondary school.

Streaming, classroom size and teacher qualification are the key classroom predictors in primary school. Classroom size is partly explained by streaming level since 82% of the low streamed students are placed in small classrooms (11-15 students); whereas only 2.7% of these students are placed in large classrooms (26-30 students). These percentages differ considerably for the top streamed students. This suggests that streaming may be the strongest classroom predictor of SEBD in primary school. Students in small, lower streamed classrooms with less qualified teachers are most likely to have SEBD. In secondary school, classroom space is the key predictor according to both teachers and parents, while teachers indicate also streaming level and teaching qualification, suggesting a similar picture to that in primary school. Streaming and teacher qualification are common predictors of SEBD in both school levels, while teachers consistently refer to streaming as a key predictor at both primary and secondary levels. Teacher experience appears to be irrelevant in both primary and secondary; classroom space has an impact only in secondary school, while classroom size may not be a strong predictive factor if one portions out the effect of stream level.

According to both teacher and parent evaluations, school type is the main school level predictor in primary school; teachers also indicate school size as another key predictor, but this is partly explained by school type: 77.1% of all primary state schools have between 100 and 500 students; whereas 87% of all church schools and 86.7% of all independent schools have between 300 and 700 students. Students attending state primary schools exhibit higher levels of SEBD.

School region is another key predictor according to parent responses, suggesting that students attending primary schools in the Western, Inner Harbour and South Eastern regions have most difficulties. On the other hand, school environment and school space are not determining factors at the primary level. School type is the only common significant predictor in secondary school, with Area Secondary schools emerging as the strongest school type predictor of SEBD. Teachers, parents and students indicate that school environment may also be an important factor.

Table 6.3: Rank of individual, classroom, school and home variables in predicting SEBD in primary school

Primary teacher evaluations	
Individual variables	**P-value**
Attainment	0.000
Assessment	0.000
Gender	0.001
Attendance	0.005
Intervention	0.014
Age	0.113
Home region	0.201
Child diagnosis	0.266
Child medication	0.400
Communication	0.476
Child condition	0.561
Ethnicity	0.574
Home language	0.603
Religion	0.884

Primary parent evaluations	
Individual variables	**P-value**
Intervention	0.000
Attainment	0.000
Attendance	0.032
Child condition	0.045
Child diagnosis	0.106
Age	0.124
Home language	0.131
Communication	0.177
Medication	0.181
Gender	0.213
Home region	0.333
Assessment	0.666
Ethnicity	0.796
Religion	0.908

Classroom variables	P-value
Streaming	0.000
Teacher qualification	0.000
Classroom size	0.002
Stream level	0.024
Teacher experience	0.056
Classroom space	0.119

Classroom variables	P-value
Classroom size	0.051
Stream level	0.107
Teacher qualification	0.398
Streaming	0.610
Classroom space	0.668
Teacher experience	0.957

School variables	P-value
School type	0.003
School size	0.014
School region	0.078
School environment	0.108
School play space	0.307
School space	0.400

School variables	P-value
School type	0.000
School region	0.001
School size	0.408
School play space	0.580
School space	0.704
School environment	0.812

Home variables	P-value
Family structure	0.008
Res. ownership	0.017
Family income	0.027
Mother education	0.032
Father occupation	0.068
Mother occupation	0.069
Father education	0.100
Family size	0.200
Relatives	0.207
Residence type	0.240
Residence space	0.298

Home variables	P-value
Mother occupation	0.024
Mother education	0.046
Family income	0.086
Family structure	0.132
Relatives	0.416
Father occupation	0.465
Res. Ownership	0.512
Residence type	0.710
Father education	0.723
Residence space	0.891
Family size	0.958

Table 6.4: Rank of individual, classroom, school, home variables in predicting SEBD in secondary school

Secondary teacher evaluations	
Individual variables	**P-value**
Attainment	0.000
Gender	0.000
Communication	0.003
Attendance	0.048
Child medication	0.062
Assessment	0.118
Home region	0.126
Intervention	0.221
Child diagnosis	0.408
Child condition	0.532
Home language	0.661
Ethnicity	0.827
Age	0.884
Religion	0.927

Secondary parent evaluations	
Individual variables	**P-value**
Attainment	0.000
Child diagnosis	0.000
Communication	0.045
Gender	0.096
Assessment	0.114
Intervention	0.169
Attendance	0.476
Child medication	0.623
Home language	0.669
Age	0.705
Child condition	0.751
Ethnicity	0.769
Religion	0.787
Home region	0.972

Self report evaluations	
Individual variables	**P-value**
Attainment	0.032
Child diagnosis	0.038
Gender	0.042
Intervention	0.043
Communication	0.194
Assessment	0.227
Home region	0.252
Attendance	0.298
Home language	0.537
Child Medication	0.587
Age	0.609
Ethnicity	0.833
Child condition	0.842
Religion	0.933

Classroom variables	P-value
Classroom space	0.000
Stream level	0.036
Classroom size	0.176
Streaming	0.354
Teach. experience	0.796
Teach. qualification	0.819

Classroom variables	P-value
Classroom space	0.136
Teach. experience	0.211
Classroom size	0.367
Teach. qualification	0.828
Stream level	0.906
Streaming	0.914

Classroom variables	P-value
Teach. qualification	0.027
Classroom space	0.201
Streaming	0.254
Stream level	0.291
Classroom size	0.474
Teach. experience	0.802

School variables	P-value
School Size	0.000
School Region	0.000
Sch. Environment	0.000
School Type	0.001
School Space	0.272
School Play Space	0.786

School variables	P-value
School Type	0.004
Sch. Environment	0.109
School Play Space	0.120
School Size	0.133
School Space	0.308
School Region	0.560

School variables	P-value
School Type	0.000
Sch. Environment	0.111
School Region	0.179
School Size	0.668
School Play Space	0.683
School Space	0.833

Home variables	P-value
Family size	0.002
Mother occupation	0.028
Mother education	0.109
Family structure	0.169
Father occupation	0.260
Res. ownership	0.601
Father education	0.610
Family income	0.906
Residence space	0.945
Residence type	0.971
Relatives	0.987

Home variables	P-value
Relatives	0.003
Family income	0.045
Family structure	0.048
Residence type	0.248
Mother education	0.320
Res. ownership	0.335
Father education	0.442
Mother occupation	0.531
Father occupation	0.552
Family size	0.744
Residence space	0.969

Home variables	P-value
Family income	0.003
Res. Ownership	0.022
Father occupation	0.082
Residence type	0.254
Family structure	0.326
Family size	0.329
Relatives	0.392
Residence space	0.528
Mother education	0.536
Father education	0.697
Mother occupation	0.808

According to teachers, Area Secondary schools with poor environments in two particular regions may be the most predictive of SEBD. Gozo has the highest emotional-peer difficulties while Western and Northern regions have most conduct-hyperactivity problems. The strongest and most consistent school level predictor in the secondary school, however, remains type of school, followed closely by school environment.

Family structure, family income, and mother's education and occupation, are the key home predictive factors. Children and young persons with SEBD are more likely to come from single parent families, with low income, and where the mother has a low level of education and a lower skilled job. Teachers include also residence ownership as another significant predictor, which might be explained by SES: 32.4% of all low-income families live in rented houses, in contrast to 4.2% of all high-income families. Altogether, these factors strongly suggest that SES and family structure, are the main home related predictors. The latter's influence, however, may be explained, at least in part, by SES: 42.1% of all single parents have a low income of less than 120 Euro weekly, in contrast to 5.9% of two-parent families, underlining SES as the strongest home factor. These factors contrast with such weak variables as residence type, residence space, and family size.

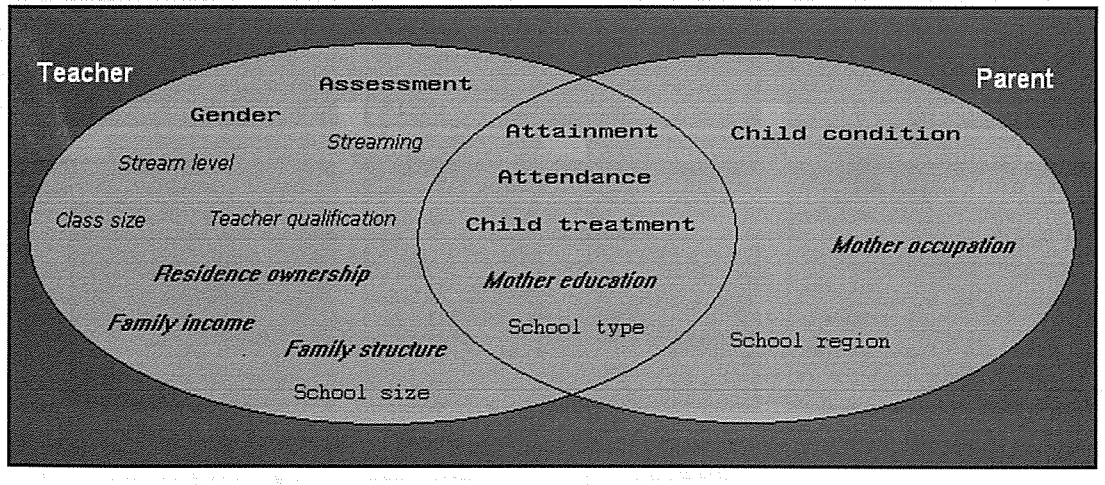


Figure 6.2: Individual, classroom, school and home variables that best predict differences in SEBD in primary school

The picture in secondary school is less clear and consistent. Teacher evaluations suggest family size and mother occupation as the top significant predictors. Parent responses indicate relatives, family income and family structure, while family income and residence ownership are the two predictors according to the self report evaluations. According to parents and students, the main predictor is family income, complementing the trend in primary school; family structure, residence ownership and mother occupation feature as predictors in both primary and

secondary. Family size is the main predictor of SEBD according to teachers, namely that families with one child have more difficulties; but this may be largely explained by single child families being single parent families, and thus family structure rather than size may be making the strongest contribution to SEBD (which in turn is impacted by SES): 32.7% of all single parents have one child, in contrast to 13.5% of two-parent families. Thus it is highly suggestive that family structure and SES are the key predictors of SEBD in secondary school as well.

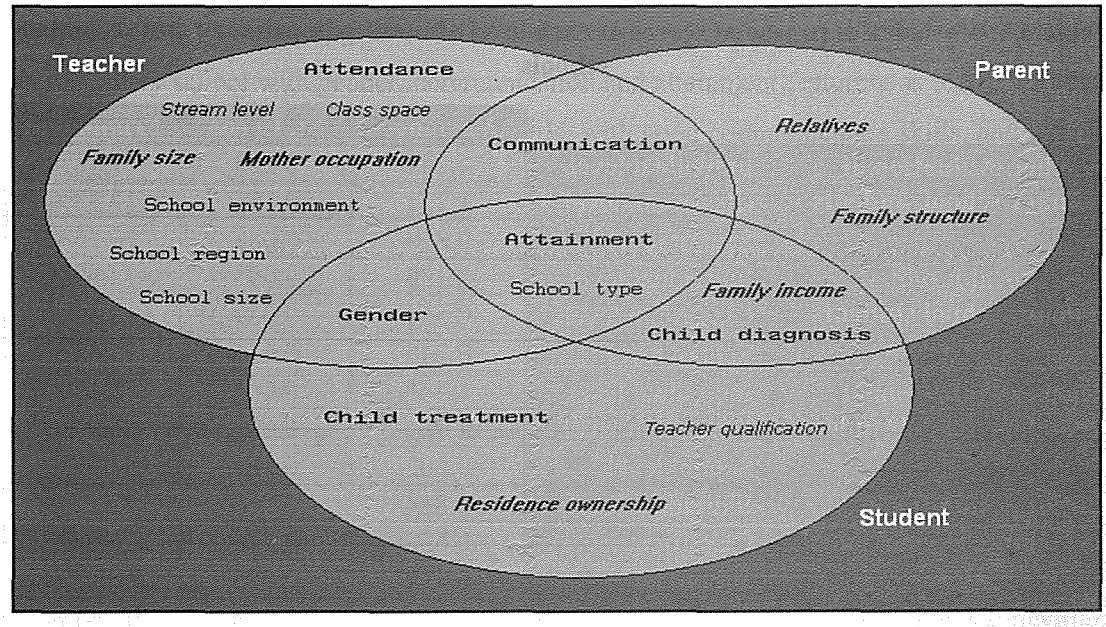


Figure 6.3 Individual, classroom, school and home variables that best predict differences in SEBD in secondary school

6.3 Prosocial behaviour

6.3.1 Multilevel analysis of prosocial scores

A similar multilevel analysis was carried out with the prosocial scores. Table 6.5 displays the variances and standard errors of the prosocial scores at each level of nesting using teacher, parent and self report evaluations of primary and secondary students. A large portion of the total variance is accounted for by differences between individual students, while the portion of the total variance attributable to differences between classrooms is larger than the corresponding portion which arises due to differences between schools. This result, which is similar to the one obtained for SEBD, applies to teacher, parent and self report evaluations in both primary and secondary school (see Figure 6.4). The size of the variance component within classrooms, which is explained by individual student variables, is more than twice the size of the variance component between classrooms. Moreover, the size of the variance component

within schools, which is explained by individual and classroom variables, is more than six times the size of the variance component between schools. Individual variables account for the largest proportion of variance, while the differences between classrooms are larger than those between schools, particularly according to teachers, reinforcing the earlier claim that classroom and school-related individual variables such as attainment may be more related to prosocial behaviour than school variables.

Table 6.5: Variance of prosocial scores at each level of nesting in primary and secondary schools

		Variance	St. Error	Proportion
Teacher evaluation of primary school students	Individual level	4.241	0.133	67.13%
	Classroom level	1.221	0.156	19.33%
	School level	0.856	0.081	13.55%
Parent evaluation of primary school students	Individual level	2.396	0.095	74.69%
	Classroom level	0.564	0.059	17.58%
	School level	0.248	0.016	7.731%
Teacher evaluation of secondary school students	Individual level	4.441	0.146	65.19%
	Classroom level	1.769	0.175	25.97%
	School level	0.602	0.181	8.837%
Parent evaluation of secondary school students	Individual level	2.814	0.161	72.45%
	Classroom level	0.658	0.116	16.94%
	School level	0.412	0.055	10.61%
Self report evaluation of secondary school students	Individual level	2.748	0.138	71.81%
	Classroom level	0.687	0.112	17.95%
	School level	0.392	0.109	10.24%

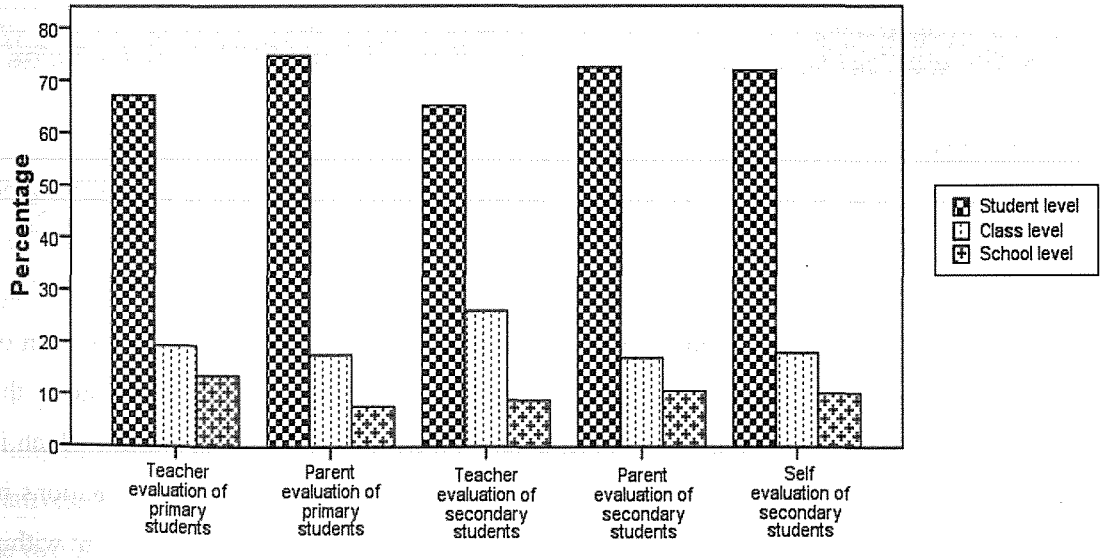


Figure 6.4: Percentage variance of prosocial scores at each level of nesting using teacher, parent and self report evaluations in primary and secondary school

6.3.2 Differences within levels

Tables 6.6 and 6.7 outline the ranked predictors in primary and secondary school according to teacher, parent and self report responses respectively, while the commonalities and differences between the three groups of respondents in primary and secondary schools, are illustrated in Figures 6.5 and 6.6 respectively.

Gender and communication are the main individual level predictors in primary school, followed by attainment (teacher responses) and attendance (parent responses). There is a similar pattern in secondary school with gender, communication and attainment featuring as the key predictive variables. Primary and secondary school girls, with good communication skills, and who have good attainment, are more likely to engage in prosocial behaviour. It is interesting to note that communication gains more salience as a prosocial than a SEBD predictor, suggesting that good communication skills are particularly helpful for students to engage in prosocial behaviour. According to self report evaluations, age is also a significant predictor, with the least prosocial behaviour in Form 3 in contrast to the other four Forms. This complements the earlier finding in this study that Form 2 and 3 students are particularly vulnerable for SEBD.

The teacher responses indicate that teacher qualification is the most important classroom level predictor in both primary and secondary, while parent evaluations suggest teacher experience (not significant). Classroom level factors in primary school are not significant, though the top ranked predictors are teacher qualification according to teacher responses and teacher experience according to parents'. Self report evaluations indicate teaching qualification as the top predictive variable, followed by streaming (as in teachers'). Though with one exception all predictors at this level are not significant, teacher qualification, experience and streaming appear to be the classroom factors most predictive of prosocial behaviour amongst primary and secondary students. Students with more qualified and experienced teachers in non-streamed classes are more likely to engage in prosocial behaviour.

Primary non-state and middle-sized schools have more prosocial behaviour according to teacher responses; parent responses suggest that students in the more spacious primary schools exhibit more prosocial behaviour. The school environment emerges as the top predictor according to teacher responses in secondary school, together with school type and size as in the case of primary school. Parent responses on the other hand, identify school size and environment, while environment and school type are the main student self report predictors, though not significant. In general, the data suggests that students are more likely to

Table 6.6: Rank order of individual, classroom, school and home factors in predicting prosocial behaviour in primary school

Primary teacher evaluations	
Individual variables	**P-value**
Gender	0.000
Communication	0.000
Attainment	0.000
Intervention	0.113
Child diagnosis	0.244
Assessment	0.265
Attendance	0.266
Child condition	0.276
Medication	0.280
Age	0.350
Home region	0.659
Home language	0.676
Ethnicity	0.808
Religion	0.829

Primary parent evaluations	
Individual variables	**P-value**
Gender	0.000
Communication	0.000
Attendance	0.001
Intervention	0.093
Child diagnosis	0.204
Attainment	0.381
Assessment	0.431
Child condition	0.469
Home region	0.504
Age	0.568
Home language	0.571
Medication	0.577
Ethnicity	0.684
Religion	0.948

Classroom variables	P-value
Teacher qualification	0.088
Teacher experience	0.134
Streaming	0.338
Stream level	0.408
Classroom space	0.446
Classroom size	0.810

Classroom variables	P-value
Teacher experience	0.315
Classroom size	0.359
Streaming	0.416
Classroom space	0.435
Teacher qualification	0.568
Stream level	0.717

School variables	P-value
School type	0.018
School size	0.022
School region	0.328
School environment	0.628
School space	0.765
School play space	0.974

School variables	P-value
School space	0.085
School region	0.328
School size	0.378
School type	0.798
School play space	0.823
School environment	0.964

Home variables	P-value
Family income	0.020
Family structure	0.078
Father education	0.084
Father occupation	0.154
Res. ownership	0.309
Mother education	0.359
Relatives	0.401
Residence type	0.458
Mother occupation	0.512
Residence space	0.633
Family size	0.812

Home variables	P-value
Family structure	0.023
Father occupation	0.046
Father education	0.191
Family income	0.223
Mother occupation	0.259
Mother education	0.281
Residence type	0.447
Res. Ownership	0.533
Family size	0.706
Relatives	0.815
Residence space	0.897

Table 6.7: Rank order of individual, classroom, school and home factors in predicting prosocial behaviour in secondary school

Secondary teacher evaluations	
Individual variables	**P-value**
Gender	0.000
Communication	0.000
Attainment	0.031
Assessment	0.057
Child diagnosis	0.129
Attendance	0.139
Intervention	0.269
Child condition	0.381
Child medication	0.518
Religion	0.714
Ethnicity	0.720
Home region	0.779
Age	0.880
Home language	0.945

Secondary parent evaluations	
Individual variables	**P-value**
Gender	0.000
Intervention	0.139
Child diagnosis	0.166
Attainment	0.168
Age	0.265
Child condition	0.268
Communication	0.379
Assessment	0.416
Home language	0.428
Attendance	0.521
Home region	0.556
Child Medication	0.714
Ethnicity	0.893
Religion	0.975

Self report evaluations	
Individual variables	**P-value**
Gender	0.000
Age	0.016
Communication	0.049
Attainment	0.089
Intervention	0.126
Attendance	0.184
Home language	0.292
Child diagnosis	0.399
Home region	0.416
Ethnicity	0.536
Religion	0.588
Assessment	0.609
Child condition	0.658
Child Medication	0.784

Classroom variables	P-value
Teach. qualification	0.026
Stream level	0.103
Teach. experience	0.178
Streaming	0.508
Classroom space	0.634
Classroom size	0.750

Classroom variables	P-value
Teach. experience	0.089
Teach. qualification	0.126
Stream level	0.437
Streaming	0.572
Classroom size	0.608
Classroom space	0.843

Classoom variables	P-value
Teach. qualification	0.057
Streaming	0.157
Classroom size	0.245
Teach. experience	0.259
Stream level	0.451
Classroom space	0.732

School variables	P-value
Sch. Environment	0.000
School Type	0.004
School Size	0.048
School Space	0.101
School Play Space	0.135
School Region	0.831

School variables	P-value
School Size	0.003
Sch. Environment	0.075
School Space	0.146
School Type	0.229
School Region	0.329
School Play Space	0.952

School variables	P-value
Sch. Environment	0.003
School Type	0.085
School Region	0.105
School Type	0.119
School Space	0.187
School Play Space	0.233

Home variables	P-value
Family size	0.174
Relatives	0.220
Mother education	0.389
Family structure	0.405
Father occupation	0.425
Mother occupation	0.511
Res. Ownership	0.659
Family income	0.679
Father education	0.797
Residence type	0.814
Residence space	0.966

Home variables	P-value
Residence type	0.005
Mother education	0.047
Mother occupation	0.213
Father occupation	0.326
Residence space	0.416
Family structure	0.484
Family size	0.503
Relatives	0.566
Family income	0.576
Father education	0.732
Res. ownership	0.836

Home variables	P-value
Mother occupation	0.193
Family size	0.135
Family income	0.120
Family structure	0.196
Father occupation	0.328
Res. ownership	0.359
Residence type	0.371
Mother education	0.520
Father education	0.521
Relatives	0.724
Residence space	0.919

exhibit prosocial behaviour in non-state primary schools and Junior Lyceums, and in schools with attractive environments. Teachers' reference to school size may be partly explained by school type, with the smaller schools being Area Secondary schools.

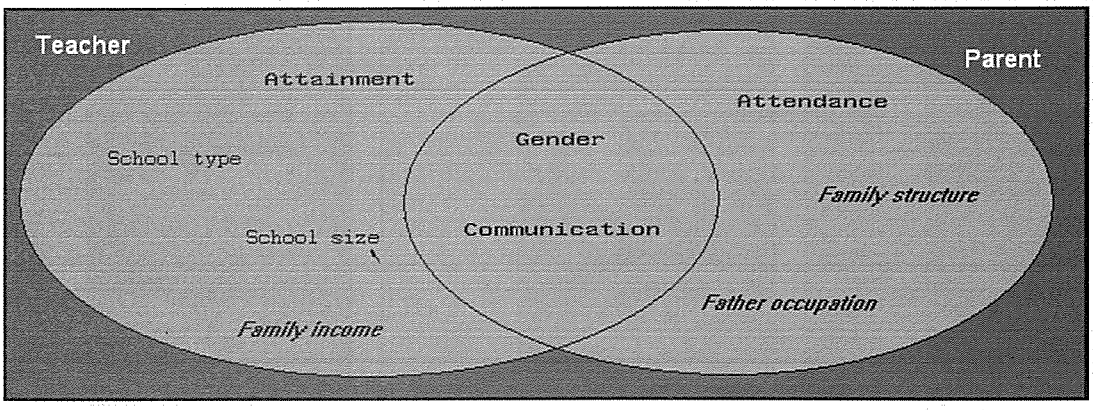


Figure 6.5 Individual, classroom, school and home variables that best predict differences in prosocial behaviour in primary school

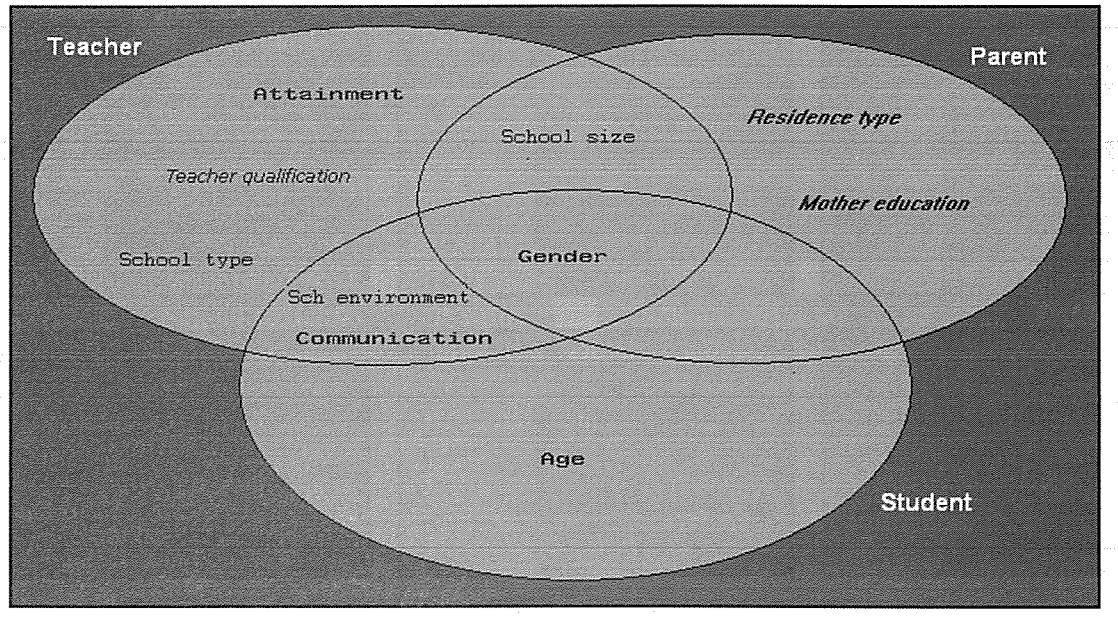


Figure 6.6: Individual, classroom, school and home variables that best predict differences in prosocial behaviour in secondary school

In primary school, teacher and parent responses indicate family income and structure as the key predictors, followed by father's occupation and education. Family income and structure complement the findings of SEBD, suggesting that primary students coming from higher socio-economic groups, and living in two-parent families, are more likely to exhibit prosocial behaviour. However, there is an interesting difference concerning the father's role. While

mother's education and occupation are predictors of SEBD, father's education and occupation are predictive of prosocial behaviour in primary school.

A less clear pattern emerges in secondary school. Family size is the main (though not significant) predictor according to teacher responses, suggesting most prosocial behaviour in families with 2-3 children. Residence type and mother's education are the two significant predictors according to parent evaluations, while mother's occupation is featured as the top predictor (though not significant) according to self report evaluations. In contrast to primary school, the mother's occupation features as a potential key predictor of prosocial behaviour at the secondary level, while medium sized families and type of residence are also key predictors.

6.4 Conclusion

This chapter has discussed the multilevel analysis of SEBD and prosocial behaviour, first examining the differences between the three levels of nesting, namely individual, classroom and school levels, and then examining the differences within the levels themselves, seeking to identify the key predictors within each level. It proposes a model of risk and protective factors, identifying the factors at various levels which predict SEBD and prosocial behaviour in primary and secondary schools respectively. However, it must be borne in mind that the model is built on structural variables, namely individual and institutional variables, and does not take process variables, such as classroom relationships, behaviour management, school administration, parenting-style and family dynamics, into consideration. These will be the focus of the follow-up longitudinal study.

The next chapter brings all the findings of the study together, summarizing the key findings, followed by a discussion of the implications and recommendations for policy, practice and research.

7

Results, Implications and Recommendations

This chapter brings together the findings which emerged from the various analyses which have been carried out in the study. It presents a summary of the findings followed by implications and recommendations for practice, concluding with general conclusions and areas for further study in this area.

7.1 Summary of findings

This study has reported the results emerging from the completion of the SDQ and other supplementary questionnaires on about 7000 Maltese primary and secondary school students by three primary groups of respondents, namely teachers, parents and students themselves. It was expected that the perceptions of teachers, parents and students vary according to the various factors investigated. For instance, parents and the students themselves perceive students as having more SEBD than teachers; on the other hand, they also report more prosocial behaviour than teachers. While teacher responses underline school and classroom related variables in relation to SEBD and prosocial behaviour, parent and student responses on the other hand, highlight within-child and home variables. However, the positive and significant correlations between the mean scores of the three groups of respondents (see Chapter 2) indicate that teachers, parents and students tend to agree on the students who have higher scores on difficulty and prosocial scores. Where there is a discrepancy between the responses of teachers, parents and/or students, this is underlined in the findings below. Where the findings are presented as general ones rather than according to the group of respondents, it is indicative that the respondents are in agreement about that finding.

As indicated elsewhere in this report, this was not a cause-and-effect investigation, but a study based on the perceptions of teachers, parents and students themselves, exploring the

relationship between SEBD and prosocial behaviour and various individual, classroom, school and home variables. The findings and their implication for policy and practice thus need to be discussed and considered in view of the nature and design of the study.

The following is a summary of the key findings reported in the study, section by section.

7.1.1 Prevalence rates and general patterns:

- According to teachers, 9.7% of school students have SEBD. Boys have more difficulties than girls (10.46% and 8.86% respectively), and there are more difficulties in secondary (10.27%) than primary schools (9.05%). There are seven secondary school students with SEBD for every six in primary school, while for every six girls exhibiting SEBD, there are seven boys. Most difficulties are found in boys' secondary schools and the least amongst girls in primary schools.
- Hyperactivity is the most frequent type of difficulty in school, followed by emotional, peer and conduct difficulties respectively.
- According to teacher responses, there are more emotional difficulties in primary school, but more conduct, hyperactivity and peer problems in secondary school. Parent responses on the other hand, suggest more emotional and peer difficulties in secondary school, and more conduct and hyperactivity problems in primary school.
- Female students have more emotional problems than male students in both primary and secondary schools, while the latter have more problems in conduct and hyperactivity and, possibly, in peer relationships.
- While emotional problems decrease slightly for male students as they progress from primary to secondary school, teachers and parents have contrasting views with regards to female students. While teachers present a similar picture as that of male students, parent responses suggest that girls attending secondary school have more emotional problems.
- According to teachers, conduct problems increase for both male and female students as they progress from primary to secondary school. However, parent responses suggest that these difficulties decrease for male students but remain fairly stable for female students.
- Hyperactivity decreases for both genders as they progress from primary to secondary school, particularly according to parent responses.
- Peer problems are more frequent in secondary than primary school, particularly according to teacher responses.

7.1.2 SEBD - Individual, classroom, school and home factors

Individual factors:

- The strongest predictor of SEBD in both primary and secondary schools is attainment, underlining the relationship between learning and behaviour.
- Attendance, attainment, communication and formal assessment are some of the strongest individual factors related to SEBD. Primary and secondary school students with poor attendance, poor attainment, poor communication skills, and receiving support without a Statement of educational needs, are more likely to have SEBD than students who do not have such characteristics.
- School children who have been diagnosed with a condition or disability, and who are receiving an intervention for their psychological and/or educational difficulties, experience more difficulties, particularly emotional ones.
- There are indications of increasing difficulties as the students move from primary to secondary school according to teachers, with Forms 2 and 3 being the most problematic Forms.
- In primary school, Year 1 and 2 students exhibit more behaviour problems, while Year 6 is characterised by more emotional difficulties.
- Home language, ethnicity and religion do not appear to play a key role in the development of SEBD in Maltese schools, though teacher responses indicate that non-Maltese, non-Catholic, secondary school students may exhibit more difficulties.
- Teacher evaluations suggest that Gozo is the region with the highest level of difficulties in both primary and secondary schools, but according to parents it is the Inner Harbour region. An analysis by type of difficulty suggests that Gozo has the highest emotional-peer problems and the lowest behavioural ones, while the opposite is true of the Inner Harbour and Northern regions.

Classroom variables:

- Smaller classrooms have more problems, but this may be more related to streaming than to classroom size, as the smaller classrooms tend to be small, low streamed ones.
- Streamed classrooms have more difficulties than mixed ability or set classrooms, and there are more SEBD in the lower streamed classrooms.
- Secondary school classrooms with average or limited space have more difficulties than the more spacious classrooms.

- Teachers with less than five years teaching experience may face more difficulties in their classroom, but this may be related to other factors such as newly qualified teachers being assigned to the more difficult classrooms.
- The least qualified/poorly qualified teachers have more children with SEBD in their classroom; again this is partly explained by such teachers being placed in schools where there are more difficulties, such as Area Secondary schools.

School variables:

- As in the case of home region, similar conclusions emerged regarding Gozo, the Inner Harbour and the Northern regions. However, parent responses suggest that the most problematic primary schools are found in the Western, Inner Harbour and South Eastern regions, and the corresponding secondary schools in the Northern region. The highest proportion of conduct-hyperactivity difficulties are found in schools in the Northern and to a lesser extent the Western regions, and those with emotional-peer difficulties in Gozo.
- There are more problems in state primary and secondary schools than in church and independent schools. Area Secondary schools have the highest level of difficulty in the secondary sector. The schools with the least difficulties are independent schools (primary) and church schools (secondary).
- Primary schools with less than 300 and more than 700 students, and secondary schools with less than 500 students, have more difficulties. However, school size is partly explained by school type, with the smaller schools being state schools (Area Secondary schools in the case of secondary schools).
- Schools with unattractive environments or whose environments need improvement, and secondary schools with limited space, have higher levels of difficulty.

Home variables:

- Home residence does not appear to be strongly related to SEBD, with the exception of home ownership, but this may be explained by the family's socio-economic status (SES).
- One-parent families, especially single-parent families, have more children and young persons with SEBD than two-parent families.
- SES is one of variables most strongly related to SEBD. The lower the family's SES, the more likelihood of children and young persons with difficulties in the family. Families where one or both parents have semi-skilled or unskilled jobs and a low level of education, and whose income is relatively poor, are more at risk for SEBD.

Predictive factors according to respondent

- Teachers in both primary and secondary schools underline school-related individual variables, such as attainment, communication skills and assessment status, and classroom and school variables, as being mostly linked to SEBD.
    - The primary school students most at risk for SEBD according to teachers are lower streamed, non-statemented students with support, attending small, state schools, and who live with a single parent.
    - In secondary school, the students most vulnerable for SEBD are male students with poor attainment, poor communication skills, living in a single child family (possibly single parent), attending small schools (usually Area Secondary), with an unattractive environment, in the Inner Harbour region.
- The predictors from the parent evaluations are more within-child individual variables such as diagnosis and intervention, and home factors such as income, occupation and relatives.
    - The primary students most at risk for SEBD according to parents, are students who have illness/health problems, have poor attainment, attend school irregularly, receive psychological and/or educational interventions, and live with mothers with low skilled jobs.
    - Secondary school students who have a medical diagnosis, receive psychological and/or educational interventions, and live in a family with relatives and low income, are more likely to have SEBD.
- Student self evaluations suggest that poor attainment and low-income family are the strongest predictors for SEBD.
- On the whole, most of the predictors are individual variables, and most of these are school-related, such as attainment and communication. These are followed by the classroom and classroom factors such as streaming, space, and type of school (particularly according to teacher responses), and subsequently by family factors such as income, structure and residence ownership (parents).

Multilevel analysis of findings

- An analysis of these factors according to the level of nesting, reveals that individual level factors account for the largest proportion of the variance, while differences between classrooms are larger than those between schools. This suggests that what happens in the classroom may have a stronger impact on student behaviour than whole school factors.

- Individual level factors: School- and classroom-related individual variables such as attainment, formal assessment, interventions and attendance are the key determinants of SEBD, in contrast to within-child factors such as home language, region, ethnicity, or religion. Primary school students with poor attainment and attendance, who have support (without a Statement of educational needs) and receive educational and/or psychological interventions, are more likely to have high SEBD scores. Together with gender and diagnosis, attainment, communication, attendance and intervention feature again as the key predictors of SEBD in secondary school.
- Classroom level factors: Streaming, classroom size and teacher qualifications are the key classroom predictors in primary school. However, classroom size is partly explained by streaming level, suggesting that streaming may be the strongest classroom predictor in primary school. Primary school students in small, lower streamed classes with less qualified teachers, are more likely to have SEBD. In secondary school, classroom space is the key predictor according to both teachers and parents. The teacher responses indicate also streaming level, while self report evaluations underline teaching qualification, suggesting a similar picture to that in primary school. Thus streaming and teacher qualification are common to both primary and secondary school, while teachers consistently refer to streaming as a key predictor at both primary and secondary levels.
- School level: Students attending state primary schools have higher levels of SEBD in contrast to those attending non-state schools. According to parents, students attending state primary schools in the Western, Inner Harbour and South Eastern regions have most difficulties. Area Secondary schools emerge as the strongest school level predictor of SEBD in the secondary sector. There is also some suggestion that school environment may be an important factor. According to teachers, Area Secondary schools with poor environments, in two of the six regions in Malta and Gozo, may be most predictive of SEBD.
- Family level: Primary school children with SEBD are more likely to come from single parent families, low income families, and families where the mother has a low level of education and a lower skilled job. SES and family structure (which is also linked to SES as single parents are more likely to come from the lower SES groups) are the key home related predictors of SEBD in primary school. Income, family structure and family size (explained by family structure) are the significant predictors in secondary school.

7.1.3 Prosocial behaviour

This study investigated also the nature and distribution of prosocial behaviour amongst students as measured by the SDQ prosocial subscale.

Main findings:

- The strongest predictor of prosocial behaviour in both primary and secondary schools is gender, with consistent evidence that girls engage in more prosocial behaviour than boys.
- Prosocial behaviour is more evident in primary than secondary school.
- Students who attend school regularly, have good attainment and good communication skills, are not statemented/supported, and who are not diagnosed or receive any form of intervention, engage in more prosocial behaviour.
- Students in the upper streamed classes and who have more qualified secondary school teachers, have higher prosocial scores.
- Non-state schools have more prosocial behaviour than state schools, while Junior Lyceums have more prosocial behaviour than Area Secondary schools, the latter's difficulties compounded by poor physical environment.
- One-parent families, families with poor income, and families where the father is on state income, have less prosocial behaviour than two-parent and more affluent families.

Predictive factors

- Most of the predictors of prosocial behaviour fall within the individual level, namely gender, communication, attainment, attendance and year/form. There are two school variables (school type and school environment) and only one home factor (family structure).
- According to teachers in both primary and secondary school, the significant predictors of prosocial behaviour are gender and communication (common to both school levels) and school type (primary) and attainment (secondary).
    - Primary female students with very good communication skills attending independent schools have higher prosocial behaviour.
    - Secondary female students with very good attainment and good communication skills are most likely to exhibit prosocial behaviour.
- Parents on the other hand, indicate gender at both school levels as well as attendance and family structure, as the key predictors of prosocial behaviour. In primary school, prosocial behaviour is more likely to be manifested by girls who attend school regularly and who are brought up in two-parent families.

- The self reports by the secondary students indicate that female Form 1 and Form 5 students, who attend schools with an attractive environment, are most likely to engage in prosocial behaviour.

Multilevel analysis of findings

- As in the case of SEBD, multilevel analysis shows that individual level factors account for the largest proportion of the variance, while the differences between classrooms are larger than those between schools, particularly according to teacher responses. This reinforces the earlier observation that classroom- and school-related individual factors such as attainment, are more related to prosocial behaviour than school-level factors.
    - Individual level factors: Primary and secondary school girls with good communication skills and who have good attainment, are more likely to engage in prosocial behaviour. Student self reports also indicate that Form 3 students are the least to exhibit prosocial behaviour, complementing the earlier finding that Form 2 and 3 students are most prone to exhibit SEBD.
    - Classroom level factors: Apart from one exception, all predictors at this level are not significant. Teacher qualification, experience and streaming appear to be the factors most related to prosocial behaviour amongst primary and secondary school students. Students with more qualified and experienced teachers and attending in non-streamed classrooms, are more likely to manifest prosocial behaviour.
    - School level factors: In general, the data suggests that students are more likely to exhibit prosocial behaviour in non-state primary and secondary schools, and in those secondary schools with an attractive environment.
    - Home factors: Primary school students coming from two-parent families, from families with good income, and whose father has a good level of education and a good job, have higher prosocial behaviour scores. In secondary school, the mother's occupation features as a key predictor of prosocial behaviour, followed by medium-sized family and own residence.

7.2 Implications and recommendations

7.2.1 General trends

The 9.7% prevalence rate of SEBD in Maltese schools is close to the 10% cut off point given by Robert Goodman (Goodman 1997) and other studies based on teacher perceptions (Egelund and Hansen 2000; Smeets *et al.* 2007), but lower than the 10-20% rate suggested by other

researchers in the UK (BMA 2005; Young Minds 1999). This study suggests that local statistics are quite close to the international prevalence rates, and that teacher responses strongly indicate that SEBD are a major issue of concern in Maltese schools. This adds urgency to the need to address this social phenomenon in our schools on the basis of an overall, multifaceted approach as early as possible to avoid the problem reaching the levels and severity seen in other countries.

In line with international trends, boys have more SEBD than girls, though the difference is less significant, with a local ratio of 7: 6 in contrast to the 3:1 ratio usually cited in the literature. Indeed a review of the international literature suggests that the rise in behaviour difficulties amongst girls is increasing at a greater rate than among boys (Cooper, 2006). As expected, boys have markedly more behaviour and conduct problems and engage in less prosocial behaviour, while girls experience more emotional difficulties. While there are social pressures which may influence these gender differences, boys would benefit from social skills training and opportunities to engage in more positive communication, prosocial behaviour and collaboration. Early intervention is strongly indicative to prevent negative social trajectories, particularly for boys who are already vulnerable to SEBD. Nurture education approaches have been shown to be particularly effective in improving the behaviour and cognitive engagement of young children with disruptive and anti-social behaviour (Cooper and Whitebread, 2007).

Female students on the other hand, need support and understanding to develop more positive views of themselves and their abilities, and to be equipped with stress management skills in view of the higher emotional difficulties faced by girls in both primary and secondary school. A recent study exploring the views of students amongst 35 countries in Europe and North America, reported that school-related stress amongst Maltese female secondary students increased from 43% amongst 11 year old, to 60% amongst 13 year old, up to 69% amongst 15 year old. At 11 and 13 year-old, Maltese girls are the most academically pressured students from all the 35 countries involved in the study (WHO 2008). At such a vulnerable age, female students may be achieving at the expense of their social and emotional health.

As expected there are more difficulties in secondary than primary schools, with difficulties increasing as students move from primary to secondary education (ratio of 6:7), especially behavioural problems. Forms 2 and 3 appear to be particularly difficult years. The Health Behaviour of School-Aged Children Study (WHO 2008) found that Maltese secondary school students are amongst the most academically pressured students, particularly in Form 3. This calls for preventative approaches to curb the increasing difficulties being apparently experienced by secondary school students, particularly as they are approaching Form 3. While

schools and teachers may have little control in what happens in the community or in families, they can make a difference in student behaviour by seeking to improve their practice at organisational and classroom levels. Engaging all students in the life of the school, building caring relationships with the students, establishing collaborative initiatives with the parents, providing opportunities for the staff to support one another, providing a meaningful and engaging curriculum for all learners, and promoting positive and consistent behaviour management at school and classroom levels, are some of the processes which have been found to promote positive behaviour and engagement amongst students (Cooper 2006; Daniels, Cole and Reykebill 1999; Weare 2004). However, it is also evident that there is a need for preventative, early intervention work in primary school. Secondary schools frequently complain that they find it difficult to manage and change behaviour once it has become established due to lack of timely intervention earlier on in the life of the child. The prevalence rate in primary school, particularly amongst boys, is relatively high. We need to act as early as possible to support the healthy social and emotional development of children and prevent any emerging difficulties from exacerbating.

As expected, more problems are found in state schools in contrast to church and independent schools at both primary and secondary levels. Most children with SEBD in primary school are found in the smaller, lower streamed classrooms. At secondary level, most problems are in the Area Secondary schools. This suggests that streaming is in fact linking learning and behaviour difficulties together. Putting students with learning and/or behaviour difficulties together is set to exacerbate such difficulties (Poulin *et al.* 2001). Moreover, there are indications that Area Secondary schools may not be provided with the same human and physical resources as those found in Junior Lyceums and Church and Independent schools. School effectiveness research has consistently shown that schools can make a difference in the social and academic behaviour of students despite the baggage students may bring with them to school (Muijs and Reynolds 2005; Teddlie and Reynolds 2000). There is thus a need to examine how the educational system is addressing the educational needs of students, particularly those of students with low attainment and learning difficulties, such as the relevance of the curriculum for such students, the suitability of assessment modes, and the appropriateness of behaviour management approaches at school, classroom and individual levels. The current restructuring of the state secondary education, namely the substitution of the present dual secondary system by a comprehensive college one, with all the curricular changes that such a change entails, would help to address some of the issues raised by the study.

The most frequent problem exhibited by students is hyperactivity. It is suggested that students are becoming more restless and fidgety in the classroom and finding it more difficult to concentrate. Though this is a multifaceted phenomenon, the fact that our traditional school systems may have hardly changed over the past several decades, may be a contributing factor to the students' increasing restlessness in the classroom. Students may find it difficult to engage with a system which they may find rigid, academic oriented and with little relevance to their real lives and cultures. Amongst Maltese 13-year-old students, only 16% of boys and 27% of girls said that they liked school, dropping from 30% and 50% respectively amongst 11 year olds (WHO 2008). This relates to the other finding that Form 2 and 3 appear to be the lowest point in engagement and motivation amongst Maltese students. While liking school is a protective factor for young persons' physical and socio-emotional health, dislike for school in turn has been associated with academic failure, school drop out and substance abuse (Maes and Lievens 2003; Resnick *et al.* 1997; Samdal *et al.* 2000) Students need engaging, stimulating, meaningful and practice-based activities in their classrooms.

Following hyperactivity, emotional difficulties come a close second. While there are various factors leading to emotional problems in children and young persons, including normal developmental processes and family issues, there are indications that Maltese students are experiencing high levels of stress and low self esteem as a result of academic pressure, examinations, and lack of free time (Sollars 2006; WHO 2008). It is ironic for instance, that as stress builds up as the Junior Lyceum examinations are approaching, teachers tend to reduce rather than increase PE lessons (Sollars 2006).

Peer problems such as bullying, isolation and difficulties with peers are more frequent in secondary school, particularly amongst boys. This complements the WHO study (2008)'s finding that Maltese boys do not have many close friends: less than half of 11 year –olds reported that they had three or more friends from the same gender (the lowest from all the countries). Friendships are necessary for the psychosocial development of young adolescents, promoting their social skills, improving their self esteem, and supporting the process of identity development (Baumister and Leary 1996). In schools operating as caring communities where members feel included and supported, it is less likely for students to become victims of bullying or end up isolated without any friends. Having a clearly set out and evaluated anti-bullying policy, peer support schemes such as buddies for vulnerable students, peer tutoring, and peer counsellors, collaborative learning environments in the classroom, and PSD and Circle Time, would help to inculcate a culture of respect, care, inclusion and equity, where diversity is celebrated, prosocial values and behaviour reinforced, and bullying discouraged and adequately and timely managed.

7.2.2 Individual, class, schoolroom and home factors

A surprising finding in primary schools was that, while Year 1 and 2 students exhibited more behaviour problems, Year 6 was characterised by more emotional difficulties. One would expect emotional problems to decrease as children start feeling safe and secure at school and become more actively engaged in their learning experiences. This result, along with other findings in the study, indicates the negative impact academic pressure, streaming and Junior Lyceum examinations, may be having on the psychological well being of Maltese children. This is an important issue to take into consideration given that the primary school age has been long identified as the time when children are faced with developing a sense of competence versus a sense of inferiority and incompetence (Erickson 1950). Local studies have underlined the negative influence on children's self esteem of being placed in the lower streams in primary school, the stress students face as they prepare for the Junior Lyceum examination, and the sense of failure and incompetence amongst the 40% of children who fail the examination (Cassar 1991; Chetcuti and Griffiths 2002; Mansueto 1997). Moreover, the students who may be achieving may be also paying a high price for their success. For instance, the surprising finding that Gozo has the highest level of emotional difficulties amongst the six regions, could be partly explained by the Junior Lyceum phenomenon, where most if not all Year 6 students are expected to sit for the examination, with pressure from both the school and the family. Indeed, over the past years, Gozo has one of the highest levels of passes in Junior Lyceum examinations in Malta and Gozo. In the 2008 examination session, 70% of students from Gozo obtained a pass mark, compared with 60% in Malta (Calleja 2008). This high rate of achievement may be achieved at the expense of the students' social and emotional health, with the educational system becoming a health hazard for the children's psychological well being at such a young age. Some practices make it even worse: Sollars (2006) have found that as Junior Lyceum examinations approach, there is a tendency in primary schools to reduce PE lessons, which are already insufficient. Yet research clearly shows that not only physical exercise is a very effective stress management tool for children and young persons, but it enhances those aspects of children's mental functioning which are conducive to learning (Tomporowski *et al.* 2008).

The Inner Harbour and Northern regions have the highest number of students with behaviour problems which is in part explained by these two regions having large numbers of families from the lower SES groups. Traditionally the Inner Harbour has been the main region of relative socio-economic disadvantage, but the urban areas which have developed in the Northern region in the past decades have taken some of the socio-economic disadvantage, with the outward migration of the population from the Inner Harbour. This finding takes particular

relevance in view of the recent college reform, where schools have been grouped into colleges according to region. Targeting the needs of the communities, families, children and schools in these regions as early as possible through preventative and multilevel interventions, would help to enhance the cognitive and socio-emotional development of children growing up in these areas.

Attendance, attainment, communication and formal assessment are very important individual factors related to the SEBD in school. Of these, attainment is the strongest predictor of SEBD in Maltese schools, underlining the inextricable link between learning and behaviour difficulties. Indeed, compared with other students with individual educational needs, students with SEBD are more likely to have problems in literacy and numeracy and in completing their education successfully (Groom and Rose 2004). The relationship between attainment and SEBD is likely to be reciprocal. Students may have attainment problems as a result of their behaviour or emotional difficulties, while learning difficulties may lead to the development of SEBD. High academic pressure, examinations, selection and streaming, the lack of access to the curriculum for some of the students, and the difficulty for some of the students to engage in a curriculum and pedagogy which is not perceived as meaningful and relevant, are some of the possible factors which might turn a learning problem into a behavioural one. Conversely, once students become actively engaged in the learning process, they are unlikely to become disaffected. Caring relationships, connective pedagogy and a meaningful, flexible curriculum adapted to students' educational needs, are key mechanisms underlining student engagement (Cefai, 2008). In a recent report on cultural and recreational activities for children in Malta, children mentioned that little importance is attached to such activities at school, with minimal presence of subjects such as art, drama and music in an academic-oriented curriculum. There is insufficient number of PE lessons in both primary and secondary; in most instances this does not amount to more than one lesson per week (Sollars 2006). In a study with students with SEBD who attended a special school, the students expressed their appreciation at a student-centred, activity-based curriculum in contrast to an inaccessible curriculum in their previous mainstream school (Spiteri 2007). Inclusive education underlines the need for an engaging and meaningful curriculum suited to the diversity of learners in the classroom, with adequate and timely support for those experiencing difficulties in accessing the curriculum starting from the early primary years. This goodness of fit between the needs of the child and a flexible accommodating learning environment is critical to student engagement (Bartolo *et al.* 2007; Cefai and Cooper 2008).

Students in streamed classes, particularly those in the lower streams, have more SEBD. Various factors may contribute to such behaviour in these classrooms, but the quality of teaching, curriculum and learning support, might explain, at least in part, why students with learning difficulties end up developing behaviour problems as well. Schools and teachers may lower their expectations for students in lower streamed classrooms, and may become reluctant to invest their resources in such classrooms in a culture where they are measured according to the performance and achievement rates of students in examinations. For instance, it appears that the many of the least qualified teachers in Malta are assigned to the lower streamed classes and Area Secondary schools, schools for students with low achievement levels. Putting high risk students together may actually reinforce challenging and anti-social behaviour, while successful interventions involve students with SEBD in relationships with prosocial peers and staff (Poulin *et al.* 2001). Setting and differentiated teaching in mixed-ability classrooms would help to address the differing educational needs of students without the negative effect of streaming (Bartolo *et al.* 2007).

In 2007-2008, there were a total of 11,465 absenteeism reports in state schools, the highest recorded in the last three scholastic years (Ameen 2008). The situation is more serious in state and in secondary schools, with the highest rates of both authorised and unauthorised absence from schools being amongst boys in Area Secondary schools (30 and 17 days respectively) and Boys and Girls Secondary schools (ex- Opportunity centres) (50 and 34 days respectively) (Clarke *et al.* 2005; NSO 2005). Some regions, such as the Inner Harbour and South Eastern regions, have a higher proportion of absenteeism, with the former accounting for 30% of unauthorised absences from state schools (Commission of the European Communities 2008; Debono 2008). These two factors suggest that absenteeism is more likely to be found in schools and regions where there is a higher level of SEBD, underlining the link between SEBD and absenteeism. Research shows that students with SEBD are twice as likely to drop out of school prematurely as pupils without SEBD (Landrum, Tankersley and Kaufmann 2003).

Another interesting finding is that absenteeism is particularly linked to emotional and peer problems in both primary and secondary schools. Early intervention in primary school to address emotional problems, peer relationships and bullying amongst others, would help to prevent vulnerable young children from starting to absent themselves from school. Once absenteeism becomes habitual, it is difficult to bring the students back to school. Moreover, absenteeism is directly linked to attainment, as students would start to fall behind in their learning, contributing to further SEBD in students already in difficulty. A review of school attendance policy and practices to maximise attendance, staff training, parent education,

pastoral and learning support, and the identification and monitoring of students at risk, are some of the strategies which might help to address this issue.

An interesting finding in the study is that students receiving some sort of support at school without having a Statement of individual educational needs, are more likely to have SEBD than those with a Statement, or without a Statement but not receiving support. This is corroborated by another finding in the study, namely that students receiving psychological or educational interventions are more at risk of having SEBD. In one way this is to be expected, since many of the students receiving support without a Statement may doing do so by dint of their challenging behaviour. On the other hand, the number of such students should alert the educational authorities to the need for early identification and support for students with SEBD to prevent the exacerbation of these difficulties. The Maltese SDQ version may be one of the instruments to be used for the identification of SEBD at key stages in the life of students, starting in the very first years of school.

Students with a diagnosis and receiving psychological and/or educational interventions such as therapy and complementary education may be more at risk for SEBD, particularly emotional difficulties. While it is difficult to disentangle the cause and effect in relation to this issue, one possible explanation, at least in part, is that the intervention and/or diagnosis themselves may lead to added emotional difficulties through various mechanisms, such as missing out on school (hence the need for more, ecologically based and child friendly support services and professionals, away from clinics and hospitals); poor self esteem and anxiety emanating from the diagnosis and intervention itself; and the result of potential stigmatisation, labelling and bullying. There is a body of literature indicating that students with individual educational needs and disability are at risk of bullying from their peers, with up to 80 % of such children being bullied in the UK (Children's Commissioner 2006; Mencap 2007). Children and young persons with diagnosis and/or receiving support services for their learning and other difficulties, may need accompanying emotional support and protection from possible bullying, apart from the other interventions they are receiving.

Another finding from this study underlines the relationship between communication and SEBD, and the need for more emotional literacy support in schools, such as Circle Time, PSD and Nurture education, as a way to prevent SEBD and promote more prosocial behaviour. Circle Time is a child-friendly approach promoting social and emotional literacy and prosocial behaviour amongst students, and it can be easily organised within the daily mainstream curriculum. It may be used at both classroom and individual levels, supporting the whole group as well as particular students in developing socio-emotional competence conducive to learning

and positive behaviour (Fletcher-Campbell and Wilkin 2003; Mosley 1993). Nurture education approaches such as Nurture Groups, underline the need for emotional attachment between adults and children as a strategy to help children develop social and emotional skills on the basis of trusting, caring and supportive relationships within a safe climate (Cooper and Tiknaz 2006). Nurture groups lead to an improvement in the behaviour and cognitive engagement of children with SEBD, and are a promising provision for young children with a wide range of such difficulties (Cooper and Whitebread 2007).

Newly qualified teachers may face more difficulties in their classroom, but this may be partly related to the fact that they are assigned the more difficult/lower streamed classes. They would certainly benefit from an induction period where they are guided by a mentor in the first couple of years in their teaching and classroom management. The Faculty of Education may examine its initial teacher education programmes to ensure that student teachers are being adequately equipped with the necessary knowledge and skills in classroom management, and in identifying and providing effective support to students with SEBD. On the other hand, teachers with more than twenty years experience may benefit from a review of their teaching duties, such as having a reduced load and being given more non teaching duties, particularly if they express their wish to do so.

The less qualified a teacher is, the more likely he or she is to have students with SEBD in the classroom. Again this appears to be linked to the fact that such teachers are placed in schools such as Area Secondary where there is a higher proportion of students with SEBD. Two observations need to be underlined in this respect. First, placing the least qualified teachers with the most difficult or vulnerable students, does not do justice either to the students or to the teachers themselves. Students with SEBD need highly qualified and specialised teachers to help them overcome their difficulties and support them in their learning. This also calls for the training of teachers and other staff specialised in the teaching of students with SEBD and in providing behaviour support at school level. Secondly, the least qualified teachers in Maltese schools, particularly those without University or College training courses, would benefit from adequate continuing education in this area, preferably with the involvement of the Faculty of Education.

The school environment has been identified as an important factor in the prevention of SEBD in school. Schools with limited space and unattractive environments are more likely to have higher levels of difficulty; space appears to be a salient factor in secondary schools. However, this finding is again mediated by type of school, suggesting that schools with limited space and unattractive environments are more likely to be state schools. State secondary schools would

particularly benefit from more spacious classrooms, more spacious play areas and more attractive, student -friendly environments. Primary schools, particularly state schools, also need to provide a more attractive, stimulating and child-friendly environment.

The surprising finding that smaller primary and secondary schools have more difficulties than larger ones is partly explained by school type, with the smaller schools being state schools (Area Secondary in the case of secondary school). The finding that primary schools with more than 700 students have more difficulties, has implications for the current practice of joining state primary A and B schools into one large C school. While size may not be the determining factor, nevertheless it is critical that large schools would strive to operate as connected, caring communities with close relationships amongst all school members and with students getting individual attention in their learning.

One-parent families are more likely to have children and young persons with SEBD than two-parent families. This does not only underline the need for strengthening the Maltese family, including education and parenting skills, flexible working time for both partners, financial assistance, and psychotherapeutic services for families in difficulties, but also to provide more support to single parent and separated families. Single parents, particularly young single parents, are at risk for socio-economic hardship, with half of such households living in poverty (Deguara 2008; NSO 2007a). Family structure and socio-economic status may thus interact in the development of SEBD, underlining the complexity of this social phenomenon. A recent EU report claims that the provision of child care facilities for young children in Malta is inadequate, placing Malta at the very bottom of the list amongst the EU countries (Commission of the European Communities 2008). Single parents may be constrained to make more use of such facilities, and they have urged the government to increase state-funded, affordable childcare services (Camilleri-Cassar 2008).

This brings us to the next widely established phenomenon that this study has confirmed, namely that SES is one of the strongest home-related variables related to SEBD. The lower the family's SES, the more likelihood of children and young persons with difficulties in the family. Families where one or both parents have semi- skilled or unskilled jobs and a low level of education, where the father is unemployed, whose income is relatively poor, and who do not own the house, are more at risk for SEBD. This would include single parents as mentioned above. Fifteen per cent of the population in Malta lives in poverty, while there are about 22% of children aged 0-15years in poor families. The latter constitute the group with the highest risk of poverty, with male boys being the most vulnerable (Deguara 2008; NSO 2007a). Similarly unemployed persons, especially males, are at high risk for poverty. This group of families at the

lower end of the SES, some of them living below the poverty line, is a clear target for urgent social, economic, health and educational interventions. Children and young persons coming from such families are at high risk for SEBD, and unless supported, the cycle of poverty, social exclusion and marginalisation, would be perpetuated from one generation to the next. A transdisciplinary, multisystemic initiative consisting of cross-sector and cross-agency programmes would help to provide timely and effective support to those most in need. Such an approach is more likely to be effective in helping such families and children towards healthier trajectories, than piecemeal, fragmented provision and support (Cooper 2001; Heneggler *et al.* 2002).

7.2.3 Portraits of risk and protective factors

Risk

If one tries to build a portrait of primary school students at risk for SEBD from both teacher and parent evaluations, the most vulnerable primary school children would appear to be those who attend lower streamed classrooms in state primary schools, with poor attainment and learning difficulties, who have health problems and receive psychological or educational interventions, who attend school irregularly, who come from single-parent families, and whose mothers have lower skilled jobs. The overarching themes are state schools in contrast to church and independent schools, learning difficulties and poor attainment, and low SES. Such a portrait underlines the complexity and multifacetness of SEBD, and the futility of taking simplistic, blaming approaches in trying to explain and address this phenomenon. There is a need for a school-family systemic interface in seeking to address the needs of the most vulnerable children in Maltese society. It is also evident that schools, particularly state schools where the most vulnerable children are attending, have a key role to play in the prevention of SEBD from the very early years in primary school, with streaming, selection and learning difficulties being clear targets for immediate attention. Schools can make a difference in the lives of children and young persons as school effectiveness research and resilience literature have consistently shown (Bernard 2004; Teddlie and Reynolds 2000; Waxman, Padron and Chang 2003). They can help to direct children's social, emotional and cognitive development towards more positive pathways, particularly for those who are encountering difficulties in their development. However, schools do not operate in isolation, and interagency work between education, social welfare, and health divisions, would be critical to a comprehensive, cross-sector approach to SEBD.

According to teacher responses, the most vulnerable secondary school students are male students with poor attainment and poor communication skills, living in a single- child family (possibly single-parents), and who attend unattractive, small schools (usually Area Secondary) in the Inner Harbour region. Parent evaluations on the other hand, underline more within-child factors as the key predictors of SEBD, namely students with a medical diagnosis, undergoing psychological and/or educational interventions, and living in families with relatives and low income. Student self reports on their part, indicate poor attainment and low-income family as the main SEBD predictors. Again these findings underline the importance for state schools, particularly Area Secondary schools, to address the educational and psychosocial needs of their students, such as seeking to recruit the motivation and engagement of students by providing a more meaningful curriculum, providing adequate support for students with learning difficulties, providing emotional support for students with conditions and disabilities, and working with support agencies and services to help address the students' psycho-social needs. As in the case of state primary schools, Area Secondary schools end with the students who may have the most demanding educational and psychosocial needs, and they need support themselves to address such needs adequately. The SEBD predictors in secondary school again underline the need for systemic, cross-sectorial and cross-agency interventions. The lack of effective interventions at this level has been underlined as one of the main systemic weaknesses in service provision to communities, families, schools and children in Malta (Office of the Children's Commissioner 2006).

Multilevel analysis shows that differences between classrooms are larger than those between schools, implying that what happens in the classroom has more impact on student behaviour than whole school factors (Kyriakides, Campbell and Gagatsis 2000; Muijs and Reynolds 2005). This is supported by the significance of the individual school-related variables such as attainment, formal assessment, psychological and educational interventions and attendance, in contrast to such individual-social factors as home language, region, ethnicity, or religion. The analysis of all factors taken together indeed suggest that individual school-related factors such as attainment and communication, are the top ranked predictors, followed by classroom and school factors, such as streaming, space, and type of school, and subsequently by family factors such as family income and structure. This supports the earlier discussion that schools and teachers have a major role to play in the promotion of healthy socio-emotional development in children and young persons, and that factors such as streaming, teacher qualification and classroom size, as well as student attainment, communication, formal assessment and attendance, are central to the promotion of positive behaviour in school. Having more qualified teachers in non-streamed classrooms with adequate space and more attractive school

environment, are clear implications for the prevention of SEBD in school, particularly in state schools.

An analysis of the home variables shows that SES, as indicated by family income, parental occupation and education, and residence ownership, is the strongest determining factor in relation to SEBD in children and young persons. Family structure is the other main home factor, but as indicated earlier, part of its effect is explained by SES, as single-parent families are at risk of poverty. It is thus suggested that more social, economic and educational support needs to be targeted to low SES families, particularly those on or below the poverty line, those with poor level of parental education and unemployment, and single-parent families struggling to make ends meet. More than 21% of children and young persons in Malta are living in such families (Deguara 2008), and the earlier such children are supported, the healthier would be their development and well-being.

Prosocial behaviour

Prosocial behaviour is more evident in primary than secondary school. The decline in prosocial behaviour in secondary school may be related to such factors as students becoming caught in the trappings of a competitive, selective, examination-oriented system, where sharing, helping others, and being considerate to the needs of others, may have little value as students are pushed to prove themselves in comparison with their peers. On the other hand, classrooms organised as caring, inclusive, and learning-centred communities, based on caring and supportive relationships, authentic, inclusive engagement, and collaborative learning, have been found to promote student engagement, learning and prosocial behaviour (Cefai 2008).

Female students in both primary and secondary schools exhibit more prosocial behaviour than males. Indeed, gender is the strongest predictor of prosocial behaviour in both primary and secondary. There are various reasons why girls engage in more prosocial behaviours such as being considerate to the needs of others, sharing with others and being kind to others. Gender stereotyping with boys expected to be strong and tough and to define their strengths in relation to the weaknesses of others, with kindness and empathy viewed as weaknesses rather than strengths, may still be promoted in particular social communities and groups. Role modelling and reinforcement of prosocial behaviour across gender may encourage boys to appreciate the value of prosocial behaviour and engage in such behaviour with their peers.

Students who attend school regularly, have good attainment and communication skills, are not statemented/supported, and who are not diagnosed or receive any form of intervention, are more likely to engage in prosocial behaviour. These factors are also significantly related to

SEBD, thus gaining salience as key factors in the prevention of SEBD as well as in the promotion of prosocial behaviour. It is interesting to note that, while attainment was the key risk factor for SEBD, communication appears to have more relative strength as a protective factor, suggesting that good communication skills are particularly helpful for students to engage in prosocial behaviour. Programmes and strategies to enhance communication skills amongst students, built within the daily curricular and extra-curricular activities at school, would have high protective value.

Students in non-state schools, non-streamed or upper-streamed classrooms, in Junior Lyceums (when compared to Area Secondary), in secondary schools with attractive environments, and who have more qualified teachers, exhibit more prosocial behaviour than those in state schools, lower-streamed classrooms, and with less qualified teachers. Despite the promise of equal opportunity for all enshrined in the National Minimum Curriculum, some students are still attending schools with poorer physical and human resources. A barrier-free, non-selective, inclusive educational system, with success and equal opportunities for all, would not only help to prevent SEBD, but strengthens the foundations for prosocial behaviour in students (cf. Bartolo *et al.* 2007).

On the whole, the data suggests that primary female students in two-parent families, with very good communication skills, and attending independent schools on a regular basis, have higher prosocial behaviour. Similarly, secondary female students with very good attainment and communication skills, and attending schools with attractive environments, are most likely to exhibit prosocial behaviour. Such behaviour is more likely to be evident in the first and last year of secondary school according to student self reports. These portraits of prosocial behaviour in both primary and secondary schools, underline the central role of school in the promotion of prosocial behaviour. Communication, attainment, attendance, school type and school environment are all related to and influenced by school and classroom processes in one way or another.

Students indicate that the least prosocial behaviour is in Form 3 in contrast to the other four years, complementing the earlier finding that Form 2 and 3 students are most prone to exhibit SEBD. This group of young adolescent students passing through the various physical, cognitive and socio-emotional changes taking place at this critical stage in their development, need particular understanding and support in achieving their tasks with competence and confidence. A less academic oriented and more holistic education may support the developmental needs of these young persons more effectively. PSD and Guidance teachers may target this year group for particular interventions, providing more education and support in such skills as emotional

regulation, gaining an insight on one's behaviour and coming to terms with the changes taking place in one's life, understanding others, and decision making. However, it is also important that the teachers and other members of staff themselves would become more aware of the developmental processes young adolescents are going through, and the consequent needs and tasks emanating from these processes. Staff would thus benefit from continuing professional development in gaining more familiarity with the psychology of adolescence.

Primary school students coming from two-parent families with good income, and having fathers with good level of education and a good job, are more likely to exhibit prosocial behaviour. In secondary school, the mother's occupation together with medium-sized family and type of residence, feature as the key predictors of prosocial behaviour. Family income and structure complement the findings on SEBD, suggesting that primary school students coming from higher socio-economic groups and two-parent families are more likely to exhibit prosocial behaviour. However, there is an interesting difference relating to the parents' education and occupation. While the mother's education and occupation are key predictors of SEBD, the father's education and occupation are predictive of prosocial behaviour in primary school. It is indicative that while the mother's SES may protect children from SEBD, the father's SES may act as agent for the promotion of prosocial behaviour in young children. It could be argued that fathers with a higher level of education and career prospects may provide more positive role models of behaviour for young children in contrast to those coming from lower educational and occupational levels, particularly unemployment. Again this finding has implications for strengthening the Maltese family, particularly in terms of socio-economic standing and education and parenting skills, so as to lay the foundations of prosocial behaviour as early as possible in young children's lives.

7.3 Summary of conclusions and recommendations

SEBD is a complex, multi-faceted phenomenon with various factors contributing to its nature and distribution. An adequate model of prevention and intervention would thus need to address the complexity of the issue, including individual, home, community, and school factors. Simplistic, linear explanations and blaming approaches do not do justice to the multifacetedness of this social phenomenon, and would in the end be ineffective as preventative and management strategies. The systemic model of behaviour underlines the dynamic relationship between the individual and the systems in his or her life, the interconnected and interdependent relationships between the various situational, interpersonal and intrapersonal factors that impact students' behaviour and that of other members of the school community.

Students bring their own influences to the school, but they are importantly influenced by what happens in the school as well. Changing the system, namely the school and classroom environments, is thus a more effective way to bring about a change in behaviour, rather than simply trying to 'fix' individual children and young persons exhibiting difficult behaviour.

This study suggests that prevention and intervention need to take place in various ways, at various levels, and with various systems, namely:

- a universal, health promotion approach: our major resources need to be focused on universal, preventative measures at organisational and institutional level to promote the healthy social and emotional development of children and young persons. This is a necessary complement to the focus on children, young persons and families who are already at risk or who have already started to manifest SEBD.
- a multisystemic, interagency, transdisciplinary approach addressing the various systems impinging on the child and young person, such as home, school and community, and involving various agencies and services at universal, indicated and selective intervention levels.
- early intervention starting from home and following children from the Kindergarten to the primary and secondary school.

The following section summarises the key recommendations at organisational systems level, school level, and classroom and individual levels.

7.3.1 Interventions at organisational, systems level

The study findings underline the impact of systemic weaknesses which may be addressed through various approaches and strategies. The following recommendations suggest how the systems may work more effectively in promoting and sustaining students' learning and social and emotional literacy.

- Curricular review to ensure that the National Minimum Curriculum
    - is relevant to today's challenges and demands and meaningful to children and young persons
    - provides a good balance between academic and socio-emotional literacy, with a dual focus on the formation of academically and socially literate students
    - is suited to the diversity of educational needs, learning styles and readiness levels of students in contrast to an exclusive focus on the academic-oriented and achieving students

- promotes an authentic inclusive educational system, with success and equal opportunities for all, irrespective of any difference.

- Review of the present structures of streaming, selection and examinations which are in conflict with the principles of inclusive education, equity, diversity and holistic education enshrined in the National Minimum Curriculum. Restructuring, however, needs to be undertaken with good planning to ensure a smooth transition from one system to another. For instance, classroom teachers would need adequate training, resources and support in addressing the diverse educational needs of students in their classroom (Bartolo *et al.* 2007).
- Review of the present Area Secondary and Junior Lyceum divide, including an audit of Area Secondary schools in such areas as relevance, suitability and access of the curriculum, assessment modes, behaviour policy and management, and absenteeism policy and practice. The comprehensive college systems with setting arrangements appear to be a good step in this direction. In the short-term it needs to be ensured that Area Secondary schools will have equal access to human and physical resources as the other schools, which includes well trained staff and spacious, student-friendly environments instilling a sense of school belonging amongst the students.
- Review of the national policy on absenteeism in view of the current nature and distribution of habitual absenteeism and action on the comprehensive, multi-level recommendations made in the *School Attendance Improvement Report* (Clarke *et al.* 2005).
- Adequate, well resourced and transdisciplinary support services at college and school levels to provide behaviour support to schools, teachers, students and parents. Support needs to be continuing, regular and school-based, rather than service- or agency-centred, with services provided at school, and where possible integrated within the mainstream classroom activities, and with reviews at regular intervals.
- College behaviour-support teams formed of various professions, but with an educational rather than medical orientation, providing support to schools in developing behaviour policies, staff training, socio-emotional education and emotional support for students, and parent education.
- Particular regions and communities emerged as having more SEBD, either behaviour problems, emotional problems, or both. This is reflected in other studies which indicate higher rates of illiteracy, absenteeism, school failure, unemployment and poverty in particular regions, such as the Inner Harbour region (eg. Commission of the European Communities 2006; Mifsud *et al.*2000, 2004; NSO 2007a). Given that substantial areas

of a region or a whole region may fall within a college, particular colleges may take targeted action based on the particular needs of their community. Tailored social, economic and educational interventions are more likely to have a positive impact on the well being of the communities.

- Systematic training of school administrators, teachers, LSAs and other staff in behaviour management, child and adolescent development and mental health, and socio-emotional literacy, in collaboration with the Faculty of Education. More intensive support needs to be provided to the least qualified teachers.
- Review of the Faculty of Education initial teacher education courses and postgraduate specialised courses in the promotion of socio-emotional literacy and the management of challenging behaviour in the classroom.
- Induction programmes, organised jointly by the Education Directorates and Faculty of Education, for newly qualified teachers.
- A national SEBD screening programme at key stages in the life of the students, starting in the Kindergarten prior to entry in Year 1, making use of the Strengths and Difficulties Questionnaire amongst other tools.
- While the accent needs to be on approaches aimed to prevent illiteracy, absenteeism, early school leaving, juvenile delinquency and disaffection amongst others, young people leaving school without any certification and skills need to be supported in developing the requisite vocational, literacy and personal and social skills which will facilitate their successful transition and inclusion in the adult world.
- Family support, including high quality child care facilities, flexible working systems, housing and financial support, and parenting, communication and problem solving skills programmes, for parents and families, starting as early in family life as possible.
- Social, economic, educational and community support to families coming from low SES, particularly families close to the poverty line and single-parents families, including social welfare, economic support, adequate housing and recreational facilities, free child care facilities, vocational training, and educational programmes in parenting skills, stress management, problem solving and financial management. These initiatives are more likely to be successful if they make use of the support and resources of the families' own social networks and local communities.
- Besides these tangible supports, communities, families, children and young people at risk of, or already, experiencing poverty and social exclusion, would need help in mobilise their psychological resources to take control over their lives and challenge and

overwhelm systems and structures that cause their poverty and exclusion (Camilleri-Cassar 2008).

- A national health promotion campaign in communities, families, schools, work places and places of entertainment amongst others to:
    - promote prosocial and altruistic values such as collaboration, collegiality, sharing and support, solidarity, tolerance, celebration of diversity, and peaceful conflict resolution, to counteract the negative influence of highly individualistic, money-driven, competitive and performance-related values and cultures.
    - promote the social and emotional health and resilience of children from a young age, giving them the psychological tools and resources to deal with the demands and challenges of life effectively and successfully as early as possible.

7.3.2 Interventions at school level

Our data suggests that the school as a system is related to both SEBD and prosocial behaviour amongst students. The following recommendations suggest how schools may operate as more effective systems in the prevention of SEBD and the promotion of prosocial behaviour.

- A multilevel approach to behaviour, with universal interventions aimed at preventing SEBD problems from arising in the first place, while providing support to students at risk or already in difficulty.
- A safe, supportive, caring and inclusive climate for all school members, promoting both learning and children's and young persons' socio-emotional health. A recent research study in Maltese schools found that students thrived both cognitively and socio-emotionally in schools which organised themselves as caring, inclusive, learning centred and prosocial communities (Cefai 2008). The focus in such schools was on
    - caring relationships amongst all members
    - a culture of support and collaboration in learning and behaviour in contrast to competition and rampant individualism
    - an ethos of inclusion where members helped each other to learn, and all students had a chance to succeed according to their readiness and needs
    - a focus on authentic engagement where students participated actively in meaningful and relevant activities
    - learning rather than mere achievement.

- A whole school policy on behaviour reached by consensus amongst the whole school staff in collaboration with the students and parents, with clear but reasonable expectations of behaviour according to the needs of the school community, and underlining the rights and responsibilities of staff, students and parents. The policy's main aim is formative rather than punitive, seeking to promote and reinforce good, prosocial behaviour amongst all students. The policy needs to be consistently applied and monitored across the whole school in all classrooms with all school members, and regularly reviewed for its effectiveness in preventing challenging behaviour and promoting positive behaviour in school.
- Record keeping and tracking of students' learning and behaviour to enable the school to be more effective in promoting positive behaviour amongst students and supporting students considered to be at risk for SEBD. The SDQ may serve as a useful screening instrument.
- Continuing professional development for the whole staff on best practices on behaviour management, child and adolescent development and mental health, and socio-emotional literacy.
- Review of policy and practice on absenteeism, particularly those students identified at risk; putting into practice the recent national policy on absenteeism at school level in line with the particular needs of the school.
- Review of policy and practice at the school on bullying, with a particular focus on students most at risk for bullying, such as those with disability and other difficulties.
- Collaborative partnerships with parents, professionals and support services to support staff, students and parents in promoting positive behaviour and responding to challenging behaviour effectively. The organisation of onsite, school based assessment and intervention transdisiciplinary teams would gradually replace referral to outside school support services where possible. In this way, students, staff and parents will have easier access to the support of professionals, while there will be less disruption in everyday learning activities.
- Action research initiatives, inculcating a culture of evaluation, reflection and effectiveness, to monitor and evaluate the school's efforts to improve behaviour and manage challenging behaviour.
- Behaviour support teachers at the school with a reduced load to organise, facilitate and coordinate behaviour initiatives at individual student, classroom and whole school levels, providing support to staff, parents and students.

- Behaviour mentors in schools with high levels of SEBD such as Area Secondary schools and in Form 2 and 3. PSD and Guidance teachers may also target these Forms for particular interventions, providing more education and support to students in emotional regulation, stress management, gaining insight on one's and others' behaviour, and decision making amongst others. Less academic pressure is also suggested. However, it is also important that teachers themselves would become more aware of the developmental processes young adolescents are going through and how these impact their behaviour.
- Pastoral care, including psychological and counselling support, for students more likely to have SEBD as identified in the study, including those with learning and other difficulties, students receiving psychological or educational interventions, and students coming from low SES backgrounds.
- Adequate support in learning for students with learning difficulties, with an accent on differentiated teaching by the classroom teacher, supported by the classroom LSA, the complementary teacher, and the school's Inclusion Coordinator.
- Spacious, attractive and student-friendly classrooms and school environments, particularly in secondary school, with students directly involved in the embellishment and decoration of their schools and classrooms.
- Identification of a number of teachers to serve as mentors for newly qualified teachers in teaching, classroom management, and responding to challenging behaviour.
- Putting the most qualified teachers with the most demanding classes and students.
- Nourishing the emotional health of the staff themselves. There is a direct relationship between teachers' health and the quality of teaching (McLaughlin and Talbert 2006), and schools need to provide opportunities and resources for staff to work in a caring, collegial and supportive environment. Teaching students with challenging behaviour is a demanding task and staff needs continued support to prevent them from becoming exhausted and burned out. Teamwork and collaboration amongst staff, participation in decision making, opportunities for continuing professional development, supply of resources and time to meet and work with colleagues, introducing schemes such as mentoring and critical friend, protection from abuse, and providing psychological support to teachers in difficulty, are some of the strategies that would help teachers to be more satisfied and effective in their work.

7.3.3 Interventions at classroom and individual levels

The data in this study suggests that classroom processes have a greater impact on students' behaviour than school level processes. It is therefore strongly recommended that action be taken so that classrooms provide a safe and warm psychosocial climate conducive to learning and prosocial behaviour. The following recommendations suggest various strategies classroom practitioners may utilise in their efforts to prevent SEBD and promote prosocial behaviour in the classroom.

- Organising classrooms as caring, inclusive, collaborative, prosocial and learning centred communities, where students feel safe and secure and connected with their teachers and peers, feel competent and confident in their learning, and support each other in building learning experiences related to their every day life.
- An engaging, authentic, activity-based, child-centred and meaningful curriculum to counteract the level of students' restlessness and potential boredom and to recruit their motivation and maximum engagement in the learning process.
- Authentic inclusive classrooms, with an adapted, responsive and flexible curriculum designed according to the learning needs, readiness and potentials of students; adequate accommodation and support for students with learning difficulties is critical in this respect.
- Democratic classroom management, with students involved in the regulation of their own learning and behaviour, with clear expectations and consequences of behaviour.
- Positive behaviour management based on caring teacher-student relationships, positive reinforcement of appropriate behaviour, involving students in setting behaviour rules, empowering them to make good choices and take responsibility for their behaviour.
- A classroom behaviour policy worked out between the teacher and the students, based on rights and responsibilities, focused on 'behaviour for learning', with ongoing monitoring, reinforcement and evaluation by both teachers and students.
- Balancing academic learning with socio-emotional learning, providing students with the psychological resources needed to sustain their social and emotional health and develop healthy, resilient personalities, such as effective communication and problem solving, self understanding, emotional regulation, self efficacy, and self esteem. Emotional literacy can be integrated in the daily delivery of the curriculum, but specific programmes such as Circle Time, may become a common feature of the classroom organisation. Other non-academic subjects such as PE, drama, and creativity need to be given more importance in the curriculum as expressed by the students themselves.

- Peer support schemes such as the buddy system, circle of friends, peer tutoring, mentoring, and peer counselling, starting early in the primary school, to encourage more collaboration and support amongst students, setting role models of behaviours informed by such values as respect, solidarity, celebration of diversity, helping one another, and sharing.
- Regular and frequent opportunities for students to work and learn together collaboratively, such as through the organisation of cooperative group work and peer mentoring schemes.
- Emotional support and protection from bullying for students with disability or learning difficulties and those receiving psychological and educational interventions.
- Close collaboration between home and school, maintaining regular and frequent communication with parents, and involving them in the teaching and learning processes.

7.4 Conclusion

Students with SEBD and those lacking in social and emotional literacy skills are a social reality in Maltese schools which needs to be addressed timely, adequately and effectively. This study has shown that the situation in Maltese schools reflects the challenges being faced by teachers and schools across Europe and North America. The study has also underlined the complexity of student behaviour and the futility and inadequacy of taking simplistic and blaming approaches in seeking to understand and address this issue. There are various biological, psychological, educational and social factors which play a role both in the nature, distribution and cause of the problem, as well as in its prevention and management. This means that schools and teachers are not simply the victims of forces beyond their control. Although they do not have all the answers to all the issues, they can be a critical part of the solution in a multifaceted challenge. They have a key role to play in making a difference in the lives of children and young people, particularly the most vulnerable ones. They can help to create a generation of resilient, successful young adults in Maltese society, directing their social, emotional and cognitive development towards healthy pathways.

This study was a national, large scale endeavour, taking ten percent of the school population in Malta. Our hope is that it will help to inform policy, practice and further research in SEBD and prosocial behaviour in Maltese schools, both in the short and long term. Besides its local contribution, the study has an international significance, being based on one of the largest and

most representative data sets of its kind in international research since the Isle of Wight Study in the 1960s (Rutter *et al.* 1979). However, the study does not end here. One of its present limitations arises from it being a national survey and thus having had to restrict its focus to structural variables while giving little attention to processes such as classroom relationships, whole school approach to behaviour, behaviour policy, classroom management strategies, parenting style and family relationships. These factors will be examined in the forthcoming longitudinal phase of the study where a smaller number of students will be followed at key stages of their school career in an effort to determine the risk and protective factors for children with SEBD and build a portrait of resilient children and young persons.

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Appendix 1

English (UK) SDQ Questionnaire and Impact Supplement: Teacher, Parent and Self-report versions

Strengths and Difficulties Questionnaire

T 4-16

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils.etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Do you have any other comments or concerns?

Please turn over - there are a few more questions on the other side

Overall, do you think that this child has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No	Yes- minor difficulties	Yes- definite difficulties	Yes- severe difficulties
☐	☐	☐	☐

If you have answered "Yes", please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	6-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress the child?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with the child's everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
PEER RELATIONSHIPS	☐	☐	☐	☐
CLASSROOM LEARNING	☐	☐	☐	☐

- Do the difficulties put a burden on you or the class as a whole?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Signature ..... Date .....

Class Teacher/Form Tutor/Head of Year/Other (please specify:)

Thank you very much for your help

Strengths and Difficulties Questionnaire

P 4-16

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months.

Child's Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Do you have any other comments or concerns?

Please turn over - there are a few more questions on the other side

Overall, do you think that your child has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No	Yes- minor difficulties	Yes- definite difficulties	Yes- severe difficulties
☐	☐	☐	☐

If you have answered "Yes", please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	6-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress your child?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with your child's everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
HOME LIFE	☐	☐	☐	☐
FRIENDSHIPS	☐	☐	☐	☐
CLASSROOM LEARNING	☐	☐	☐	☐
LEISURE ACTIVITIES	☐	☐	☐	☐

- Do the difficulties put a burden on you or the family as a whole?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Signature ..... Date .....

Mother/Father/Other (please specify:)

Thank you very much for your help

Strengths and Difficulties Questionnaire

S 11-16

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how things have been for you over the last six months.

Your Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings	☐	☐	☐
I am restless, I cannot stay still for long	☐	☐	☐
I get a lot of headaches, stomach-aches or sickness	☐	☐	☐
I usually share with others (food, games, pens etc.)	☐	☐	☐
I get very angry and often lose my temper	☐	☐	☐
I am usually on my own. I generally play alone or keep to myself	☐	☐	☐
I usually do as I am told	☐	☐	☐
I worry a lot	☐	☐	☐
I am helpful if someone is hurt, upset or feeling ill	☐	☐	☐
I am constantly fidgeting or squirming	☐	☐	☐
I have one good friend or more	☐	☐	☐
I fight a lot. I can make other people do what I want	☐	☐	☐
I am often unhappy, down-hearted or tearful	☐	☐	☐
Other people my age generally like me	☐	☐	☐
I am easily distracted, I find it difficult to concentrate	☐	☐	☐
I am nervous in new situations. I easily lose confidence	☐	☐	☐
I am kind to younger children	☐	☐	☐
I am often accused of lying or cheating	☐	☐	☐
Other children or young people pick on me or bully me	☐	☐	☐
I often volunteer to help others (parents, teachers, children)	☐	☐	☐
I think before I do things	☐	☐	☐
I take things that are not mine from home, school or elsewhere	☐	☐	☐
I get on better with adults than with people my own age	☐	☐	☐
I have many fears, I am easily scared	☐	☐	☐
I finish the work I'm doing. My attention is good	☐	☐	☐

Do you have any other comments or concerns?

Please turn over - there are a few more questions on the other side

Overall, do you think that you have difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No	Yes-minor difficulties	Yes-definite difficulties	Yes-severe difficulties
☐	☐	☐	☐

If you have answered "Yes", please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	6-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress you?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with your everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
HOME LIFE	☐	☐	☐	☐
FRIENDSHIPS	☐	☐	☐	☐
CLASSROOM LEARNING	☐	☐	☐	☐
LEISURE ACTIVITIES	☐	☐	☐	☐

- Do the difficulties make it harder for those around you (family, friends, teachers, etc.)?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Your Signature .....

Today's Date .....

Thank you very much for your help

Appendix 2

Maltese SDQ Questionnaire and Impact Supplement: Teacher, Parent and Self-report versions

KWESTJONARJU TA' ĦILIET U DIFFIKULTAJIET GĦALLIEMA (STUDENTI SUBIEN) (SDQ-MAL)

Għ-S 4-16

Għal kull sentenza, immarka kaxxa waħda skond kif jaqbel (Mhux veru / Hekk u hekk / Veru) dwar l-imġiba ta' l-istudent f'dawn l-aħħar sitt xhur tas-sena skolastika. Tkun ta' għajnuna kbira għalina jekk inti timla l-kaxxi għas-sentenzi kollha, anke jekk ma tkunx ċert/a jew tħoss li xi sentenzi ma jagħmlux daqshekk sens.

L-isem ta' l-istudent: .....

Id-data tat-twelid:.....

	Mhux veru	Hekk u hekk	Veru
Jagħti kas ta' dak li jħossu l-oħrajn	☐	☐	☐
M'għandux kwiet, dejjem sejjer, ma joqgħodx bil-qiegħda għal ħin twil	☐	☐	☐
Ta' spiss jilmenta minn uġigħ ta' ras, uġigħ ta' żaqq jew li jħossu mdardar	☐	☐	☐
Jaqsam l-affarijiet ma' studenti oħra (ikel, logħob, lapsijiet)	☐	☐	☐
Ta' spiss jitlagħlu jew ikun bin-nervi	☐	☐	☐
Pjuttost joqgħod għalih, ta' spiss jilgħab waħdu	☐	☐	☐
Ġeneralment jobdi, jagħmel dak li jgħidulu l-kbar	☐	☐	☐
Jinkwieta, ta' spiss jidher inkwetat	☐	☐	☐
Jgħin meta xi ħadd iweġġa', iħossu ma jiflaħx jew ikun inkwetat	☐	☐	☐
Il-ħin kollu jdur u jiċċaqlaq, m'għandux kwiet f'ġismu	☐	☐	☐
Għandu mill-inqas ħabib jew ħabiba ta' veru	☐	☐	☐
Ta' spiss jiġġieled jew jagħmilha ta' bulì ma' studenti oħra	☐	☐	☐
Sikwit ikun imdejjaq, qalbu sewda, ser jinqafa' jibki	☐	☐	☐
Ġeneralment popolari ma' l-studenti l-oħra	☐	☐	☐
Jaljena ruħu mix-xejn, isibha diffiċi joqgħod attent	☐	☐	☐
Anzjuż u dipendenti fuq l-oħrajn f'sitwazzjonijiet ġodda, jitlef il-kunfidenza mix-xejn	☐	☐	☐
Qalbu tajba ma' studenti iżgħar minnu	☐	☐	☐
Ta' spiss jigdeb jew iqarraq b'ħaddieħor	☐	☐	☐
L-istudenti jaqbdu miegħu jew jibbuljawh	☐	☐	☐
Ta' spiss joffri li jgħin lill-oħrajn (ġenituri, għalliema, studenti oħra)	☐	☐	☐
Iqis l-affarijiet sewwa qabel jagħmel xi ħaġa	☐	☐	☐
Jisraq mid-dar, l-iskola jew x'imkien ieħor	☐	☐	☐
Imur aħjar mal-kbar milli ma' studenti oħra	☐	☐	☐
Għandu ħafna beżgħat, jibża' mix-xejn	☐	☐	☐
Ilesti x-xogħol li jkollu, joqgħod attent	☐	☐	☐

Għandek xi kummenti oħra?

Jekk jogħġbok aqleb, hemm xi mistoqsijiet oħra wara

In ġenerali, taħseb li dan l-istudent għandu diffikultajiet f'waħda jew aktar minn dawn l-oqsma: emozzjonijiet, konċentrazzjoni, imġiba, kapacità li jmur tajjeb ma' l-oħrajn.

Le	Iva, diffikultajiet żgħar	Iva, diffikultajiet ovvji	Iva, diffikultajiet kbar
☐	☐	☐	☐

Jekk irrispondejt 'Iva', wieġeb dawn il-mistoqsijiet li ġejjin:

- Kemm ilhom hemm dawn id-diffikultajiet?

Inqas minn xahar	Bejn xahar u 5 xhur	Bejn 6 xhur u 12 -il xahar	Aktar minn sena
☐	☐	☐	☐

- Dawn id-diffikultajiet jinkwetaw jew idejqu lill-istudent?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' xkiel fil-ħajja ta' kuljum ta' l-istudent f'dawn l-oqsma?

	Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
FIT-TAGĦLIM TAL-KLASSI	☐	☐	☐	☐
FIR-RELAZZJONIJIET MA' SĦABU	☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' piż fuqek jew fuq il-klassi iinġenerali?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

Il-firma: ..... Id-data: .....

L-għalliem/a tal-klassi / Il-`Form Teacher' / Xi ħadd ieħor (indika min):

Nirringrazzjawk ta' l-għajnuna tiegħek

KWESTJONARJU TA' ĦILIET U DIFFIKULTAJIET ĠĦALLIEMA (STUDENTI BNIET) (SDQ-MAL)

Għ-B 4-16

Għal kull sentenza, immarka kaxxa waħda skond kif jaqbel (Mhux veru / Hekk u hekk / Veru) dwar l-imġiba ta' l-istudenta f'dawn l-aħħar sitt xhur tas-sena skolastika. Tkun ta' għajnuna kbira għalina jekk inti timla l-kaxxi għas-sentenzi kollha, anke jekk ma tkunx ċert/a jew tħoss li xi sentenzi ma jagħmlux daqshekk sens.

L-isem ta' l-istudenta: .....

Id-data tat-twelid:.....

	Mhux veru	Hekk u hekk	Veru
Tagħti kas ta' dak li jħossu l-oħrajn	☐	☐	☐
M'għandhiex kwiet, dejjem sejra, ma toqgħodx bil-qiegħda għal ħin twil	☐	☐	☐
Ta' spiss tilmenta minn uġigħ ta' ras, uġigħ ta' żaqq jew li tħossha mdardra	☐	☐	☐
Taqsam l-affarijiet ma' studenti oħra (ikel, logħob, lapsijiet)	☐	☐	☐
Ta' spiss jitlagħalha jew tkun bin-nervi	☐	☐	☐
Pjuttost toqgħod għaliha, ta' spiss tilgħab weħidha	☐	☐	☐
Ġeneralment tobdi, tagħmel dak li jgħidulha l-kbar	☐	☐	☐
Tinkwieta, ta' spiss tidher inkwetata	☐	☐	☐
Tgħin meta xi ħadd iweġġa', iħossu ma jiflaħx jew ikun inkwetat	☐	☐	☐
Il-ħin kollu ddur jew tiċċaqlaq, m'għandhiex kwiet f'ġisimha	☐	☐	☐
Għandha mill-inqas ħabiba jew ħabib ta' veru	☐	☐	☐
Ta' spiss tiġġieled jew tagħmilha ta' bulì ma' studenti oħra	☐	☐	☐
Sikwit tkun imdejqa, qalbha sewda, ser tinfaqa' tibki	☐	☐	☐
Ġeneralment popolari ma' l-istudenti l-oħra	☐	☐	☐
Taljena ruħha mix-xejn, issibha diffiċi toqgħod attenta	☐	☐	☐
Anzjuża u dipendenti fuq l-oħrajn f'sitwazzjonijiet ġodda, titlef il-kunfidenza mix-xejn	☐	☐	☐
Qalbha tajba ma' studenti iżgħar minnha	☐	☐	☐
Qalbha tajba ma' studenti iżgħar minnha	☐	☐	☐
L-istudenti jaqbdu magħha jew jibbuljawha	☐	☐	☐
Ta' spiss toffri li tgħin lill-oħrajn (ġenituri, għalliema, studenti oħra)	☐	☐	☐
Tqis l-affarijiet sewwa qabel tagħmel xi ħaġa	☐	☐	☐
Tisraq mid-dar, l-iskola jew x'imkien ieħor	☐	☐	☐
Tmur aħjar mal-kbar milli ma' studenti oħra	☐	☐	☐
Għandha ħafna beżgħat, tibża' mix-xejn	☐	☐	☐
Tlesti x-xogħol li jkollha, toqgħod attenta	☐	☐	☐

Għandek xi kummenti oħra?

Jekk jogħġbok aqleb, hemm xi mistoqsijiet oħra wara

In ġenerali, taħseb li din l-istudenta għandha diffikultajiet f'waħda jew aktar minn dawn l-oqsma: emozzjonijiet, konċentrazzjoni, imġiba, kapacità li tmur tajjeb ma' l-oħrajn.

Le	Iva, diffikultajiet żgħar	Iva, diffikultajiet ovvji	Iva, diffikultajiet kbar
☐	☐	☐	☐

Jekk irrispondejt 'Iva', wieġeb dawn il-mistoqsijiet li ġejjin:

- Kemm ilhom hemm dawn id-diffikultajiet?

Inqas minn xahar	Bejn xahar u 5 xhur	Bejn 6 xhur u 12 -il xahar	Aktar minn sena
☐	☐	☐	☐

- Dawn id-diffikultajiet jinkwetaw jew idejqu lill-istudenta?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' xkiel fil-ħajja ta' kuljum tal-istudenta f'dawn l-oqsma?

	Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
FIT-TAGĦLIM TAL-KLASSI	☐	☐	☐	☐
FIR-RELAZZJONIJIET MA' SĦABHA	☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' piż fuqek jew fuq il-klassi iinġenerali?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

Il-firma: ..... Id-data: .....

L-għalliem/a tal-klassi / Il-`Form Teacher' / Xi ħadd ieħor (indika min):

Nirringrazzjawk ta' l-għajnuna tiegħek

KWESTJONARJU TA' ĦILIET U DIFFIKULTAJIET ĠENITURI (TFAL SUBIEN) (SDQ-MAL)

Ġ-S 4-16

Għal kull sentenza, immarka kaxxa waħda skond kif jaqbel (Mhux veru / Hekk u hekk / Veru) dwar l-imġiba tat-tifel f'dawn l-aħħar sitt xhur tas-sena skolastika. Tkun ta' għajnuna kbira għalina jekk inti timla l-kaxxi għas-sentenzi kollha, anke jekk ma tkunx ċert/a jew tħoss li xi sentenzi ma jagħmlux daqshekk sens.

L-isem tat-tifel: .....

Id-data tat-twelid:.....

	Mhux veru	Hekk u hekk	Veru
Jagħti kas ta' dak li jħossu l-oħrajn	☐	☐	☐
M'għandux kwiet, dejjem sejjer, ma joqgħodx bil-qiegħda għal ħin twil	☐	☐	☐
Ta' spiss jilmenta minn uġigħ ta' ras, uġigħ ta' żaqq jew li jħossu mdardar	☐	☐	☐
Jaqsam l-affarijiet ma' tfal oħra (ikel, logħob, lapsijiet)	☐	☐	☐
Ta' spiss jitlagħlu jew ikun bin-nervi	☐	☐	☐
Pjuttost joqgħod għalih, ta' spiss jilgħab waħdu	☐	☐	☐
Ġeneralment jobdi, jagħmel dak li jgħidulu l-kbar	☐	☐	☐
Jinkwieta, ta' spiss jidher inkwetat	☐	☐	☐
Jgħin meta xi ħadd iweġġa', iħossu ma jiflaħx jew ikun inkwetat	☐	☐	☐
Il-ħin kollu jdur u jiċċaqlaq, m'għandux kwiet f'ġismu	☐	☐	☐
Għandu mill-inqas ħabib jew ħabiba ta' veru	☐	☐	☐
Ta' spiss jiġġieled jew jagħmilha ta' bulì ma' tfal oħra	☐	☐	☐
Sikwit ikun imdejjaq, qalbu sewda, ser jinqafa' jibki	☐	☐	☐
Ġeneralment popolari mat-tfal l-oħra	☐	☐	☐
Jaljena ruħu mix-xejn, isibha diffiċi joqgħod attent	☐	☐	☐
Anzjuż u dipendenti fuq l-oħrajn f'sitwazzjonijiet ġodda, jitlef il-kunfidenza mix-xejn	☐	☐	☐
Qalbu tajba ma' tfal iżgħar minnu	☐	☐	☐
Ta' spiss jigdeb jew iqarraq bħaddieħor	☐	☐	☐
It-tfal jaqbdu miegħu jew jibbuljawh	☐	☐	☐
Ta' spiss joffri li jgħin lill-oħrajn (ġenituri, għalliema, tfal oħra)	☐	☐	☐
Iqis l-affarijiet sewwa qabel jagħmel xi ħaġa	☐	☐	☐
Jisraq mid-dar, l-iskola jew x'imkien ieħor	☐	☐	☐
Imur aħjar mal-kbar milli ma' tfal oħra	☐	☐	☐
Għandu ħafna beżgħat, jibża' mix-xejn	☐	☐	☐
Ilesti x-xogħol li jkollu, joqgħod attent	☐	☐	☐

Għandek xi kummenti oħra?

Jekk jogħġbok aqleb, hemm xi mistoqsijiet oħra wara

In ġenerali, taħseb li t-tifel tiegħek għandu diffikultajiet f'waħda jew aktar minn dawn l-oqsma: emozzjonijiet, konċentrazzjoni, imġiba, kapacità li jmur tajjeb ma' l-oħrajn.

Le	Iva, diffikultajiet żgħar	Iva, diffikultajiet ovvji	Iva, diffikultajiet kbar
☐	☐	☐	☐

Jekk irrispondejt 'Iva', wieġeb dawn il-mistoqsijiet li ġejjin:

- Kemm ilhom hemm dawn id-diffikultajiet?

Inqas minn xahar	Bejn xahar u 5 xhur	Bejn 6 xhur u 12 -il xahar	Aktar minn sena
☐	☐	☐	☐

- Dawn id-diffikultajiet jinkwetaw jew idejqu lit-tifel?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' xkiel fil-ħajja ta' kuljum tat-tifel f'dawn l-oqsma?

	Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
ID-DAR	☐	☐	☐	☐
MAL-ĦBIEB	☐	☐	☐	☐
FIT-TAGĦLIM TAL-KLASSI	☐	☐	☐	☐
FIL-ĦIN LIBERU	☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' piż fuqek jew fuq il-familja inġenerali?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

Il-firma: ..... Id-data: .....

L-omm/Il-missier / Xi ħadd ieħor (indika min):

Nirringrazzjawk ta' l-għajnuna tiegħek

KWESTJONARJU TA' ĦILIET U DIFFIKULTAJIET ĠENITURI (TFAL BNIET) (SDQ-MAL)

Ġ-B 4-16

Għal kull sentenza, immarka kaxxa waħda skond kif jaqbel (Mhux veru / Hekk u hekk / Veru) dwar l-imġiba tat-tifla f'dawn l-aħħar sitt xhur tas-sena skolastika. Tkun ta' għajnuna kbira għalina jekk inti timla l-kaxxi għas-sentenzi kollha, anke jekk ma tkunx ċert/a jew tħoss li xi sentenzi ma jagħmlux daqshekk sens.

L-isem tat-tifla: .....

Id-data tat-twelid:.....

	Mhux veru	Hekk u hekk	Veru
Tagħti kas ta' dak li jħossu l-oħrajn	☐	☐	☐
M'għandhiex kwiet, dejjem sejra, ma toqgħodx bil-qiegħda għal ħin twil	☐	☐	☐
Ta' spiss tilmenta minn uġigħ ta' ras, uġigħ ta' żaqq jew li tħossha mdardra	☐	☐	☐
Taqsam l-affarijiet ma' tfal oħra (ikel, logħob, lapsijiet)	☐	☐	☐
Ta' spiss jitlagħalha jew tkun bin-nervi	☐	☐	☐
Pjuttost toqgħod għaliha, ta' spiss tilgħab weħidha	☐	☐	☐
Ġeneralment tobdi, tagħmel dak li jgħidulha l-kbar	☐	☐	☐
Tinkwieta, ta' spiss tidher inkwetata	☐	☐	☐
Tgħin meta xi ħadd iweġġa', iħossu ma jiflaħx jew ikun inkwetat	☐	☐	☐
Il-ħin kollu ddur jew tiċċaqlaq, m'għandhiex kwiet f'ġisimha	☐	☐	☐
Għandha mill-inqas ħabiba jew ħabib ta' veru	☐	☐	☐
Ta' spiss tiġġieled jew tagħmilha ta' bulì ma' tfal oħra	☐	☐	☐
Sikwit tkun imdejqa, qalbha sewda, ser tinfaqa' tibki	☐	☐	☐
Ġeneralment popolari mat-tfal l-oħra	☐	☐	☐
Taljena ruħha mix-xejn, issibha diffiċi toqgħod attenta	☐	☐	☐
Anzjuża u dipendenti fuq l-oħrajn f'sitwazzjonijiet ġodda, titlef il-kunfidenza mix-xejn	☐	☐	☐
Qalbha tajba ma' tfal iżgħar minnha	☐	☐	☐
Ta' spiss tigdeb jew tqarraq b'ħaddieħor	☐	☐	☐
It-tfal jaqbdu magħha jew jibbuljawha	☐	☐	☐
Ta' spiss toffri li tgħin lill-oħrajn (ġenituri, għalliema, tfal oħra)	☐	☐	☐
Tqis l-affarijiet sewwa qabel tagħmel xi ħaġa	☐	☐	☐
Tisraq mid-dar, l-iskola jew x'imkien ieħor	☐	☐	☐
Tmur aħjar mal-kbar milli ma' tfal oħra	☐	☐	☐
Għandha ħafna beżgħat, tibża' mix-xejn	☐	☐	☐
Tlesti x-xogħol li jkollha, toqgħod attenta	☐	☐	☐

Għandek xi kummenti oħra?

Jekk jogħġbok aqleb, hemm xi mistoqsijiet oħra wara

In ġenerali, taħseb li t-tifla tiegħek għandha diffikultajiet f'waħda jew aktar minn dawn l-oqsma: emozzjonijiet, konċentrazzjoni, imġiba, kapacità li tmur tajjeb ma' l-oħrajn.

Le	Iva, diffikultajiet żgħar	Iva, diffikultajiet ovvji	Iva, diffikultajiet kbar
☐	☐	☐	☐

Jekk irrispondejt 'Iva', wieġeb dawn il-mistoqsijiet li ġejjin:

- Kemm ilhom hemm dawn id-diffikultajiet?

Inqas minn xahar	Bejn xahar u 5 xhur	Bejn 6 xhur u 12 -il xahar	Aktar minn sena
☐	☐	☐	☐

- Dawn id-diffikultajiet jinkwetaw jew idejqu lit-tifla?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' xkiel fil-ħajja ta' kuljum tat-tifla f'dawn l-oqsma?

	Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
ID-DAR	☐	☐	☐	☐
MAL-ĦBIEB	☐	☐	☐	☐
FIT-TAGĦLIM TAL-KLASSI	☐	☐	☐	☐
FIL-ĦIN LIBERU	☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' piż fuqek jew fuq il-familja inġenerali?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

Il-firma: ..... Id-data: .....

L-omm/Il-missier / Xi ħadd ieħor (indika min):

Nirringrazzjawk ta' l-għajnuna tiegħek

KWESTJONARJU TA' ĦILIET U DIFFIKULTAJIET STUDENTI SEKONDARJA (SDQ-MAL)

St

Għal kull sentenza, immarka kaxxa waħda skond kif jaqbel (Mhux veru / Hekk u hekk / Veru) dwar kif inti mort f'dawn l-aħħhar sitt xhur tas-sena skolastika. Tkun ta' għajnuna kbira għalina jekk inti timla l-kaxxi għas-sentenzi kollha, anke jekk ma tkunx ċert/a jew tħoss li xi sentenzi ma jagħmlux daqshekk sens.

Isem u kunjom: .....

Id-data tat-twelid:.....

	Mhux veru	Hekk u hekk	Veru
Nipprova nkun orrajt mal-oħrajn. Nagħti kas ta' dak li jħossu l-oħrajn	☐	☐	☐
Ma għandix kwiet, insibha diffiċli noqgħod bil-qiegħda għal ħin twil	☐	☐	☐
Inbati minn uġigħ ta' ras, uġigħ ta' żaqq jew inħossni mdardar/a	☐	☐	☐
Ġeneralment naqsam dak li ikolli ma' l-oħrajn (ikel, logħob, lapsijiet)	☐	☐	☐
Jitlagħli malajr u ta' spiss ikolli n-nervi	☐	☐	☐
Il-biċċa l-kbira noqħod waħdi. Ġeneralment nilgħab waħdi jew noqgħod għalija	☐	☐	☐
Ġeneralment nobdi u nagħmel dak li jgħiduli l-kbar	☐	☐	☐
Ninkwieta ħafna	☐	☐	☐
Nipprova ngħin meta xi ħadd iweġġa', ikun ma jiflaħx, jew ikun inkwetat	☐	☐	☐
Il-ħin kollu niċċaqlaq u ndur, m'għandix kwiet f'ġismi	☐	☐	☐
Għandi ħabib jew ħabiba ta' veru jew aktar	☐	☐	☐
Niġġieled ħafna. Kapaċi nwassal lill-oħrajn jagħmlu dak li rrid jien	☐	☐	☐
Sikwit inkun imdejjaq/mdejqa, qalbi sewda jew ser ninfaqa' nibki	☐	☐	☐
Ġeneralment popolari ma' studenti ta' l-età tiegħi	☐	☐	☐
Naljena ruħi mix-xejn. Insibha diffiċli nikkonċentra	☐	☐	☐
Inħossni nervuż/a f'sitwazzjonijiet ġodda. Nitlef il-kunfidenza mix-xejn	☐	☐	☐
Qalbi tajba ma' studenti iżgħar minni	☐	☐	☐
Ta' spiss jigżawni li nigdeb jew li nqarraq bl-oħrajn	☐	☐	☐
Tfal jew żagħżagħ oħra jaqbdu miegħi jew jibbuljawni	☐	☐	☐
Sikwit noffri li ngħin lill-oħrajn (ġenituri, għalliema, tfal)	☐	☐	☐
Naħseb u nqis l-affarijiet sewwa qabel nagħmel xi ħaġa	☐	☐	☐
Nieħu affarijiet li mhux tiegħi mid-dar, l-iskola, jew minn x'imkien ieħor	☐	☐	☐
Immur aħjar mal-kbar milli ma' dawk ta' l- età tiegħi	☐	☐	☐
Għandi ħafna beżgħat, nibża' mix-xejn	☐	☐	☐
Nispiċċa x-xogħol li nkun qed nagħmel. Kapaci noqgħod attent/a	☐	☐	☐

Għandek xi kummenti oħra?

Jekk jogħġbok aqleb, hemm xi mistoqsijiet oħra wara

In ġenerali, taħseb li inti għandek diffikultajiet f'waħda jew aktar minn dawn l-oqsma: emozzjonijiet, konċentrazzjoni, imġiba, kapacità li tmur tajjeb ma' l-oħrajn.

Le	Iva, diffikultajiet żgħar	Iva, diffikultajiet ovvji	Iva, diffikultajiet kbar
☐	☐	☐	☐

Jekk irrispondejt 'Iva', wieġeb dawn il-mistoqsijiet li ġejjin:

- Kemm ilhom hemm dawn id-diffikultajiet?

Inqas minn xahar	Bejn xahar u 5 xhur	Bejn 6 xhur u 12 -il xahar	Aktar minn sena
☐	☐	☐	☐

- Dawn id-diffikultajiet jinkwetawk jew idejquk?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

- Dawn id-diffikultajiet qed iservu ta' xkiel fil-ħajja tiegħek ta' kuljum f'dawn l-oqsma

	Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
ID-DAR	☐	☐	☐	☐
MAL-ĦBIEB	☐	☐	☐	☐
FIT-TAGĦLIM TAL-KLASSI	☐	☐	☐	☐
FIL-ĦIN LIBERU	☐	☐	☐	☐

- Dawn id-diffikultajiet jagħmlu l-ħajja aktar iebsa għal dawk ta' madwarek (familja,ħbieb, għalliema, u l-bqija?

Le, xejn	Xi ftit biss	Pjuttost ħafna	Ħafna
☐	☐	☐	☐

Il-firma: ..... Id-data: .....

Nirringrazzjawk ta' l-għajnuna tiegħek

Appendix 3

Supplementary Questionnaires: Head of school, Teacher and Parent versions

Q1 | | | | |

HEAD OF SCHOOL QUESTIONNAIRE

It would be very helpful if you could provide the following information on your school. Please mark the appropriate answer for each item. All information will be treated with utmost confidentiality and no one except the researchers of this project will have access to the information provided. No names of persons, schools or classes will appear in any publication and it will be not be possible to relate the information presented to the source where it came from.

---

1. Type of school (eg. Primary State A, Boys Junior Lyceum, etc☐:

_____

2. Town or Village of School: _____

3. What is the population of your school?

100-300 ☐ 301-500 ☐ 501-700 ☐ 701-1000 ☐ 1000+ ☐

4. Present staff complement *(put a number for each category)*:

	Complement	*Vacancies*
Administration	_____	_____
Teaching	_____	_____
Facilitators	_____	_____
KgAssistants	_____	_____
Minor staff	_____	_____

5. Academic staff training and experience

Please tick one item for **qualifications** *and one item for* **experience** *for the* **majority** *of your staff:*

Qualifications:

Highly qualified ☐	Well qualified ☐	Mixed lot ☐	Poorly qualified ☐	Mostly unqualified ☐

Experience:

Highly experienced ☐	Good experience ☐	Mixed lot ☐	Little experience ☐	Mostly inexperienced ☐

6. Space and physical environment

a. How would you describe the physical environment of the school?

Attractive and welcoming ☐

Rather unattractive and unwelcoming ☐

Needs considerable improvement and refurbishment ☐

b. How spacious would you describe the following:

	Quite spacious	*Average*	*Limited space*
School in general	☐	☐	☐
Classrooms	☐	☐	☐
Play areas	☐	☐	☐

Date:_____

Thank you very much for completing this questionnaire

Q2

TEACHER QUESTIONNAIRE

It would be very helpful if you could provide the following information on _____, a student in your classroom, on his or her classroom, as well as on your own experience and qualifications. Please complete each item. All information will be treated with utmost confidentiality and no one except the researchers of this project will have access to the information provided. No names of persons, schools or classes will appear in any publication and it will be not be possible to relate the information presented to the source where it came from.

Section A: Classroom

1. What is the classroom size?

10 and less ☐ 11-15 ☐ 1☐-20 ☐ 21-25 ☐ 2☐-30 ☐ 30+ ☐

2. Is the class

streamed ☐ streamed for particular subjects ☐ mixed ability ☐

If streamed what stream is it:

top ☐ middle ☐ low ☐

Section B: Teaching experience and qualifications:

1. How long have you been teaching?

less than 5 years ☐ 5-10 years ☐ 11-20 years ☐ more than 20 years ☐

2. What teaching qualification do you have?

BEd/PGCE ☐ College Certificate ☐

Diploma in Education ☐ Pedagogical course for Instructors ☐

None ☐ Other: _____

Section C: Student

1. Year/Form: _____
2. Gender: M/F _____
3. Age: _____
4. First language: Maltese ☐ English ☐ Other ☐
5. Ethnic group: Maltese ☐ Other ☐

☐. Religion: Roman Catholic (attends religious classes) ☐

Other (doesn't attend religious classes) ☐

7. Attendance: regular ☐ irregular ☐ absent ☐
8. General attainment: very good ☐ average ☐ poor ☐
9. Communication skills: very good ☐ adequate ☐ poor ☐
10. Indicate whether student is:

Formally assessed (Statemented) ☐

Not formally assessed (Non Statemented) ☐

Not statemented but diagnosed or with support ☐

Date: _____

Thank you very much for completing this questionnaire

Q3

PARENT QUESTIONNAIRE

It would be very helpful if you could provide the following information on your family. Please complete each item. All information will be treated with utmost confidentiality and no one except the researchers of this project will have access to the information provided. No names of persons, schools or classes will appear in any publication and it will be not be possible to relate the information presented to the source where it came from.

Father or Mother: _____ **Date:** _____

Section A: Family

1. Name of town/village where you live: _____

2. Languages spoken at home:

   Maltese ☐ English ☐ Other ☐

3. Type of residence:

   Flat ☐ House (no garden) ☐ House (with garden) ☐

   Number of Bedrooms

   Studio ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 4 + ☐

4. Is your family

   two parent family ☐ one parent family ☐

   If one parent family tick the appropriate answer:

   Deceased partner ☐ Separated/divorced ☐ Single parent family ☐

5. Family size (write a number):

   Number of children in the family: _____

   Number of step children if any: _____

   Grandparents living with family: _____

   Aunts/uncles/others living with family: _____

Section B: Parents

1. Parental occupation (refer to attached classification)

	Mother	*Father*
Professional	☐	☐
Managerial/administrative	☐	☐
Higher clerical/skilled/craftsmen/	☐	☐
Technical	☐	☐
Skilled manual workers/foremen	☐	☐
Semi-skilled/unskilled/labourers	☐	☐
Income provided by the state	☐	☐

Please turn this page over and answer the remaining questions

2. Parental education (tick the highest level)

	Mother	*Father*
Primary	☐	☐
Secondary	☐	☐
Post secondary	☐	☐
Tertiary (University and above)	☐	☐
Never attended school	☐	☐

3. What is the total approximate weekly income coming into your home?

Less than Lm50 per week ☐ Between Lm 50-70 per week ☐ Above Lm70 per week ☐

Section C: Health of the child

1. Has your child been diagnosed for any condition or disorder? Yes ☐ No ☐
   If yes please specify the condition from below:

Hyperactivity	☐	Autism/Asperger's Syndrome	☐
Learning difficulty	☐	Dyslexia	☐
Physical disability	☐	Hearing or visual impairment	☐
Epilepsy	☐	Intellectual disability	☐
Speech and language difficulty	☐		

Emotional, behavioural difficulties (anxiety, depression, behaviour problems) ☐

Other _____

2. Does your child have any physical illness or condition? Yes ☐ No ☐
   If yes tick the following as appropriate:

Diabetes	☐	Asthma	☐
Other physical chronic condition	☐	Head injury	☐

Others _____

3. Is your child on medication for any of the condition or illness mentioned above? Yes ☐ No ☐
   If yes please specify for which condition the medication has been prescribed:

Diabetes	☐	Asthma	☐
Epilepsy	☐	Hyperactivity	☐
Depression	☐	Anxiety	☐

Others _____

4. Is your child receiving any other treatment/intervention? Yes ☐ No ☐
   If yes, please specify:

Speech therapy ☐ Occupational therapy ☐ Physiotherapy ☐

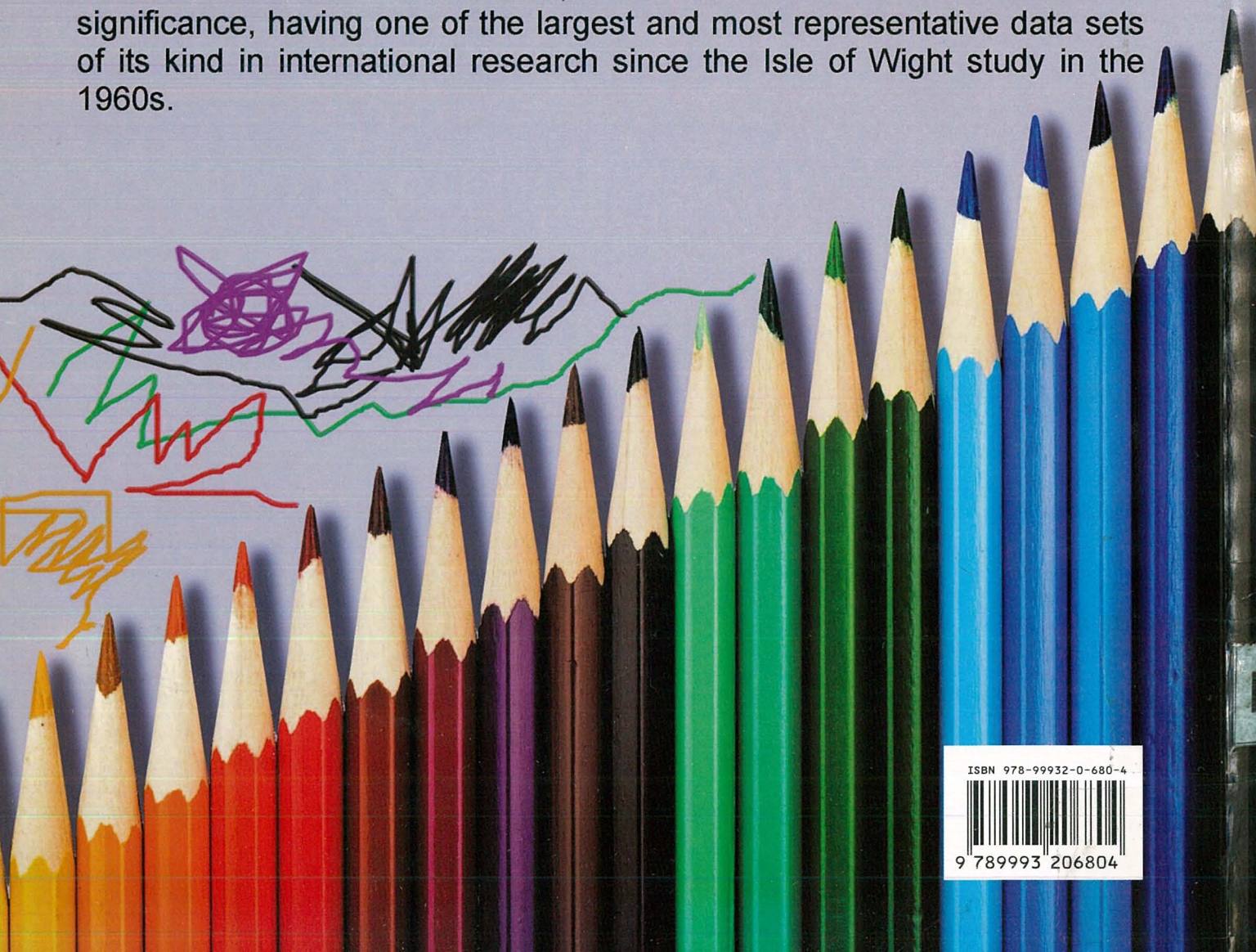
Psychotherapy or counselling ☐

Educational interventions (complementary/remedial education, facilitator) ☐

Others _____

Thank you very much for completing this questionnaire

In recent years social, emotional and behaviour difficulties in school have become a major challenge confronting not only the educational system but Maltese society as a whole. Many have been asking questions about the nature, distribution, causes and management of such difficulties. What is the extent of this problem for Maltese schools when compared to schools in other countries? Is it more prevalent in some schools and regions than others? Is modern Maltese society becoming more permissive and laissez-faire, with children having too many rights but very few responsibilities? Are schools and teachers being unjustly blamed for children's and families' difficulties? Are children reacting to the stresses imposed upon them by an overloaded academic curriculum and an examination oriented system? Are young persons rebelling against a rigid and unjust educational system? What can help us to understand and address this national issue more effectively? This national study which is based on 10% of the whole school population in Malta, seeks to provide answers to these and other questions on social, emotional and behaviour difficulties in Maltese schools. It provides suggestions on how schools may respond more effectively to this challenge, recommending reviews of systems, policies and practices which will help to prevent the development of these difficulties in children and young persons and promote their social and emotional health. Besides its local contribution, this book has also international significance, having one of the largest and most representative data sets of its kind in international research since the Isle of Wight study in the 1960s.



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