An Evaluation of *Zippy's Friends*, an Emotional Wellbeing Programme for Children in Primary Schools

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ABSTRACT

This study reports on the evaluation of Zippy's Friends, an international emotional wellbeing programme for children in primary school. The purpose of this study was to (i) assess the immediate and long term impact of the programme on the pupils' emotional and behavioural wellbeing and coping skills and (ii) examine the process of implementation and the relationship between this process and the programme's outcomes. The study employed a cluster randomised controlled design with data collected from pupils and teachers before, during and after the implementation of the programme. A total of 766 pupils and 52 teachers from 44 disadvantaged schools were randomly assigned to intervention and control groups. The evaluation was comprised of a range of structured questionnaires and qualitative methods.

The results from this study indicate that the programme was successfully implemented in disadvantaged primary schools in Ireland and that it had a significant positive impact on the children's emotional literacy, hyperactivity and coping skills. The improvements in the intervention group's emotional literacy scores were maintained at 12 months follow-up. The programme did not have an impact on children's conduct problems and prosocial behaviour. Children in the control group, however, evidenced a reduction in their conduct problems between pre- and post-intervention. Results from the process evaluation indicate that the programme was well received by both teachers and children. Findings from the teachers' weekly questionnaires and structured observations confirm that the intervention was implemented with high fidelity and that the quality of programme delivery was also high. Analysis of programme fidelity further revealed that the intervention had a greater impact when implemented with high fidelity. The structured nature of the programme, the suitability of the content for the children, the engaging activities and the teacher training were cited as factors that facilitated programme implementation. Key recommendations regarding the role out and sustainability of Zippy's Friends in Ireland include the need for a whole school approach and as part of this, the need for active parental involvement with the programme. Overall, the findings from this study are in keeping with a broader base of international evidence on the benefits of emotional wellbeing programmes for children's social and emotional functioning. Furthermore, the results from the process of implementation assist in helping to understand how an evidence-based programme is implemented in the Irish setting and the factors that affect quality of implementation.

CHAPTER ONE
INTRODUCTION

Positive mental health is crucial in today's society so as to stimulate growth and development and to contribute to prosperity, solidarity, social justice and increased quality of life across Europe (European Commission, 2005). The increasing burden of mental disorders and poor mental health for individuals, families, society and the economy of Europe calls for action to not only prevent mental ill health but to also promote mental health and wellbeing (European Commission, 2005; WHO, 2005). It is widely acknowledged that the early years of one's life have a major influence on a person's development, mental health and cognitive functioning throughout life. Good mental health during childhood is a prerequisite for optimal psychological development, productive social relationships, effective learning, the ability to care for oneself, good physical health and effective economic participation as adults in later years. Strengthening child and youth mental health is thus seen as a sound investment in the future: *"Mental health protection and promotion should not be regarded solely as enhancement of wellbeing in children and youth. It is also embracing the future wellbeing of these individuals as adults" (ProMenPol, 2009, p3).*

The role of schools has been regarded, both nationally and internationally as an important environment for promoting the mental health and wellbeing of children and youth. Policy makers and practitioners from both the education and health sectors have recognised the critical importance of mental health to learning and the potential roles that schools can play in promoting the positive mental health of all students. Extensive developmental research indicates that effective mastery of social emotional competencies is associated with greater wellbeing and better school performance whereas the failure to achieve competence in these areas can lead to a variety of personal, social and academic difficulties, which can in turn impact on outcomes later in life (Eisenberg, 2006; Guerra & Bradshaw, 2008; Masten & Coatsworth, 1998; Weissberg & Greenberg, 1998). The past two decades have seen a significant growth in the number of schools that are engaging in a wide range of mental health related initiatives and policies. Alongside this, the last 20 years have

seen a growing evidence base for the effectiveness of this work. Systematic reviews provide strong evidence that mental health promotion programmes in schools, when implemented effectively, can produce long term benefits for young people including improved social and emotional functioning, enhanced social behaviour, reduced conduct problems, reduced emotional distress and improved academic performance (Durlak et al., 2011; Payton et al., 2008; Stewart-Brown, 2006; Adi et al., 2007; Tennant et al., 2007; Lister-Sharp et al., 1999; Wells et al., 2003).

Despite the important advancements that have been made in the field of school-based mental health promotion, there are important areas that warrant further attention. Several reviews have highlighted the need to move beyond the question of whether programmes work to understanding factors associated with the delivery of the intervention, the context in which the intervention is delivered and the implementation support system. Up until recently, the published research studies were largely restricted to research outcomes and typically, little information was provided on the process and extent of programme delivery that must occur in order for these outcomes to be produced. Monitoring and documenting the process of programme implementation is critical to highlighting programme strengths and weaknesses, determining how and why programmes work, enhancing the validity of outcome evaluation and providing feedback for continuous quality improvement in programme delivery (Domitrovich & Greenberg, 2000). The complex multifaceted nature of mental health promotion has also prompted discussions about the most appropriate evaluation methods for evaluating programme effectiveness. This is combined with calls for the need to devote increasing attention to the quality of the study design (in terms of sample size, level of randomisation, controlling for other interventions) and the need to examine the long term outcomes of school-based interventions. The current study will extend previous research by examining the implementation and effectiveness of the Zippy's Friends emotional wellbeing programme in the context of disadvantaged schools in Ireland.

The Zippy' Friends programme is an international evidence-based programme that aims to promote the mental health and wellbeing of children age six to nine years of age. The programme is designed to help all young children to expand their range of effective coping skills and to promote varied and flexible ways of coping with problems of day to day life (Bale & Mishara, 2004). Zippy's Friends also aims to

improve children's communication, conflict resolution, co-operation and empathy skills. The programme was implemented with children (aged 7 – 9 years) in disadvantaged primary schools in Ireland between January 2008 and April 2009. Due to the greater number of negative life events and adverse conditions to which disadvantaged children are exposed to, they are deemed to be at an increased risk of experiencing a wide range of negative outcomes including the development of mental health problems in later childhood, adolescence and adulthood (Garmezy & Masten, 1994; Keenan et al., 1997; Lavigne et al., 1998; McLeod & Shanahan, 1996; McLoyd, 1998). Given this increased risk, combined with the evidence that children's responses to risk and receptiveness to protective resources are more malleable during the early school years (Pianta & Walsh, 1998), the implementation of Zippy's Friends in Irish disadvantaged primary schools was deemed a timely addition to the Irish curriculum.

The specific aims of the evaluation were to:

- determine if an international evidence-based programme could be adapted and successfully implemented in the local context of disadvantaged primary schools in Ireland
- assess the immediate and long-term impact of the programme on the children's emotional and behavioural wellbeing and coping skills
- examine the process of implementation and the relationship between this process and the outcomes of the programme.

This study used a cluster randomised controlled design to evaluate the impact and outcomes of the programme on the children. A total of 44 disadvantaged schools (N = 766 pupils) were randomly assigned to intervention and control groups. Data were collected at pre-intervention, during programme implementation, at end of programme and at 12 months follow-up. The process of implementation was examined in order to determine the level of programme fidelity and quality of implementation, to ascertain the strengths and weaknesses of the programme, to determine factors that affected programme implementation and to understand the interaction between characteristics of the implementation system, characteristics of the implementer and various aspects of the setting and organisational context in which the programme was implemented. The process of implementation was

evaluated using a range of quantitative and qualitative methods in a triangulation of methods and sources. Children also played an active role in the evaluation process through the use of multiple child participatory methods. The strong study design combined with the measures used to assess the impact, outcomes and process of implementation ensure that this study is well positioned to inform best practice and policy for the Irish education system in promoting the mental health and wellbeing of young people. At a broader level, the focus on understanding the impact and outcomes of the programme in the context of programme implementation will strengthen the evidence base regarding the effective implementation and adoption of the programme in naturalistic school settings.

This thesis will commence with a review of the literature. Chapter two provides an overview of current concepts and principles of mental health promotion and examines theoretical frameworks for promoting positive mental health. It will examine the promotion of positive mental health in schools and will outline key definitions, current policies and practices in place. A review of the current evidence in relation to school-based mental health promotion interventions will be presented. This review provides a synthesis of the international evidence from systematic reviews, meta-analysis, reviews of reviews and selected individuals studies on the effectiveness of interventions to promote mental health in school-aged children. Based on this review the principles of effective programmes will be summarised. Following this, the current practices in relation to evaluation of mental health promotion programmes in schools will be discussed. This section considers the emerging field of 'implementation science' and examines this in the context of a school-based implementation model. The chapter then provides an overview of the Zippy's Friends programme, its theoretical framework, evidence of its effectiveness and its implementation in the Irish context. The remainder of this chapter describes the present study and details its unique aspects followed by the aims and hypotheses of the evaluation.

Chapter three discusses the methodology. It provides detail on the study design, sample, measures used to examine the impact of the programme and the process of implementation, the data collection procedure, how the data were analysed and ethical issues.

The results from this study are divided into two chapters. Chapter four is concerned with programme effectiveness. This chapter commences with an overview of the participant and school profiles. Following this, the results pertaining to programme fidelity across the intervention groups are presented. These results determined how the impact data would be analysed. The remainder of this chapter presents the findings regarding the impact of the programme on the children's (i) emotional literacy (ii) emotional and behavioural wellbeing and (iii) coping skills. Chapter five describes the main findings regarding the implementation of the programme. Programme fidelity data are further analysed in relation to fidelity results from the structured observations and the impact of high and low fidelity on children's emotional literacy and emotional wellbeing scores. Following this, the teachers' weekly reports on programme implementation are presented. Next, the results from the structured observations which were carried out in a sample of schools are reported. The key findings regarding the implementation of the Zippy's Friends programme in the context of the SPHE curriculum are then outlined. Finally, the children's and teachers' views about the programme, its perceived strengths and weaknesses, factors that affected programme implementation and recommendations are presented.

Chapter six reviews the key findings from this study in the context of the existing knowledge. The impact of programme on the children, the teachers and the school as a whole will be examined. This is followed by an examination of the findings in relation to the implementation process. The implications for practice, policy and research are presented along with an appraisal of the study's limitations. This chapter concludes with recommendations for future research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Mental Health Promotion

This section will review the concepts of mental health and mental health promotion. It will distinguish between prevention and promotion work and will examine the determinants of mental health. This will be followed by an overview of the strategies used for promoting mental health and evidence of effectiveness.

2.1.1 Concepts of Mental Health and Mental Health Promotion

Mental health is an essential part of overall health and since its inception in 1948 the World Health Organization has included mental wellbeing in its definition of health: "*Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*" (WHO, 2001b, p1). The World Health Organization defines mental health as: "*a state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community*" (WHO, 2001d, p1). In this positive sense, mental health is more than merely the absence of disease, it is the foundation for wellbeing and effective functioning of individuals, families, communities and society. The Health Education Authority in the UK defines mental health as: "*the emotional and spiritual resilience which enables us to enjoy life and to survive pain, disappointment and sadness. It is a positive sense of well-being and an underlying belief in our own and other's worth*" (HEA, 1997, p 7,). Other definitions of mental health refer to concepts such as resilience, optimism and mastery, the ability to deal with adversity and the capacity to form and maintain meaningful relationships (Lavikainen et al., 2000).

Mental health promotion is concerned with achieving positive mental health and quality of life (Barry & Jenkins, 2007). This multidisciplinary area of practice aims to enhance wellbeing and quality of life for individuals, families, communities and society in general (Jané-Llopis et al., 2005). Hosman and Llopis (1999) describe mental health promotion as an enabling process that is carried out by, with and for the people. Hodgson and colleagues (1996) define mental health promotion as the

enhancement of the capacity of individuals, families, groups or communities to strengthen or support positive, emotional, cognitive and related experiences. The focus is on strengthening protective factors, enhancing wellbeing and creating supportive environments. As an approach to wellness, mental health promotion focuses on the positive aspects of health such as assets and strengths rather than focusing on deficits and needs (Barry & Jenkins, 2007). The underlying principle of this approach is that mental health is an integral part of overall health and is, therefore, of relevance to all (Barry, 2009).

It is important to draw attention to the distinction between the practice of mental health promotion and the prevention of mental disorders. Although the terms prevention and promotion are often used interchangeably in relation to mental health, these two areas are informed by different sets of principles and tend to operate within different conceptual frameworks (Barry & Jenkins, 2007). Mental health promotion is based on a competence enhancement model. It is concerned with positive mental health and is focused on building individual and community capacity by creating supportive environments and enhancing people's ability to achieve and maintain positive mental health. In contrast to this, the prevention of mental disorders operates on a risk reduction model and aims to reduce the incidences, prevalence and seriousness of targeted problems. Prevention strategies are usually directed against risk factors and need to be implemented at specific periods before the onset of the mental disorder, in order to be maximally effective (WHO, 2002). Prevention interventions are commonly classified according to the population group being targeted. Mrazek and Haggerty (1994) identified three main categories of prevention:

- Universal prevention – targeting the general / whole population
- Selective prevention – targeting individuals or groups whose risk of developing a mental disorder is significantly higher than the rest of the population
- Indicated prevention – targeting high risk individuals or groups with minimal but detectable signs or symptoms of mental disorder.

Barry and Jenkins (2007) argue that promotion, prevention, treatment and rehabilitation all have at their core the overall goal of promoting wellbeing and quality of life. While the intervention categories differ in their target population, programmes, objectives, content and process, they share many core intervention

components derived from underlying theoretical constructs. For example, research has shown that mental health promotion principles such as strength building, resilience, empowerment, positivity and community are increasingly been used in treatment and recovery and findings suggests that such approaches are highly effective (Falloon & Fadden, 1993; Hawe et al., 1998; Rowling et al., 2002; Hosman & Llopis, 2000; Tilford et al., 1997). Indeed Magyary & Brandt (1996) state that mental health promotion approaches based on a minimisation of risk factors and the enhancement of protective factors have a relevant application across the entire spectrum of preventative services.

Globally there has been an increasing recognition of the importance of positive mental health to overall health in recent years. This is reflected in the range of policy documents on health, education, employment, culture, crime and regeneration that emphasise the need for mental health promotion (European Commission, 2005; Department of Health, 2004a, 2004b; US Department of Health and Human Services, 1999; NIMHE, 2005; WHO, 2001, 2002, 2004, 2005). A number of landmark international publications (WHO, 2004; WHO, 2005a; Jané-Llopis et al., 2005; IUHPE Report for the European Commission, 1999) have outlined the rationale for mental health promotion, its conceptual and research base, and the distinctive approach to mental health improvement. In 2001, the World Health Organization devoted its World Health Report to mental health stating that by doing so:

> *WHO is making one clear statement. Mental health – neglected for far too long – is crucial to the overall well-being of individuals, societies and countries and must be universally regarded in a new light* (WHO, 2001, p ix).

In keeping with this international momentum, mental health promotion policy and practice have been introduced and strengthened in a number of countries (Commonwealth of Australia, 2008; European Pact for Mental Health and Well-being, 2008; Foresight Mental Capital and Well-being Project, 2008; Ministry of Health, New Zealand, 2005; Scottish Government, 2009; Department of Health, UK, 2009).

There are several possible reasons for the growth in international attention. Firstly, mental health is increasingly seen as fundamental part of the social, cultural, educational, environmental and economic aspects of the community. There is growing evidence to suggest an interplay between mental wellbeing and outcomes such as educational achievement, productivity at work, development of positive relationships, reduction in crime rates and decreasing harm associated with use of alcohol and drugs (WHO, 2005). Therefore, it follows that promoting mental health through the use of a multi-sectoral approach should not only result in lower rates of some mental disorders and improved overall health but also better educational performance, greater productivity of workers, improved relationships within families and safer communities and enhanced social capital.

Secondly, the consequences of mental health problems in financial terms are becoming clearer (WHO, 2003). The aggregate cost of mental disorders is estimated to be between 2.5% and 4% of global GNP (WHO, 2003). In the UK alone, the economic cost of mental ill-health in 2006/2007 amounted to over £110 billion (Barry & Friedli, 2008). There is broad acknowledgement of the increase in mental ill health at a global level with five of the ten leading causes of disability worldwide being mental health conditions and it is predicted that by 2020 neuropsychiatric disorders (which include disorders such as depression, schizophrenia, dementias, and anxiety disorders) will rank second only to heart disease in the global burden of disease (Murray & Lopez, 1996). In addition, growing attention is being paid to the costs that are not easily assessed, such as those associated with mental health problems not amounting to disorders and their related impaired social functioning (Williams et al., 2005). Furthermore, there is growing evidence that beneficial outcomes are not solely the result of the absence of mental illness, but are due, wholly or in some degree to aspects of positive mental health (Barry & Friedli, 2008; Friedli and Parsonage, 2007; Keyes, 2007). Therefore, it is clear that while there is a need to ensure that appropriate care and treatment is in place for those experiencing mental ill health, there is also a need to develop a greater focus on promoting positive mental health and preventing mental illness at a global, national and local level.

Thirdly, there is growing evidence to support a two continua model of mental health and illness (Westerhof & Keyes, 2010; Keyes 2007, 2005; Downie et al., 1990). The

two continua model of mental health and illness holds that both are related but are, however, distinct dimensions. One continuum indicates the presence or absence of mental health, the other the presence or absence of mental illness. Thus, the absence of mental illness does not equal the presence of mental health. Keyes (2005) studied the relation between mental health and mental illness using data from the study on Midlife Development in the United States (N=3032 American adults aged 25-74 years). These data provided strong support for the two continua model. Keyes reported that some 50% of the general population were moderately mentally healthy, 17% were flourishing, 10% were languishing and a further 23% met the criteria for a diagnosable mental disorder. Keyes identified two groups of particular interest as they did not fit the one dimensional health-illness continuum. The first is the languishing group who did not experience mental illness and the second group is the mentally ill (14.5%) who had nevertheless a moderate level of mental health. Findings from other studies (Keyes, 2002, 2004, 2006, 2007; Huppet and Whittington, 2003) further support the validity of the two continua model and make it clear that the absence of mental illness does not guarantee mental health and that indicators of positive mental health need to be taken into account when studying mental health.

2.1.2 Determinants of Mental Health

Mental health is determined by multiple and interacting social, psychological, biological, economic and environmental factors. The determinants of mental health reside in the physical and psychological make-up of the individual, their interpersonal and social surroundings and the external environmental and broader social influences (Barry & Jenkins, 2007). These determinants may be clustered conceptually around three themes (HEA, 1997; Lahtinen et al., 1999; Lehtinen et al., 1997):

1 Structural factors - the development and maintenance of healthy communities through the provision of safe and secure environment, good housing, positive educational experiences, employment, good working conditions, supportive political infrastructure, minimal conflict and violence, social support and the basic needs of food, water, warmth and shelter

2 Community factors - strengthening communities by increasing social support, social inclusion, a sense of citizenship, developing skills like participating, tolerating diversity and mutual responsibility, developing health and social services which support mental health and improving mental health within schools and workplaces

3 Individual factors - the ability to deal with thoughts and feelings, the management of life and emotional resilience and to cope with stressful circumstances.

These determinants translate into risk and protective factors that influence the mental and physical health of individuals and population groups. Risk factors increase the likelihood that a particular individual or identifiable group of people will develop a disorder and can exacerbate the burden of existing disorders. Protective factors enhance and protect positive mental health. They moderate the impact of stress and transient symptoms on social and emotional wellbeing, thereby reducing the likelihood that a disorder will develop. Protective factors operate in several ways, they can be protective in that they reduce the exposure to risk or they may be compensatory thereby reducing the effect of risk factors (Rutter, 1985). Risk and protective factors operate at the level of the individual, the family, the community and at the broader societal level. They include genetic, biological, behavioural, psychological, sociocultural, economic, environmental and demographic conditions and characteristics.

Although our understanding of risk factors is incomplete, research suggests that it is usually the accumulation of risk factors rather than the presence of any single risk that affects outcomes and that exposure to multiple risk factors over time usually have cumulative rather than merely additive effects (Durlak, 1998). Barry and Jenkins (2007) provide examples of risk and protective factors operating at the individual, social and structural level that affect mental health (Table 1).

Table 1: Examples of risk and protective factors for mental health (Barry & Jenkins, 2007)

	Protective Factors	Risk Factors
Individual Level	- positive sense of self - good coping skills - attachment to family - social skills - good physical health	- low self esteem - low self efficacy - poor coping skills - insecure attachment in childhood - physical and intellectual disability
Social Level	- positive experience of early attachment - supportive caring parents/family - good communication skills - supportive social relationships - sense of social belonging - community participation	- abuse and violence - social isolation - separation and loss - peer rejection
Structural Level	- safe and secure living - environment - economic security - employment - positive educational experience - access to support services	- neighbourhood violence and crime - poverty - homelessness - social or cultural discrimination - lack of support services - unemployment/economic insecurity

It is clear from Table 1 that most risk and protective factors for mental health lie outside the ambit of health services, thus highlighting the need to not only apply knowledge about the promotion of mental health and the prevention of mental health

problems in sectors outside the health area but also to address these broader determinants of mental health. It is argued that successful action to promote mental health can be achieved and sustained only by both the involvement and support of the whole community and the development of collaborative intersectoral partnerships (WHO, 2005a). The understanding is that mental health will be maximised by a comprehensive approach that is integrated across all sectors of care and all levels of society. In addition, it is important to recognise that effective interventions related to these risk and protective factors have positive outcomes beyond the mental health domain. The benefits of such interventions are not restricted to the mental health sector, instead there are common causal pathways from these factors to outcomes in the health, educational, social and community sectors (Commonwealth Department of Health and Aged Care, 2000).

2.1.3 Strategies for Promoting the Mental Health of the Population

Internationally, much of the mental health promotion work has been conducted within the framework of the Ottawa Charter for Health Promotion (WHO, 1986). The Charter's vision is a move away from the traditional medicalised view of public health that was orientated towards deficits and the reduction of risk factors. It states that good health is a holistic and ecological matter, and that health is a positive concept. The Ottawa Charter represents a population-orientation approach which identifies broad social determinants as being crucial to the overall health and wellbeing of populations. There is a strong emphasis on active community participation and the important role intersectoral partnerships play in enabling positive health outcomes. The Ottawa Charter outlined five key areas of action to promote health: (i) building healthy public policy (ii) creating supportive environments (iii) strengthening community action (iv) developing personal skills and (v) reorienting services towards promotion, prevention and early intervention activity. Given that mental health is grounded in the field of health promotion several documents have since gone on to outline how the Ottawa Charter can be applied to promoting mental health (WHO 2005; Barry & Jenkins, 2007; Barry, 2007; Tudor, 1996; MacDonald & O'Hara, 1998; HEA, 1997; Secker, 1998):

- Building Healthy Public Policy – calls for a coordinated approach across health, economic, education and social policies for improved mental health. The

potential mental health consequences of policies need to be identified and clarified. Effective implementing of public policy requires communication and partnership between sectors.

- Creating Supportive Environments – supportive social economic, cultural and physical environments provide a basic framework for developing and maintaining mental health. At the most basic level there is a need to create peaceful and safe communities within which to live. Improving the physical environment through infrastructure – public transport, availability of housing, schools, recreational facilities, health care services, provision of workplaces and businesses all contribute to the emotional and social wellbeing of the community. Strong social networks and a sense of belonging and integration can also be enhanced to support mental health.

- Strengthening Community Action – this focuses on empowering communities through their active engagement and participation in identifying their needs, setting priorities making decisions, planning strategies and implementing them to achieve better mental health. Community action provides for opportunities of mutual support and participation at all levels, along with the exchange of skills and information. Lahtinen and colleagues (2005) state that the community development draws on existing human and material resources in the community to enhance self-help and social support and to develop flexible systems for strengthening public participation and direction of health matters.

- Develop Personal Skills – this is concerned with the development of emotional and social skills and increasing the emotional resilience of individuals. Improving people's ability to recognise and communicate thoughts and feelings, to cope with change, to make and maintain relationships is an important part of this action area and have all been shown to improve mental health (Barry & Jenkins 2007)

- Reorienting the Health Services – this requires health services to focus on promoting mental health and wellbeing in addition to the treatment of illness. This responsibility must be shared with individual, community groups, health professionals, health institutions and governments, all of whom must work together in the pursuit of health and wellbeing. Reorienting health services to promote mental health requires greater attention to the organisation and structure of health services, the allocation of resources across the entire spectrum of mental health interventions and the training and education of the broader health workforce (Barry & Jenkins, 2007).

The Ottawa Charter provides a useful starting place for looking at strategies for mental health promotion from a population perspective. There is a strong focus on the need to adopt a holistic mental health framework across multiple sectors. There is also an implied empowerment agenda across all the five key action areas, that is, by strengthening individuals, families, communities and systems and reducing societal barriers to mental health, people are empowered to take control over their situation and make healthy choices. Similar to the Ottawa Charter, the Jakarta Declaration on leading health promotion into the 21st century (WHO, 1997) identified the need for the expansion of partnerships for health along with increasing community capacity and empowering both communities and individuals. Both documents highlight the need not just for policy approaches to mental health promotion but also bottom-up community approaches. Lahtinen and colleagues (2005, p231) state *"the main goal mental health promotion should be striving towards is people's resilience, obtained through self-determined action by and under the control of those people in their local naturalistic settings – 'an empowered community action' perspective"*.

There is compelling evidence from high quality studies that mental health promotion interventions, when implemented effectively, can have long lasting positive effects on multiple areas of functioning, leading to outcomes such as improved mental health (Durlak & Wells, 1997; WHO, 2005; Barry et al., 2009; Keleher & Armstrong, 2005; WHO, 2005a; Mentality, 2003; Barry & Jenkins, 2007; Tilford et al., 1997), reduced risk of mental disorders (Mrazek and Haggerty, 1994; Jane-Llopis et al., 2005; WHO, 2004b) in addition to producing social and economic benefits (Hosman & Jane-Llopis, 1999). Barry and colleagues (2009) reviewed the evidence of mental health promotion interventions across key settings (home,

schools, workplace, community and health services) in terms of effectiveness in health and broader social and economic impacts. Over 60 systematic reviews were identified and analysed and the combined evidence showed that high quality comprehensive mental health promotion interventions carried out in collaboration with families, schools and communities lead to improvements not only in participants' mental health but also improved social functioning, academic and work performance and general health behaviours. The beneficial effects of these interventions and their cost-effectiveness were especially evident for the most vulnerable individuals and families from disadvantaged backgrounds. The review also points to the emerging evidence base on the economic case for investing in mental health promotion interventions (Friedli & Parsonage, 2007; Knapp et al., 2011; Zechmeister et al., 2008).

2.2 Mental Health Promotion in Schools

The educational setting is widely viewed as an ideal location to promote mental health, wellbeing and resilience among children and adolescents. Whilst the home is regarded as the most influential environment for children, the school, by virtue of the amount of time that children spend at this setting, provides an efficient and systematic means of promoting the health and positive development of young people (Brooks, 2006). Schools are known to have a significant influence on the behaviour and development of children (Rutter et al., 1979; Wolf, 1993). A positive school experience can strengthen the ability of young people to cope successfully with change and transition. A sense of connectedness is a key protective factor for positive mental health (Resnick et al., 1997). In addition, Lynch and colleagues (2004) contend that the structured, predictable, supportive environment that schools provide is protective in itself.

Teachers are regarded as being ideally placed to monitor risk factors and to enhance protective factors for all children to maximise their resilience and wellbeing (Alvord & Grados, 1995; Bernard, 1993; Koller & Svoboda, 2002). For children already showing signs of risk or disorder, teachers can play a key role in reinforcing and maintaining improvements made by the child. Teachers can act as important role models, they can reinforce children's strengths and competencies and can provide high levels of support. In addition, it is widely recognised that having a supportive

relationship with an adult is one of the most commonly reported protective factors in the literature on resilience (Pianta & Walshe, 1998; Werner, 1999). Pianta (1999) notes that nurturing and supportive educational environments can be especially important for children living in high-risk circumstances for whom relationships may be compromised. Furthermore, schools are an important source of friends and social networks and are also in a position to create partnerships with the family and the community, all of which can significantly influence the social, emotional, physical and mental development of children.

There is increasing evidence of the strong positive associations between mental health and academic success. Research has shown that programmes which teach social and emotional competencies have resulted in a wide range of educational gains including, improved school attendance, higher motivation, higher morale and improved academic achievement (Zins et al., 2004; Durlak et al., 2011; Payton et al., 2008; Durlak, 1995; Durlak & Wells, 1997; Catalano, 2002). In addition, there is compelling evidence that emotional and behavioural health problems can pose as significant barriers to learning (Adelman & Taylor, 1999; Atkins et al., 2003; Waxman et al., 1999; Weist, 1997).

The concept that schools have a role in promoting the health of young people is not a new one. There is a long tradition of health education in schools in many countries. At a European level the concept of the 'Health Promotion School' can be traced back to the 1950's when the World Health Organization established an Expert Committee on School Health Services. Following this a number of key reports including *'The Report of the Expert Committee on Health Education of the Public'* (WHO, 1954) and *'The Healthy School'* (Young & Williams, 1989) were published in Europe. At the same time in the USA the 'Comprehensive School Health Programme' which had components of health instruction, school health services and the school environment evolved. In 1995, the WHO's Global School Health Initiative was launched. The initiative saw a change in emphasis from a focus on curriculum and knowledge-based approaches to more comprehensive programmes that are designed to improve the health of students, school personnel, families and others members of the community through schools.

2.2.1 Definition and Key Terms

Weist and Murray (2007, p3) define school mental health promotion as:

> *Providing a full continuum of mental health promotion programmes and services in schools, including enhancing environments, broadly training and promoting social and emotional learning and life skills, preventing emotional and behavioural problems, identifying and intervening in these problems early on and providing intervention for established problems.*

In the field of education there are a wide range of terms which are used to describe interventions aimed at promoting mental health and there is ongoing debate about which is most appropriate. Despite the fact that much work has been carried out in recent years to broaden the definition of mental health to include positive wellness and social and emotional competencies, Weare and Gray (2007) contend that to most in the education setting the term is still understood in its traditional sense, that is, a medicalised approach which focuses on individuals with problems who require medical or therapeutic solutions. This is perhaps one of the reasons why several other terms such as emotional intelligence, social emotional wellbeing and resilience are in use in the education setting. Weare and Gray (2003) provide a comprehensive overview of the variety of terms in use in the educational sector. A summary of these terms is presented here.

The term ‘emotional intelligence’ has its origins in Gardner’s work on multiple intelligence. Gardner referred to the personal intelligences as intrapersonal and interpersonal intelligence (Gardner et al., 1995). Following this Goleman (1996) coined the term ‘emotional intelligence’ (EI). Goleman considers emotional intelligence an essential life skill with application during school life and into working lives. Emotional intelligence supports effective teamwork, problem solving, risk-taking and the ability to cope with change. The term emotional intelligence is well respected in the US but is not so common in other countries. Recent publications (e.g. Sternberg, 2001) have criticised the use of the concept of ‘intelligence’ to describe and label work in this area. Others have argued that the term ‘intelligence’ tends to focus attention on measurement rather than on teaching and learning.

The term ‘social and emotional learning’ (SEL) is defined as the process through which we recognise and manage emotions, establish healthy relationships, set positive goals, behave ethically and responsibly and avoid negative behaviours (Elias et al., 1997; Payton et al., 2000). SEL is more or less ubiquitous in the US and is predominantly associated with the major US network Collaborative for Academic, Social and Emotional Learning (CASEL).

In the UK, the term ‘emotional literacy’ is frequently used in an educational context. Sharp (2001, p1) defines emotional literacy as “*the ability to recognise, understand, handle and appropriately express emotions*”. This definition, however, has been criticised for focusing on the individual and their capacities and not on the surrounding context and underlying determinants. It is also argued that terms such as social emotional learning and emotional literacy are meaningful to those who come from other sectors such as parents, lay people and the health service but that they can sound dangerously soft to employers, politicians and the media (Weare, 2010).

In the most recent educational literature being disseminated across Australia, the preferred term is ‘resilience’ (Knight, 2007). Resilience refers to the ability to bounce back from difficulties and disappointments. Alongside resilience, the term ‘persistence’ – the ability to stick at a task, is also becoming more fashionable. Some authors argue that these ‘tougher skills’ need to be promoted and fostered and that children and young people should not be over-protected against life’s difficulties or the experience of failure, instead they should learn the skills of picking themselves up, toughening up and moving on from their difficulties (Knight, 2007).

A more straightforward, non-specialist term that is now widely used in governmental, education and health contexts is the term ‘social and emotional wellbeing’. It is viewed as a generic, broad and positive term and is often put alongside ‘mental health’ to ‘unpack’ the term and help it lose some of its medicalised and negative connotations. Stewart-Brown (2000) defines emotional and social wellbeing as a holistic, subjective state which is present when a range of feelings, among them energy, confidence, openness, enjoyment, happiness, calmness and caring are combined and balanced. It implies a focus on the whole population

and not just those with problems. This concept has been central to the Health Promoting / Healthy School movement across the world (WHO, 2009).

It is clear that no one term in relation to mental health promotion in schools is universally used. Whilst some might argue that terminology is unimportant, there is a danger that the potential for collaboration across fields, contexts and countries is restricted due to a lack of identity and common ground. The author argues that deciding and agreeing on the most appropriate and widely accepted term across all sectors internationally is central to the future development of mental health promotion in schools.

2.2.2 Policy

In a review of data on existing national policies on child and adolescent mental health Shatkin & Belfer (2004) found that out of 191 countries identified, no country had a mental health policy strictly pertaining to children and adolescents. Some 35 countries (corresponding to 18% of countries worldwide) were found to have identifiable mental health policies which may have some beneficial impact on children and adolescents. The policies identified vary greatly in terms of their provisions for delivering services, initiating research, training professionals and educating the public. Despite the clear lack of mental health policies pertaining to children and young people as a distinct group, there is now increased policy activity in promoting the social and emotional development of children by focusing on school-based interventions (Burns et al., 2002). In 1999, the school was advocated as a ‘major setting’ for promotion and prevention activities for young people by the US Surgeon General in his 1999 report which was devoted to the topic of mental health (USDHHS, 1999). In 2001, the WHO stated that schools can and should help children and adolescents develop sound and positive mental health (WHO, 2001) and more recently, recommended the inclusion of mental health promotional activities in schools (WHO, 2010). In the UK, the Department for Education National Strategies document (DCFS, 2009) states that social, emotional and behavioural skills are fundamental to school improvement and in the United States, the Academic, Social and Emotional Learning Act of 2009 embeds social and emotional education in schools (CASEL, 2011). In Australia, the Federal Government’s commitment of $18.4 million to the expansion of a universal mental health promotion intervention,

entitled ‘KidsMatter’, across 2100 primary schools by 2014 confirms the support at a policy level for mental health promotion in schools (KidsMatter, 2010a).

2.2.3 Mental Health Promotion Programmes in Schools

Over the past 40 years schools have engaged in a wide variety of mental health programmes. During the 1970’s and 1980’s there was an emphasis on health education with programmes being generally aimed at increasing the knowledge of students about the risks associated with behaviours such as smoking, illicit drug use and suicidal behaviour (Patton et al., 2002). Recent, more successful programmes have a greater relevance to mental health. They tend deal with health problems by placing them in the context of child and adolescent social development and emphasise the acquisition of broad life skills. Other school-based programmes have gone further to address the social environment provided by schools (Patton et al., 2000; Commonwealth Department of Health and Aged Care, 2000;) or incorporate elements of the intervention that go beyond the classroom to the family or community backgrounds of students (Hawkins et al., 1992). School-based mental health promotion programmes can be broadly divided into three groupings:

- Universal programmes – aim to improve the mental health of the whole population of children
- Targeted programmes – aim to improve the mental health of children at increased risk of mental health problems
- Indicated programmes – aimed at children who are already manifesting signs of mental health problems (Wells et al., 2003).

Universal approaches to school-based mental health promotion include two main types of interventions.

i. Classroom-based skills training programmes

This type of approach aims to deliver a specific curriculum to all children in the class. Classroom-based programmes are designed to enhance students’ social and emotional skills. These programmes teach and model skills such as effective communication, peer pressure resistance, conflict management, emotional literacy, assertiveness, problem solving, relationship and coping skills (Adi et al., 2007).

These classroom-based programmes usually involve interactive skills training methods (e.g. role plays, modelling, peer instruction and applied practice) and create opportunities for effective use of the newly learned skills in daily life (Weissberg et al., 2003; Bandura, 1995). Leaders in the field suggest that universal, skills building interventions that target cognitive, emotional and behavioural skills are important for socially competent behaviour and positive peer interaction. The lack of these skills has been associated with both internalising and externalising behaviour and peer rejection (Domitrovich et al., 2007).

ii. Whole school approach

This approach attempts to shape the whole school context, including the school's organisation, management structures, relationships and physical environment as well as the curriculum and pedagogic practices (Weare & Markham, 2005). The focus is not just on the pupils and classroom but on the totality of the school as an organisation, embedded in its community. This approach, therefore, aims to include all relevant stakeholders including pupils, teachers, school administrators, parents and community members in fostering a positive school environment, ethos and sense of connectedness for pupils and staff (Barry & Jenkins, 2007). The whole school approach involves a co-ordinated action between three components: (i) curriculum, teaching and learning (ii) school ethos and environment and (iii) partnerships and services. The school is seen as a vital part of the wider community in reaching out to and receiving help from parents and local agencies, providing programmes that support the efforts of the school to promote health (Nutbeam et al., 1991; Pollack, 1991). Large scale systematic reviews conclude that initiatives that use a range of contexts, opportunities, approaches and agencies are more effective than more limited and one dimensional approaches when attempting to address mental health issues (Catalano et al., 2002; Wells et al., 2003; Stewart-Brown, 2006).

2.2.4 Evidence of Effectiveness

Over the last two decades there has been an increase in the number of studies that examine the effectiveness of mental health promotion programmes. There is substantial evidence that mental health promotion programmes in schools, when implemented effectively, can produce long-term benefits for young people, including emotional and social functioning and academic achievement (Durlak et al., 2011;

Barry et al., 2009; Tilford et al., 1997; Durlak & Wells., 1997; Lister-Sharp et al., 1999; Greenberg et al., 2001; Harden et al., 2001; Wells et al., 2001, 2003; Payton et al., 2008). As part of this study, a review of the accumulating evidence and knowledge on the effectiveness of school-based mental health promotion programmes in promoting the social and emotional wellbeing of school-age children was carried out. The following methods were used to identify the evidence to be included in this review:

Population: The study population was children in primary school settings, that is, children aged 4 -13 years.

Types of Evidence: This review provides a synthesis of the international evidence from review of reviews, systematic reviews, meta-analysis and selected individual studies on the effectiveness of interventions to promote mental health in school-aged children. The search was limited to those in the English language and reported after 1991.

Outcomes of interest: The primary outcomes of interest include evidence of improved mental health, including emotional and social wellbeing, psychological functioning, and their relationship to wider health, social and economic benefits arising from effective interventions.

Search Strategy

The following databases were used to identify the evidence included in this review:

Academic Database search

- Scopus
- PubMed
- PsycINFO
- ERIC
- Cochrane database of systematic reviews
- ISI Web of Knowledge

Search of Health Promotion and Public Health Review Databases

- CASEL
- Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre)
- University of York National Health Service Centre for reviews and dissemination
- National Institute of Clinical Excellence (NICE)
- National Institute of Health Research (DARE, HTA, EEP)
- Effective Public Health Practice, Health Evidence Canada
- US Mental Health and Substance Abuse (SAMHSA)
- WHO programmes and projects - http://www.who.int/entity/en/

Additional sources

- Reference list of relevant articles, book chapters and reviews were scanned and additional references were obtained.
- Google Scholar

Search Terms

In order to identify relevant studies the following key search terms were used:

- mental health
- mental health promotion
- promoting mental health
- positive mental health
- social wellbeing
- emotional wellbeing
- social and emotional wellbeing

were combined with the terms:

- children
- adolescents
- young people
- youth

and the settings:

- school
- primary school
- elementary school

and the intervention related key words:

- promotion
- intervention
- programme
- implementation
- evaluation.

Table 2 outlines the key findings from the systematic reviews and review of reviews in terms of health benefits, wider social and economic benefits, effect sizes, impact on inequality and recommendations from the reviews. The table in Appendix 1 reviews individual studies on the effectiveness of interventions to promote mental health with children in primary schools. The majority of interventions considered in the reviews were classroom-based interventions. Others covered a range of interventions including the following in various combinations: (i) changes in school ethos, policies and environment (ii) parent component (iii) wider community component. The programmes included a range of cognitive, affective, behavioural and skill-training approaches. The results from the 12 systematic reviews / meta-analysis in Table 2 were very consistent, despite variations in the population and methods used to evaluate the effectiveness of the programme. Several reviews found that programmes that promote mental health in schools are the most effective ones in promoting overall health and wellbeing (Stewart-Brown, 2006; Tennant et al., 2007; Wells et al., 2001). In a review of effective mental health programmes for school age children, Browne and colleagues (2004) state that universal programmes that aim to develop protective factors are more effective than programmes that aim to reduce existing negative behaviours. A summary of the key findings in relation to classroom interventions, whole school approach and indicated interventions will now be provided.

Table 2: Systematic Review of School Based Mental Health Promotion Interventions

Study Name	Target Group	Aims	Type of Research	Health Benefits	Social and Economic Benefits	Effect sizes	Impact on inequality	Conclusions and Recommendations
The impact of enhancing students' social and emotional learning: a meta-analysis of school based universal interventions Durlak et al., 2011	Children and adolescents in schools (kindergarten to high school)	To explore the effects of school based social emotional learning programmes across multiple outcomes	Meta analysis 213 school based social and emotional learning programmes	Positive effect on targeted social emotional competencies, including emotion recognition, stress-management, empathy, problem solving and decision making Reduced internalizing problems	Increased prosocial behaviour Reduced conduct problems# Improved attitudes about self, others and school. Improved academic performance	Social emotional skill: ES = 0.69 Attitudes ES = 0.23 Prosocial behaviuor ES = 0.24 Conduct Problems ES = 0.22 Emotional Distress ES = 0.24 Academic Performance ES = 0.27	SEL programmes found effective at all education levels (elementary, middle and high school) and in urban, suburban and rural schools	Use of four practices found to moderate programme outcomes: Sequenced, Active, Focused and Explicit

The positive impact of social and emotional learning for kindergarten to 8th grade students: Findings from 3 scientific reviews Payton et al., 2008	Children kindergarten – 8th grade N=324,303	To summarise the findings and implications of 3 large scale reviews of research evaluating the impact of Social Emotional Learning (SEL) for children in school	Meta analysis 317 studies Universal review: 180 studies. Indicated review 80 studies. after-school review 57 studies	Significant enhancement in children's social-emotional skills, attitudes, reduced conduct problems & emotional distress. 11 percentile gain in academic performance at post-intervention. Sustained effects at follow-up. SEL intervention effective in both school and after-school settings and for students with and without presenting problems.	Improved child behaviour, attitudes and academic achievement	Universal programmes Conduct problems & emotional distress ES=0.3 Social & emotional skills ES=0.60 Indicated programmes improved attitudes ES=0.77	SEL interventions successful across K-8 age range, for school in urban, suburban and rural areas and for racially and ethnically diverse student bodies.	Interventions that were: sequenced, activity based, focused and target specific social and emotional problems were most effective. SEL programmes effective when conducted by school staff
Systematic review of the effectiveness of interventions to promote mental wellbeing in children in children in primary education Adi et al., 2007	Children in primary school	To assess impact of school based interventions	Systematic Review 31 studies - 15 RCT's and 16 CCT's (published since 1990)	Long-term whole-school approach that include teacher training and parent component are most effective. Interventions that focus on social competence, emotional literacy and problem solving showed significant positive effects.	Mental health promotion programmes more effective	Small to medium effect size between 0.15 and 0.27	No evidence for differential effects according to age, gender or ethnic or social group.	Need for parental involvement, class-based social and emotional development programmes & long term programmes. Need for research on content and process of delivery and more robust trials of school based programmes

A systematic review of reviews on interventions to promote mental health and prevent mental health problems in children and young people. Tennant et al., 2007	Infants, children and young people up to the age of 19	A systematic review of reviews of mental health in intervention for children and adolescents	27 systematic reviews	High-quality pre-school programmes aimed at improving self-esteem and behaviour found effective. School based programmes that incorporate whole-school approach and parental participation more effective.	Mental health promotion programmes more effective than prevention programmes	Parenting interventions ES=0.2-0.6 Interventions that target: conduct disorders ES=0.2-0.4; anxiety ES=0.2-0.3 self -esteem ES=0.3-0.5	Information lacking about effectiveness in different socio economic settings and ethno racial groups.	Lack of follow up data and process evaluation.
What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach? Stewart-Brown, 2006	School aged children aged 4-19	To determine effectiveness of health promotion in schools and the health promoting schools approach	15 systematic reviews with focus on specific health topic or approach	Mental health promotion programmes that were of high intensity, of long duration and involved whole school approach were most effective. Some peer led approaches found to be effective and valued among students.	Health promoting schools approach benefited social and physical environment of school.	Moderate to large effects reported in reviews on school based programme that promote mental health.	Conflicting evidence about gender and age issues.	Lack of evidence on all the elements that contribute to effective health promotion programme or to health promoting schools approach. Need for process evaluation and cost-effectiveness information.

School programs targeting stress management in children and adolescents: A meta-analysis Kraag et al., 2006	Children in grades 3-8	To evaluate the effect of school programmes targeting stress management or coping skills in school children	Meta-analysis 19 publications	Positive effects were found for stress symptoms interventions and for coping intervention. No effects were found for social behaviour and self-efficacy interventions		Overall ES for the programmes was -1.51 (heterogeneity however was significant p,0.001)	School programs targeting stress management in children and adolescents: A meta-analysis Kraag et al., 2006	Children in grades 3-8
Mental wellbeing of children in primary education (targeted/indicated activities) Schucksmith et al., 2007	Children aged 4-11	Examine the effectiveness of targeted/indicated interventions aimed at promoting the mental wellbeing of children.	32 RCT's	Brief targeted CBT interventions for children reduce anxiety and prevent the development of symptoms into disorders. Some evidence that CBT interventions reduce depressive symptoms.	Brief interventions work better for emotional problems than conduct problems. Multi-component programmes show positive effects in social problem solving & development of positive peer relations.	Overall effect sizes not reported.		CBT based anxiety prevention programmes have transferred successfully between countries Co-morbid conditions make intervention delivery difficult. Long term outcome evidence is lacking. Difficulty with parental attendance. Need to start early with at risk children.Need to test programmes in different settings.

Effective /efficient mental health programs for school-age children: a synthesis of reviews Browne et al. 2004	School aged children	To determine impact of interventions that aim to reduce problems and promote competencies.	Review of 23 RCT's or quasi-emperimental	Long-term universal programmes that increase competencies or skills more effective than programmes aimed at reducing negative behaviour. Whole school approach combining interactive activity based programmes more effective.		Effect sized found to decrease over time for knowledge, skills and behaviour	Programme effectiveness varies by age,gender and ethnicity. Younger children benefit more than older. Cultural or gender sensitive programmes have greater effect.	Need to adopt ecological approach. Need for universal services to enhance protective faoctors and for tailored long-term interventions for high-risk children. Include cost-effectiveness as part of evaluation
Systematic review of school based programmes Wells et al., 2003	Children 6-19 years of age	To assess impact of universal school based mental health promotion interventions	Systematic review 17 controlled studies	Positive evidence of effectiveness was obtained for programmes that adopted (i) whole school approach, (ii) implemented for more than on e year, (iii) aimed at promotion of mental health not prevention of mental illness.	Universal mental health promotion programmes found to have significant positive effects.	Overall effect sizes not determined; narrative synthesis.		Long-term interventions promoting positive mental health of all pupils and that involve changing school climate are likely to be most successful.

Effectiveness of Mentoring Programs for Youth: A Meta-Analytic Review Dubois et al., 2002	Mentoring between older mentor and young person	To determine effects of mentoring programmes on youth	Meta-analysis 55 experimental / non experimental evaluations	Overall positive effect on emotional, behavioural, social competence, academic and career outcomes.		Average estimated ES 0.14-0.18	Race and gender were not significant moderators of effect size. At-risk status found to be significant moderator. Effect sizes largest for youth experiencing individual and environmental risk factors.	Relationship quality and intensity significant moderators of effect size. Mentor from helping profession , provision of ongoing mentor training and structured activities significantly enhanced effectiveness. Inclusion of parent support also significant.
Health promoting schools and health promotion in schools: two systematic reviews. Lister-Sharp et al., 1999	Children age 5-16	To evaluate the effectiveness of health promoting schools and health promotion interventions in schools	Systematic review 12 health promoting school studies and 32 systematic review of health promotion intervention-s in schools	Some evidence HP schools have positive impact on social and mental wellbeing. Most of HP interventions increase knowledge, impact on attitudes and behaviour harder to achieve. Interventions that promote mental health, healthy eating and fitness and prevent injuries most effective.	HP schools has positive impact on social and physical environment of schools			None of HP schools implemented all components of HP schools approach. Multifaceted approach is recommended

Primary Prevention Mental Health Programs: A Meta-Analytic Review Durlak and Wells, 1997	Children and adolescents ages 18 or under	To review prevention programmes designed to prevention behavioural and social problems in children and adolescents	Meta-analysis 177 outcome evaluations	Primary prevention that target school environments / class curriculum achieved positive effects in terms of reduced problems and significant increased competencies	Primary prevention programmes had significant positive effect on academic performance	Primary prevention programmes mean ES: 0.24 – 0.93 Improved academic performance mean ES: 0.30 – 0.32		Noted that primary prevention is not single uniform strategy that achieves uniform results, but collection of distinct approaches that vary in outcome depending on multiple factors

2.2.4.1 Classroom-based programmes

In terms of classroom-based programmes there is reasonable quality evidence that programmes covering broad-based competencies such as problem solving, social awareness, emotional literacy and coping skills, in which teachers reinforce classroom curriculum in all interactions with children are effective in the long term (Adi et al., 2007; Wells et al., 2003; Tilford et al., 1997). The age at which children receive an intervention appears to be significant. Several reviews found evidence of greater effectiveness in the early years (ages 2-7) than in older children (over 7 years of age) (Durlak & Wells, 1998; Browne et al., 2004; Harden et al., 2001). Programmes which are provided continuously over extensive time periods (a year or longer) were also found to be more effective than short, intensive interventions (Wells et al., 2003; Adi et al., 2007; Browne et al., 2004; Stewart-Brown, 2006; Tennant et al., 2007). Research suggests that knowledge-only programmes have minimal effects on young people's behaviour (Botvin & Tortu, 1988) and that programmes which teach generic broad-based competencies such as self-control, problem solving, communication and coping skills produce significant positive outcomes (Tilford et al., 1997). In addition, the use of interactive learning techniques such as role play, brainstorming and group work have been proven to be more effective than the traditional didactic teaching (Browne et al., 2004). Teacher training and the provision of ongoing support appear to be important elements of mental health promotion programmes. Adi and colleagues (2007) found that the highest quality evidence relates to programmes which are offered by teachers who have received a significant degree of training and have access to ongoing supervision. In some studies, peer-led health promotion was found to be effective, compared with teacher-led interventions. Browne and colleagues (2004) found that peer mentoring effectively promotes favourable academic and social behaviour in early intervention programmes and social skills in children with behaviour disorders but is less reliable for general competencies and skill maintenance.

A recently published meta-analysis examined the impact of universal school-based interventions (Durlak et al., 2011). This meta-analytic review included 213 school-based, universal social and emotional learning programmes involving 270,034 school children age 5-13 years. The results from this review found that compared to

students in the control groups, children participating in SEL programmes demonstrated improvements in multiple areas including:

- enhanced social and emotional skills (mean ES = 0.57)
- improved attitudes towards self, school and others (mean ES = 0.23)
- enhanced positive social behaviour (mean ES = 0.24)
- reduced conduct problems – misbehaviour and aggression (mean ES = 0.22)
- reduced emotional distress – stress and depression (mean ES = 0.24)
- improved academic performance – test scores and school grades (mean ES = 0.27).

The review shows that in addition to improving students' social and emotional skills, these SEL programmes significantly improved children's academic performance. Notably, SEL programming yielded an average gain on achievement test scores of 11 to 17 percentile points.

Similar to other reviews, this study also found that only when school staff conducted the intervention did students' academic performance improve significantly. In terms of the characteristics of successful programmes, Durlak and colleagues conclude that interventions using four recommended practices for skills training (S.A.F.E.) were the most effective:

Sequenced: programme applies a planned set of activities to develop skills sequentially

Active: programme uses active forms of learning such as role plays and behavioural rehearsal with feedback

Focused: programme devotes sufficient time to developing social and emotional skills

Explicit: programme targets specific social and emotional skills.

- *Examples of classroom-based programmes*

The Promoting Alternative Thinking (PATHS) program is an example of a universal emotional wellbeing programme for children in primary schools. This programme is designed to promote social and emotional competence, prevent violence, aggression and other behavioural problems, improve critical thinking and enhance the classroom climate (Greenberg et al., 1995). The programmes targets children in kindergarten

and primary school and is implemented by the classroom teacher. The PATHS curriculum is available in two units: the PATHS Turtle Unit for kindergarten and the PATHS Basic Kit for grades 1-6. The primary school curriculum includes 131 (20-30 minute) lessons designed to be taught by the classroom teacher approximately 3 times per week over the course of the school year. The programme is presented through direct instruction, discussion, modelling, storytelling, role-playing activities and video presentations. The PATHS curriculum is contained in six volumes that cover four conceptual units: Readiness and Self Control, Feelings and Relationships, Problem Solving and Supplementary Lessons (contains optimal lessons, review and extensions).

Since its development in the early 1980s, PATHS has been delivered to an estimated 865,000 students across America. It has also been implemented in several countries/states across South American, Australia, Asia, Eastern Europe and South Africa. Numerous trials have demonstrated the effectiveness of the PATHS curriculum with children in mainstream and special needs classrooms. Results from four large randomised control studies (Greenberg et al., 1995; Conduct Problems Research Group, 1999; Kam et al., 2004; Greenberg & Kusche, 1998) involving children in grades 2 and 3, children with special needs and children with hearing impairments found that compared to control group, children taking part in the programme showed:

- improved understanding and recognition of emotions
- improved students' scores on cognitive skills tests
- improved thinking and planning skills
- improved classroom atmosphere
- decreased anxiety/depressive symptoms
- decreased conduct problems
- decreased hyperactive disruptive behaviour
- decreased symptoms of sadness and depression.

The PATHS programme has been nationally and internationally recognised as a model programme (Blueprints Project of the Centre for the Study and Prevention of Violence; SAMHSA's National Registry of Evidence-based Programs and Practices;

Collaborative for Academic, Social, and Emotional Learning (CASEL); Center for Disease Control and Prevention (CDC); U.S. Surgeon General's Report on Youth Violence; Center for the Application of Substance Abuse Technologies (CASAT); KidsMatter Australian Primary Schools Mental Health Initiative).

Similar to the PATHS programme, other evidence-based classroom interventions are based on the principles of Cognitive Behaviour Therapy and interpersonal problems solving. These include 'I Can Problem Solve', 'Second Step' and 'Al's Pals' all of which have led to significant improvements in children's prosocial behaviour and reductions in aggressive behaviour (Shure & Spivack, 1988; Grossman et al., 1997; Lynch & McCracken, 2001; Lynch et al., 2004). Programmes such as the 'Aussie Optimism Programme' place a strong emphasis on parental involvement in children's learning and social, emotional wellbeing. Other programmes such as 'Friends For Life' have been used interchangeably as universal programmes and indicated programmes for groups of children identified at risk of developing mental health problems (Lowry-Webster et al., 2001, 2003).

2.2.4.2 Whole School Approach

Research indicates that the whole school approach which aims to (i) involve everyone in the school including pupils, staff, families and community and (ii) change the environment and culture of the school is more likely to have positive results than single focus, single domain interventions (Browne et al., 2004; Wells et al., 2003; Stewart-Brown, 2006; Weare & Nind, 2010). This multi-component approach offers the opportunity to change the environment of the student while concurrently addressing students' needs, including knowledge, skills and self-efficacy. The evidence relating to programmes that adopt a whole school approach is quite limited in comparison to classroom based programmes, but those that have been identified provide some indication of a positive impact with small to medium effect sizes being reported on outcome measures (Wells et al., 2003; Adi et al., 2007). Weare and Gray (2003) contend that strong links at national and school level are a prerequisite for effective work in this area.

- *Examples of whole school interventions*

KidsMatter Primary is an example of an Australian whole school mental health promotion, prevention and early intervention initiative that aims to improve the mental health of primary school age children. KidsMatter targets four specific areas:

- positive school community
- social and emotional learning for students
- parenting support and education
- early intervention for students experiencing mental health difficulties.

Implementing KidsMatter Primary involves all staff being engaged in partnerships with parents and support from the wider community. Schools establish an Action Team to undertake the responsibility of coordinating the programme. The role of the Action Team is regarded as central in creating a school community open to change and coordinating implementation of the programme. They also support the teachers' role in its delivery. The school receives ongoing support from the KidsMatter Primary Implementation Support Personnel (ISP) who assist the action team to plan and implement the four components of the programme. Each school is required to conduct an audit of what is already being done in the school to address mental health and wellbeing. The school also defines their issues, sets goals and develops a broad range of strategies to address their concerns and achieve their goals. Schools are provided with an implementation manual and programme guide. The implementation manual includes specific tools for the Action Team to use as part of the implementation process – mental health mapping took, strategies for informing school community, staff survey etc. The programme guide is designed to assist schools to make informed choices about selecting the most suitable school mental health programmes for their needs and for their students.

A pilot phase of KidsMatter was trialled in 100 schools across Australia during 2007 – 2008. An impact evaluation (no control group) showed that KidsMatter was associated with multiple changes to schools, teachers, parents and students. These included changes associated with school culture and approaches to mental health difficulties as well as changes that served to strengthen protective factors within the school, family and child. KidsMatter was also associated with improvements in

students' mental health, especially for students with higher existing levels of mental health difficulties (Slee et al., 2009). Similar to other evaluations of whole school approaches, however, the sustainability of Kidsmatter was raised as an issue for teachers and principals. In particular, it was argued that strong leadership and the maintenance of support and resources is necessary to ensure that Kidsmatter is sustainable and continues to be effective.

In the UK, the Social Emotional Aspects of Learning (SEAL) is a multicomponent, whole school approach that is currently being used in more than 80% of primary schools and 20% of secondary schools across England. SEAL is based on curriculum materials which are designed to promote the social and emotional skills that underpin effective learning, positive behaviour, regular attendance and emotional wellbeing in school pupils (DfES, 2005). The materials are organised into seven themes and each theme is designed to be implemented at the whole school level and includes material for a whole school assembly and suggested follow-up activities in all areas of the curriculum. Other aspects of SEAL include (i) the development of a positive and supportive ethos and climate within which skills can be taught (ii) the provision of small group interventions for children needing additional support and (iii) the provision of targeted one to one interventions with children at higher risk. SEAL was first implemented as part of the Primary Behaviour and Attendance Pilot in 2003 (Hallam et al., 2006). Results from this pilot study across 16 schools (no control group) showed improvements in attendance at school, behaviour while at school and academic attainment. The SEAL programme was found to demonstrate positive changes in the children's behaviour particularly in relation to social skills and relationships with other children. The programme also increased staff understanding of the social and emotional aspects of learning and helped them to better understand their pupils which changed their behaviour and enhanced their confidence in their interactions with pupils. The results from this study, however, must be examined with caution due to the sample size and lack of control conditions with which to compare the results. Further large scale evaluations need to be carried out to determine its effectiveness in primary schools in the UK.

Other programmes such as 'Olweus Bullying Prevention Programme' (Olweus, 1991), 'Peace Builders' (Flannery et al., 2003) and 'Resolving Conflict Creatively' (Aber et al., 1998) are designed to reduce bullying problems and violent and

disruptive behaviour in primary schools through the use of a whole school approach. These multi-level components target the individual pupil, the classroom and the school as a whole. Links with parents and the wider school community are also established in order to promote consistency between the school and the community.

2.2.4.3 Indicated Interventions

In a review of the evidence for the effectiveness of indicated programmes aimed at promoting the wellbeing of children in primary education, Shucksmith and colleagues (2007) report evidence for the effectiveness of CBT-based programmes in reducing anxiety and depression in school settings, when undertaken by a skilled therapist. In terms of anxiety prevention programmes, brief targeted interventions were successful in children showing precursor symptoms associated with anxiety disorders. When parent training was combined with the child CBT intervention there were notable additional benefits for the children. In addition, there is some evidence that when CBT is allied with social problem solving skills, significant gains can be made in relieving or preventing depressive symptoms in children (Jaycox et al., 1994). With regard disruptive and aggressive behaviour in schools, reviews suggest that selected and indicated programmes produce larger effects for children at relatively higher risk (Losel & Beelman, 2003; Wilson & Lisey, 2007; Mytton et al., 2006).

Payton and colleagues (2008) carried out a systematic review of the effectiveness of indicated school-based interventions. The indicated review included 80 studies involving 11,337 students. Students participating in these programmes most frequently displayed conduct problems (38%) followed by emotional distress such as anxiety or depression (23%) and problems with peers (10%). More than half of the programmes (59%) consisted of a single intervention component such as small group problem solving. The remaining studies included multi-component programmes involving different combinations of individual, group, classroom and parent training sessions. The results from this review indicate that children who took part in an intervention evidenced significant improvement across all six categories examined:

- SEL skills
- attitudes towards self and others

- positive social behaviour
- conduct problems
- emotional distress
- academic performance.

Significant mean effects ranged from 0.38 for improved attitudes towards self, school and others to 0.77 for improved social and emotional skills. Although the magnitude of these effects was generally lower at follow-up, they were still significant in five out of the six categories (all except academic achievement). Similar to universal programmes, it was found that school personnel can implement this type of programme effectively.

- *Examples of selected and indicated interventions*

The Early Risers programme is an example of a multicomponent, high intensity programme that targets primary schools children age 6 to 12 year at high risk for early development of conduct problems, including substance use (August et al., 2001, 2002). The intervention includes: (i) social skills training (ii) reading and maths instruction and educational enrichment activities (iii) family support, consultation and brief interventions to cope with stress (iv) peer school consultation and (v) management of aggressive, disruptive and noncompliant child behaviour. A family advocate worker is responsible for running Early Risers and helps to provide the link between the school and family. The Early Risers programme starts with a six week Summer Programme which includes academic instruction, social skills training, cultural education, creative arts and sports skills instruction. Following this the Check and Connect Programme begins at school and runs until the end of the school year for 2 to 3 years. The Family Support Programme also begins shortly after the start of the school year. Parent and child group sessions are set up and are run biweekly. The Family Support Programme develops supportive relationships with parents and assists the family in goal setting and strategic planning. It runs for most of the school year. Results from evaluations of the intervention, using quasi-experimental design, indicate significant gains in social competence including improved social skills and social adaptability and leadership skills (August et al., 2001; 2002). High risk children receiving the programme also showed significant gains in academic achievement. In addition, children with the highest level of

aggressive behaviour showed significant reductions in behavioural problems, when compared with children in a control group. Furthermore, parents with high programme attendance rates showed improvements in discipline methods (August et al., 2001; 2002).

In terms of interventions that focus on internalising problems, the Cool Kids program is an example of a school-based intervention that targets children who have met the criteria for a principal diagnosis of an anxiety disorder (Mifsud & Rapee, 2005). The programme teaches children cognitive behavioural skills that are designed to combat anxiety. The children receive 8 x 90 minute intensive sessions. The programme also has a number of additional components that can be included, depending on the needs of the child, including dealing with teasing, social skills training and problem solving. There is an additional component for parents which inform them of the principles taught in the programme. Results from a randomised controlled trials showed that the programme led to a significant reduction in children's anxiety levels and improvements in school attendance, academic achievement, confidence, number of friends and involvement in extra-curricular activities (Chalfant et al., 2007; Lyneham & Rapee, 2006; Mifsud & Rapee, 2005).

Other indicated programmes such as the Incredible Years are set within a whole school approach (Webster-Stratton & Hammond, 1997). This programme is designed to assist children who are displaying signs of aggressive behaviour through the use of small group work (Dinosaur programme). This is carried out within the context of a classroom management programme, a universal intervention that aims to promote social and emotional learning and enhance proactive teaching and classroom management skills. The programme is further enhanced with the use of a parenting programme that operates in parallel with the universal and indicated programme. The parenting programme aims to enhance positive parenting interactions, family communication and partnership with the school. The consistent positive findings from multiple systematic evaluations of this programme suggest that targeted programmes work well with approaches aimed at the whole school (Webster-Stratton et al., 2001, 2003, 2004; Reid et al., 2003, 2004, 2007). The two approaches appear to support one another, in that, once a solid background of 'universal' work is established, extension work for children with particular emotional, social and

behavioural difficulties, designed along the same lines as that offered to all students but more intensive and extensive and tailored to their needs, is proving effective (Weare & Nind, 2010).

Taken together, the various reviews provide growing evidence that well-designed programmes that aim to promote mental health and social and emotional wellbeing can have a wide range of positive and significant impacts on young people. Stewart-Brown (2006) suggests that mental health should be a feature of all school health promotion initiatives and that effective mental health promotion is likely to improve other aspects of health-related lifestyle that may be driven by emotional distress. Whilst the results from these reviews illustrate the sound evidence base of mental health promotion programmes in schools, it is important to note that the majority of the studies to date have been carried out in the US and as a result, there is a lack of hard evidence on how effective these programmes are in Europe. Clearly there is a need for further research and evaluation to be carried out not just in Europe but also across middle and low income countries. Several authors recommend the need for further research on the process of delivery of interventions, including the content and approach to teacher training and parenting support, and barriers and facilitators to implementation in order to ensure that effective role out is achieved (Adi et al., 2007; Stewart-Brown, 2006; Greenberg, 2010). Greenberg (2010) also points to the need for (i) longer longitudinal follow-up (ii) independent replication (iii) analysis of findings at the level of implementation (iv) examination of generalisability of the findings and (v) evaluation of benefit-cost analysis.

2.2.5 Principles of Effective Programmes

Based on a review of the evidence and literature in the field, a short summary of some of the key principles that are consistently associated with effective school-based mental health promotion programmes is provided:

Theory Based: This principle refers to the need for a scientific justification of a school-based intervention. Several authors argue the need for mental health promotion programmes in schools to be grounded on sound theories of child development and learning, competence enhancement, positive psychology and health promotion (Barry & Jenkins, 2007; Weissberg et al., 2003; Nation et al., 2003).

Comprehensive: Programmes incorporating multiple components, which address the needs of the individual, the classroom and school as a whole and which involve the entire school staff, parents, families and the wider community appear to be more consistently effective. Research has shown that a set of coordinated collaborative strategies deliver more benefits than those managed in isolation from each other (Greenberg et al., 2003; Kumpfer et al., 2003).

Social Competence: It has been consistently found that programmes which adopt a social competence approach, through affective, behavioural, cognitive skill-building and the development of a supportive environment are more effective than interventions focusing on specific problem behaviours (Barry et al., 2009; Green et al., 2005; Tilford et al., 1997) The social competence approach also supports the use of interactive skills training methods (e.g. role play, modelling, applied practice) and creates opportunities for effective use of the newly learned skills in daily life (Bandura, 1995; Hawkins & Weis, 1985).

Sustained Socio-Culturally Relevant Interventions: Programmes are most effective when they are implemented continuously over multiple years (Barry & Jenkins, 2007). In addition, programmes that are tailored to the cultural, community and developmental norms of programme participants are more likely to produce long-lasting positive outcomes (Schinke & Matthieu, 2003).

Training and Ongoing Support: Nation and colleagues (2003) contend that a high quality research-based programme can produce disappointing results in dissemination field trials if the programme providers are poorly selected, trained or supervised. The provision of training is important not just in terms of teacher 'buy-in' but also in relation to providing staff with basic theoretical knowledge, clear programme goals and modelling and practice of effective intervention strategies. The provision of the regular support and constructive feedback from colleagues is an important aspect of the sustainability of effective programme implementation.

High Quality Implementation: The implementation of evidence-based practices in schools is influenced by a broad array of contextual factors operating at multiple levels in the school setting. Examples include macro-level factors such as: national policies; school-level factors such as administrative support, school culture, resources, decision structure; and individual factors such as teachers' professional

and psychological characteristics and teachers' perceptions and attitudes (e.g. Jourdan et al., 2011; Ransford et al., 2009; Dariotis et al., 2008; Domitrovich et al., 2008; Han & Weiss, 2005; Greenberg et al., 2005). In addition, the provision of a strong support system (high quality training and the provision of ongoing support) significantly affects quality of implementation (Weist, 2005; Greenberg et al., 2005; Domitrovich et al., 2008).

Evaluation: The incorporation of systematic evaluation methods contributes to the ongoing improvement and sustainability of school-based mental health promotion programmes (Rowling, 2002). The multifaceted nature of the majority of school programmes calls for research approaches that take into account the contextual and dynamic nature of the school as a setting. It is thus critical to gather ongoing process and outcome data to assess implementation quality, measure programme impact, analyse cost-effectiveness and cost-benefits, document accountability for stakeholders and shape programme improvement (Tebes et al., 2002; Wandersman & Florin, 2003).

2.3 Evaluating Mental Health Promotion Programmes in Schools

Over the past twenty years there has been a significant growth in the volume of research evaluating school-based mental health promotion programmes. It is increasingly accepted that evidence of effectiveness is required to inform best practice and to assist policy makers in decisions concerning resource allocation. However, there is less agreement about what constitutes legitimate evidence in relation to mental health promotion and how best to assemble the evidence in ways which are relevant to the complexities of contemporary practice (McQueen, 2001; Nutbeam, 1999; Barry & McQueen, 2005). Some of the key issues concerning evidence and programme evaluation, particularly in relation to school-based mental health promotion are discussed below.

2.3.1 Study Design and Measures

At the core, evaluation is concerned with assessment of the extent to which an action achieves a valued outcome (Nutbeam, 1998). Windsor and colleagues (1984) identify five essential elements that are necessary to establish a relationship between an intervention and an observed outcome:

1. a representative sample of target population or programme recipients
2. one or more pre-tests assessing the objects of the intervention
3. an unexposed group for comparison
4. random assignment of the sample to experimental or control groups
5. one or more post-tests to measure effects on the objects of intervention.

In the field of health promotion, a vast spectrum of approaches to evaluation are currently being used. These range from the highly structured, methodology-driven evaluations exemplified by randomised controlled trials, through to much less rigidly structured, highly participative forms of research and evaluation. The randomised controlled trial (RCT) is frequently referred to as the 'gold standard of evidence' and is often the recommended experimental design for evaluating programme effectiveness (Stewart-Brown, 2001). In the words of Oakley (1998, p73): "*Evaluating an intervention by comparing outcomes for a group of people who receive it and one or more similar groups of people who do not, offers the most reliable way of identifying intervention effects*".

RCTs are predominantly used to avoid Type I error, that is, making unjustifiable claims for the success of a programme, typically as a result of failure to provide adequate controls for external contaminating factors (Nutbeam, 1999). However, it has been suggested that RCTs may be irrelevant to or unworkable in the field of health promotion for a variety of reasons. Some researchers suggest that because health promotion programmes are complex and multifaceted they cannot be evaluated with RCT's single simple outcome (e.g. Rosen et al., 2006). It is also argued that RCTs are inappropriate for addressing health promotion questions because they focus on individual outcomes when health promotion is not just concerned with the individual but also broader outcomes which do not lend themselves to being evaluated by RCT such as community empowerment and capacity building.

It is further argued that given the main aim of RCTs is to avoid Type I error, it actively builds out and excludes key elements of context as that could 'contaminate' the experiment, yet it could be these very factors that are important (Morrison, 2001). Pawson and Tilley (1993) contend that striving to control the influences of extraneous factors is ill-judged because it prevents researchers from identifying those

very conditions that might be contributing to the success or failure of a programme or intervention. In addition, Rowling and Jeffreys (2006) state that RCTs assume that in practice, a health promotion intervention has the potential to work equally well in one school as another and that it is the absence of the intervention in the control group that is used to explain difference, not the implementation context. They add that educational research on programme implementation and school effectiveness identifies that schools are at different stages of readiness and are differently effective and that these factors must be taken into account when evaluating programme effectiveness. It is thus clear that whilst making an important contribution to the evidence base, there are limitations in the extent to which RCTs can provide the evidence to inform policy and practice.

Most researchers involved in the evaluation of mental health promotion interventions recognise the synergistic effects of combining different methods to answer different research and evaluation questions (DeVries et al., 1992; Steckler et al., 1992; Baum, 1995). The joint use of different qualitative and/or quantitative methods is commonly referred to as triangulation and is a powerful technique that facilitates validation of data through cross verification from multiple methods. In addition to increasing the credibility and validity of results, the use of multiple qualitative and quantitative methods can also extend the depth of analysis and the comprehensiveness of findings (Farmer et al., 2006). This is particularly useful in the evaluation of complex interventions as these involve a process that is difficult to explore or capture using quantitative methods alone (Friedli & King 1998). Campbell (1978) suggests that quantitative knowing depends on qualitative knowing and that qualitative methods assist in the interpretation of quantitative data and explores the various threats to their validity.

In terms of outcomes, Stewart-Brown (2001) identified the three most frequently reported outcomes in evaluation studies (i) knowledge and attitudes (ii) skills and behaviour and (iii) changes to the environment. Regarding mental health promotion interventions, Adi and colleagues (2007) found that the majority of outcomes measured in the 31 studies reviewed aimed to assess child behaviour. It is interesting to note that the most common outcome measure was the Child Behaviour Checklist (Achenbach & Resorta, 2001) which is based on negative antisocial behaviours. Similarily, Wells and colleagues (2003) found that the majority of evaluations of

universal approaches to mental health promotion in schools measured negative aspects of mental health such as aggression, conduct problems, antisocial behaviour, depression and suicidal tendencies. Only four out of the 17 studies measured aspects of positive mental health and these all focused on self-concept and self-esteem. As discussed earlier, mental health promotion reconceptualises mental health in positive rather than negative terms and the absence of a mental health problem does not equal the presence of mental health. It is therefore necessary to measure skills or attributes associated with emotion (affect/feeling), psychological (positive functioning), social (relations with others and society), physical (physical health) and spiritual (sense of meaning and purpose in life) wellbeing (Barry & Friedli, 2008). This shift in focus from negative to positive indicators of wellbeing calls for need to develop sound measures of protective factors and positive indicators of mental health outcomes (Barry & McQueen, 2005; Wells et al., 2003; Lister-Sharp et al., 1999).

2.3.2 Process Evaluation

It is argued that understanding how an intervention fosters change, with who and under what circumstances it fosters this change (effectiveness) is as important as knowing whether a desired change took place (efficacy), particularly when broader implementation of an intervention is planned. The importance of implementation context has been highlighted by Ringeisen and colleagues (2003), who state that the field of mental health science has a solid mental health foundation but lacks contextual understanding. Durlak and DuPre (2008) contend that the study of implementation is an absolute necessity in programme evaluations and that evaluations that lack carefully collected information on implementation are flawed and incomplete. Despite its widely accepted importance, however, information regarding programme implementation is often not reported. Recent reviews of the implementation literature (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Durlak, 1998) point to the absence of significant attention to this issue and consequently the necessity of developing both conceptual models and an empirical ‘science of implementation’. For example, Dane and Schneider (1998) examined programme integrity in studies of school-based behavioural interventions conducted between 1980 and 1994. The authors found that only 39 of 162 (24%) of published mental health prevention studies described any steps that were taken to document implementation and of these 39 studies, only 13 assessed if implementation affected

outcomes. Interestingly, the results from the 13 studies confirmed the importance of programme fidelity, particularly measures of adherence and exposure for outcomes. Durlak (1998) reported that less than 5% of the 1,200 prevention studies in mental and physical health and education reviewed provided data on programme implementation. Domitrovich and Greenberg (2000) in their review of 32 evidence-based mental health prevention programmes noted that only 13 studies conducted analysis relating implementation to outcomes.

2.3.2.1 Why measure implementation

Durlak (1998) described implementation as what a programme consists of in practice and how much it is delivered according to how it is designed. Dane and Schneider (1998) identify five aspects to implementation:

(i) Fidelity – the extent to which the intervention as implemented corresponds to the originally intended programme
(ii) Dosage – how much of the original programme has been delivered
(iii) Quality – how well different programme components have been conducted
(iv) Participant responsiveness – degree to which the programme stimulates the interest and holds the attention of the participants
(v) Programme differentiation – extent to which the programme's theory and practices can be distinguished from other programmes (programme uniqueness).

Durlak and DuPre (2008) identify three additional aspects of implementation:

a) Monitoring of control/comparison conditions – describing the nature and amount of services received by members of the control group
b) Programme reach – rate of involvement and representativeness of programme participants
c) Adaptation – changes made to original programme during implementation.

There are several reasons for conducting implementation research. First, implementation research is important in terms of understanding what actually happened during the intervention trial. This includes what was delivered, the quality of programme delivery and the target audience reached. This information can then be used to explain variations in observed changes in outcomes (Domitrovich &

Greenberg, 2000). Related to this, assessment of implementation is essential for establishing the internal validity of a programme, thus strengthening any conclusions that can be made about the programme's role in producing change. Without data on programme implementation, a programme may be incorrectly judged as being ineffective when in fact negative outcomes were due to poor quality of implementation. This is referred to as Type III error, where the programme as delivered is of such poor quality as to invalidate outcome analysis. Thus, if programme implementation is not monitored or assessed it makes it difficult to distinguish between ineffective programmes and effective programmes that are poorly implemented (Gresham et al., 1993). In addition, in controlled designs it is important to monitor and evaluate implementation in both intervention and control groups. An intervention may appear ineffective if the control group receives some form of intervention outside the researcher's control. Domitrovich and Greenberg (2000) contend that this is a growing issue in schools, where multiple initiatives are conducted simultaneously without any coordination of services.

A second rationale is that implementation research is important in terms of understanding programme strengths and weaknesses, documenting what actually takes place when a programme or strategy is conducted and determining which core elements of the intervention and/or support system are associated with student outcomes (Gottfredson et al., 2008). This information is used to confirm the programme's underlying theoretical basis and this in turn provides feedback for continuous quality improvement in programme delivery. Furthermore, early monitoring of implementation can identify problems in programme application that can be corrected quickly to ensure better outcomes (Durlak & DuPre, 2008).

A third rationale relates to external validity and the essential role that programme implementation data plays in advancing knowledge on best practice for replication in 'real world' settings. Barry and colleagues (2005) state that these data are critical to the effective dissemination of programmes particularly when they are exchanged between different countries or settings. Finally, it is argued that programme implementation occupies an important place in mental health promotion as this multidisciplinary area of practice is concerned with the process as well as the outcomes of enabling positive mental health (Barry et al., 2005; Nutbeam, 1998).

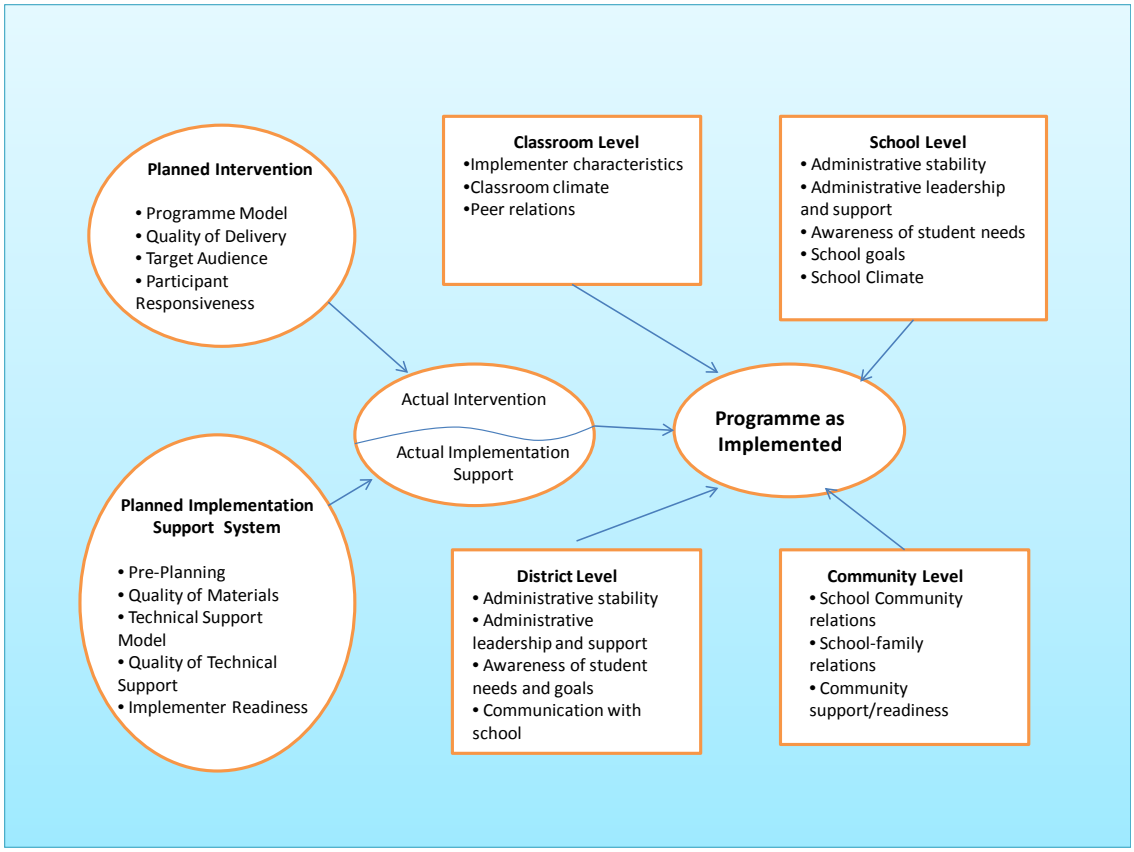
2.3.2.2 Factors that influence implementation

With the growing emphasis on process evaluations since the late 1980s, the field of evaluation research has increasingly moved away from traditional programme evaluations towards the development and application of theory-driven evaluations (Chen, 1990, 1998; Chen & Rossi, 1992; Greenberg et al, 2003; Dariotis et al., 2008; Weiss, 1995, 1997). In contrast to traditional programme evaluations which rarely focus on why a programme is effective, theory driven evaluations aim to (i) utilise the essential components of the theory that underlies a particular programme to specify the design of the programme evaluation itself (ii) understand *how* and *why* a particular programme resulted in certain outcomes and (iii) use this information as a means to improve programme effectiveness (Chen, 1990, 1998; Greenberg et al., 2005). According to Chen's theory driven model (1990, 1998) an intervention takes place within an 'implementation system' which can either provide support or present barriers to the delivery of a programme. The implementation system includes (a) process and structure of the implementation and training (b) characteristics of the implementer and participants and the nature of their relationship and (c) characteristics of the setting in which the programme is implemented, e.g. school climate, stakeholder support and wider community support. Chen (1998) argues that although an intervention is the major change agent, the implementation system is likely to make an important contribution to programme outcomes as it provides the means and the context for the intervention. Whilst traditional evaluations of implementation quality focused on the discrepancy between the programme as planned and the programme as delivered, the evaluation model proposed by Chen expands the definition of implementation quality to include the discrepancy between the implementation system as planned and the implementation system as delivered. Chen's conceptual model of the implementation system was expanded and applied to the school context by several authors (e.g. Greenberg et al., 2005; Durlak & PuPre, 2008; Domitrovich et al., 2008). The school-based implementation model highlights (i) aspects of the intervention and the implementation system which are essential to most school-based mental health promotion and prevention interventions and (ii) contextual factors that may affect programme intervention or programme quality.

2.3.2.3 A conceptual model of school-based implementation

Figure 1 provides an overview of Greenberg and colleagues' (2005) school-based model. Firstly, implementation can be affected by the core elements of the planned intervention. The intervention's core elements include: (i) the programme model – structure, content, timing, dosage and the nature of the intervention (ii) quality of delivery – degree of engagement, use of implementation techniques and generalisation of skills (iii) target audience and (iv) participant responsiveness – perceptions, skills, knowledge and beliefs.

Figure 1: Factors that affect programme implementation (Greenberg et al., 2005)



Secondly, implementation quality is affected by the planned implementation support system. This includes (i) pre-planning – the preparation made by the school before programme implementation in terms of school readiness, accurate assessment of needs and commitment or engagement in the change process (ii) quality of materials – the design, format and content of instructor manual and workbooks (iii) quality and structure of the technical support system – characteristics of trainers, the quality of

delivery during training and supervision, and the quality of working relationship between trainers and implementers (iv) implementer readiness – the degree to which the implementers are equipped with the skills to carry out the intervention, feel positive about the programme and value its contribution. Durlak and DuPre (2008) also point to the importance of technical assistance that is offered once implementation begins. Technical assistance can take the form of providing retraining in certain skills, training new staff, providing emotional support and mechanisms to promote local problem solving efforts throughout the implementation of the programme.

In addition to factors specific to the programme and the implementation support system, a range of contextual factors outside the programme theory are known to affect quality of implementation. Greenberg and colleagues (2005) categorise these factors as classroom, school, district and community level factors. At the classroom level, teachers' characteristics, classroom climate and peer relations can all have a significant effect on quality implementation. Firstly, in terms of teachers' characteristics and behaviours, teachers vary widely in their education, skills and experience which can all influence attitudes and confidence in relation to implementing mental health promotion programmes. Research on efficacy has generally concluded that greater efficacy is associated with higher-quality programme implementation (Kallestad & Olweus, 2003; Rohrbach et al., 1993). Secondly, the classroom climate can be either a positive or negative influence in the implementation of a programme. A classroom climate characterised by high levels of peer or teacher-student conflict may negatively influence programme implementation and programme effectiveness. High levels of student misconduct can result in a teacher spending more time on management than instruction which can have a negative impact on quality of implementation (Koth et al., 2008; Kellam et al., 1998). Third, the peer group not only serves as a major context in which children need to demonstrate social and emotional competencies but also it can serve as a contributing factor to both concurrent and future adjustment (Berndt & Keefe, 1995; Newcomb et al., 1993). Domitrovich and colleagues (2008) also identify the impact of teachers' acceptance of the intervention to quality of implementation. This can vary according to the individual's needs and priorities. Related to this is the teachers' perception that the programme is better than the current practice and that the

programme is compatible with the values, needs, mission and experience of the school.

At the school level, factors such as administrative support, awareness of students' needs, schools goals and the overall school climate can all impact on quality of implementation. Firstly, school administrators can help transform schools into places that are committed to using evidence-based programmes and practices and can have a significant impact on the successful implementation of interventions (Datnow et al., 2002; Hallinger & Heck, 1996; Gottfredson & Gottfredson, 2002). School leaders are in a position to allocate sufficient time and administrative support within existing class schedules for a new programme to be implemented with high quality. If the time or the resources needed to conduct the programme are not available, a programme is less likely to be used by school personnel (Greenberg et al., 2005). In addition, the provision of tangible forms of support such as dedicated staff, space equipment and other necessary programme resources all affect the school's capacity to implement an intervention. Secondly, interventions that align directly with a school's mission or are easily integrated into the school's policy and practices are more likely to be prioritised, implemented with quality and sustained over time (Datnow et al., 2002; Kallestad & Olweus, 2003). Thirdly, studies have linked positive school climate (openness in communication, orientation to change, open, supportive and collaborative environment) with quality of implementation, whereas poor staff morale, a sense of resignation, and a history of failed intervention attempts have been associated with difficulty in implementing and sustaining interventions (Parcel et al., 2003; Kallestad & Olweus, 2003; Gottfredson & Gottfredson, 2002). Domitrovich and colleagues (2008) contend that characteristics of the school such as school size, student mobility, school location (rural vs. urban) can influence both the outcomes achieved through interventions and the implementation quality.

At the district level, implementation quality is affected by the attitudes and beliefs of teachers, school administrators, support staff and members of the community who make school-related decisions (e.g. parent representatives and board members). Just as teachers' views about the programme are important in terms of quality of implementation and sustainability, all key stakeholders must see the intervention as an effective strategy for addressing a local problem. Greenberg and colleagues (2005) state that programmes are likely to receive stronger endorsement as well as

greater resources if they target aspects of the district's mission statement or addresses a school board concern. In addition, the support of the school board members can have a direct positive effect on awareness and engagement at all levels, including in the area of funding allocation.

At the broader community level, the relationship between the school and the family and the school and the community as a whole can significantly impact on quality of implementation. Establishing partnerships with the broader community can help to ensure the support and ownership of the intervention. A well-respected champion of the programme at community and national level also appears important for high-quality sustainable implementation (Adelman & Taylor, 2003; Barrett et al., 2008; Elliott & Mihalic, 2004). The policies and legislative action at national level can further influence the implementation process and the level of time schools devote to mental health promotion interventions (Greenberg et al., 2005).

It is clear from Greenberg's model that a school's success at quality implementation is dependent on several factors operating at multiple levels. The results from the case study of two intervention schools that implemented the Zippy's Friends programme in Ireland (Clarke et al., 2010) highlight this point. This case study points to the reality of programme implementation in disadvantaged schools and also the unique challenges faced by individual schools. The two schools (one rural and one urban school) were at very different stages of 'readiness' with regard to programme implementation and the study revealed that many factors which affect programme implementation were whole school practices whose particular combinations created a unique school culture within which programme implementation occurred. The findings from this case study demonstrate the need to understand the complex interaction of factors operating at the classroom, school and wider community level that impact on programme implementation.

2.4 The Zippy's Friends Emotional Wellbeing Programme

Zippy's Friends is a universal school-based intervention that aims to promote the mental health and emotional wellbeing of children age six to nine years of age. The programme is designed to help all young, with different abilities and backgrounds, in diverse countries and cultures to expand their range of effective coping skills and to

promote varied and flexible ways of coping with problems of day to day life (Bale & Mishara, 2004). Zippy's Friends was initially developed by *Befrienders International*, a non-profit organisation involved primarily in suicide prevention. The programme was designed to help children avoid developing adjustment problems later in life. A team of international consultants examined contemporary research and proposed a programme that focused on the learning of better coping skills. Based on their guidelines, *Befrienders International* contracted writers, illustrators, psychology and educational specialists to make specific components of the programme (Mishara & Ystgaard, 2006). A revised programme was devised as a result of pilot testing of the original programme in Denmark (1998-1999). The revised programme places a stronger emphasis on expanding the children's repertoire of coping skills. The programme is currently distributed by the non-profit organisation *Partnership for Children* in the UK. Over 550,000 children in 20 countries worldwide have participated in the programme to date. The programme has been translated in 12 different languages and classes are currently running in Argentina, Brazil, Canada, China (Hong Kong, Bijing and Shanghai), Denmark, England, France, Iceland, India, Ireland, Lithuania, Mauritius, Mexico, the Netherlands, Norway, Panama, Poland, Singapore and USA. In each of these countries Partnership for Children has formed a partnership with a local organisation to deliver and manage the programme nationally. The number of children that have received the programme in each country is presented in Appendix 2.

The programme is based around a set of six illustrated stories about a group of children, their families, friends and imaginary stick insect Zippy. Over the course of the 24 weeks, the stories track what happens to Zippy and his friends, confronting issues that are familiar to young children; feeling lonely, angry, jealous, friendship difficulties, communication, bullying, coping with change and loss, and making a new start. The 24 sessions are divided into six modules, each focusing on a particular theme:

(i) **Feelings**: feeling happy, sad, angry, jealous, afraid, nervous and disappointed
(ii) **Communication**: effective and ineffective communication, speaking about feelings, improving listening skills, learning to ask for help

(iii) **Making and Breaking Relationships**: improving children's ability to make and keep friends, to cope with rejection and loneliness, to resolve conflicts with friends

(iv) **Conflict Resolution**: characteristics of a good solution, dealing with situations involving bullying, resolving conflicts when angry and helping others

(v) **Dealing with Change and Loss**: speaking about death, losses and change, coping with death and loss, understanding positive effects of change and loss

(vi) **General Coping Skills**: using different coping strategies, helping others, applying coping skills to new situations.

Throughout the programme the emphasis is on helping the children to find their own solutions and to expand their range of coping strategies so that they have more options to choose from and can learn to master effective means of coping with difficult situations. Zippy's Friends not only looks at problems and difficulties that children may experience but it also focuses on strengths, abilities, positive emotions and effective use of supports and resources. There is a strong emphasis on the children's ability to learn, adapt and improve their skills. In addition, great importance is attached to giving social support to others and throughout the programme children are encouraged to identify and support others in need of help. This component of the programme is in contrast with the individualistic focus of programmes that emphasise personal competence over collective involvement (Bale & Mishara, 2004). Furthermore, Zippy's Friends aims to give children better skills in communication, conflict resolution, self-assertion, co-operation, self-control and empathy. This is in line with previous research that has found that programmes focusing on a single phenomenon have proved less effective than those that integrate training of various competencies (Weissberg & Elias, 1993).

Each session has been designed to last approximately 45-50 minutes. Each module contains four sessions. The sessions are conducted once a week by the class teacher and throughout the sessions the children are actively engaged in a variety of child-centered activities, e.g. drawing, brainstorming, asking questions, participating in role-plays, group discussions, playing games and make-and-do activities. The sessions begin with a review of what the children learned the previous week and the

teacher reading a part of the Zippy's Friends story. The sessions conclude with a child-friendly evaluation of the lesson and a group discussion about what the children liked / disliked about the session and why.

Several characteristics of the programme are aimed at ensuring that the content is integrated into children's daily lives. Repetition is used throughout the programme to reinforce the learning of key elements. The Zippy's rules are repeated at the start of every lesson. Teachers are encouraged to create a Zippy's Friends corner in the room so that children's drawing and the rules the children learn in relation to each module can be displayed in a defined corner of the classroom. Practical exercises which are an integral part of the programme encourage children to practise using the skills they have learned throughout the school day.

2.4.1 Theoretical Background

Children are invariably faced with interpersonal problems in their daily lives. Children's ability to deal with these common everyday stressors has been found to be significantly related to their psychological adjustment (Rutter, 1994). Indeed some studies have indicated that children's ability to deal with these minor problems is a better predictor of concurrent and subsequent psychological symptoms than their ability to deal with major life events (Compas et al., 1988; Weisz & Denning, 1993). Children's effective coping with daily stressors is associated with positive behavioural and emotional adjustment (Compas, 1987; Eisenberg et al., 1997). Further, children who are able to adapt their coping strategies to fit the situation and who are flexible in their use of coping strategies appear to have the best outcomes (Weisz et al., 1994). The underlying hypothesis in developing Zippy's Friends is that if children learn at a young age to expand their repertoire of coping abilities, they will be less likely to develop serious problems in childhood, adolescence and even adult life when they are confronted with the inevitable occurrence of stressful situations (Mishara & Ystgaard, 2006). Numerous studies have indicated that having a repertoire of coping skills at a young age can 'buffer' or moderate the effects of negative life stress on the development of psychological maladjustment (Dubow & Tisak, 1989; Spivack et al., 1976).

The Zippy's Friends programme is based upon Lazarus and Folkman's (1984) theoretical framework of coping. Lazarus and Folkman define coping as "*constantly*

changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p1410).

Coping is viewed as an ongoing dynamic process that is aimed at either removing the sources of stress and/or managing the emotional reactions evoked by stress. Coping activity can occur on a behavioural, emotional, cognitive, or social level and its main function is to regulate the stressful person-environment encounter (Alumran & Punamaki, 2008). Through Folkman and Lazarus' (1980) model, coping is described as a multidimensional *process* which consists of two distinct components that can mediate the effects of the stressor (i) *cognitive appraisal* and (2) *coping responses*. In the cognitive appraisal process, a person makes both primary appraisals of the significance of a stressful event to his or her personal wellbeing and secondary appraisal of the availability of coping resources and options. The coping response is defined as *"an intentional physical or mental action, initiated in response to a perceived stressor, which is directed toward external circumstances or an internal state"* (Folkman and Lazarus, 1980, p223).

Lazarus and Folkman distinguish between two types of coping responses/strategies – problem-focused strategies and emotion-focused strategies. These coping strategies differ on the basis of the function or intention of the coping strategy. Problem-focused strategies refer to efforts aimed at changing the situation. This is accomplished by altering either the environment, changing external pressures, or finding resources so that the distressing situation is made less threatening. Emotion-focused strategies, in contrast, refer to efforts to manage or regulate the negative emotions evoked by the stressful situation. Emotion-focused strategies include cognitive distraction, seeking emotional support, emotional regulation, emotional expression, cognitive restructuring, positive self-statements, thought stopping or selective attention (Lazarus & Folkman, 1984). Problem-focused coping involves efforts to actively change the external situation to make it less stressful while emotion focused strategies attempt to reduce the tension and physiological arousal accompanying emotional reactions to stress. Folkman and Lazarus (1980) suggest that although most stressors elicit both types of coping, problem-focused strategies tend to predominate when the stressor is perceived as amenable to change, whereas emotion-focused coping tends to be employed more often when stressors are

perceived as uncontrollable, i.e. nothing can be done to modify the difficult condition.

Other theoretical models that have been widely used in research include the primary-secondary control coping model (Rothbaum et al., 1982) and the engagement-disengagement coping model. The primary-secondary control model refers to the orientation of the individual to either enhance a sense of personal control over the environment or adopt to the environment. The primary control coping is aimed at influencing objective conditions or events (e.g problem solving) or directly regulating one's own emotions (e.g. regulated emotional expression). Secondary control coping is aimed at maximising one's goodness to fit with conditions or events as they are and typically may include acceptance or cognitive restructuring (Rothbaum et al., 1982). The engagement-disengagement model is similar to the approach-avoidance model (Billings & Moos, 1981; Ebata & Moos, 1991). Engagement coping includes responses that are orientated towards the source of the stress or one's own emotions or thoughts. Disengagement coping refers to responses that are orientated away from the stressor or one's emotions or thoughts (Compas et al., 2001). Other coping dimensions that have been used less often include the self-focus and external focus of coping, cognitive and behavioural coping, and active and passive coping. All of these dimensions have been used in relation to child and adolescent coping research, thus contributing to confusion about the basic structure of coping and making it difficult to integrate findings across studies (Compas et al., 2001).

Although some encouraging results have been found when classifying coping using two theoretical distinctions, several researchers have argued that a two-factor distinction between types of coping may be too simplistic and that they mask the complexity of different subtypes of coping that may differ significantly in their intentions and their effects (e.g. Carver et al., 1989; Scheier et al., 1986). Ayers and colleagues (1996) proposed a four-factor model of coping which consists of active, distraction, avoidance and support-seeking strategies:

1. Active coping strategies include cognitive decision making, direct problem solving, seeking understanding, positive cognitive restructuring and expressing feelings appropriately

2. Distraction strategies refer to the physical release of emotion through exercise, play or efforts to physically relax and distraction actions to avoid thinking about the problem situation
3. Avoidant strategies include behavioural efforts to avoid the stressful situation and cognitive efforts to avoid thinking about the problem
4. Support-seeking strategies includes the use of problem focused support such as the use of other people as a resource to assist in seeking solutions and emotion-focused support which involves other people in listening to or providing understanding.

This four factor model was used to analyse children's coping strategies and confirmatory factor analysis indicated that this model provided a better fit to children's data than either the problem versus emotion focused (Lazarus & Folkman, 1984) or passive versus active (Billings & Moos, 1981) coping models. Another study by Connor-Smith and colleagues (2000) distinguished coping responses into three factors: primary control engagement coping (problem solving, emotional expression, and emotional modulation), secondary control engagement coping (cognitive restructuring, positive thinking, acceptance and distraction) and disengagement coping (wishful thinking and denial). Similar to findings from Ayers and colleagues (1996), this study reported that two factor models did not achieve adequate fit with the data (Connor-Smith et al., 2000). Overall, the findings from these studies suggest that further work needs to be carried out to test theory driven models of the dimensions and subtypes of coping in childhood and adolescence.

2.4.1.1 Children's Coping Strategies

Just over a decade ago research on child and adolescents coping was in its earliest stages (Compas et al., 1987). Theoretical models of coping had only been developed for adults and empirical studies focused primarily on adults (Lazarus & Folkman, 1991). Conceptualisations of children's coping were derived from the study of adults and were applied to children with little or no modification. More recently, however, the landscape of this field has changed considerably and there is a consensus that adult theories of coping cannot simply be applied to children because stressors to which children are exposed are often different and less controllable than adult stressors. In addition, children may be limited in their coping repertoire by cognitive,

affective, expressive or social facets of development and by lack of experience (Field & Prinz, 1997).

Fields and Prinz (1997) carried out an extensive review of research published on the use of child and adolescent coping strategies for commonly occurring stressors in nonclinical population. They found that preschool children exhibit a strong tendency to employ concrete problem-focused and avoidance coping strategies across various situations. As children enter primary school, they begin to use emotion-focused and cognitive coping strategies. As children progress through primary school, they show greater flexibility in altering between problem-focused and emotion-focused strategies (Caplan et al., 1991; Compas et al., 1992; Wertlieb et al., 1987). During primary school, children are beginning to report use of positive self talk as an emotion-focused coping strategy that pre-school children do not report. Their use of problem-focused strategies declines overall, although the specific problem focused strategy of direct problem solving tends to increase. Less use of caregiver support is apparent, while there is a suggestion of increased preference for peer support. Additionally, primary school children are learning to differentiate among stressful situations and to apply specific coping strategies for specific stressors. Whereas pre-school children tend to use primarily problem focused and avoidance tactics across medical, social, and academic stressors, primary school children tend to rely more on emotion-focused strategies to cope with medical stressors, while they employ more problem focused strategies for social and academic stressors.

Folkman and Lazarus (1980) found a similar pattern of coping use in adults. Adult subjects tended to use problem-focused coping strategies in work contexts and emotion-focused coping strategies in health related contexts. Follow-up studies indicated that adults used more emotion-focused coping in situations they perceived as uncontrollable (health contexts) and more problem-focused coping in situations perceived as controllable (work context). Collectively, these studies provide evidence that both adult and children's coping is contextually dependent, in that the use of coping strategies changes according to the situational demands.

2.4.1.2 Children's Psychological Adjustment and Coping

Despite the limited availability of empirical work in the area of coping and adjustment, some studies have shown that use of multiple coping responses (flexibility) is a predictor of positive psychological adjustment (Caplan et al., 1991; Holanhan & Moos, 1987; Siegel, 1983). One of these studies (Caplan et al., 1991) showed that children who evidenced greater flexibility in alternating between problem-focused and emotion-focused strategies were more socially competent. Siegel (1983) found that children rated as 'successful copers' reported using a greater variety of strategies than 'unsuccessful copers'. In terms of specific coping strategies, Compas and colleagues (2001) found that engagement coping (e.g problem solving, support seeking and emotional expression) was associated with lower internalising symptoms and higher competence, whilst disengagement and emotion-focused coping strategies (problem avoidance, cognitive avoidance, social withdrawal, emotional ventilation or discharge and self blame) was associated with more internalising symptoms and poorer adjustment.

Fields and Prinz (1997) found similar findings in their review of studies examining children's coping strategies. They conclude that during middle childhood, cognitive strategies of self-calming and cognitive distraction as well as problem solving are associated with better adjustment. Strategies associated with higher levels of internalising symptoms included self-denigration, focusing on negative affect, support seeking and escape thoughts. Greater use of emotion focused strategies and less use of problem focused strategies was associated with higher levels of externalising symptoms. The author argues, however, that it is important to take into account the context or stressor when interpreting such findings. For example Weisz and colleagues (1994) showed that young children's (aged 6 to 9 years) reports of increased secondary coping (emotion-focused coping) in response to relatively uncontrollable stressors were consistently related to more favourable adjustment, as reflected in parent ratings of overall behavioural and emotional problems. In response to relatively controllable stressors, children who showed increased reports of problem-focused coping were shown to have better adjustment. Taken together, these studies seem to suggest that one type of coping strategy is not superior over another, but rather is it important that children are able to utilise both emotion-focused and behavioural-focused coping strategies when appropriate. As Smith &

Carlson (1997) state, given that children's coping is inherently context dependent, effective coping for children involves a combination of emotion- and problem-focused strategies used flexibly depending on the circumstances.

2.5 Previous Evaluations of Zippy's Friends

To date, the Zippy's Friends programme has been evaluated in Canada, Denmark, Lithuania and the UK. In addition, a longitudinal study is currently being carried out in Norway. In Quebec, Canada, 310 children from 16 first and second grade primary school classes were compared with 303 children in 19 control classes (Dufour et al., 2011). The effects of the programme on the children's coping skills were measured using the Schoolagers' Coping strategy inventory. Teachers completed the *Socio-Emotional Profile* which measures social competencies and adaptation problems and the *Class Environment Climate Questionnaire* which assesses the climate of the classroom and teacher characteristics. The results from this study revealed that children in the intervention group were more cooperative with adults, had improved perceptions of social support and were more autonomous after participating in the programme. Children in the intervention group also had fewer internalised problems at post-intervention (Dufour et al., 2011).

In Denmark and Lithuania, a quasi-experimental trial was used to examine the impact of the programme (Mishara & Ystgaard, 2006). A total of 322 participating children in 17 first grade classes were compared to 110 control children in six classes in Denmark and 314 Lithuanian kindergarten children age six-seven in 16 classes were compared to 104 control children in six classes. The teachers completed the *Social Skills Questionnaire*, a coping skills observation form and a weekly questionnaire detailing pupil attendance, pupils' enjoyment of the lesson and overall usefulness of the session. The pupils completed the Social Skills Questionnaire and the Schoolagers' Coping Strategy Inventory. The results from this study found that the intervention children across the two countries used significantly more coping strategies and improved in the social skills of cooperation, empathy, assertion and self-control. In Lithuania, where additional observations of behaviour problems were undertaken, a significant decrease in the problem behaviour scales of 'externalising problems' and 'hyperactivity' was also noted.

A second quasi-experimental trial explored the effects of participation in Zippy's Friends during kindergarten (Monkeviciene et al., 2006). The intervention group consisted of 140 children in the first year of primary school who had participated in the programme in Lithuania the preceding year in kindergarten (children's age ranged from 7 to 9 years old). The teachers and parents completed the *Behavioral and Emotional Adaptation to the Transition Questionnaire*, the *Problems Encountered Questionnaire* and the teachers completed an additional questionnaire, the *Reactions Observed in the New School Environment.* Results showed that, compared to a control group of 106 children, participation in the programme related to better behavioural and emotional adaptation to the transition from kindergarten to first grade. The intervention group had more positive reactions to the new school environment and used more appropriate and more diversified coping strategies when compared with the control group.

In Southampton, a small scale evaluation of the programme was carried out over two years. During year one, four intervention classes in three schools and three control classes in one school took part in the study. The three control schools were enrolled in the study for year two (34 children) and there were 23 pupils in the control group. Results from the two year evaluation in Southampton showed improvements in the intervention group's emotional literacy skills and hyperactivity levels in year two. Both teachers and children rated the programme positively (Holmes and Faupel, 2004, 2005).

Collectively, these findings demonstrate the significant positive effect of the programme on the children's emotional literacy skills, social skills and repertoire of coping skills. The limitations of these studies, however, must be noted. One of the limitations of the three evaluation studies conducted to date is that they provide little information about the process of implementation in terms of programme fidelity, quality of implementation and factors that affected programme implementation. In addition, the children in all three studies were not subject to random assignment to intervention and control groups. These limitations weaken the conclusions that can be drawn regarding programme outcomes and the degree to which the 'implementation system' affected programme outcomes.

2.6 Zippy's Friends in Ireland

In 2007 the Health Service Executive (HSE) introduced the Zippy's Friends programme to the Department of Education and Science. A joint partnership was subsequently set up and it was planned to pilot the programme as part of the Social, Personal and Health Education (SPHE) curriculum with children in first class.

2.6.1 Social Personal and Health Education Curriculum

In 1998, The Education Act placed an obligation on Irish schools to:

> *promote the moral, spiritual, social and personal development of students and provide health education for them, in consultation with their parents, having regard to the characteristic spirit of the school* (p.13).

In response, Social, Personal and Health Education (SPHE) became one of the six main curriculum areas of the revised Primary School Curriculum in 1999. This was followed in 2000 by the introduction of SPHE as a compulsory part of the core curriculum of the Junior Cycle (students age 12 – 15 years) in post-primary schools (Nic Ghabhainn et al., 2010). Prior to 1999, Health Education formed part of the Physical Education curriculum in primary schools, however, delivery of the curriculum was ad hoc and unregulated due to the lack of support, training and resources (Byrne, 2007).

The SPHE primary curriculum focuses on the development of a broad range of skills relevant to children's physical, personal, emotional and social health within a supportive whole school environment (NCCA, 1999). It provides for the enhancement of a broad range of values, attitudes, skills and understanding relevant to the child's health and wellbeing, to other people and to the society in which they live. The curriculum is designed to complement and supports themes and topics addressed in the various subjects that have a social, personal and health dimension.

The key characteristics of the curriculum are that SPHE:

- is a lifelong process
- is a shared responsibility between family, school, health professionals and the community
- is a generic approach

- is based on the needs of the child
- is spiral in nature
- is developed in a combination of contexts
- engages children in activity-based learning.

2.6.1.1 Curriculum Structure

The curriculum is delineated at four levels: infant classes, first and second classes, third and fourth classes, and fifth and sixth classes and is presented in three strands: (i) Myself (ii) Myself and others and (iii) Myself and the wider world. The strand *Myself* concentrates on self-awareness and self-development. The emphasis is on getting to know and understand oneself and on learning to act on the basis on this self-knowledge. This strand unit is made up of five strand units; *Self identity, Taking care of my body, Growing and changing, Safety and protection, Making decisions.* The strand *Myself and Other*s examines the role of various people in one's life and explores how people interact, communicate, live, play and work together. This strand is composed of three strand units; *Myself and my family, My friends and other people and Relating to others*. The final strand *Myself and the Wider World* aims to develop a respect for cultural and human diversity in the world. The children are encouraged to become active and responsible citizens who understand the interdependent nature of the world. This strand is made up of two strand units; *Developing citizenship and Media education*.

The strand and strand units are consistent throughout all the class levels reflecting the spiral nature of the curriculum content. The time allocated for SPHE in accordance with the primary school curriculum recommendations is 30 minutes per week. The nation-wide delivery of this subject is facilitated by the Primary Curriculum Support Programme (PCSP), a support unit which provides ongoing professional development and support to teachers and schools and ensures quality control.

2.6.1.2 Support Programmes

A number of programmes have been developed to support the implementation of the SPHE curriculum. These include the: (i) child abuse prevention programme - *Stay*

Safe (ii) Relationship and Sexuality Education - *RSE* and (iii) Substance Misuse Prevention Programme – *Walk Tall*. These three programmes are described briefly in this section. Other secondary resources are also recommended for use in primary education including: Bí Folláin (O'Sullivan & O'Sullivan, 1994), Action for Life (Hope & O'Sullivan, 1994), Bright Ideas Media Education (Harpley, 1990) and Lifeskills Programme for Primary School (McAteer & English, 1990).

- Child Abuse Prevention Programme (Stay Safe)

Stay Safe is a personal safety skills programme which aims to empower children through the development of their self-esteem and through developing skills to ensure their personal safety. The programme seeks to enhance children's self-protective skills by participation in lessons on safe and unsafe situations, bullying, inappropriate touch, secrets, domestic violence, physical abuse and emotional abuse. The programme has been incorporated as part of the SPHE curriculum since 1999. Teachers are provided with a one day in-service professional development course. Parents are provided with an information booklet and additional training is available for school management boards.

- Relationship and Sexuality Education (RSE)

As part of the revised primary curriculum, RSE became part of the wider SPHE programme. RSE aims to provide structured opportunities for pupils to acquire a knowledge and understanding of human relationships and sexuality. The programme is designed to help children learn, at home and in school, about their own development and about their friendships and relationships with others. This work is based on developing a good self-image, promoting respect for themselves and for others, and providing them with appropriate information. The RSE support service provides teacher training, parent information evenings, RSE policy seminars and general advice and information on all aspects of RSE

- Substance Misuse Prevention Programme (Walk Tall)

The Walk Tall programme is a national programme supported and funded by the Department of Education and Science (DES) which aims to prevent the misuse of substances. The programme endeavours to give children the confidence, skills and knowledge to make healthy choices. The programme also seeks to avert or at least

delay experimentation with substances and reduce the demands for legal and illegal drugs. The main themes of the programme are Self-esteem, Feelings, Influences, Decision making and Drug awareness. The Walk Tall programme Support Service offers support to teaches to teach the programme in the context of SPHE. In 2006 the Walk Tall Programme Support Service introduced "Making the Links", a guidebook for teachers to assist them in using the material from the Walk Tall Programme, the Relationships and Sexuality Education Programme and the Stay Safe Programme.

2.6.1.3 Evaluation of SPHE Curriculum

Between 2002 and 2003, following the provision of two days inservice in relation to the SPHE curriculum by the Primary Curriculum Support Programme, the Irish Education Committee carried out a brief study into teachers' views of the SPHE curriculum (INTO, 2005). The results from this study indicate that there was, in general, a favourable response to the teaching of SPHE. Of the 316 teachers that completed the SPHE questionnaire, the majority of respondents had attended professional development training in SPHE. Over 95% of respondents viewed SPHE as being very important or somewhat important and almost two thirds (64%) were satisfied with the resources available to them. However, a significant minority of teachers said they had not been successful in incorporating active learning strategies in their teaching of SPHE. Half of the teachers said that external personnel were brought in to support aspects of the SPHE curriculum. Such personnel included, nurses, gardaí, dental hygienists and other personnel in relation to RSE. In terms of barriers, the most frequently reported was time, this was followed by lack of resources, overcrowded curriculum, multigrade classes, class size, lack of parental support, lack of training, broadness of subject, lack of suitable content and lack of knowledge. Less than 10% of the respondents stated they had no difficulties.

2.6.2 Zippy's Friends and SPHE

The content of Zippy's Friends directly relates to and encompasses objectives from several of the curriculum's strand and strand units including:

Strand: Myself	Strand Unit:	Personal identity
		Developing self confidence
		Making decisions

		Growing and changing
Strand: Myself and Others	Strand Unit:	Myself and my family
		My friends and other people
		Relating to others

Zippy's Friends also reflects the principles of learning in the Irish curriculum as outlined by National Council for Curriculum Assessment (NCCA,1999). These principles include:

- the child as an active agent in his or her learning
- the child's knowledge and experience as a base for learning
- environment based learning
- learning through guided activity and discovery
- the transfer of learning – application of learning to real life
- higher-order thinking and problem solving
- collaborative learning.

Activity-based learning is a central part of the SPHE curriculum. The NCCA recommends that a wide variety of active learning strategies should be used in implementing SPHE. It also states that children should: (i) be encouraged to critically reflect on their work and explore possibilities for transferring what they have learned to situations in their own lives and (ii) be given opportunities to interact with others and with their environment and to learn to cooperate with their peers.

The implementation of Zippy's Friends is further supported by key recommendations from two policy documents aimed at mental health and suicide prevention. *A Vision for Change: Report of the Expert Group in Mental Health Policy* (Department of Health and Children, 2006) identifies the need for the mental health promotion among school aged children (5-12 years). Four key issues in relation to the promotion of positive mental health are highlighted: (i) promoting positive mental health and wellbeing (ii) raising awareness of the importance of mental health (iii) enhancing the capacity of mental health service providers and the general community to promote positive mental health and (iv) suicide prevention. *Reach Out: The National Strategy for Action on Suicide Prevention: 2005-2014* (Health Service Executive and Department of Health and Children, 2005) also

recommends that the promotion of positive mental health should become an integral part of the primary and secondary schools curriculum.

2.6.3 Preparing for Programme Implementation

In December 2007 a two day training workshop was carried out by *Partnership for Children* for the HSE staff (trainers) to support the training of teachers in the intervention group. The training of trainers consisted of an overview of mental health promotion and coping, an introduction to Zippy's Friends – it's theoretical background, implementation in an international context, content of the programme, principles of implementation. Trainers were given the opportunity to review each module and take part in role plays and activities from each module. In addition, the Zippy's Friends coordinators discussed: (i) how the programme fits with the local curriculum (ii) key outcomes from previous evaluations of the programme and (iii) the provision of ongoing support in the local context. Following the training of trainers, a National Advisory Group was subsequently set up. The National Advisory Group consisted of members from the Department of Education and Science, Health Promotion, HSE; National Educational Psychological Service Agency, Irish National Teachers Organisation, Primary Professional Development Service, National Office for Suicide Prevention and the research team from the Health Promotion Research Centre, National University of Ireland Galway. The National Advisory Group met every six months to discuss implementation of the Zippy's Friends, its integration with the SPHE curriculum, research findings and the broader roll out of the programme following the pilot phase.

The Zippy's Friends programme was piloted in DEIS (designated disadvantaged) schools in the West of Ireland *(DEIS schools: Delivering Equality of Opportunity in Schools: an action plan for social inclusion).* Schools are granted disadvantage status by the Department of Education and Science on the basis of socio-economic and educational indicators such as unemployment levels, housing, medical card holders and information on the basic literacy and numeracy. A total of 724 out of 3160 (22.9%) primary schools in Ireland have been designated as 'disadvantaged'. These schools receive a greater level of support in terms of reduced pupil-teacher ratios, the provision of special grants and extra support for pupils. Economically disadvantaged children are especially at risk for the development of mental health

problems because of the greater number of negative or undesirable life events and adverse conditions (risks factors) to which they are exposed (Keenan et al., 1997; Lavigne et al., 1998; McLeod & Shanahan, 1996; McLoyd, 1998). This over-abundance of negative life events can place demands on them that exceed their coping resources (Sterling et al., 1985). Freyers and colleagues (2005) reviewed the evidence from nine large scale population-based studies carried out over the last 20 years and conclude that common mental disorders are significantly more frequent in socially disadvantaged populations. These findings highlight the need to prioritise work with disadvantaged populations and to start as early as possible.

The programme was piloted across four counties along the west coast of Ireland: Donegal, Sligo, Leitrim and Galway. These counties were chosen to take part in the pilot study as support was available from the Health Promotion Offices in these counties. As part of the pilot the Health Promotion Officers in these counties were engaged in: (i) the training of teachers (ii) provision of implementation support and (iii) evaluation process. The Department of Education and Science requested that the programme would be implemented with children in first class (age 6-7 years) and that it would be implemented across two academic years. This was to ensure that teachers in the intervention group would implement all aspects of the SPHE curriculum over the course of the two years and not just the Zippy's Friends programme. As a result, the first half of the programme was piloted between February and June 2008 (children were in first class) and the second half of the programme was implemented between October and March 2009 (children were in second class).

Following the random allocation of schools to the intervention and control groups, a two day training workshop was provided in counties Donegal, Sligo and Galway for the intervention teachers (January 2008). This workshop explained the goals of the Zippy's Friends programme, the theoretical background to the programme, the components of the programme and the structure of each session. During the workshops the teachers took part in a variety of role play situations taken directly from the programme and engaged in group discussions about programme implementation, potential barriers and strategies to overcome these barriers.

2.6.4 Evaluating the implementation of Zippy's Friends in Ireland

The specific aims of this evaluation were to:

- determine if an international evidence-based programme could be adapted and successfully implemented in the local context of disadvantaged primary schools in Ireland
- assess the immediate and long-term impact of the programme on the children's emotional and behavioural wellbeing and coping skills
- examine the process of implementation and the relationship between this process and the outcomes of the programme.

This study sought to extend the breadth and scale of the evaluation approach used previously in relation to this programme by employing a more powerful research design and more participatory methodologies. A brief description of the unique features of this evaluation is now provided.

Firstly, the study employs a randomised control design which has not been previously employed in determining the effectiveness of the programme. In addition, due to the fact that randomisation occurred at the school level, the data were analysed at the cluster level using multilevel modelling techniques. Similar to most school-based interventions, the Zippy's Friends programme was not allocated to individual students but rather to children in class units / schools. In other words, randomisation occurred at school level and the students were nested/clustered within schools. When subjects are randomised by cluster, it creates several problems for statistical analysis (Wears, 2002). Subjects within a cluster tend to be more alike than subjects selected entirely at random. This could arise because individuals within clusters may interact and influence each other or because of some feature unique to the cluster, such as the class teacher (Simpson et al., 1995). Several systematic reviews have drawn attention to the number of studies that fail to account for the statistical implications of the cluster randomised design when conducting their analysis (Adi et al.,2007; Wells et al., 2003; Lister Sharp et al., 1999; Simpson et al., 1995). Flay and colleagues (2005) states that researchers often randomise at a higher level (school) but analyse the data a lower level (individual) and that in doing so almost always results in a violation of the assumption of the statistical independence

of observations. This in turn can result in confidence intervals that are falsely narrow and p-values that are falsely low, thus increasing the risk of a false positive error. The solution, therefore, is to analyse the data at the cluster level using multilevel modelling techniques (Field, 2009). In this study, individual subjects were nested within their respective schools within a random intercept model.

Secondly, this study examined the immediate impact of the programme on the children and also the outcomes of the programme at 12 month follow-up. The absence of long-term follow-up is consistently noted as a limitation of evaluation studies in the field of mental health promotion (Greenberg et al., 2001; Greenberg, 2010; Spence & Shortt, 2007; Flay et al., 2005). It is argued that interventions should include long-term follow-up to give sufficient time for interventions to show effects and as a mean to examining the stability of programme effects thus providing an accurate estimation of the duration of effects.

Thirdly, the study also includes child-centred participatory methods (Draw and Write Technique and Participatory Workshops) to capture the child's voice in determining how the programme has benefited the participants. While numerous theoretical models of health promotion advocate the need for participatory methods, the use of participatory approaches in evaluation appears to be much less common (Douglas, 2000; Kalnins et al., 1992). Previous evaluations of the Zippy's Friends programme have not included this element in their evaluation and have relied primarily on observational ratings from school teachers. Children and young people are increasingly regarded as a group for whom having a 'voice' is vitally important. According to Article 12 of the UN convention (1991) the child *"[has the right] to express views freely and have them given due weight; in particular the right to be heard in any judicial and administrative proceedings affecting the child"*. At a national level, the Irish National Children's Strategy (Department of Health and Children, 2000, p16) asserts that *"children are active participants in the world which continues to experience increasing change"*. Within education, researchers such as Lloyd-Smith and Tarr (2000, p61) argue that it is essential to listen and consult with children because *"the reality experience by children and young people in educational settings cannot be fully comprehended by inference and assumption"*.

Quantitative and qualitative child self-report measures are used in combination with teacher pre- and post-evaluation measures. The rationale behind using both quantitative and qualitative child-centered participatory methods is that quantitative data may not provide all the information and insight required to appreciate children's experiences. Additionally, the use of multiple child participatory methods offers complimentary insights and understandings that may be difficult to access through reliance on a single method of data collection (Darbyshire et al., 2005). Furthermore, Flay and colleagues (2005) contend that multiple measures of the same constructs, particularly from multiple sources, can increase confidence in both the validity and reliability of measures and in the robustness of findings.

One of the qualitative measures that was used to determine the coping strategies used by children in the intervention and control groups at pre-, post-intervention and 12 month follow-up was the Draw and Write Technique (Williams et al., 1989). This technique is a flexible method of collecting data from young children. It offers children the opportunity to share their views and perceptions in their own words. It was developed as part of the English Health Education Authority's Primary School Project in the 1980s and involves children drawing a picture in response to a theme or topic and writing down associated ideas. Advocates of the Draw and Write Technique contend that its power derives largely from the way in which the act of drawing can help to break down barriers and allow powerful emotions to be expressed (Pridemore & Lansdown, 1997). It is therefore suggested that the Draw and Write can provide date which are richer and more insightful that those which could be obtained through writing alone. In addition, it is also generally accepted that the Draw and Write Technique helps children who are less verbally able to communicate their own ideas because the method allows children to draw and then to seek adult help to express their thoughts in writing if necessary (Pridemore & Lansdown, 1997). On a practical level, the popularity of drawing among children (Thomas & Jolley, 1998) and its typical perception as fun and non-threatening, unlike more testing situations (Rubin, 1984; Merriman & Guerin, 2006) further support the use of this technique in this study. Furthermore, given the age profile of the children in this study (Mean age = 7 years, 3 months) the Draw and Write Technique was regarded as a particularly appropriate method to elicit comprehensive, valid and reliable responses from the children involved.

In addition, participatory workshops were used to examine the children's ability to identify feelings and coping strategies in relation to everyday problem situations. The workshops were designed to supplement the information provided through the Draw and Write Technique. Whilst the Draw and Write Technique offered a platform for children to draw on their own experiences, the Feelings and Vignette activities provided an opportunity for the children to comment on the feelings and coping strategies that they may not have encountered or they may not wish to disclose in relation to themselves. Thus, the Feelings and Vignette activities were deemed as less threatening and at the same time the questions anchor the choice in a situation and as such reduce the possibility of an unreflective reply (Bryman, 2001; Finch, 1987).

Fourthly, unlike previous evaluations of Zippy's Friends, the process of programme implementation was monitored and documented throughout the study. Research on a wide range of educational programmes and mental health interventions has previously shown that when efficacious interventions are translated to use in real-world settings, there is considerable variability in the amount and quality of implementation (e.g. Botvin et al., 1992; Rohrbach et al., 1993). In some studies for example, teachers report eliminating key curriculum points, objectives, and or/modules and being less likely to use interactive teaching methods that are essential to the programme, such as role-playing and small group exercises (Botvin et al., 1992; Rohrbach et al., 1993; Tappe et al., 1995; Tortu & Botvin, 1989; Ennett et al., 2003). Given the growing attention being devoted to the 'science of implementation' in understanding programme effectiveness, monitoring programme implementation was considered an important part of this study.

The process of implementation was examined in order to (i) determine the level of programme fidelity and quality of implementation across the intervention group (ii) ascertain the strengths and weaknesses of the programme (iii) determine if certain aspects of the programme worked better than other and if so, how and why certain these aspects worked better (iv) understand the interaction between characteristics of the implementation system, characteristics of the implementer and various aspects of the setting and organisational context in which the programme was implemented. The process of implementation was evaluated using a range of quantitative and qualitative measures in a triangulation of methods. The logic of this approach is that

the more consistent the direction of evidence produced from different sources, the more reasonable it is to assume credibility and validity of findings (Nutbeam, 1998). In addition, some researchers argue that the complexities of most public health programmes and social interventions, such as health education and health promotion programmes, require the use of a broad spectrum of qualitative and quantitative methods (Baum, 1995; Steckler et al., 1992; Sale et al., 2002). Furthermore, many researchers suggest that the inherent strengths and weaknesses of quantitative and qualitative research approaches complement each other and that combining both methods will be advantageous for health promotion research (Nutbeam, 1998; De Vries at al., 1992). Nutbeam (1998) argues that qualitative research combined with quantitative research can provide depth and insight into people's experiences and the social context that strengthen, support or diminish health. He states: *"This knowledge and insight is important in explaining observed success or failure in any given programme and is essential for the successful replication and dissemination of new ideas"*. (Nutbeam, 1998, p38). Thus, the combination of information from different quantitative and qualitative sources to assess for consistency in results can provide powerful evidence of success, as well as providing insight to the processes of change in populations.

Taken together, the measures used in this study combined with a strong research design ensure that the study is well positioned to carry out a thorough evaluation of the Zippy's Friends programme and to inform best practice and policy for the Irish education system in promoting the mental health and wellbeing of young people.

2.6.4.1 Objectives

The specific objectives of this study were to:

- establish the feasibility of implementing an international emotional wellbeing programme in the disadvantaged primary school setting in Ireland
- determine the immediate and long term impact of the programme on the children who participated when compared with children in a control group
- investigate whether the programme effects are greater than those of the standard health education programme

- examine the process of implementation and explore the reality of implementing an emotional wellbeing programme in disadvantaged schools
- understand the organisational context within which the programme was implemented and the effect of this on programme implementation
- explore the effects of different levels of teacher fidelity on the process of programme delivery and programme outcomes
- determine the degree to which the Social, Personal and Health Education curriculum was implemented across the intervention and control schools
- ascertain the attitudes of pupils towards the programme
- explore the attitudes of the teachers regarding the effect of the programme on the pupils, themselves and the wider school environment
- examine the attitudes of the teachers towards the programme
- explore the usefulness of the Draw and Write Technique as an evaluation tool with children.

2.6.4.2 Hypotheses

- Emotional Literacy

In relation to the children's emotional literacy skills as measured by the Emotional Literacy Checklist (Faupel, 2003), it was hypothesised that between pre- and post-intervention, there would be a statistically significant increase in the intervention group's emotional literacy skills when compared with the control group. It was hypothesised that intervention group's emotional literacy scores would be maintained at 12 month follow-up, in other words, that between pre-intervention and 12 months follow-up there would be a significant increase in the intervention group's emotional literacy score when compared with the control group.

- Emotional and Behavioural Wellbeing

In terms of the children's Total Difficulties and Prosocial Scores as measured by the Strengths and Difficulties Questionnaire (Goodman, 1997), it was hypothesised that between pre- and post-intervention, there would be a statistically significant decrease in the intervention group's Total Difficulties Score and a significant increase in their Prosocial score when compared with the control group. It was hypothesised that

intervention group's Total Difficulties and Prosocial scores would be maintained at 12 month follow-up, i.e. that between pre-intervention and 12 months follow-up there would be a significant decrease in the intervention group's Total Difficulties score and a significant increase in their Prosocial score when compared with the control group.

- Coping skills

Using the Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990) to measure the children's coping strategies, it was hypothesised that when compared with the control group there would be; (i) a significant increase in the intervention group's use of neutral coping skills (ii) a significant decrease in the intervention group's use of violent coping strategies (iii) a significant increase in the intervention group's assessment of neutral coping strategies as effective and (iv) a significant decrease in the intervention group's assessment of violent coping strategies as effective. A significance level of 0.05 was used for all statistical tests.

CHAPTER 3

METHODOLOGY

3.1 Study Design

This study employs a randomised controlled trial design with assessments carried out before (T1), during (T2 & T3), immediately after (T4) and at 12 months post-implementation (T5). The key data collection and programme implementation points are shown in Table 3. As stated previously, the 24 week programme was piloted with children in first class (age 6 – 7 years) and was implemented over two academic years with children receiving the first 12 lessons between February and June '08 and the remaining 12 lessons between October '08 and March '09. In January 2008, prior to the random assignment of schools to intervention and control status, the Department of Education and Science required that teachers in the intervention group would be randomly assigned to one of two groups: full implementation and partial implementation. Teachers in the full implementation group (Intervention Type I) were asked to implement the programme as faithfully as possible. Teachers in the partial implementation group (Intervention Type II) were told that they could use the programme as a resource. They were not required to implement all aspects of the Zippy's Friends lessons and they had the freedom to combine / supplement Zippy's Friends lessons with other SPHE resources such as *Walk Tall, RSE* and the *Stay Safe Programme*. The purpose of assigning teachers to full and partial implementation was to determine if there was a difference in programme outcomes between the two intervention groups. Specifically, the Department of Education and Science wanted to determine if the Zippy's Friends could be successfully used as a resource in Irish primary schools rather than a programme that required faithful replication.

Table 3: Key data collection and implementation points

	Time 1	**Time 2:**	**Time 3:**	**Time 4:**	**Time 5**
Date	Feb 2008	June 2008	Oct 2008	April 2009	April 2010
Data collection	Baseline data collection	End of first half of programme	Start of second half of programme	Completion of programme	12 months follow-up

3.2 Sample

The intervention was piloted across four counties in the West of Ireland: Donegal, Sligo, Leitrim and Galway. To qualify for selection, the schools had to: (i) be assigned the designated disadvantaged status by the Department of Education and Science (ii) be mixed gender schools and (iii) contain ten or more children in first class, i.e. multigrade classes with nine or less children in first classes were excluded from the study. A list of all schools that fulfilled the criteria was made by the Health Promotion Officers in Donegal, Sligo, Leitrim and Galway. Following this the Health Promotion Officers contacted each school principal and informed them about the Zippy's Friends programme and the pilot study. Principals were also advised that should they sign up to participate in the study they could be assigned control status which would imply that they would not receive the intervention until completion of the study. A list of all schools willing to participate in the study was drawn up by the Health Promotion Officers. A total of 44 schools fulfilled the criteria and agreed to participate. These schools represented 35.2% of the total number of disadvantaged schools across the four counties (N = 125). Schools in each county were assigned a number and the author randomly assigned each number to Group A, B or C. Following this the groups were randomly assigned Intervention Type I, Intervention Type II and Control status. Table 4 outlines the number of schools, classes, teachers and children in each group at the baseline.

Table 4: Number of schools, classes, teachers and children at baseline

	Intervention Type I	**Intervention Type II**	**Control**	**Total**
No. of Schools	15	15	14	44
No. of Classes	18	18	16	52
No of Teachers	18	18	16	52
No. of Children	267	277	222	766

Based on the randomisation process, 15 schools were assigned to Intervention Type I, 15 schools were assigned to Intervention Type II and 14 schools were assigned to the control group. Some of the larger urban schools had more than one first class, as a result, there were 18 classes in Intervention Type I, 16 classes in Intervention Type

II and 17 classes in the control group. In terms of the number of children in each group, 267 children were assigned to Intervention Type I, 277 children were assigned to Intervention Type II and 222 were assigned to the control group.

3.2.1 Attrition

The flow chart below tracks the loss of children over the course of the study. There were two main reasons for the loss of children, these included schools no long being able to commit to the study and children moving to another school. Prior to baseline data collection, two schools (one intervention and one control) asked to be removed from the study due to other commitments. At the interim (June 2008), several pupils moved school and as a result were no longer part of the study. In addition, the boys in two large urban schools in Intervention Type II moved to single sex schools in the local area. This is standard procedure in both schools, the classes are mixed gender up to and including first class and in second class the girls remain in the school and the boys move to a nearby all boys school. This resulted in the loss of 43 males from the study in June 2008. At post-intervention, one control school withdrew from the study. At 12 months follow-up, one intervention school (N = 10 pupils) withdrew from the study and a total of 14 pupils across the intervention and control groups had moved schools. In total 154 pupils (20.1% of total sample) were lost through attrition over the course of the study.

Figure 2: Total number of children at baseline and attrition between baseline and follow-up

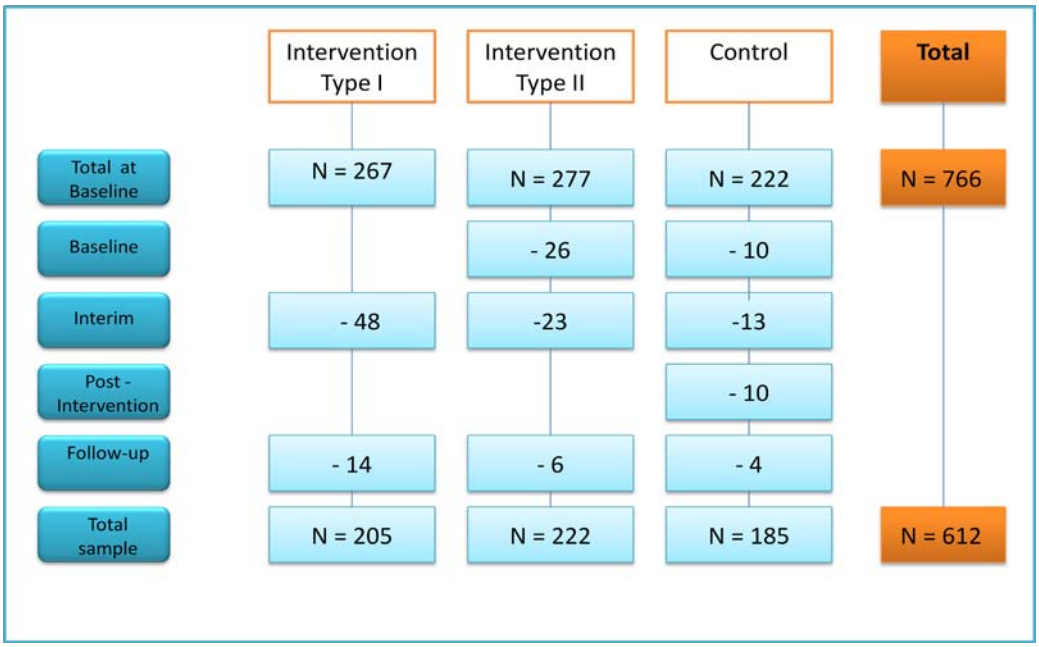


Table 5 illustrates the number of teachers in Intervention Type I and Intervention II and the control group. In total 50 first class teachers were involved in the first half of the study between January and June 2008 (35 intervention teachers and 15 control teachers). For the second half of the study (October – April '09) some of the classes were merged when the children moved into second class, thus, 45 second class teachers were involved in the second half of the study (31 intervention teachers and 14 control teachers). In addition, because the programme was taught over two academic years some of the intervention teachers did not continue with their class group into second class. As a result, 17 second class teachers (who had not taught the children the previous year) received the Zippy's Friends training in September 2009 and they continued with the second half of the intervention from October 2009.

Table 5: Number of teachers in intervention and control groups

	Intervention Type I		**Intervention Type II**		**Control Group**		**Total**
1st half programme (Jan-June '08)	**18**		**17**		**15**		**50**
2nd half programme (Sept – April '09)	**16**	(8 new teachers)	**15**	(9 new teachers)	**15**	(10 new teachers)	**45**

3.3 Measures

The evaluation of Zippy's Friends consists of process, impact and outcome evaluation components. The evaluation of Zippy's Friends was divided into two sections (i) evaluation of the immediate and long term-impact of the programme (ii) evaluation of process of implementation. A range of qualitative and qualitative measures were used for each component.

3.3.1 Measures used to examine the impact of the programme

The impact of the programme on the children's emotional literacy skills, emotional and behavioural wellbeing and coping skills was measured using standardised questionnaires completed by the class teacher and child self-report measures.

Children's Emotional Literacy

- Emotional Literacy Checklist (Faupel, 2003)

The teachers completed the Emotional Literacy Checklist at pre-intervention, post-intervention and at 12 month follow-up. This narrow-band questionnaire measures five dimensions of emotional literacy (i) Self-Awareness (ii) Self-Regulation (iii) Motivation (iv) Empathy and (v) Social Skills. All 20 items on the checklist are rated from 1 to 4 (1 being '*not at all true'*, and 4 being '*very true'*). An overall total emotional literacy score is obtained by summing the scores for each item. A higher score indicates better emotional literacy. The Emotional Literacy Checklist has good internal consistency with a Cronbach's Alpha coefficient reported of 0.94 (Faupel, 2003). In the current study the Cronbach's Alpha coefficient was 0.91.

Children's Emotional and Behavioural Wellbeing

- Strengths and Difficulties Questionnaire (Goodman, 1997)

The teachers also completed the Strengths and Difficulties Questionnaire at pre-intervention, post-intervention and 12 months follow-up. This broadband questionnaire measures children's (age 4-16 years) emotional and behavioural wellbeing. It is made up of 25 items which can be broken into five scales: (i) Emotional Symptoms (ii) Conduct Problems (iii) Hyperactivity / Inattention (iv) Peer Relationship Problems and (v) Prosocial Behaviour. All 25 items are scored between 0 and 2. The questionnaire generates two main scores (i) Total Difficulties Score: sum of all the scales except the prosocial scale and (ii) Prosocial Score: this scores refers to the children's positive social behaviour. According to Goodman (2001), the Strengths and Difficulties Questionnaire has good internal consistency with a Cronbach's Alpha coefficient of .73. The Cronbach's Alpha coefficient in this study was .76.

Children's Coping Skills

- Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990)

The children completed the 26 item self-report Schoolagers' Coping Strategies Inventory at pre- and post-intervention. A prepared script was used to inform the children about the questionnaire and to prepare them for completing the questionnaire. The script ensured that all children received the same instructions

prior to completing the questionnaire (see Appendix 3 for transcript of instructions read out to the children). The questionnaire is made up of a list of 26 coping strategies and generates two main scores: Frequency Score and Effectiveness Score. In terms of the Frequency Score, children are asked to indicate how frequently they use each coping strategy when they feel worried on a scale of 0 – 3 (0 = *never*, 3 = *most of the time*). In relation to the Effectiveness Score, children are then asked to rate each strategy according to how much these coping strategies help them to feel better on a scale of 0-3 (0 = *never do it*, 3 = *helps a lot*). Scores on the frequency and effectiveness scale can range from 0 to 73. The coping strategies can be further examined according to 'neutral' and 'violent' coping strategies. Neutral strategies refer to strategies that did not involve the use of violent behaviour and was calculated by summing the coping strategies 1 to 26 except items 10 "*get mad*", 12 "*hit, throw or break things*" and 13 "*pick on someone*". Violent strategies referred to the use of strategies 10, 12 and 13. The changes in the children's use of 'neutral' and 'violent' strategies between pre- and post-intervention was examined. Range of reliability correlations in several studies have been: test-retest, 0.73-0.82; internal consistency, 0.70-0.89 (Ryan-Wenger, 1997). The Cronbach's Alpha coefficient in this study was .76.

- Draw and Write Technique (Williams et al., 1989)

A sub-sample of classes were randomly chosen from Intervention Type I (N = 4), Intervention Type II (N = 4) and the control group (N = 4) to take part in the Draw and Write Technique at pre-intervention, post-intervention and 12 month follow-up. In total, 52 children from Intervention Type I, 64 children from Intervention Type II and 45 children from the control group were assigned to take part in the Draw and Write Technique. The purpose of this activity was to examine the type of coping strategies that the children would use when feeling sad or upset about a particular situation. Firstly, the children were asked to draw a picture and write one sentence about a time when they felt sad. Following this, the children were asked to draw a second picture and write one sentence about what they could do to make themselves feel better (see Appendix 4 for transcript of instructions read out to the children). Children that requested assistance with writing their sentences were assisted by the class teachers or researcher.

- Children's Participatory Workshops, Interim and Post-Intervention

The twelve schools that were randomly chosen to take part in the Draw and Write also participated in child participatory workshops at the interim, end of programme and at 12 months follow-up (see appendix 5 for outline of participatory workshop). Qualitative child-centered techniques adapted from previous studies by Douglas, (2000), Byrne and colleagues (2004) and Clarke and colleagues (2008) were used to engage the children in the workshop activities. To commence the workshop, the children and researcher took part in a group warm up activity, this was followed by the establishment of group rules which were devised and agreed on by the children. Children then took part in two activities (i) Feelings Activity and (ii) Problem Solving Vignettes Activity. During these activities the children and researcher sat in a circle and children shared their ideas with the group using a talking object. For the Feeling Activity the researcher read out six different scenarios, each scenario describing something that happened to a child. The children were asked to respond by explaining how the child might have felt. At post-intervention and at follow-up the scenarios were altered slightly (names and location changed), however, the type of event remained the same.

The following scenarios were read out to the children:

- *Tom was pushed in yard*
- *Michael was going to Spain for four weeks*
- *Gráinne forgot to do her spellings last night*
- *Paul's brother took his PS2 from him and wouldn't give it back to him*
- *Sharon said that nobody would play with her in yard.*
- *Ronan's sister got a new bike and he didn't.*

For the Vignette Problem Solving Activity, the researcher read out two vignettes to the children. These vignettes were concerned with two separate children and a problem they experienced. In the first scenario Louise's colouring pencils were taken by another girl in her class and in the second scenario Ryan was not allowed to go to his friend's house because he did not tidy his room. The children were asked a set of questions about the vignettes: *(i) 'How did the person feel?'* and *(ii) 'What could they do to feel better?'* In the case of the first story the children were also asked: *'If*

you were Sarah's friend what would you do to help her?'. At post-intervention and at 12 months follow-up, similar vignette were read out to the children with slight modifications being made so that the children wouldn't remember the story. For the first story, at post-intervention Laura's basketball was taken by another girl in her class and at 12 months follow-up the skipping rope teacher gave her for break-time was taken and used by other girls in the class. In terms of the second vignette, at post-intervention Rory was not allowed to go to his friend's birthday party because he got a note home from the teacher to say he was not doing his work properly in class. At 12 months follow-up, Peter was not allowed to play with his friends bouncy castle because teacher rang his Dad to say that he was pushing younger boys in the yard. The children's responses during the recognition of feelings activity and the vignettes activity were recorded using a digital recorder.

3.3.2 Measures to evaluate the implementation of the programme

The process of programme implementation was monitored and documented throughout the study in order to (i) understand the context within which the programme was implemented (ii) determine the level of programme fidelity and quality of implementation across the intervention group (iii) ascertain the strengths and weaknesses of the programme (iv) determine if certain aspects of the programme worked better than other and if so, how and why they worked better (v) understand the interaction between characteristics of the implementation system, characteristics of the implementer and various aspects of the setting and organisational context in which the programme is implemented. The following measures were used to evaluate the process of implementation:

- The School Context - Teachers' Ethos Questionnaire

This Ethos Questionnaire which was completed by teachers in the intervention and control groups was designed to provide information about the environment and organisational context within which the Zippy's Friends programme was implemented. The climate / social environment of a school is known to influence programme delivery and effectiveness (Greenberg et al., 2005; Domitrovich et al., 2008; Firth et al., 2008; Beets et al., 2008), as well as mental health outcomes in young people (Rutter et al., 1979; Wells et al., 2001). The Ethos Questionnaire was originally developed for use as part of the MindMatters programme (Commonwealth

Department of Health and Aged Care, 2002) and was subsequently used as part of the evaluation of *MindOut*, a mental health promotion programme in secondary schools in Ireland (Byrne & Barry, 2004). The questionnaire was adapted for use in the Zippy's Friends evaluation in that questions from the Psycho-social Environment (PSE) Profile (WHO, 2003), a questionnaire designed by the World Health Organization to help schools assess qualities of the school environment that support social and emotional wellbeing (copy of Ethos Questionnaire in Appendix 6). The questionnaire was composed of open- and closed-ended questions and a likert scale (1 = always, 4 = never). Similar to the weekly questionnaire, questions were worded both positively and negatively where possible to minimise the potential effects of response bias or consistent selection of one type of response.

The Ethos Questionnaire in this study was specifically concerned with:

i. school policies
ii. the promotion of positive mental health throughout the school
iii. the implementation of Social Personal and Health Education (SPHE) curriculum
iv. school ethos
v. support from community services
vi. parental involvement and
vii. barriers that exist in the promotion of positive mental health throughout the school.

- Teachers Weekly Reports on Programme Fidelity

On completion of each session the teachers completed a programme fidelity checklist, indicating what parts of each session they fully implemented, partially implemented or omitted. A comparison between the level of programme fidelity across the teachers in Intervention Type I (full implementation) and the teachers in Intervention Type II (partial implemention) was subsequently carried out. In addition, programme fidelity was monitored as part of the structured observations that took part in a sample of schools during the first and second half of the programme. The results from the observations were compared and contrasted with the teachers' checklist in order to determine accurate reporting of programme fidelity.

- Teachers Weekly Reports on Programme Implementation

In addition to reporting programme fidelity, the teachers in the intervention groups completed a weekly questionnaire that was designed elicit information about the implementation process. A combination of open- and closed-ended questions and likert scales were used. The advantages of combining open and closed questions is that while closed questions enhance the comparability of answers, open questions permit the respondents to answer in their own terms and the salience of issues for respondents can also be explored (Bryman, 2001). Questions were concerned with:

i. changes made to the lesson and how this impacted on the lesson
ii. length of lesson
iii. appropriateness of content
iv. the extent to which the children enjoyed, understood and benefited from the lesson
v. teachers' enthusiasm for the lesson
vi. positive aspects of the lesson and difficulties experienced by the teachers
vii. factors that influenced the implementation of the lesson
viii. teachers' overall rating of the lesson.

- Observations of Zippy's Friends Lessons

Structured observations were carried out by the researcher and a Health Promotion Officer in a sample of intervention schools during the first and second half of the programme. After observing the Zippy's Friends lesson the researcher / Health Promotion Officer completed an observation questionnaire. This questionnaire was developed specifically for this study and was designed to provide feedback about programme fidelity, adaptation, quality of implementation, participant responsiveness, programme reach and factors affecting implementation (copy of structures observation questionnaire in Appendix 7). The questionnaire was composed of open- and closed-ended questions and likert scales. Questions were specifically concerned with:

i. programme fidelity – checklist
ii. key components of programme present (e.g. children sitting in circle, Zippy's Friends corner in room, use of warm up activity)
iii. pace of lesson

iv. inclusion of all children during lesson
v. children's understanding and acquisition of skills during lesson
vi. quality of implementation of lesson
vii. factors that affected quality of implementation
viii. overall rating of lesson.

Prior to visiting the schools the researcher and Health Promotion Officer reviewed the structured questionnaire. Each question in the observation questionnaire was reviewed and discussed to ensure understanding and comparable ratings. The observation questionnaires were completed directly after each school visit. A total of 13 schools were visited between April and May 2008 and 14 schools were visited between December and February 2009. The Kappa Measure of Agreement value between the two raters was .738 with a significance value of $p < .005$ thus indicating that the level of agreement between the two raters was good. Whilst it is argued that structured observations are subject to validity errors that arise from the implementation of the measure in the research process (e.g. the reactive effect - change in people's behaviour because they know they are being observed), the observations were regarded as an important part of the evaluation for a number of reasons including: (i) understanding the contextual environment within which the programme was being implemented and the impact this had on quality of implementation (ii) observing programme fidelity and cross referencing it with the programme fidelity results from the teachers' weekly questionnaire and (iii) triangulating the results from the teachers' weekly questionnaires and focus groups review session with the observations.

- The Curriculum Context - Teachers' SPHE Questionnaire

Before the teachers completed the second half of the programme, both intervention and control teachers were asked to complete a Social Personal and Health Education (SPHE) Questionnaire. The purpose of this questionnaire was to determine the level of implementation of the SPHE curriculum across both intervention and control schools for the '08/'09 academic year. The questionnaire enabled the study to monitor activities that children in the control group engaged in during the study period. The importance of collecting and reporting data relating to changes in class practices and/or the implementation of additional programmes in the control group

has been highlighted by several authors (Flay et al., 2005; Spence & Shortt, 2007). Spence & Shortt (2007) point to the issue of study participation and the reactive effect this can have on school practices in the control group. In addition to monitoring the control conditions, the questionnaire was also designed to determine the impact of the implementation of Zippy's Friends on the delivery of the standard SPHE curriculum in the intervention schools, i.e. if there was a pattern of strand/strand units being 'left out' as a result of the implementing the Zippy's Friends programme. Information regarding perceived barriers to implementation of the curriculum and recommended changes to the curriculum was also collected as part of this questionnaire (copy of SPHE Questionnaire in 87)

- Perceived Strengths and Weaknesses of the Programme: Children's Participatory Workshop

The children's views about the Zippy's Friends programme were ascertained during the child participatory workshops which were carried out at the interim, end of programme and at 12 months follow-up. Following completion of the Feelings Activity and the Problem Solving Vignettes Activity, children in the intervention group (N = 116) were asked a series of questions about the programme using child-centered techniques. The class was divided into groups of two or three and the children brainstormed on poster paper (with the researcher acting as scribe): (i) what the programme was about (ii) what they liked about the programme (iii) what they disliked about the programme and (iv) what kind of things Zippy's Friends had taught them. On completion of this activity the children's responses to "*What kind of things has Zippy's Friends taught you?*" were placed on the wall and the children were asked to individually identify the two most important things that Zippy's Friends taught them. Each child was given two post-its and voted using the two post-its. The workshop was completed using a cool down activity.

- Perceived Strengths and Weaknesses of the Programme - Focus Group Review Sessions and Teachers' Review Questionnaire

A series of focus group review sessions took place with the intervention teachers on completion of the first half of the programme and again at post-intervention. This review session was designed to obtain information from the teachers regarding:

i. their experience of implementing the programme in terms of overall success, programme content, structure and factors that affected programme implementation
ii. perceived effects of the programme on the children, themselves as teachers and the wider school community
iii. the adequacy of programme training
iv. Zippy's Friends in the context of the SPHE curriculum
v. recommendations to assist the implementation of the programme in an Irish setting.

The review sessions were carried out by the researcher in six different localities across Donegal, Sligo and Galway, in order to facilitate the teachers' attendance. At the interim, 28 out of 35 teachers (80%) attended. Post-intervention, five review sessions were carried out. A total of 23 out of the 31 intervention teachers (74.2%) attended. For the purpose of this study the focus groups were used as a tool to elicit teachers' views, generate ideas and measure the degree of consensus of certain issues. In addition, it was anticipated that the group interaction would provide valuable insight into teachers' collective experiences and that group members would stimulate each other to think and express their opinions which in turn could stimulate more thought thus producing rich, in-depth data (copy of end of programme review session questions in Appendix 9).

On completion of the first half and second half of the programme the teachers in the intervention group were asked to complete a review questionnaire. The purpose of this questionnaire was to obtain the teachers' opinions about (i) their overall impression of the programme (ii) the impact of the programme (iii) the children's experiences of the programme from the teachers' perspectives and (iv) recommended changes to the programme. This questionnaire was composed of open- and closed-ended questions and likert scales. This questionnaire was designed to supplement the findings from the focus group review sessions (copy of end of programme review questionnaire in Appendix 10).

3.4 Procedure

The data collection points and measures that were used at each time point are illustrated in Figure 3. The procedure for the collection of data was as follows:

Pre-Intervention (January 2008)

- Pre-intervention data collection took place in January 2008. The intervention and control teachers received the Emotional Literacy Checklists and the Strengths and Difficulties Questionnaires in the post. The teachers were instructed to complete these questionnaires based on the children's behaviour over the past month.
- The researcher and Health Promotion Officers visited all of the intervention and control classes and carried out the Schoolagers' Coping Strategy Inventory with the children in January 2008. A prepared script was used to inform the children about the questionnaire and to prepare them for completing the questionnaire.
- The researcher also visited the schools that were randomly selected to take part in the Draw and Write Technique. A prepared set of instructions was used to guide the children through the Draw and Write Technique.

Interim I (April – May 2008)

- In April and May 2008 the researcher and Health Promotion Officer visited a sample of intervention schools and observed Zippy's Friends lessons. Following each observation, an observation questionnaire was completed.
- In May 2008, the intervention and control teachers received the Ethos Questionnaire and were asked to complete this questionnaire as faithfully as possible.

End of first half of programme (June 2008)

- In June 2008, teachers returned their weekly questionnaires for Modules 1 – 3.
- The researcher visited a sub-sample of schools and the children took part in the interim child participatory workshops. These workshops were designed to ascertain the children's views about the programme and to examine their emotional vocabulary and problems solving skills.
- On completion of the first half of the programme, teachers in the intervention group completed the interim review questionnaire. In addition, teachers from each

county met in a central location and took part in an interim focus group review session. Teachers were asked a set of questions in a semi-structured format.

Interim II (December – March 2009)

- A second set of class observations took place between December and February 2009. A sample of schools in the intervention group were visited by the researcher / the Health Promotion Officer. Teachers implemented a Zippy's Friends lesson and an observation questionnaire was completed by the researcher / Health Promotion Officer.
- The teachers in the control and intervention group completed the SPHE Questionnaire in March 2009.

Post-Intervention (April – June 2009)

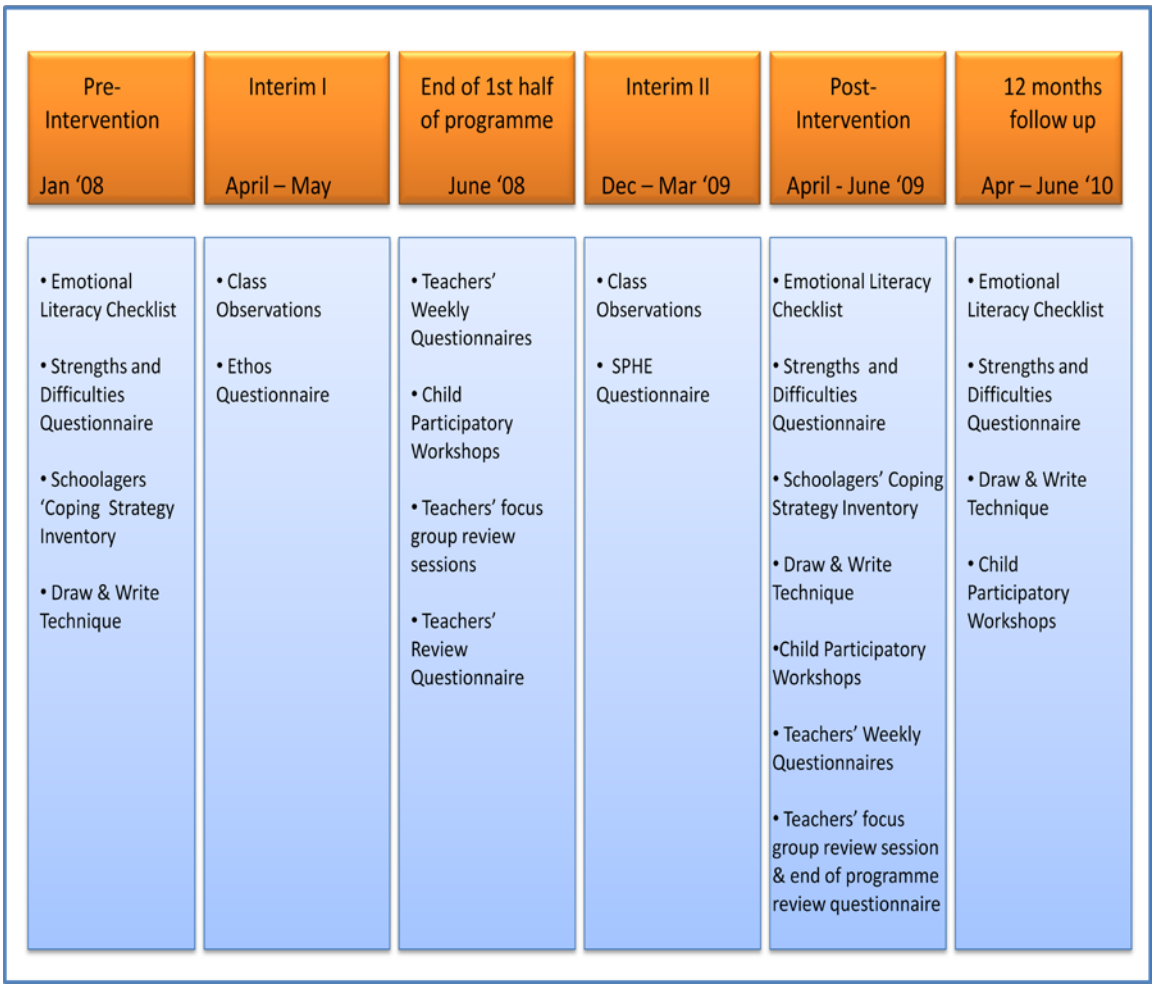
- On completion of the programme the intervention and control teachers received the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire in the post. The teachers were instructed to complete the questionnaires based on the children's behaviour over the past month.
- The researcher and Health Promotion Officers visited all of the intervention and control classes and carried out the Schoolagers' Coping Strategy Inventory with the children. The script that was used at the baseline was again used by the data collectors to ensure that all children received the same instructions prior to completing the questionnaire.
- Children completed the Draw and Write Technique. The researcher visited all of the schools that were randomly selected to take part in the Draw and Write Technique. The instruction sheet was again used to guide the children through the Draw and Write Technique
- The researcher also carried out the child participatory workshops with the sample of schools selected at pre-intervention. The same structured activities were used to ascertain the children's views about the programme and to examine their emotional vocabulary (Feeling's activity) and coping strategies (Vignettes activity).
- Teachers returned their weekly questionnaires for Modules 4 – 6.

- The intervention teachers from each county were invited to attend a focus group review session in June 2009. During the review session the teachers completed an end of programme review questionnaire and took part in a semi-structured focus group review session.

Twelve month follow-up

- At twelve months follow-up, teachers in intervention and control schools completed the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire. The teachers were instructed to complete these questionnaires based on the children's behaviour over the past month.
- The researcher visited the schools selected to take part in the Draw and Write and the participatory workshops at pre-intervention and carried out both activities with the children at 12 months follow-up.

Figure 3: Key data collection points and measures used



3.5 Data Analysis

3.5.1 Quantitative Data Entry and Screening

All quantitative data were entered and analysed using SPSS (Statistical Package for the Social Sciences) Version 17.0. Interval data were inputted directly and nominal and ordinal data were coded and then inputted into SPSS. A code of 99 was assigned to missing values when participants failed to give any response. Responses to open questions were entered as a string variable. Following completion of data entry, a process of checking for errors was carried out. Using the 'Frequencies' function in SPSS, data were examined for the expected maximum and minimum values and also reasonable means and standard deviations. In addition, for each data set the researcher randomly chose student ID numbers and cross-checked the results entered into SPSS with the original data as a means of screening for accuracy of data inputting. In terms of missing data, pairwise exclusion of missing data was used in the analysis. Cases were excluded if they were missing the data required for the specific analysis and were included in any of the analysis for which they had the necessary information.

3.5.2 Assessing Programme Fidelity

Prior to assessing the impact of the programme, an examination of programme fidelity was carried out. The total number of activities fully implemented, partially implemented and not implemented was calculated for each teacher. The mean number of activities fully implemented, partially implemented and not implemented by teachers in Intervention Type I and Type II was subsequently calculated. It was hypothesised that the teachers in Intervention Type I would implement significantly more of the programme than the teachers in Intervention Type II and that as a result the impact data from the two intervention groups would be analysed separately. The programme fidelity results, however, revealed that there was no difference in the level of programme fidelity between the two intervention groups and, therefore, the data from the two intervention groups were combined in the analysis and compared with control group data.

3.5.3 Assessing Programme Impact: Emotional Literacy Checklist & Strengths and Difficulties Questionnaire

The impact of the programme on the children's emotional literacy and emotional and behavioural wellbeing was examined using the Emotional Literacy Checklist (Faupel, 2003) and the Strengths and Difficulties Questionnaire (Goodmanm 1997). A significance level of 0.05 was used for all statistical tests. Firstly, significant differences in the characteristics of the intervention and control groups were tested for by conducting Chi Square (categorical variables) and Independent T-Tests (continuous variables). The following independent variables was examined:

- gender
- school location (urban/rural)
- school size (large/small)
- multigrade (multigrade class / single class unit)
- age

Secondly, baseline differences between the intervention and control groups' Total Emotional Literacy score, Total Difficulties score and Prosocial score were examined using independent t-tests. The results from this determined the type of analysis that was used to compare pre-test to post-test change. There is ongoing debate about the most appropriate type of analysis when baseline differences occur. Several authors distinguish between naturally occurring groups and a group randomly assigned to one of two conditions (e.g. Jamieson, 2004; Flay et al., 2005). These authors suggest that when groups are randomly assigned to intervention and control condition, observed baseline differences between groups are a function of sampling error and that ANCOVA should be used (Flay et al., 2005; Dimitrov & Rumrill, 2003). ANCOVA uses the pretest score as the covariate and by removing the variance explained by the pretest from the posttest, the residual is variation that reflects the change from the pretest (Jamieson, 2004).

Depending on the results from the independent t-tests, the following analysis were used. If there was no significant difference between the intervention and control groups at the baseline, repeated measures analysis of variance (ANOVA) was used to determine the *time x group* effect using baseline and end of programme scores.

Between-subjects factors were group (intervention vs. control) and the within subjects factor was time (pre-intervention vs. post-intervention). If there was a significant difference between then intervention and control groups' baseline scores, ANCOVA was used to control for the baseline difference.

Following analysis of the pre- and post-intervention scores, the results from the 12 months follow-up data were analysed in order to determine the long-terms effects of the programme. Repeated measures ANOVA was used to examine the change in the intervention and control groups across the three time periods (pre-intervention, post-intervention and 12 months follow-up). Between subjects factor was group (intervention vs control) and the within subjects factor was time (pre-intervention vs post-intervention vs follow-up). In addition a 2 x 2 ANOVA/ANCOVA was subsequently used to examine changes between pre-intervention and 12 months follow-up results. Further analysis (ANOVA, *time x group* x gender) was carried out to examine the effect of gender on programme outcomes.

In terms of the Emotional Literacy Checklist, analysis of the Total Emotional Literacy Score and the individual subscales (Self Awareness, Self Regulation, Motivation, Empathy and Social Skills) was carried out. In relation to the Strengths and Difficulties Questionnaire, analysis of the Total Difficulties score, the Prosocial score and the Total Difficulties subscales (Emotional Symptoms, Conduct Problems, Hyperactivity and Peer Relationship Problems) was carried out.

3.5.3.1 Score Bands

The Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire are made up of a series of bands which categorises the children into groups depending on how they scored. The Emotional Literacy Checklist is divided into five score bands. These bands have been derived from the norms of the standardisation sample (Faupel, 2003). Table 6 shows the cut-offs for the Total Emotional Literacy score bands.

Table 6: Score bands for Total Emotional Literacy Score

Total Emotional Literacy score range	Well below average	Below average	Average	Above average	Well above average
	≤ 42	43-50	51-69	70-75	≥ 76

The Total Difficulties score from the Strengths and Difficulties Questionnaire is divided into three score bands 'normal', 'borderline' and 'abnormal'. These bands have been derived from the norms of the standardisation sample (Goodman, 1997). The cut-offs for the Total Difficulties score bands are shown in the Table 7.

Table 7: Score bands for Total Difficulties Score

Total Difficulties Score Range	Normal	Borderline	Abnormal
	0-11	12-15	16-40

Using the score bands as defined by each questionnaire, further analysis was carried out to determine which group of children benefited the most from the programme. For the Emotional Literacy Checklist children were categorised into three groups at the baseline (i) well below average / below average (ii) average (iii) above average / well above average. Repeated measures analysis was used to determine the changes in the groups' Emotional Literacy Score between pre- and post-intervention. Similarly, for the Total Difficulties score in the Strengths and Difficulties Questionnaire, repeated measures analysis was used to examine the scores of the children categorised as 'normal', 'borderline' and 'abnormal' at pre-intervention and to determine which group benefited the most.

3.5.3.2 Multi-level Analysis

Given that randomisation occurred at school level and children were nested / clustered within schools, the data were also analysed at the cluster level using multilevel modelling techniques. The analysis was carried out using *Mixed Models* in SPSS. Using this model, school was specified as the level 2 variable and the intercept and effects were specified as random. Similar to the analysis that was carried out at the individual level, an analysis of the differences between the intervention and control groups following scores was carried out:

i. Total Emotional Literacy Score
ii. Emotional literacy subscales
   a. *Self Awareness*
   b. *Self Regulation*
   c. *Motivation*

   d. *Empathy*
   e. *Social Skills*

iii. Total Difficulties Score

iv. Total Difficulties subscales

   a. *Emotional symptoms*
   b. *Conduct Problems*
   c. *Hyperactivity*
   d. *Peer Relationship Problems*

v. Total Prosocial Score

The multi-level analysis examined changed between pre- and post-intervention and pre-intervention and 12 months follow-up.

3.5.4 Assessing Programme Impact: Schoolagers' Coping Strategy Inventory

The Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990) was employed to determine the impact of the programme on the type of strategies used by the intervention and control groups at pre- and post-intervention. The results from this questionnaire generate two main findings: Frequency of Use (Frequency Score: sum of 26 items on scale A, score 0 – 3) and Effectiveness of coping strategies (Effectiveness Score: sum of 26 items on scale B, score 0 – 3). Similar to previous analysis of the Schoolagers' Coping Strategy Inventory, the coping strategies were analysed according to the use and effectiveness of 'neutral' and 'violent' strategies. In terms of Frequency of Use, a repeated measures ANOVA was used to examine the change in use of 'neutral' and 'violent' strategies among children in the intervention and control groups between pre- and post-intervention. In relation to the Effectiveness score, a repeated measures ANOVA was used to examine the change in the children assessment of the effectiveness of 'neutral' and 'violent' strategies between pre- and post-intervention. Following this, individual analysis of each subscale was used to determine (i) the most frequently used coping strategies and (ii) the most effective coping strategies at pre- and post-intervention.

3.5.5 Assessing Programme Impact: Draw & Write Technique

The written comments from the children's Draw and Write Technique were analysed using the inductive thematic analysis approach (Braun & Clark, 2006). This method

means that the themes identified are strongly linked to the data themselves, thus providing a rich and detailed account of the entire data set. Using Braun and Clark (2006) six phases of thematic analysis, after reading and re-reading the data, the children's responses to Picture 1 *("A time when I felt sad")* were coded and collated. Following this, the codes were sorted into potential themes, gathering all data relevant to each potential theme. The themes were checked in relation to the coded extracts (Level 1) and the entire data set (Level 2). Further analysis was carried out to refine the specifics of each theme and the final step of analysis involved selecting compelling extract examples. Following the analysis of Picture I, the children's responses to Picture 2 *("What I could do to feel better")* were analysed within each themed 'problem situation'. The same six step process of thematic analysis was repeated for Picture 2. A comparison was made between the intervention and control groups' responses at pre-, post-intervention and 12 months follow-up.

3.5.6 Assessing Programme Impact & Process of Implementation: Child Participatory Workshops & Focus Group Review Sessions

The child participatory workshops and the focus group review sessions with the teachers were recorded with the permission of the respondents at the interim, post-intervention and at 12 months follow-up (participatory workshops only). The recordings were transcribed by the researcher and were analysed using the inductive thematic analysis approach (Braun & Clark, 2006). Similar to the Draw and Write, transcripts were reviewed and interesting features of the data set were coded. Codes were grouped into potential themes and themes were reviewed, refined and defined.

3.5.7 Assessing Process of Implementation: Weekly Questionnaires, Observations, Review Questionnaire, SPHE Questionnaire & Ethos Questionnaire

Data from the Weekly Questionnaire, Observations, Review Questionnaire, SPHE Questionnaire and Ethos Questionnaire were analysed using SPSS 16. All negatively worded questions were recoded into positive worded questions, similar to majority of questions in the questionnaires. Responses to closed questions were coded and inputted directly, while responses to open questions were transcribed and grouped into meaningful categories.

3.6 Ethical Issues

Ethical approval was received from the National University of Ireland Galway Ethics Committee in December 2007 to undertake the evaluation of the Zippy's Friends programme. Prior to programme implementation, informed consent was obtained from the parents of the children in the intervention and control groups to allow their children to take part in the research process. Children in the intervention group whose parents did not give consent received the programme and did not take part in the research (N=2).

Steps were taken to ensure that no teacher or child would be identifiable from the questionnaires. Each school was assigned a number. Each child was assigned the school number followed by their own personal number. Teachers were also assigned the school number followed by their personal number. Each data collection phase was preceded by an explanation of the background, context of the research and the way in which the data would be used.

Consent to record the teachers' focus group review sessions and the children's participatory workshops was sought prior to recording. During the participatory workshops the children were given the option to 'pass' on a particular activity if they wished. Similarly, children who did not wish to take part in the Schoolagers' Coping Strategy Inventory or the Draw and Write activity were free to opt out. The control schools were assured that they would receive the Zippy's Friends training and intervention on completion of end of programme data collection.

CHAPTER 4

Results I: Programme Effectiveness

The first section of this chapter provides an overview of the participant and school profiles. The profile of the participants involved in the study will be presented first. This is followed by the results from the Ethos Questionnaire which provides information about the environment and ethos of the intervention and control schools. Next, the results pertaining to programme fidelity will then be presented. These results delineate the level of adherence among teachers in Intervention Type I and Type II which determined how the impact results would be analysed (i.e. Intervention Type I vs Intervention Type II vs Control or Intervention Type I and II vs control). Additional analysis of programme fidelity in relation to (i) programme outcomes (ii) ethos and environment of the school and (iii) teachers' views of the programme is presented in the implementation results chapter. The third section of the chapter outlines the key findings in terms of the impact of the programme on the children's emotional literacy skills, emotional and behavioural wellbeing and coping skills. The results from the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire will be presented. Following this, the results relevant to effects of the programme on the children's coping skills will be outlined. These include the results from the Schoolagers' Coping Strategy Inventory, the Draw and Write Technique and the Child Participatory Workshops.

4.1 Participant Profile

The mean age of the children at the baseline (Feb '08) was 7 years and 3 months (Mean age = 87.2 months, SD = 5.6, Min = 6 years, 1 month, Max = 10 years). The number and mean age of the children in years and months are shown in Table 8.

Table 8: Mean age of children in intervention and control groups

	Interv Type I		**Interv Type II**		**Control**		**Total**	
	N	Mean Age	N	Mean Age	N	Mean Age	N	Mean Age
Male	131	7.03	133	7.03	106	7.03	370	7.03
Female	135	7.02	115	7.01	96	7.04	346	7.02
Total	266	7.03	248	7.02	202	7.03	716	7.03

Table 9 compares the demographic characteristics of the children in each group. There was no significant difference between the three groups in terms of gender, school location (rural or urban) and multigrade class (multiple classes in one class unit or single class unit). There was a significant difference across the three groups for school size with significantly more students attending a large school (schools with greater than 100 pupils) in Intervention Type I than Intervention Type II or control [x^2 (2, n= 730) = 12.99 , p = .002]. The mean age of the children in the three groups did not differ significantly.

Table 9: Profile of children in intervention and control groups

		Intervention Type I		**Intervention Type II**		**Control**		**Total**	
		N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Gender	Male	132	**49.4**	134	**53.4**	113	**53.4**	379	**51.9**
	Female	135	**50.6**	117	**46.0**	99	**46.7**	351	**48.1**
School Size	Large (N≥101)	201	**75.3**	163	**64.9**	128	**60.4**	492	**67.4**
	Small (N≤100)	66	**24.7**	88	**35.1**	84	**39.6**	238	**32.6**
School Location	Urban	76	**28.5**	86	**34.3**	77	**36.3**	239	**32.7**
	Rural	191	**71.5**	165	**65.7**	135	**63.7**	491	**67.3**
Multigrade	Multigrade	145	**54.3**	118	**47.0**	104	**49.1**	367	**50.3**
	Not multigrade	122	**45.7**	133	**53.0**	108	**50.9**	363	**49.7**

4.2 School Profile: Results from Ethos Questionnaire

The teachers in both intervention (N=30) and control groups (N=10) completed the Ethos Questionnaire. The purpose of this questionnaire was to examine the environmental context within which the Zippy's Friends programme was being implemented. Questions were concerned with (i) school policies (ii) the promotion of positive mental health throughout the environment of the school (iii) the implementation of SPHE curriculum (iv) school ethos (v) support from community services (vi) parental involvement and (vii) barriers that exist in the promotion of positive mental health in the school.

4.2.1 Policies

The teachers were asked about the number of policies that had been drawn up in their school. Of the nine policies listed, the majority of schools in the intervention and control groups reported having a (i) bullying policy (ii) welfare and discipline policy (iii) policy for reporting suspected child abuse and a (iv) policy on the administration and safe storage of medication for children (Table 10). Over 70% of intervention and control schools reported having a gender equity / discrimination policy. More control than intervention schools had a policy on the integration of new students into school. Similarly, more control than intervention school had a policy on the referral of suspected child health problems. Two policies were integrated with less frequency in control and intervention schools. Less than 60% of schools had a critical incident policy and only a third of intervention and control schools had a policy on staff health and welfare. In terms of the teachers' familiarity with the school policies, 80.6% (N=25) of teachers in the intervention group and 77.8% (N = 7) of teachers in the control group stated that they were familiar with their schools' policies. Thirty percent of the teachers in the intervention group (N=9) and 10% of the teachers in the control group (N=1) reported that the school policies were revised and updated on a yearly basis.

Table 10: School Policies - Number & percentage of schools that reported having school policies

	Intervention		**Control**	
	N	**%**	N	**%**
Bullying	31	**100%**	9	**100%**
Integration of new students into school	18	**58.1%**	7	**77.8%**
Welfare and Discipline	30	**96.8%**	8	**88.9%**
Gender equity / Discrimination / Harassment	22	**71%**	7	**77.8%**
Critical incident policy	18	**58.1%**	5	**55.6%**
Reported or suspected child abuse	30	**96.8%**	8	**88.9%**
Staff Health and Welfare	10	**33.3%**	3	**33.3%**
Referral of suspected child health problems	15	**48.4%**	7	**77.8%**
Administration, safe storage of children's medication	27	**87.1%**	9	**100%**

4.2.2 School Procedures and Support

This section of the questionnaire was designed to investigate the procedures within the school in relation to emergencies, staff-student interaction, voicing concerns and support being. Table 11 outlines both groups' mean scores. The results indicate that in both intervention and control schools: (i) staff act as role models by their positive interactions with the children, staff and parents (ii) girls and boys have equal access to the schools resources (iii) schools provide adequately for the welfare needs of the children and (iv) there is a procedure that allows children voice concerns about inappropriate behaviour in the school. Areas that the received a low mean by intervention and control teachers included: (i) staff seeking help when feeling stressed or over-committed and (ii) children and staff rehearsing evacuation plans. The statement "*Support is available for teachers involved in stressful incidents*" received a low mean rating from teachers in the intervention group (M = 1.46, SD = 1.0).

Table 11: School procedures and support, mean intervention and control scores

(Scale 0 *never* – 3 *always*)	**Intervention** N = 31		**Control** N = 9	
	Mean	SD	**Mean**	SD
Staff members act as role models	**2.71**	0.5	**2.56**	0.7
Girls and boys have equal access to school resources	**2.94**	0.3	**2.89**	0.3
Staff members seek help when feeling stressed	**1.50**	0.9	**1.0**	0.5
Staff have clear understanding of emergency procedures	**2.30**	0.8	**2.29**	0.9
Children and staff rehearse evacuation plans	**1.65**	1.0	**1.89**	0.9
Promoting children's health and welfare is priority of school	**2.03**	0.9	**2.25**	0.7
School provides adequately for welfare needs of children	**2.52**	0.7	**2.0**	1.0
There is procedure that allows children voice concerns about inappropriate behaviour in school	**2.43**	0.9	**2.75**	0.4
Support is available for children involved in stressful incidents	**1.93**	1.0	**2.13**	1.1
Support is available for teachers involved in stressful incidents	**1.46**	1.0	**2.0**	1.1
Value of counselling and talking things out is recognised as high priority in this school	**1.93**	1.0	**2.0**	0.7

4.2.3 Social Personal Health Education and Mental Health Promotion

The teachers' views of Social Personal Health Education **(**SPHE), the allocated time and their ability to teach the curriculum was ascertained in this section. The results for this section are shown in Table 12. Teachers in the intervention and control groups regarded the allocated time devoted to teaching SPHE as appropriate (Mean > 2.4). There was a notable difference in intervention and control groups' views in relation to two statements. Teachers in the intervention group felt better equipped to educate children about positive mental health. A Mann-Whitney U test revealed that there was a significant difference in the control and intervention groups' mean score for this statement [Intervention M = 2.17 SD = 0.8; Control M = 1.44 SD = 1.0, U = 78.0. z = -2.01, p = 0.045]. Teachers in the intervention group, however, were less likely to agree that SPHE gives sufficient coverage to aspects of mental health (Intervention mean = 1.97, Control mean = 2.37). The statement *"Staff are encouraged to attend professional development programmes about mental health"* received the lowest mean score from teachers in both the intervention and control groups (Mean < 1.2).

Table 12: SPHE and Mental Health Promotion, mean intervention and control scores

(Scale 0 *never* – 3 *always*)	**Intervention** N = 31		**Control** N = 9	
	Mean	SD	**Mean**	SD
Adequate time is allocated to teaching SPHE	**2.61**	0.6	**2.44**	0.9
SPHE curriculum gives sufficient coverage to aspects of mental health	**1.97**	0.8	**2.37**	0.7
I feel well equipped to educate children about positive mental health	**2.17**	0.8	**1.44**	1.0
The work in the school shows consideration of people's diverse cultural background when dealing with positive mental health	**1.81**	0.8	**1.87**	0.9
Staff are encouraged to attend professional development programmes about mental health	**1.17**	0.9	**1.11**	0.8
Children develop skills in help-seeking and communication	**2.12**	0.7	**2.00**	1.0

4.2.4 Environment and Ethos

Table 13 indicates the intervention and control groups' mean and standard deviation scores for this section. Overall, teachers in both groups said that the school provides a safe caring environment with the provision of sanctions and strategies to: (i) actively discourage violence and (ii) ensure the valuing of all cultures (M > 2.5). The statement *"Positive mental health skills are promoted through the regular academic curriculum"* received a higher rating from the teachers in the control group than the intervention group. Furthermore, a Mann Whitney U test revealed a significant difference between the control and intervention groups mean score for the statement *"Opportunities are provided for staff, children and parents to develop positive relationships"* [Intervention M = 2.10 SD = 0.6; Control M = 1.56, SD = 0.7, U = 84.5. z = -2.12, p = 0.034] with teachers in the intervention group giving this statement a significant higher rating than teachers in the control group. The statements that received the lowest rating (M < 1.7) by teachers in both groups included *"School caters for children who experience periods of mental illness"* and *"All children are encouraged to participate in the school's decision making process"*.

Table 13: School Environment and Ethos, mean intervention and control scores

(Scale 0 *never* – 3 *always*)	**Intervention** N = 31		**Control** N = 9	
	Mean	SD	**Mean**	SD
Physical environment of school contributed to positive mental health of children and staff	**2.27**	1.0	**2.11**	1.0
Positive mental health skills are promoted in regular academic curriculum	**1.84**	0.7	**2.11**	0.8
Opportunities are provided for staff, children & parents to develop positive relationships	**2.10**	0.9	**1.56**	0.5
All children encouraged to participate in school's decision making process	**1.45**	1.9	**1.11**	0.8
Opportunities provided for children to experience success in variety of ways	**2.68**	0.6	**2.22**	0.7
School provides safe caring environment that discourages violence	**2.77**	0.5	**2.67**	0.7
School provides safe caring environment that ensures valuing of all cultures	**2.60**	0.7	**2.56**	0.7
School caters for children who experience periods of mental illness	**1.69**	1.0	**1.33**	0.9

4.2.5 Support and Local Services

The statements within this section received the lowest scores when compared with all other sections. Four statements received a mean rating less than 1.95 from both groups. These included: (i) the school being committed to regular exchange of information between families, local community and the school regarding mental health services in the area (ii) staff being clear about procedures for the identification and referral of children with specific mental health problems (iii) the school working with community mental health services and (v) staff being provided with information about local mental health services. The statement regarding staff being provided with information received a particularly low score (M <1.0). The statements that received the highest ratings (M > 2.1) included: *"Support staff such as special needs assistants and learning support teachers work closed with teachers in promoting positive mental health in the school"* and *"The school is receptive to approaches from community services and agencies in relation to partnership about health matters"*.

Table 14: Support and local services, mean intervention and control scores

(Scale 0 *never* – 3 *always*)	**Intervention** N = 31		**Control** N = 9	
	Mean	SD	**Mean**	SD
School is committed to regular exchange of information between families, community & school	**1.67**	1.4	**1.95**	0.7
Staff are clear about procedures for identification & referral of children with mental health problems	**1.86**	1.0	**1.78**	1.3
Support staff are clear work closely with teachers in promoting positive mental health in school	**2.16**	0.9	**2.22**	0.9
School works closely with community mental health services to meet needs of children and staff	**1.35**	0.8	**1.25**	1.0
Staff are provided with information about local mental health services and their accessibility for counselling and referral	**0.86**	0.8	**1.0**	0.7
School is receptive to approaches from community services and agencies in relation to partnership about health matters	**2.23**	0.8	**2.22**	1.0

4.2.6 Parental Involvement

The results from this section indicate that from the teachers' perspectives parents are encouraged by the school to help their children consolidate their learning at home (M > 2.5) and parents are consulted when sensitive content areas in health are to be addressed (M > 2.3). In addition, the statements *"Parents are interested and supportive of the school and its governance"* and *"Parents reluctantly ask questions and discuss the worries they have about their child with the class teachers / principal"* received a relatively high mean rating from teachers in the intervention and control groups (M>2.0). However, teachers in both groups were less positive about parental involvement in the school and the opportunities provided to parents to learn about the content of the SPHE curriculum. These statements received a low mean rating (M<1.80).

Table 15: Parental Involvement, mean intervention and control scores

(Scale 0 *never* – 3 *always*)	**Intervention** N = 31		**Control** N = 9	
	Mean	SD	**Mean**	SD
Parents are interested and supportive of the school and its governance	**2.29**	0.8	**2.0**	0.7
A broad range of parents are actively involved in a variety of ways in the life of the school	**1.64**	0.9	**1.78**	0.7
Parents are encouraged by the school to help their children consolidate their learning at home	**2.79**	0.5	**2.56**	0.7
Parents are given the opportunity to participate and learn about the schools SPHE curriculum	**1.76**	0.9	**1.44**	0.7
Parents are consulted when sensitive content areas in health are to be addressed	**2.79**	0.4	**2.33**	0.9
Parents regularly ask questions and discuss their worries they have about their child with the class teacher / principal	**2.10**	0.8	**2.44**	0.7

4.2.7 Teaching SPHE

In relation to the teaching of SPHE, all of the teachers in the intervention group and eight out of nine teachers in the control group said that they teach SPHE to their class. Teachers were also asked how often they teach the curriculum. The number and percentage of teachers that said they teach they programme once a week, once a fortnight or once a month are show in Table 16. The majority of teachers in the

intervention (N = 24) and control group (N = 6) teach SPHE once a week. Five teachers in the intervention group and two teachers in the control group teach the programme once a fortnight. Three teachers reported teaching the curriculum once a month.

Table 16: Number and percentage of teachers that teach SPHE curriculum once a week, once a fortnight or once a month

	Once a week		**Once a fortnight**		**Once a month**	
	N	**%**	**N**	**%**	**N**	**%**
Intervention teachers (N = 31)	24	77.4	5	16.1	2	6.4
Control teachers (N = 9)	6	66.7	2	22.2	1	11.1

4.2.8 Support available in schools

The teachers were asked about the support measures available for students in distress in their school. The results from this section indicate that there is very little consistency between schools in terms of supports available. A total of 18 intervention teachers and three control teachers said that support was available in their school. When asked about the type of support available several school personnel were identified as the primary measure of support. The Home School Liaison Officer was cited the most frequently. Some teachers said their principal or other members of staff such as the support teacher or resource teacher were their first point of contact. One teacher wrote, "*We have a resource teacher who deals with issues as they arise*". Four teachers said parents would be contacted. Three teachers said the class teacher was the main form of support. Three other teachers identified outside agencies such as the local doctor, NEPS psychologist (National Educational Psychology Services), public health nurse and social services. One teacher said that their school would "*discuss individual case with child's parents first, then GP* (general practitioner)". Three teachers made reference to the departmental guidelines, "*1. Teacher, 2. Principal, 3. Parents and 4. Board of Management"*. One teacher explained the use of a relaxation room in their school, "*We have a room called 'Suaimhneas'. This is a relaxation room where students go to unwind and relax*".

4.2.9 Comparison across school size and school location

In addition to comparing the Ethos results across intervention and control schools further analysis was carried out to determine if there were significant differences in the ethos and environment of large and small schools and urban and rural schools. Independent t-tests were used to compare the difference in scores for each group.

4.2.9.1 School Size

Schools with 100 or less pupils were classified as small schools and schools with 101 or more pupils were classified as large schools. Mann Whitney U tests revealed that there were no statistically significant differences between the responses of teachers in large and small schools.

4.2.9.2 School location

Mann Whitney U tests revealed several significant differences between the ethos and environment of urban and rural schools. Firstly, in relation to school procedures and support, teachers in urban schools were more likely to seek help when feeling stressed or over-committed, however, support was more available for teachers and children in rural schools than urban schools (Table 17).

Table 17: Mann Whitney U test results comparing urban and rural schools (Scale: 0 = *Never*, 3 = *Always*)

School Procedures & Support	School Location	N	Mean	SD	U	z	Sig (2 tailed)
Staff members seek help when feeling stressed /over-committed	Urban	32	2.0	.82	59.5	-2.1	.039
	Rural	7	1.25	.84			
Support is available for teachers who have been involved in stressful incidents	Urban	31	1.17	.75	100	-2.1	.038
	Rural	6	2.12	.96			

Secondly, teacher in rural schools were significantly more positive about the ethos and environment of the school in terms of promoting positive mental health. There was a significant difference in the teachers rating of the statements: *"The physical environment of the school contributes to positive mental health of children and staff"* and *"Positive mental health skills are promoted and infused into the regular academic curriculum"* with teachers in rural schools giving both statements a higher rating than teachers in urban schools (Table 18).

Table 18: Mann Whitney U test results comparing urban and rural schools (Scale 0 = *Never*, 3 = *Always*)

Environment and Ethos	**School Location**	**N**	**Mean**	**SD**	**U**	**z**	**Sig (2 tailed)**
Physical environment contributes to positive mental health of children and staff	Urban	32	1.43	1.3	61.5	-2.08	.037
	Rural	7	2.41	.95			
Positive mental health skills are promoted and infused into regular academic curriculum	Urban	32	1.37	.52	66.5	-2.23	.025
	Rural	8	2.03	.74			

Thirdly, in terms of parental involvement there was a significant difference between rural and urban teachers' views. When compared with urban schools, the result from the rural schools indicate that (i) parents are more interested and supportive of the school (ii) a broader range of parents are actively involved in school life (iii) parents are given more opportunity to participate and learn about the content of the schools SPHE curriculum (v) parents are more likely to be consulted when sensitive content areas in health are to be addressed and (vi) parents ask questions and meet with the class teacher / principal more regularly.

Table 19: Mann Whitney U test results comparing urban and rural schools

Parental Involvement	School Location	N	Mean	SD	U	z	Sig (2 tailed)
Parents are interested and supportive of school & governance	Urban	32	1.37	.52	34.5	-3.4	.001
	Rural	8	2.44	.67			
Broad range of parents are actively involved in school life	Urban	32	0.87	.64	48.5	-2.8	.005
	Rural	8	1.88	.93			
Parents are given opportunity to learn about SPHE curriculum	Urban	32	1.00	.63	45.0	-2.2	0.03
	Rural	6	1.81	.86			
Parents are consulted when sensitive areas are to be addressed	Urban	32	2.0	.71	30.0	-2.9	0.004
	Rural	5	2.78	.49			
Parents regularly ask questions and discuss worries about their child with teacher / principal	Urban	32	1.33	1.0	40.0	-2.41	0.01
	Rural	6	2.34	.65			

An overall mean score for (i) School Procedures (ii) Environment and Ethos and (iii) Parental Involvement was obtained and Mann Whitney U tests revealed that there was a significant difference between the urban and rural Parental Involvement score [U = 7.0, z = -2.9, p = 0.004] with teachers in rural school giving both scores a significant higher score than teachers in urban schools. This result indicates that parents of rural schools were more actively involved and engaged with the teacher, principal and school as a whole.

4.3 Programme Fidelity

As part of the overall evaluation of the programme it was necessary to determine the. the extent to which the teachers adhered to the programme manual. Programme fidelity was assessed as part of the teachers' weekly questionnaires. Teachers were given a list of all the programme activities that were supposed to be carried out each week and were asked to indicate what parts of each session they implemented in full, partially implemented and did not implement. As stated previously, the teachers in Intervention Type I were asked to implement the programme as faithfully as possible and the teachers in Intervention Type II were told that they could use the programme as a resource. It was anticipated that programme fidelity would be significantly higher among the teachers in Intervention Type I. Table 20 presents the mean number of activities that the teachers in Intervention Type I and II implemented in full, in part, and the mean number of activities they did not implement. The final column shows the percentage of activities that the two intervention groups implemented in full, partially or not at all. The results indicate that there was little difference between the two intervention groups. Programme fidelity was high among both groups. The teachers in Intervention Type I fully implemented 86.4% of the programme while the teachers that in Intervention Type II fully implemented 86.6% of the programme. Just over 13% of the programme was either not implemented or partially implemented by both groups. Given that there was no significant difference in the level of programme adherence between the intervention groups, the impact results were analysed by comparing the intervention group results (i.e. Intervention Type I combined with Intervention Type II) with the control group results.

Table 20: Programme Fidelity: Mean number & percentage of activities fully, partially implemented and not implemented by teachers in Intervention Type I & Type II

	Implementation	**Mean number of activities**	**SD**	**Mean %**
Intervention Type I (N = 13)	Full	293.54	37.5	**86.4%**
	Partial	20.92	14.7	**7.2%**
	Not implemented	24.54	17.3	**6.2%**
Intervention Type II (N = 14)	Full	287.14	34.8	**86.6%**
	Partial	23.86	15.5	**6.2%**
	Not implemented	20.43	24.2	**7.2%**

4.4 Children's Emotional Literacy: Emotional Literacy Checklist Results

The teachers completed the Emotional Literacy Checklist at pre-intervention, post-intervention and at 12 months follow-up. A total of 676 children were part of the pre-intervention assessment, 471 were part of the post-intervention and 461 children were part of the 12 month follow-up assessment. The loss of data between the three data collection points was due to teachers not returning questionnaires. Table 21 shows the number of children, classes and schools that were part of the pre-, post-intervention and 12 month follow-up Emotional Literacy Checklist data collection.

Table 21: Number of children, classes and schools at pre-, post-intervention and follow-up data collection

		Intervention	**Control**	**Total**
Children	Baseline	496	185	676
	End of programme	342	129	471
	12 months follow-up	328	133	461
Classes	Baseline	34	14	48
	End of programme	25	9	34
	12 months follow-up	25	10	35
Schools	Baseline	29	12	41
	End of programme	24	9	33
	12 months follow-up	24	8	32

4.4.1 Pre-Intervention Results

The intervention and control groups' pre-intervention Total Emotional Literacy Score and subscale scores are shown in Table 22. Independent t-tests were used to determine if there was a significant difference between the intervention and control groups' pre-intervention Total Emotional Literacy score. There results revealed that there was a significant difference in the intervention and control groups' scores [t (423) = 3.15, p = .002 (two tailed)], with the intervention group having a lower Total

Emotional Literacy Score than the control group at the baseline. The magnitude of the difference in the means was very small (eta squared = 0.01). In terms of the five subscales, independent t-test showed a similar pattern. The control group's Self Awareness, Motivation, Empathy and Social Skills mean scores were significantly higher than the intervention group's scores at the baseline. The magnitude of the difference in the means for each subscale, however, was very small (eta squared < 0.02). There was no significant difference between the intervention and control groups' Self Regulation scores (t (423) = -1.36, p = .103).

Table 22: Intervention and control groups' mean pre-intervention Total Emotional Literacy Score and subscale scores

		N	Mean	SD	Sig
Total Emotional Literacy Score	Intervention	479	60.95	11.1	.001
	Control	179	64.23	11.1	
Self Awareness	Intervention	485	11.51	2.3	.000
	Control	184	12.38	2.1	
Self Regulation	Intervention	496	11.66	3.3	.114
	Control	184	12.12	3.3	
Motivation	Intervention	494	11.47	3.4	.004
	Control	182	12.31	3.1	
Empathy	Intervention	491	12.73	2.7	.017
	Control	182	13.31	3.0	
Social Skills	Intervention	494	13.50	2.3	.007
	Control	183	14.02	2.1	

4.4.2 Pre- and Post-Intervention Results

The intervention and control groups' pre and post-intervention Total Emotional Literacy Scores are shown in Table 23. Between pre- and post-intervention there was an increase in the intervention group's Total Emotional Literacy score and a decrease in the control group's score.

Table 23: Intervention & Control Groups' Mean Pre- and Post-Intervention Total Emotional Literacy Score

	Intervention Group			Control Group		
	N	Mean	SD	N	Mean	SD
Pre-intervention	317	61.54	11.3	109	65.53	10.8
Post-intervention	317	66.26	11.5	109	65.06	10.2

*p<.05 **p<.01

A one way between groups analysis of covariance was conducted to assess the changes that occurred in the intervention group's emotional literacy scores on completion of the Zippy's Friends programme when compared with the control group. The independent variable was group (intervention / control) and the dependent variable was the children's mean post-intervention Total Emotional Literacy score. The children's pre-intervention emotional literacy score was used as the covariate in this analysis. Preliminary checks were conducted to ensure that there was no violation of the assumption of normality, linearity, homogeneity of variance, homogeneity of regression slopes, and reliable measurement of the covariate. After adjusting for pre-intervention scores, there was a significant difference between the intervention and control groups' post-intervention Total Emotional Literacy score [(F1, 424) = 11.7, p = .001, partial eta squared = 0.027]. The intervention group's mean Emotional Literacy score was significantly higher than the control groups at post-intervention. These results indicate that the programme has a significant positive effect on the intervention group's emotional literacy between pre- and post-intervention. The intervention and controls' groups ANCOVA results are shown in Table 24.

Table 24: Intervention and control groups' pre- and post-intervention Total Emotional Literacy ANCOVA results

				95% confidence interval	
Group	N	Mean	Std Error	Lower bound	Upper bound
Intervention	317	66.883	.520	65.86	67.91
Control	109	63.332	.892	61.60	65.09

a. Covariates appearing in the model are evaluated at the following values Total ELC Pre-intervention = 62.49

- Subscales

Further analysis was carried out in order to determine the effect of the programme on the five emotional literacy subscales. A one way between group analysis of covariance was used to examine the children's Self Awareness, Motivation, Empathy and Social Skills subscales scores. The results from the analysis of covariance showed that between pre- and post-intervention there was a significant difference in the intervention and control groups' Self Awareness [(F1, 430) = 12.51, p < .0001, partial eta squared = 0.028] and Motivation scores [(F1, 438) = 18.98, p < .0001, partial eta squared = 0.042]. There was a significant increase in the intervention group's scores when compared with the control group. Table 25 shows the intervention and control post-intervention Self Awareness, Motivation, Empathy and Social Skills post-intervention scores.

Table 25: Intervention and control groups' pre- and post-intervention Emotional Literacy subscale ANCOVA results

Group	N	**Mean**	Std Error	95% confidence interval	
				Lower bound	Upper bound
Self Awareness Intervention	321	**13.26***	.12	13.02	13.49
Self Awareness Control	112	**12.40***	.21	11.99	12.81
*Covariates Pre-intervention = 11.88					
Motivation Intervention	328	**12.73***	.13	12.47	12.99
Motivation Control	113	**11.59***	.23	11.14	12.03
*Covariates Pre-intervention = 11.95					
Empathy Intervention	326	**13.58**	.14	13.32	13.85
Empathy Control	111	**13.29**	.23	12.83	13.75
*Covariates Pre-intervention = 12.93					
Social Skills Intervention	328	**14.47**	.11	14.26	14.68
Social Skills Control	113	**14.20**	.18	13.84	14.56
*Covariates Pre-intervention = 13.77					

*p<.05 **p<.01

Because there was no significant difference between the intervention and control groups' pre-intervention Self Regulation scores, repeated measures analysis of variance was used to examine the changes between pre- and post-intervention. The results showed that there was a significant *time x group* effect for the subscale Self Regulation [Wilks Lambda = .98, F (1, 439), p = .004, Partial eta squared = .019]. When compared with the control group, there was a significant increase in the intervention group's Self Regulation score between pre- and post-intervention. Table 26 shows the intervention and control groups' pre- and post-intervention Self Regulation scores.

Table 26: Intervention and control groups' mean pre- and post-intervention Emotional literacy subscale (Self Regulation) score

	Intervention			**Control**		
	N	Mean	SD	N	Mean	SD
Self Regulation Pre-Intervention	329	11.80	3.3	112	12.36	3.4
Self Regulation Post-Intervention	329	12.69	3.4	112	12.57	3.2

- Gender

A 2 x 2 between groups analysis of covariance was conducted to assess the effect of the programme on the emotional literacy scores of males and females. The independent variables were group (intervention and control) and gender (male, female). The dependent variable was post-intervention Total Emotional Literacy score and the pre-intervention Total Emotional Literacy scores were used as a covariate to control for baseline differences between the intervention and control groups. After adjusting for the emotional literacy score at Time 1, there was no significant group x gender interaction effect: [F(1, 421) = .082 , p= .78]. Both of the main effects were statistically significant: [group F (1, 421) = 11.32, p = .001; gender F (1, 421) = 3.91, p = .049]. These results indicate the intervention group's Total Emotional Literacy score was significantly improved when compared with the control group and that females did significantly better than males in both intervention and control groups at pre- and post-intervention. The programme, however, did not have a significant group x gender effect. The group and gender mean post-intervention scores are shown in Table 27.

Table 27: Intervention and control groups' Group x Gender Ancova results

				95% Confidence Interval	
	Gender	**Mean**	**Std Error**	**Lower Bound**	**Upper Bound**
Intervention	Male	65.94	.77	64.4	67.4
	Female	67.71	.72	66.3	68.1
Control	Male	62.16	1.3	59.7	64.7
	Female	64.51	1.2	62.1	66.9

Covariates appearing n the model are evaluated at the following values: Total Emotional Literacy score at pre-intervention = 62.49

4.4.3 Pre-, Post-Intervention and Follow-up Scores

In order to determine the long term effect of the programme on the children, twelve month follow-up data was collected from the intervention and control schools. Repeated measures analysis of variance were used to examine the intervention and control children's emotional literacy scores at twelve months follow-up. The intervention and control groups' pre-, post-intervention and follow-up Total Emotional Literacy score and Emotional Literacy subscale scores are shown in Table 28. Repeated measures ANOVA was used to examine the change in the intervention and control groups' emotional literacy scores across the three time periods (pre-intervention, post-intervention and follow-up). Between subjects factors were group (intervention vs control) and the within subjects factor was time (pre-intervention vs post-intervention vs follow-up). It is important to note that due to the need for individual data across the three time points there was a loss in the number of pupils whose pre- post- and follow-up results were analysed (loss of 92 pupils from analysis).There was a significant *time x group* interaction effect [Wilks Lambda = .93, $F(1, 332) = 12.62$; $p < .0005$, partial eta squared = .071]. The mean scores reveal that across the three time periods there was a significant increase in the intervention group's Total Emotional Literacy score between pre- and post-intervention and a slight decrease between post-intervention and 12 months follow-up. With the control group there was a decrease in their Total Emotional Literacy score between pre- and post-intervention and a return to their pre-intervention score at 12 months follow-up. Figure 4 shows the intervention and control groups' Total Emotional Literacy scores across the three time periods.

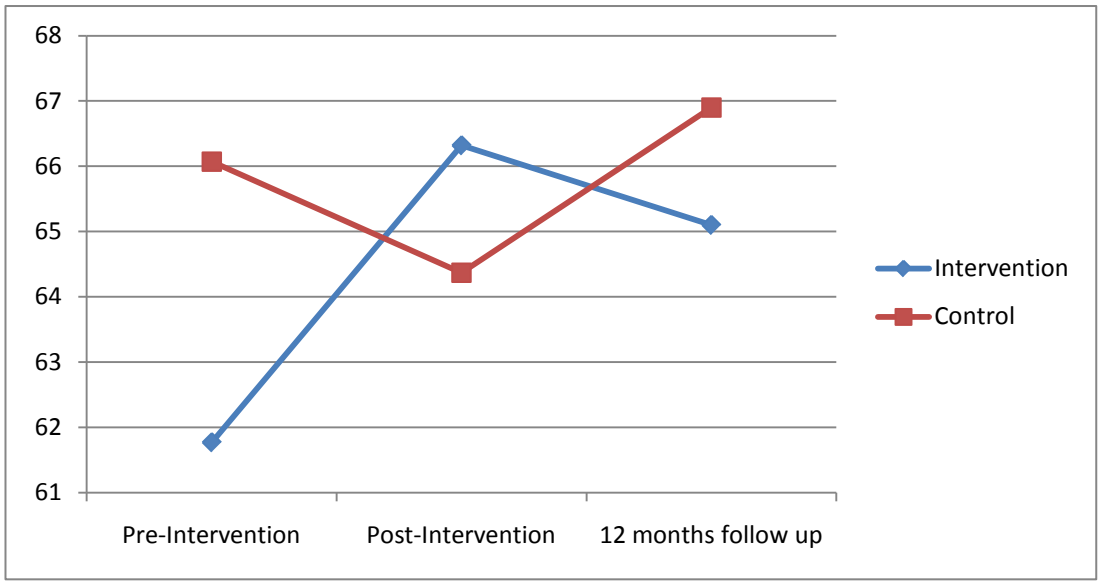
Table 28: Intervention and control groups' mean pre-, post-intervention and 12 month follow-up Total Emotional Literacy and subscale Scores

		N	Pre-Intervention		Post-Intervention		12 months follow-up	
			Mean	SD	**Mean**	SD	**Mean**	SD
Total Emotional Literacy Score	Interv	248	**61.77**	11.4	**66.32**	11.5	**65.1**	11.6
	Control	87	**66.07**	11.2	**64.37**	9.7	**66.9**	10.4
Self Awareness	Interv	251	**11.71**	2.2	**13.16**	2.4	**12.67**	3.0
	Control	88	**13.00**	2.3	**12.70**	2.1	**12.79**	2.2
Self Regulation	Interv	254	**11.96**	3.2	**12.84**	3.4	**12.72**	3.3
	Control	88	**12.55**	3.5	**12.19**	3.1	**13.1**	2.9
Motivation	Interv	252	**11.75**	3.4	**12.54**	3.3	**12.22**	3.7
	Control	89	**12.69**	23.4	**11.69**	3.1	**12.02**	3.3
Empathy	Interv	252	**12.77**	2.6	**13.45**	2.7	**13.46**	2.8
	Control	88	**13.55**	2.5	**13.53**	2.4	**13.83**	2.7
Social Skills	Interv	255	**13.58**	2.1	**14.36**	1.9	**14.25**	2.1
	Control	89	**14.40**	2.2	**14.39**	2.1	**15.08**	1.4

Using the intervention and control groups pre-intervention and 12 month follow-up scores, repeated measures ANCOVA showed that there was a significant *time x group* effect [(F1, 427) = 4.49, p = .035, partial eta squared = 0.01]. There was a significant increase in the intervention group's Total Emotional Literacy score between pre-intervention and 12 months follow-up. This is contrast to no change in the control group's Total Emotional Literacy score between the two time periods. These results indicate that the programme had a significant positive effect on the children in the intervention group and that these results were maintained at 12 months follow-up. Analysis of the intervention and control groups' subscale scores between pre- intervention and 12 months follow-up revealed that there was a significant *time x group* effect for the subscales: Empathy [(F1, 431) = 5.19, p = .023, partial eta squared = 0.012] and Social Skills [(F1, 433) = 22.29, p = .000,

partial eta squared = 0.049], thus indicating that the programme had a significant long term effect on the children's Empathy and Social skills.

Figure 4: Intervention and control groups' mean pre-, post-intervention and 12 month follow-up Total Emotional Literacy score



4.4.4 Emotional Literacy Score Bands

The Emotional Literacy Checklist can be divided into five score bands: well below average, below average, average, above average, well above average (Faupel, 2003). For the purpose of analysing the intervention and control data, the Total Emotional Literacy score was grouped into three bands, 'well below/below average' (score 50 or below), 'average'(score 51-69) and 'above/well above average'(score 70-80). Table 29 presents the mean number and percentage of children in the intervention and control groups within the three bands at pre-, post-intervention and 12 months follow-up. The final column displays percentage of pupils from the UK nationally representative sample (Faupel, 2003) that fall within each band.

Comparing the UK nationally representative sample to the pre-intervention results from this study, there were less pupils in the study within the 'well below/below average' range and more pupils within the 'above/well above average' range. Between pre- and post-intervention there is a decrease in the number of children in the intervention group scoring within the 'well below /below average', and 'average' bands and there is an increase in the number of children scoring 'above / well above average'. In terms of the control group there is a decrease in the number of children

scoring 'well below / below average' and also a decrease in the number of children score within the 'above average / well above average' band. A slightly different pattern emerges between post-intervention and 12 months follow-up, however, with a decrease in the number of intervention children scoring within the 'above/well above average' band. The control group on the other hand improved between post-intervention and 12 months follow-up with an increase in the number of children scoring within the 'above / well above average' band.

Table 29: Number and percentage of children scoring within well below/below average, average and above/well above average range on Total Emotional Literacy score

Score band and ranges		**Pre-intervention**		**Post-intervention**		**12 months follow-up**		**Nationally representative sample (%)**
		N	%	N	%	N	%	
Well below / below average	Interv	85	**17.8**	38	**11.2**	50	**15.3**	**25%**
	Control	25	**14**	13	**10.3**	13	**9.8**	
Average	Interv	266	**55.5**	134	**39.5**	146	**44.6**	**50%**
	Control	83	**46.6**	67	**53.2**	52	**39.1**	
Above / Well above average	Interv	128	**26.8**	167	**49.2**	131	**40.1**	**25%**
	Control	70	**39.4**	46	**36.5**	68	**51.2**	

Repeated measures analysis of variance was used to examine the effect of the programme on the children in the (i) 'well below / below average' group (ii) 'average' group and (iii) 'well above / above average' group (Table 30). The results showed that there was a significant *time x group* effect between pre- and post-intervention for children in the 'well above / above average' group thus indicating the significant positive effect of the intervention for children in this group [Wilks Lambda = .86, F(1, 141) = 22.39; p = .000, partial eta squared = .137]. There was also a significant *time x group* effect between pre and post-intervention for children in the 'average' group again indicating the programme has a significant positive effect on children who were scored as 'average' at the baseline [Wilks Lambda = .95, F(1, 424) = 21.12; p = .000, partial eta squared = .047]. There was no *time x group* effect for children in the 'well below / below average' group. There was,

however, a significant time effect [Well / below average: Wilks Lambda = .669, F(1,70) = 34.7; p = .000, partial eta squared = .331; These results indicate that the Emotional Literacy scores of the children in the intervention and control groups within the 'well below / below average' category improved between pre- and post-intervention irrespective of the programme.

Table 30: Intervention and control groups' mean scores within each score band

Group		Mean Pre	Mean Post	N	Sig (*time x group*)
Well below / below average	Interv	43.5	55.0	59	Sig**
	Control	46.3	54.5	13	
Average	Interv	61.45	66.29	307	Sig**
	Control	65.53	65.53	109	
Above average / well above average	Interv	74.3	74.1	93	Not sig
	Control	75.4	68.9	50	

*p<.05 **p<.01

4.4.5 Multilevel Analysis

In terms of the Total Emotional Literacy Score, after controlling for the school effect there was no significant *time x group* effect between pre and post-intervention [F(1, 419.62) = 1.85, p = .174] and between pre-intervention and 12 months follow-up (F(1, 422.85) = 2.27, p = .133. However, an examination of the subscales revealed that there was a significant *time x group* effect for the children's Self-Awareness score between pre- and post-intervention [F(1, 425.84) = 9.64, p = .002]. There was also a significant *time x group* effect for the children's Self Regulation score and Social Skills score between pre- intervention and 12 months follow-up. [Self Regulation: F(1, 428.58) = 7.86, p = .005; social skills: F(1, 416.64) = 4.22, p = .04].

Furthermore, when the intervention groups were examined separately multilevel analysis showed that there was a significant programme effect for children in Intervention Type II. When comparing Intervention Type II with the control group, there was a significant *time x group* effect between pre-intervention and 12 months follow [F(1, 415.67) = 3.18, p = .043]. These results indicate that at 12 months follow-up, the Total Emotional Literacy Score of the children in Intervention Type II differed significantly from the children in the control groups score.

4.5 Children's Emotional and Behavioural Wellbeing: Strengths and Difficulties Questionnaire Results

In addition to completing the Emotional Literacy Checklist, the teachers also completed the Strengths and Difficulties Questionnaire at pre-intervention, post-intervention and at 12 months follow-up. A total of 669 children were part of the pre-intervention assessment, 472 were part of the post-intervention and 474 children were part of the 12 month follow-up assessment. Table 31 indicates the number of children, classes and schools that were a part of the data collection at pre-intervention, post-intervention and at 12 month follow-up.

Table 31: Number of children, classes and schools at pre-, post-intervention and follow-up

		Intervention	**Control**	**Total**
Children	Baseline	487	182	669
	End of programme	343	129	472
	12 months follow-up	343	131	474
Classes	Baseline	34	14	48
	End of programme	25	9	34
	12 months follow-up	25	10	35
Schools	Baseline	29	12	41
	End of programme	24	9	33
	12 months follow-up	24	8	32

4.5.1 Pre-Intervention Results

Independent t-tests were used to analyse the differences between the intervention and control groups at pre-intervention. The groups' mean pre-interventions scores are shown in Table 32. There was no significant difference between the groups' Total Difficulties score [$t(667) = 1.29$, $p = .194$ (two tailed)]. There was, however, a significant difference between the intervention and control groups' Prosocial score [$t(675) = .461$, $p = .008$ (two tailed)] with the intervention group having a significantly lower Prosocial score than the control group at the baseline. In terms of the subscales there was no significant difference between the groups' Conduct Problems, Hyperactivity and Peer Relationship Problems. There was a significant

difference between the intervention and control groups' Emotional Symptoms score [t (675) = .029, p = .003 (two tailed)] with the intervention group having a higher Emotional Symptoms score than the control group.

Table 32: Intervention and control groups' mean Total Difficulties, Total Difficulties subscales and Prosocial score at pre-intervention

	Intervention			**Control**		
	N	**Mean**	SD	N	**Mean**	SD
Total Difficulties Score	487	**9.41**	7.2	182	**8.59**	7.5
o Emotional Symptoms*	495	**2.41**	2.5	182	**1.83**	2.1
o Conduct Problems	495	**1.53**	2.1	183	**1.60**	2.1
o Hyperactivity	495	**3.76**	3.2	183	**3.41**	3.2
o Peer Relationship Problems	494	**1.68**	2.0	183	**1.72**	2.2
Prosocial Behaviour*	496	**7.02**	2.4	181	**7.56**	2.3

*p < .05

4.5.2 Pre- Post-Intervention Results

Repeated measures analysis of variance (ANOVA) was used to examine changes in the intervention and control groups' Total Difficulties scores between pre- and post-intervention. The independent variable was group (intervention / control) and the dependent variable was the children's Total Difficulties score measures at the two time periods, pre and post-intervention. There was no significant *time x group* interaction effect [Wilks Lambda = .996, F(1,436) = 1.861, p = .173, partial eta squared = .004]. There was, however, a substantial main effect for time [Wilks Lambda = .941, F(1,436) = 27.15, p = .000, partial eta squared = .059] with both groups showing a reduction in Total Difficulties between pre- and post-intervention. The main effect comparing the two groups was not significant [F(1, 436) = .343, p = .558, partial eta squared = .001, suggesting no difference between the intervention and control groups' scores.

Table 33: Intervention and Control Groups' mean Total Difficulties Score at pre- and post-intervention

	Group	**N**	**Pre-Interv Mean**	**SD**	**Post-Interv Mean**	**SD**	**F**
Total Difficulties Score	Interv	324	9.11	7.3	7.0	6.4	1.86
	Control	114	8.28	7.9	7.04	5.5	

In order to control for the significant difference in the intervention and control groups' baseline Prosocial scores a one way between groups analysis of covariance (ANCOVA) was used. After adjusting for pre-intervention scores, there was no significant difference between the intervention and control groups' post-intervention emotional literacy score [(F1, 441) = .000, p = .998, partial eta squared = 0.000]. These results indicate that the programme had no effect on the intervention group's Prosocial skills. The intervention and control groups' mean post-intervention Prosocial scores are shown in Table 34.

Table 34: Intervention and control groups' mean Prosocial Behaviour ANCOVA results

				95% confidence interval	
Group	**N**	**Mean**	**Std Error**	**Lower bound**	**Upper bound**
Intervention	317	7.83	.117	7.59	8.06
Control	109	7.83	.202	7.43	8.22

Covariates appearing in the model are evaluated at the following values Prosocial Behaviour Pre-Intervention = 7.30.

- Subscales

Further analysis was carried out in order to determine the effect of the programme on the Total Difficulties Subscales. Repeated measures analysis of variance was used to examine the four of the five subscales: Conduct Problems, Hyperactivity and Peer Relationship Problem. Because there was a significant difference in the intervention and control groups' pre-intervention Emotional Symptoms score, analysis of covariance was used to examine changes between pre- and post-intervention. In terms of the children's Hyperactivity score, repeated measures analysis of variance showed that there was a significant *time x group* effect [Wilks Lambda = .986, F(1,442) = 6.29, p = .012, partial eta squared = .014]. The results indicate that there was a significant decrease in the intervention group's mean Hyperactivity score at post-intervention when compared with the control group. In addition, there was a significant *time x group* effect for Conduct Problems [Wilks Lambda = .988, F(1,442) = 5.25, p = .022, partial eta squared = .012], however, examination of the mean scores revealed that in the case of the Conduct Problems subscale there was a significant decrease in the control group's Conduct Problems between pre- and post-

intervention when compared with the intervention group. Analysis of the Peer Relationship Problem scores revealed that there was no significant *time x group* effect [Wilks Lambda = .999, F(1,441) = .364 p = .546, partial eta squared = .001]. There was a significant time effect with both groups indicating a decrease in Peer Relationship Problems between pre- and post-intervention [Wilks Lambda = .957, F(1,441) = 19.64, p = .000, partial eta squared = .043]. The intervention and control groups' mean, Hyperactivity, Conduct Problems and Peer Relationship Problems scores at pre- and post-intervention are shown in Table 35.

Table 35: Intervention and control groups' mean pre- and post-intervention Total Difficulties subscale scores

	Group	**N**	**Pre-intervention**	**SD**	**Post-Intervention**	**SD**	**F**
Hyperactivity	Intervention	330	3.62	3.2	3.03	3.2	6.29*
	Control	114	3.3	3.3	3.39	2.6	
Conduct Problems	Intervention	324	1.42	1.9	1.19	1.8	5.25*
	Control	114	1.66	2.2	1.01	1.7	
Peer Relationship Problems	Intervention	323	1.7	2.1	1.14	1.7	.364
	Control	114	1.58	2.2	1.15	1.6	

In relation to the children's Emotional Symptoms score, analysis of covariance revealed that after adjusting for the intervention and control groups' pre-intervention scores, there was no significant difference between the two groups' post-intervention scores [(F1, 424) = 11.7, p = .001, partial eta squared = 0.027]. Whilst there was a decrease in both groups' Emotional Symptoms score, this decrease was not significant. The intervention and control groups' Emotional Symptoms post-intervention and covariate scores are shown in Table 36.

Table 36: Intervention and control groups' mean pre- and post-intervention Emotional Symptoms ANCOVA results

				95% confidence interval	
Group	N	Mean	Std Error	Lower bound	Upper bound
Intervention	330	1.58	.119	1.35	1.82
Control	114	1.67	.202	1.27	2.07

Covariates appearing in the model are evaluated at the following values Prosocial Behaviour Pre-Intervention = 2.20

- Gender

Repeated measures analysis was used to assess programme effects on the Total Difficulties and Prosocial scores for male and female children. There was no significant *time x group* x gender effect [Wilks Lambda = 1.0, F (1, 434) = .001, p= 0.972, partial eta squared = .000]. There was a substantial main effect for gender [(F(1, 434) = 15.01, p = 0.000, partial eta squared = 0.33] thus suggesting a significant difference between male and female scores in both intervention and control groups. Males scored higher than females on the Total Difficulties score across both groups. A similar pattern emerged in relation to the children's Prosocial scores. There was no significant *time x group* x gender effect [Wilks Lambda = .999, F (1, 439) = .584, p= 0.445, partial eta squared = .001] but there was a substantial main effect for gender [F(1, 439) = 14.03, p = 0.000, partial eta squared = 0.042]. These findings indicate that males across the intervention and control groups scored higher on the Total Difficulties score and lower on the Prosocial score than females, however, the programme did not have a significant group x gender effect.

4.5.3 Pre-, Post-Intervention and Follow-up Results

The intervention and control groups' pre- post- and 12 month follow-up mean Total Difficulties, Prosocial and Total Difficulties subscale scores are shown in Table 37. Repeated measures analysis of variance were used to examine the change in the intervention and control groups' scores across the three time periods. Between subjects factors were group (intervention vs control) and within subjects factor was time (pre-intervention vs post-intervention vs follow-up). Similar to the Emotional Literacy Checklist follow-up results, it is important to note that due to the need for individual data across the three time points there was a loss in the number of pupils whose pre- post- and follow-up results were analysed (loss of 96 pupils from analysis). A repeated measures ANOVA revealed that there was no significant *time x group* interaction effect [Wilks Lambda = 1.000, (f(1, 340) = .087; p = .768, partial eta squared = .000]. There was no substantial main effect for time [Wilks Lambda = .998, (f(1, 340) = .78; p = .378, partial eta squared = .002] or group (f(1, 340) = .011; p = .917, partial eta squared = .000], thus indicating that there was no significant

change in the intervention and control groups' Total Difficulties score between pre-, post-intervention and 12 months follow-up.

Using the intervention and control groups' pre-intervention and 12 month follow-up scores, repeated measures AVOVA revealed that there was no significant *time x group* effect [Wilks Lambda = .999, (f(1, 340) = .245; p = .621, partial eta squared = .001]. There was, however, a significant time effect with both groups indicating a decrease in their Total Difficulties score between pre-intervention and 12 months follow-up. [Wilks Lambda = .96, (f(1, 340) = 14.24; p = .000, partial eta squared = .04]. Overall, these results show that there was no significant change in the intervention group's Total Difficulties score between pre-intervention and follow-up when compared with the control group.

Table 37: Intervention and control groups' mean pre-, post-intervention and 12 months follow-up Total Difficulties, Total Difficulties subscales and Prosocial Behaviour scores

		N	**Pre-Intervention**		**Post-Intervention**		**12 months follow-up**	
			Mean	SD	**Mean**	SD	**Mean**	SD
Total Difficulties	Interv	251	**8.70**	6.9	**7.16**	6.3	**6.95**	6.4
	Control	91	**8.12**	8.3	**7.19**	5.2	**6.78**	6.1
Prosocial Behaviour	Interv	250	**7.21**	2.2	**7.72**	2.3	**7.98**	2.3
	Control	91	**8.16**	2.1	**8.08**	2.3	**8.46**	2.1
Conduct Problems	Interv	256	**1.34**	1.9	**1.21**	1.8	**1.13**	1.9
	Control	91	**1.56**	2.2	**.99**	1.5	**.96**	1.7
Hyperactivity	Interv	256	**3.52**	3.1	**3.09**	3.2	**2.85**	2.9
	Control	91	**3.18**	3.3	**3.45**	2.6	**2.86**	3.0
Peer Relationship Problems	Interv	256	**1.64**	2.0	**1.19**	17	**1.25**	1.6
	Control	91	**1.64**	2.4	**1.19**	1.6	**1.35**	2.1
Emotional Symptoms	Interv	256	**2.17**	2.2	**1.61**	2.1	**1.79**	2.2
	Control	91	**1.75**	2.2	**1.56**	1.8	**1.60**	2.0

In relation to the children's Prosocial scores, a 3 x 2 repeated measures ANOVA showed that there was no significant *time x group* effect [Wilks Lambda = 1.000, (f(1, 339) = .158; p = .691, partial eta squared = .000]. There was a substantial main effect for time [Wilks Lambda = .988, (f(1, 339) = 4.24; p = .04, partial eta squared = .012] with both groups showing an increase in Prosocial skills across the three time periods. Using the groups' pre-intervention and 12 months follow-up Proscocial scores, repeated measures ANOVA showed that there was no significant *time x group* effect [Wilks Lambda = .992, (f(1, 339) = 2.79; p = .095 , partial eta squared = .008]. Both groups' Prosocial Scores increased over time [Wilks Lambda = .961, (f(1, 339) = 13.76; p = .000, partial eta squared = .039]. Analysis of the subscales also revealed that there was no significant *time x group* effect across all four subscales between (i) pre-, post-intervention and 12 months follow-up and (ii) pre-intervention and 12 months follow-up). These results indicate that the programme did not have a significant long term effect on the intervention group's Prosocial, Emotional Symptoms, Conduct Problems, Hyperactivity and Peer Relationship Problem scores as measured by the Strengths and Difficulties Questionnaire.

4.5.4 Total Difficulties Score Bands

The Total Difficulties score can be divided into three score bands 'normal' (0-11), 'borderline' (12-15) and 'abnormal' (16-40). These bands have been derived from the norms of the standardisation sample (Goodman, 1997). The mean number and percentage of children within the three bands at pre-, post-intervention and 12 months follow-up is presented in Table 38. This final column displays the percentage of pupils from the nationally representative sample in the United Kingdom that fall within each band.

When comparing the results from this study with the UK nationally representative sample, it is apparent that at pre-intervention there was a significantly greater percentage of children in this study classified within the 'abnormal' range (19%) when compared with the nationally representative sample (9.6%). Although the results improved slightly at post-intervention and at 12 months follow-up, there was still a greater percentage of pupils in both the intervention and control groups that were classified within the 'abnormal' range when compared with the nationally representative sample. In terms of changes across the score bands between pre- and

post-intervention, there was an increase in the number of children in the intervention and control groups scoring within the 'normal' range and a decrease in the number of children in both groups scoring within the 'abnormal' range. Whilst there was a decrease in the number of children in the intervention scoring within the 'borderline' range there was an increase in the number of children in the control group scoring within this range. These results suggest more children in the intervention than control group progressed from 'borderline' and 'abnormal' to the 'normal' range between pre- and post-intervention. At 12 months follow-up, however, there is a reduction in the number of children in the intervention group scoring in the 'normal' range and in contrast to this, an increase in the number of children in the control group scoring within this range. Related to this, there is a decrease in the number of children in the control group scoring in the 'borderline' range. Examination of individual schools' score revealed that there was a notable improvement in the Total Difficulties score from children in one particular control school.

Table 38: Number and percentage of children in intervention and control groups scoring within normal, borderline and abnormal range on Total Difficulties score

		Pre-intervention		**Post-intervention**		**12 months follow-up**		**Nationally representative sample (UK)**
		N	**%**	N	**%**	N	**%**	**%**
Normal	Interv.	323	**66.3**	265	**77.3**	257	**74.9**	**80.3%**
	Control	130	**71.4**	97	**75.1**	108	**82.4**	
Borderline	Interv.	70	**14.4**	36	**10.5**	37	**10.7**	**10.1%**
	Control	17	**9.3**	18	**13.9**	8	**6.1**	
Abnormal	Interv.	94	**19.3**	42	**12.2**	49	**14.2**	**9.6%**
	Control	35	**19.2**	14	**10.8**	15	**11.4**	

Repeated measures analysis of variance was used to examine the effect of the programme on the children within the 'normal', 'borderline' and 'abnormal' categories. Children in the intervention group in the 'normal' range benefited the most from the programme. Repeated measures ANOVA showed that there was a significant *time x group* effect [Wilks Lambda = .984, (f(1, 298) = 4.92; p = .027 ,

partial eta squared = .016]. There was a decrease in the intervention group's Total Difficulties score and an increase in the control group's Total Difficulties score between pre- and post-intervention. There was no significant *time x group* effect for children in the 'borderline' and 'abnormal' group. There was, however, a significant time effect [Borderline: Wilks Lambda = .941, (f(1, 436) = 27.15; p = .000 , partial eta squared = .058; Abnormal: Wilks Lambda = .440, (f(1, 85) = 107.97; p = 0.00 , partial eta squared = .560] thus indicating that irrespective of the Zippy's Friends programme, there was an improvement in the scores for children in both the intervention and control groups within the 'borderline' and 'abnormal' range. The mean pre- and post-intervention scores for children within each category are shown in Table 39.

Table 39: Intervention and control groups' mean scores within each score band

	Group	**N**	**Mean Pre**		**Mean Post**		**Significant** (*time x group*)
			Mean	**SD**	**Mean**	**SD**	
Normal	Interv	217	**4.76**	3.3	**4.5**	4.7	Sig **
	Control	83	**4.22**	3.5	**5.22**	4.1	
Borderline	Interv	324	**9.11**	7.3	**7.00**	6.4	Not sig
	Control	114	**8.28**	7.9	**7.04**	5.4	
Abnormal	Interv	65	**20.69**	4.1	**13.32**	6.7	Not sig
	Control	22	**21.86**	4.4	**12.59**	6.0	

4.5.5 Multilevel analysis

Controlling for the variance within schools, there was no significant *time x group* effect for the children's Total Difficulties score between pre and post-intervention [F(1, 424.18) = .479, p = .489]. There was, however, a significant *time x group* effect between pre-intervention and 12 months follow-up [(F(1, 435.36) = 4.08, p = .04]. Similarly, in relation to the children's Prosocial Score there was no significant *time x group* effect between pre- and post- intervention [F(1, 426.99) = .062, p = .804] but there was a significant *time x group* effect between pre-intervention and 12 months follow-up intervention [F(1, 420.51) = 5.37, p = .02]. These results indicate that

after controlling for school effect, the intervention group's Total Difficulties and Prosocial score differed significantly from the control group's score at 12 months follow-up.

In terms of the Hyperactivity and Peer Relationship Problem subscale scores, there was a significant *time x group* effect between pre- and post-intervention: [Hyperactivity: ($F(1, 437.43) = 8.52$, $p = .004$); Peer Relationship Problems: ($F(1, 246.93) = 5.53$, $p = .019$)]. These results indicate that there was a significant improvement in the intervention group's Hyperactivity and Peer Relationship Problem scores when compared with the control group. In addition, there was a significant *time x group* effect for the children's Conduct Problems between pre-intervention and 12 months follow-up [$F(1, 441.42) = 8.80$, $p = .003$]. In this case, there was a significant reduction in the control group's Conduct Problems when compared with the intervention group at 12 months follow-up.

4.6 Children's Coping Skills: Schoolagers' Coping Strategy Inventory

The Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990) was employed to determine the impact of the programme on the children's use of coping strategies. A total of 557 children fully completed the Schoolagers' Inventory at pre- intervention and 511 children fully completed it at end of programme. The number of children that did not complete the entire questionnaire at pre- and post-intervention was high (N = 173 at pre-intervention and N=219 at post-intervention). The coping strategies were initially analysed according to the changes in the use and effectiveness of 'neutral' and 'violent' strategies between pre- and post-intervention (repeated measures ANOVA). Following this, analysis of the most frequently used coping strategies and the most effective coping strategies was carried out.

4.6.1 Frequency of Use

The mean frequency score of neutral and violent coping strategies used by the children in the intervention and control groups at pre- and post-intervention are presented in Table 40. In terms of the neutral strategies, repeated measures ANCOVA revealed that there was no significant change in the intervention group's use of neutral strategies between pre- and post intervention when compared with the

control group [Wilks Lambda = .995, (F(1, 420)=2.03; p=0.156, partial eta squared = .005]. Similarly, there was no significant change in the intervention group's use of violent strategies between pre- and post-intervention when compared with the control group [Wilks Lambda = 1.0, (F(1, 507)=.007; p=0.932, partial eta squared = .000]. There was, however, a significant time effect [Wilks Lambda = .992, (F(1, 507)=.4.09; p=0.044, partial eta squared = .008] with both groups indicating a slight increase in the use of violent strategies between pre- and post-intervention. There was no significant gender difference in terms of use of neutral and violent coping strategies across the control and intervention groups.

Table 40: Intervention and control groups' mean frequency of use score for neutral and violent coping strategies at pre- and post-intervention

	Group	**N**	**Pre-Intervention**		**Post-Intervention**	
			Mean	**SD**	**Mean**	**SD**
Neutral Coping Strategies *(Score 0-69)*	Intervention	289	**30.48**	8.7	**30.95**	8.4
	Control	133	**30.71**	8.9	**29.64**	8.3
Violent Coping Strategies *(Score 0-9)*	Intervention	354	**1.42**	2.0	**1.67**	1.9
	Control	155	**1.50**	1.9	**1.73**	2.0

4.6.2 Effectiveness

As part of the questionnaire, children were asked to indicate how effective each coping strategy was in helping them to feel better. The children's results were analysed according to how effective the children rated the neutral strategies and the violent strategies. The intervention and control groups' mean effectiveness scores for neutral and violent coping strategies used at pre- and post-intervention are presented in Table 41. In relation to the use of neutral strategies, an independent samples t-test of pre-intervention scores revealed that there was a significant difference between the intervention and control groups' neutral effectiveness scores [t(623) = 2.297, p = 0.022 (two tailed)]. As a result, a one way between group analysis of covariance was conducted to compare the groups' effectiveness scores. After adjusting for pre-intervention scores, there was no significant difference between the two groups post-intervention effectiveness scores [(F1, 503) = 0.02, p = .881, partial eta squared = .000]. In relation to the use of violent strategies, there was no significant change in the intervention and control groups' rating of violent coping strategies as effective

between pre- and post-intervention [Wilks Lambda = .996, (F(1, 504)=2.10; p=0.148, partial eta squared = .004]. There was, however, a significant gender effect [Wilks Lambda = .991, (F(1, 503)= 4.39; p=0.03, partial eta squared = .009] with the results showing a significant reduction in the effectiveness of violent strategies score among males in the intervention group.

Table 41: Intervention and control groups' mean effectiveness score for neutral and violent coping strategies at pre- and post-intervention

	Group	**N**	**Pre-Intervention**		**Post-Intervention**	
			Mean	**SD**	**Mean**	**SD**
Neutral Coping Strategies *(Score 0-69)*	Intervention	285	**36.15**	13.6	**36.48**	10.7
	Control	127	**26.09**	12.3	**34.03**	10.8
Violent Coping Strategies *(Score 0-9)*	Intervention	353	**1.54**	2.3	**1.46**	1.9
	Control	153	**1.12**	1.6	**1.39**	2.1

4.6.3 Most frequently used strategies

Further analysis was used to determine the most frequently used coping strategies at pre- and post-intervention. Table 42 and 43 presents the most frequently used strategies by the children in the intervention and control groups at pre- and post-intervention. At pre-intervention, the strategies used by the intervention group are consistent with those used by the control group and there is little change between pre- and post-intervention. No violent strategies featured in the top five most frequently used coping strategies.

Table 42: Intervention and control groups' most frequently used coping strategies at pre-intervention

Intervention	**Mean**	**SD**	**Control**	**Mean**	**SD**
Say sorry, tell the truth	**1.76**	.89	Say sorry, tell the truth	**1.90**	.86
Play a game	**1.72**	.95	Watch tv/listen to music	**1.69**	.96
Watch tv/listen to music	**1.68**	.92	Play a game	**1.66**	1.0
Eat or drink	**1.62**	1.1	Do something about it	**1.60**	1.0
Pray	**1.60**	.98	Pray	**1.59**	1.0

Table 43: Intervention and control groups' most frequently used coping strategies at post-intervention

Intervention	**Mean**	**SD**	**Control**	Mean	**SD**
Say sorry, tell the truth	**1.85**	.88	Say sorry, tell the truth	1.85	.93
Watch tv / listen to music	**1.81**	.90	Play a game	1.67	.94
Play a game	**1.74**	.89	Think about it	1.61	.98
Try to relax, stay clam	**1.70**	.98	Try to forget about it	1.56	1.0
Try to forget about it.	**1.69**	.98	Do something about it	1.56	1.0

Both groups were most likely to use the strategy of "*Say I'm sorry or tell the truth*" when they were worried or upset about something. The strategies "*Play a game*" and "*Watch tv / listen to music*" were also frequently used across both groups at pre- and post-intervention. In terms of differences between the intervention and control groups, at post-intervention the children in the intervention group were more likely than the control group to use the strategy '*Try to relax and stay calm*'. In relation to gender differences, the boys were more likely to use the distraction strategies including: *"Play a game"*, *"Try to forget about it"* and "*Eat or drink*". The girls on the other hand were more likely to address the problem, using the strategies *"Pray"* and *"Do something about it"*. In addition, the girls in the intervention group only frequently used the strategy *"Try to relax, stay calm"* at post-intervention.

4.6.4 Most effective strategies

Based on the children's responses to the question "How much does this help?" it was possible to identify the strategies that the children perceived to be most effective in terms of helping them to feel better. Tables 44 and 45 present the strategies that the children rated the most effective at pre- and post-intervention. Neutral only strategies were rated the most effective by both groups. The strategy of "*Say I'm sorry or tell the truth*" when worried about something received the highest rating by both groups at pre- and post-intervention. Other strategies including: "*Watch tv / listen to music*", "*Play a game"* and "*Pray*" were rated highly by both groups at pre- and post-intervention. Interestingly, the strategy of "*Try to relax and stay calm*" was rated highly by the intervention group only post-intervention. This is in contrast to the strategy of "*Eat or drink*" which was rated highly by the control group only.

Comparing male and female responses, boys were more likely to rate the strategies "*Watch tv / listen to music*" and "*Play a game"* as effective than girls. Girls were more likely to rate the strategy "*Cuddle my pet or stuffed animal*" as effective. Girls in the intervention group only rated the strategy "*Try to relax, stay calm*" as effective.

Table 44: Intervention & control groups' most effective coping strategies at pre-intervention

Intervention	Mean	SD	Control	Mean	SD
Say sorry, tell the truth	**2.25**	1.1	Say sorry, tell the truth	**2.32**	1.0
Pray	**2.10**	1.2	Draw, write or read something	**1.69**	1.2
Play a game	**2.10**	1.2	Pray	**1.65**	1.0
Watch tv / listen to music	**2.09**	1.2	Play a game	**1.59**	1.1
Cuddle pet	**2.00**	1.2	Watch tv or listen to music	**1.46**	1.0

Table 45: Intervention and control groups' most effective coping strategies at post-intervention

Intervention	Mean	SD	Control	Mean	SD
Say sorry, tell the truth	**2.28**	.97	Say sorry, tell the truth	**2.17**	1.02
Play a game	**2.23**	.98	Pray	**1.95**	1.12
Watch tv / listen to music	**2.12**	1.00	Play a game	**1.93**	1.16
Pray	**2.08**	1.08	Watch tv/listen to music	**1.87**	1.17
Try to relax or stay calm	**2.04**	1.07	Eat or drink	**1.81**	1.16

Overall, the results from the Schoolagers' Coping Strategy inventory suggest that programme has no significant effect on the use of neutral and violent coping strategies and the children's ratings of neutral and violent coping strategies as effective. In relation to the most frequently used and the most effective coping strategies, children in the intervention group were more likely than the control group to use the strategy *"Try to relax and stay calm"* at post-intervention and to rate it as effective. Also, there was a significant reduction in the effectiveness of violent strategies among males in the intervention group between pre- and post-intervention when compared with males in the control group. Regarding gender differences, girls in the intervention and control groups were more likely to use problems solving coping strategies, whilst boys were more likely to use distraction techniques.

4.7 Children's Coping Skills: Draw and Write Technique

Prior to implementing the Zippy's Friends programme a sample of schools from the intervention and control groups were randomly chosen to take part in the Draw and Write Technique (Williams et al., 1989). Table 46 indicates the number of schools and children from the intervention and control groups that completed the Draw and Write at pre-, post-intervention and 12 months follow-up.

Table 46: Number of children and schools that completed Draw and Write activity at pre-, post-intervention and 12 months follow-up

	Intervention Type I		**Intervention Type II**		**Control Group**	
	Schools	Children	Schools	Children	Schools	Children
Pre-Interv	4	52	4	64	4	45
Post-Interv	4	45	4	46	4	47
Follow-up	3	42	4	45	4	44

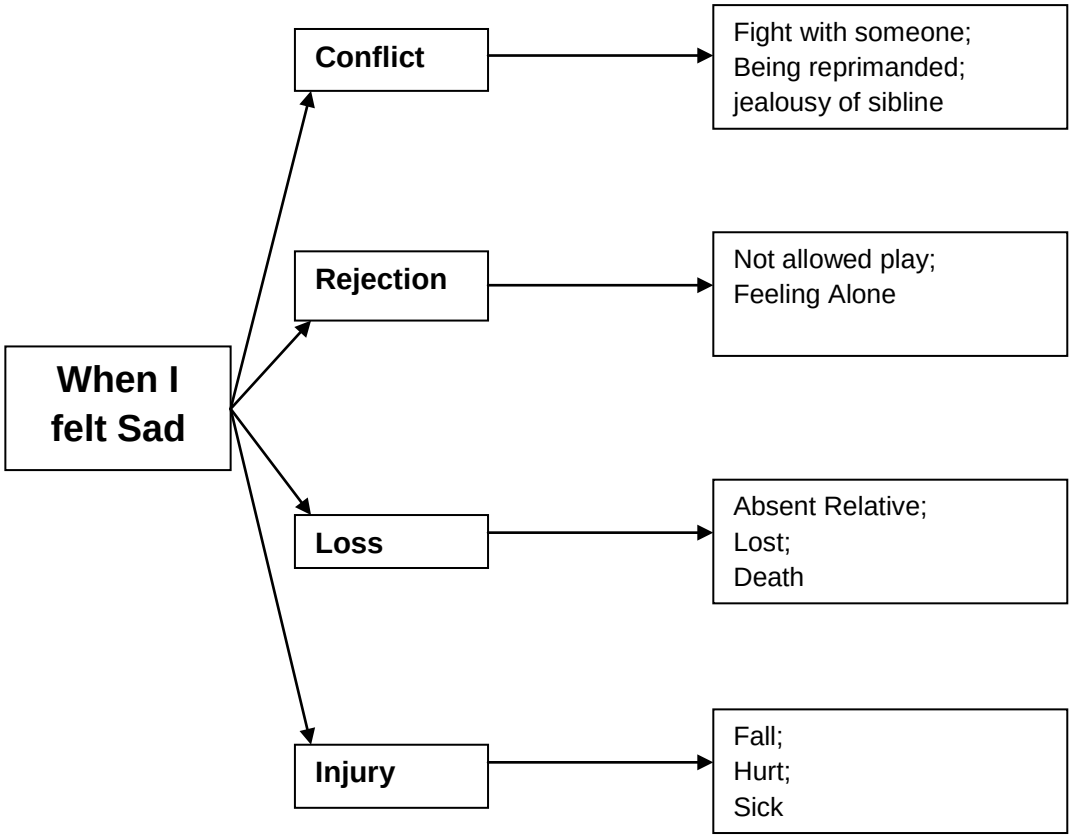
At all three time intervals, the children were asked to draw a picture and write one sentence about a time when they felt sad. Following this, the children were asked to draw a second picture and write one sentence about what they could do to make themselves feel better. In analysing the responses, the children's sentences about a time when the felt sad were grouped into mutually exclusive categories based on the content of the sentences. Next, the children's sentences about how they would cope with the situation were examined. An analysis of the changes in the intervention and control groups' responses at pre-, post-intervention and 12 month follow-up was carried out. In addition, gender differences were examined in relation to events that made them feel sad and also the types of coping strategies that boys and girls said they would use. The children's pre- and post-intervention results are presented first. Following this the children's 12 month follow-up results will be outlined.

4.7.1 Pre-, Post-Intervention Results

Figure 5 illustrates the overarching themes and categories which emerged from the children's responses in relation to Picture 1 *("A time when I felt sad")* at pre- and post-intervention. The children's response were categorised into four main themes; Conflict, Rejection, Loss and Injury. Each theme was made up of several sub-categories. At pre-intervention conflict, was the most frequently reported problem

situation for children in the intervention and control groups. This was followed by injury and loss. At post-intervention, loss was the most frequently reported theme for children in the intervention group and injury was the most frequently reported for children in the control group. There was a notable reduction in the number of reported conflict incidents among children in the intervention group.

Figure 5: *'A time when I felt sad'*: Children's themes and categories at pre- and post-intervention



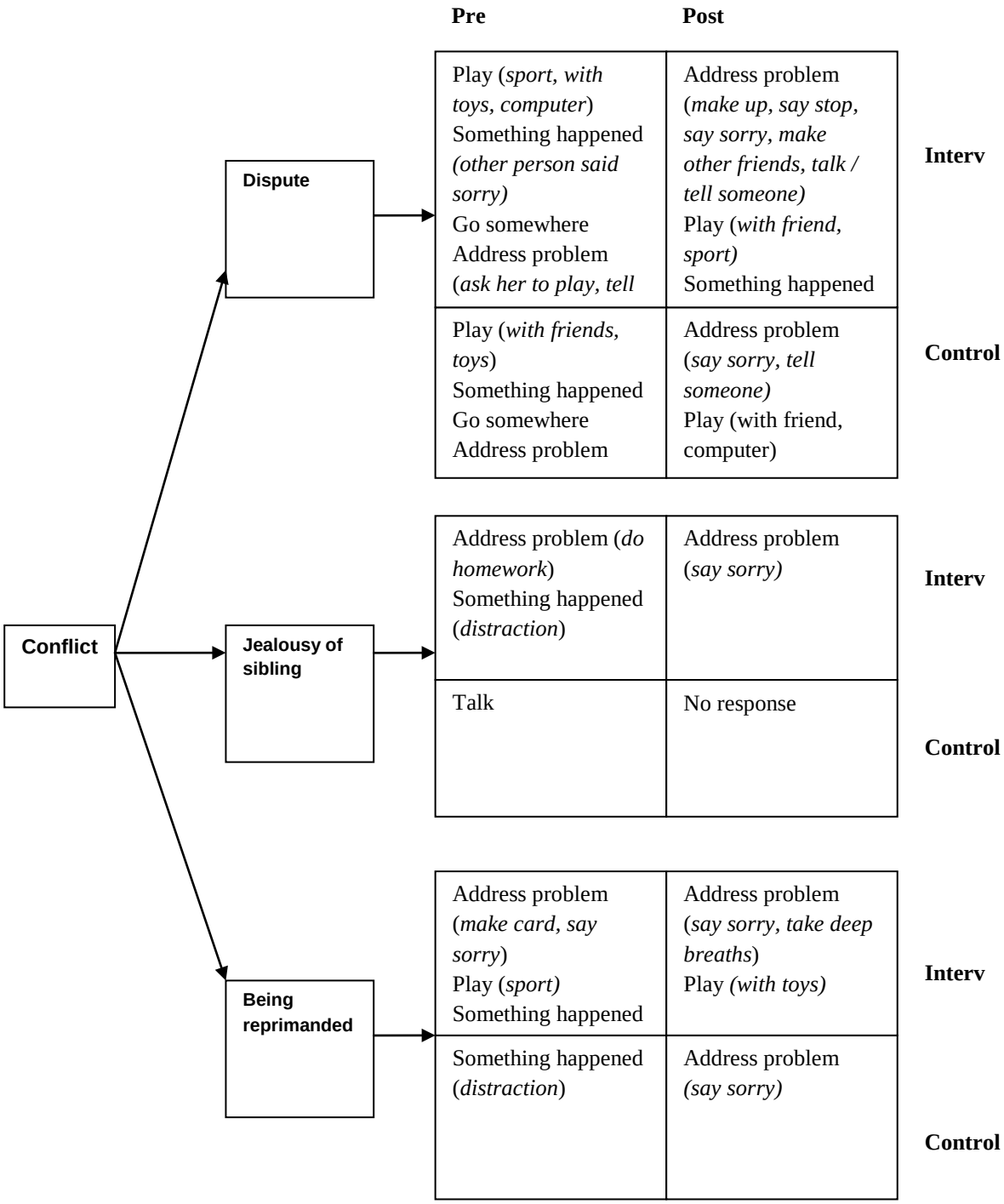
Figures 5, 6, 7 and 8 provide detail in relation to the four themes and the strategies the children in the control and intervention groups said they would use. A description of the events that the children recalled within each theme, along a description of the type of coping strategies children said they would use to make themselves feel better is presented. Sample drawings and quotes are provided with [Interv] and [Control] denoting which group the child was from and (m) / (f) denoting the child's gender. In relation to 'Picture 2', it is important to note that while the children were asked to draw a picture and write a sentence about what they could do to feel better, some children drew a picture about what they had done in the

past to make themselves feel better and other children drew a picture about what they could do to feel better.

Theme: Conflict:

The theme of conflict was made up of three categories: (i) dispute (ii) jealousy of sibling and (iii) being reprimanded. Figure 6 outlines the intervention and control groups' most frequently reported coping strategies at pre- and post-intervention (in order of frequency).

Figure 6: Conflict subcategories and coping strategies used by intervention and control groups at pre- and post-intervention



Dispute

This category was divided into three sub-categories as there were a number of specific events in relation to disputes to which the children referred. The sub categories included:

- Being hit/pushed

The children in the intervention and control groups wrote about a time when they were hit, punched or pushed by a brother, sister or friend. At pre-intervention, several children in the intervention and control groups used coping strategies such as playing by themselves, feeling better when something happened (somebody said sorry) and talking to someone. Examples of the children responses include:
(Pic 1): "*When Matthew hit me in the head*". (Pic 2, play): "*I played with my real toys*" (m) [Interv]
(Pic 1): "*My sister hit me with a toy*". (Pic 2 something happened): "*My sister said sorry*" (f) [Interv]
(Pic 1): "*I felt sad when my bother hit me*". (Pic 2 talk): "*I will always tell my mammy if my brother hits me*" (f) [Control].

At post-intervention, the children in the intervention group were more likely than the control group to talk to someone. Most children said they would tell their mother or father. The majority of the children in the control group used 'play' as a means to feeling better after being hit or pushed. Responses included:
(Pic 1): "*I felt sad when my brother hit me*". (Pic 2 Talk): "*I would feel happy when I tell Mummy*" (f) [Interv]
(Pic 1): "*When Paul gave me a black eye. It was last week. It was sore* (picture: *HA HA*)". (Pic 2 Talk): "*Call a friend, tell Dad*" (m) [Interv]
(Pic 1): "*I was lost and a boy hit me*". (Pic 2 Play): "*I'm playing my playstation*" (m) [Control].

- Being teased

The children drew and wrote about a time when they were teased by someone and being called names. There was a change in the coping strategies used by the intervention group between pre- and post-intervention. At pre-intervention the children in the intervention group used strategies such as taking a nap and feeling

better when the other person said sorry. Post-intervention, however, the children in the intervention group were more likely to tell someone. Examples of the children's responses include:

(Pic 1): "*I felt sad when my cousin called me a chicken*". (Pic 2 something happened): "*He said sorry*" (f) [Pre-Intervention]

(Pic 1): "*I felt sad when my sister called me fat "*. (Pic 2 talk): "*I would feel happy when I told my Mummy*" [Post-Intervention]

(Pic 1): "*My friend was calling me names*". (Pic 2 talk): "*I told teacher. We shook hands and played*" [Post-Intervention]

Several children in the control group said they would feel better when they go somewhere at pre- and post-intervention. Other children used the strategy of talking to someone after being teased:

(Pic 1): "*When someone is bullying me that made me very sad"*. (Pic 2 go somewhere): "*When I walk in the street it makes me forget about it*" [Pre-Intervention]

(Pic 1): "*One girl said that I am very very fat*". (Pic 2 go somewhere): "*I went into my room*" [Post-Intervention].

(Pic 1): "*I was sad when boys were calling me names*". (Pic 2 talk to someone): "*I went to tell Mammy*". [Post-Intervention]

- Being shouted at

At pre-intervention, the children in the intervention group used strategies such as playing with toys, feeling better when a friend called over and addressing the problem by asking someone to play with them. No child in the intervention group wrote about such an event at post-intervention. In terms of the control group, at pre-intervention shouting back was used as a strategy to feel better and post-intervention food was also used as a strategy. Some of the children's responses included:

(Pic 1): "*My sister shouted at me*". (Pic 2 play): "*I play with my marbles*" (m) [Interv]

(Pic 1): "*I was sad when my brother shouted in my face*". (Pic 2 shout back): "*I shout in his face at him*" (f) [Control]

(Pic 1): "*Sarah shouted in my face*". (Pic 2 food): "*Ice cream would make me happy*"(f) [Control]

Jealousy of sibling

At pre-intervention, children from both groups wrote about being jealous of a sibling. The children in the intervention group used the strategies of directly addressing the problem and feeling better as a result of getting something, whilst the child in the control group that wrote about this problem used the strategy of talking to someone in order to feel better:

(Pic 1): "*I have lots of homework. My brother doesn't have any. This makes me sad*". (Pic 2 address problem): "*I did all my homework and my Mum gave me sweets. I felt happy*" (f) [Interv]

(Pic 1): "*When my Mammy brought Sarah to bingo and didn't bring me*". (Pic 2 something happened): "*When my Dad let me watch Father Ted and drink hot chocolate*" (f) [Interv]

(Pic 1): "*When my Mammy had a baby I was sad*". (Pic 2 talk): *"I called my Mum and she was bringing my baby sister home*" (m) [Control].

At post-intervention, one child in the intervention wrote about being jealous of a sibling. This child addressed the problem by saying sorry:

(Pic 1): *"I was bold. My brother got to play the playstation*". (Pic 2 address problem): *"I felt sad. And I said sorry to my brother (picture: 'Sorry')"*.

Being Reprimanded

Within this theme, some children wrote about being sad when somebody gave out to them. The children were reprimanded by their teacher and their parents. Other children wrote about not getting their way (i.e. parent not letting them do what they wanted to do). In relation to the situations where the children were being reprimanded, at pre-intervention children in the intervention group directly addressed the problem, played sport or felt better when something happened (cousin called over). At post-intervention, children in the intervention group used the strategy of directly addressing the problem and play. Some of the children's responses included;

(Pic 1): "*When my teacher gave out to me I was really sad*". (Pic 2 address problem): "*When I made a card it made me feel better* (picture - A card with 'I'm sorry' written on it)". [Pre-Intervention]

(Pic 1): "*I was sad when my Mammy shouted at me*". (Pic 2 something happened): "*My cousin came over*" (f) [Pre-Intervention]

(Pic 1): "*I'm sad because my Mum and Dad gave out to me*". (Pic 2 address problem): "*I am sorry Mum and Dad*. (picture *'I'm sorry' 'It's ok! It's ok'*)" (f) [Post-Intervention]
(Pic 1): "*I was sad when I was grounded*". (Pic 2 address problem): "*I took deep breaths and said sorry to my Mum*" (m) [Post-Intervention].

One child in the control group referred to a time when they were given out to at pre- and post-intervention. At pre-intervention the child used distraction as a strategy to feel better. At post-intervention the child addressed the problem:
(Pic 1): "*I felt sad when my Mum got mad at me"*. (Pic 2 distraction): "*Have a party with my friends "* (m) [Pre-Intervention]
(Pic 1): "*I was sad when I scratched my Mummy's table*". (Pic 2 address problem): "*I said I'm sorry I scratched your table*" (m) [Post-Intervention].

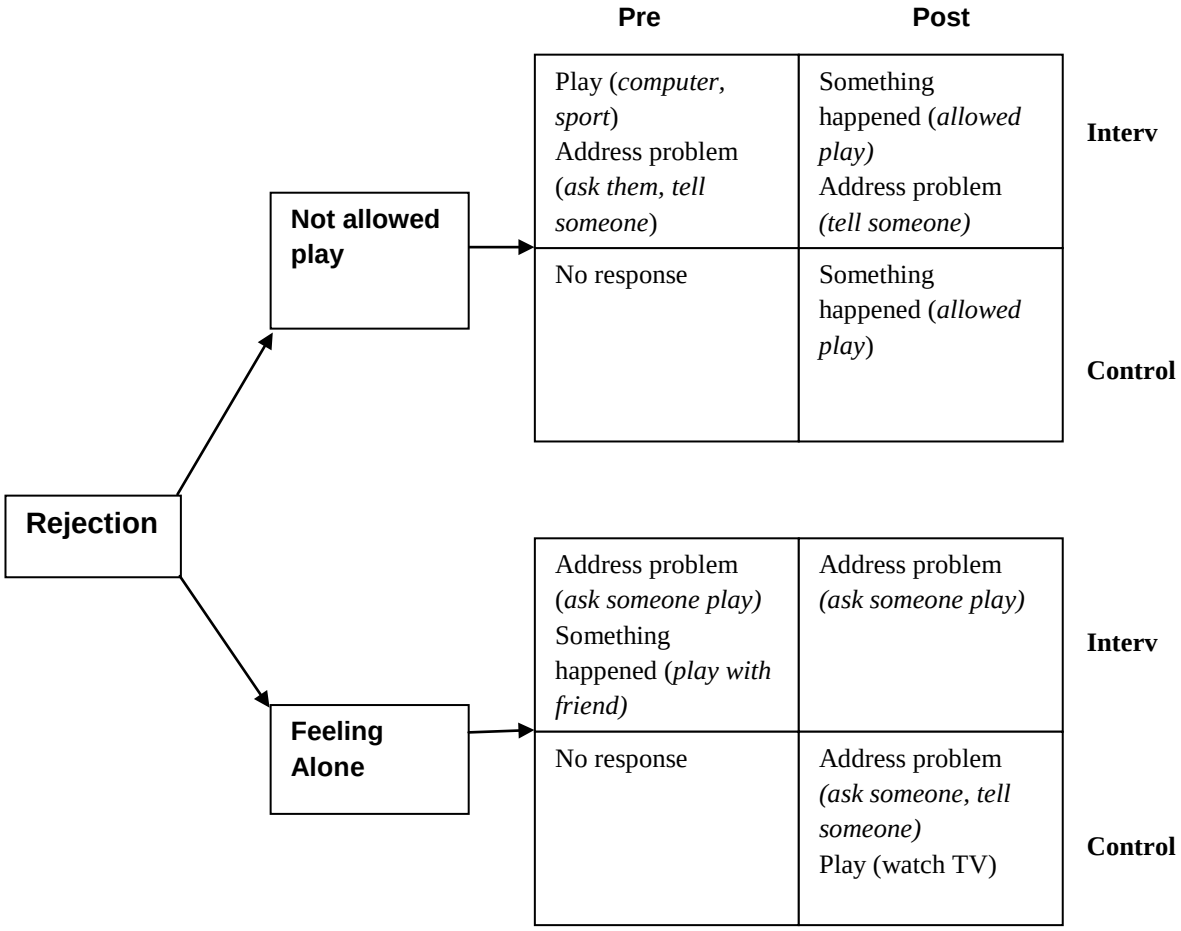
In relation to the children not being allowed to do what they wanted / not getting their own way, at pre-intervention some children in the intervention and control groups actively addressed the problem and others felt better as a result of something happening:
(Pic 1): "*In this picture I was very sad because my Mammy wouldn't let me go to my friends house*". (Pic 2 talk): "*I could talk to my mammy and beg her, if she says no I will just forget about it*" (f) [Intervention]
(Pic 1): "*When my Mam didn't let me go to Dunnes Stores, I had to stay at home*". (Pic 2 talk): "*When I got a PSP from my Dad when he came from work*" (m) [Control].

At post-intervention, children in the intervention group used the strategies of play, feeling better as a result of getting something or going somewhere. Children in the control group also used the strategy of play to feel better:
(Pic 1): "*I was sad when I was not allowed to go to the park (picture 'No we cannot go to the park')*". (Pic 2 go somewhere): "*I was happy when I went to the cinema*" (m) [Intervention]
(Pic 1): "*I felt sad when my Mon didn't let me play my playstation" (picture 'NO', 'Please').* (Pic 2 play): "*I could watch tv*" (m) [Control].

Theme: Rejection

The theme of rejection is made up of two categories (i) not allowed to play and (ii) feeling alone. Figure 7 outlines the intervention and control groups' most frequently reported coping strategies at pre- and post-intervention (in order of frequency).

Figure 7: Rejection subcategories and coping strategies used by intervention and control groups at pre- and post-intervention



Not allowed play

Several children wrote about a time when a friend or a group of people would not let them join in or play. There was no notable change in the coping strategies used by children in the intervention group between pre- and post-intervention. The intervention group's responses to feeling better at pre-intervention included telling someone about it, playing with toys / computer game and addressing the problem. At post-intervention feeling better as a result of something happening (being allowed to

play) and telling someone about it were used to feel better. Similarly, children in the control group at post-intervention reported feeling better as a result of being allowed to play. Some of the intervention group's responses included:
(Pic 1): "*When my cousins came we were playing with the skipping rope. She said I couldn't play because I was too small*". (Pic 2 address problem): "*I made friends with a new friend and she brought two skipping ropes. I asked if I could have one"* (f) [Pre-Intervention]
(Pic 1): "*John said no girls allowed"*. (Pic 2 talk) "*I told Veronica, she talked to John*" (m) [Post-Intervention].

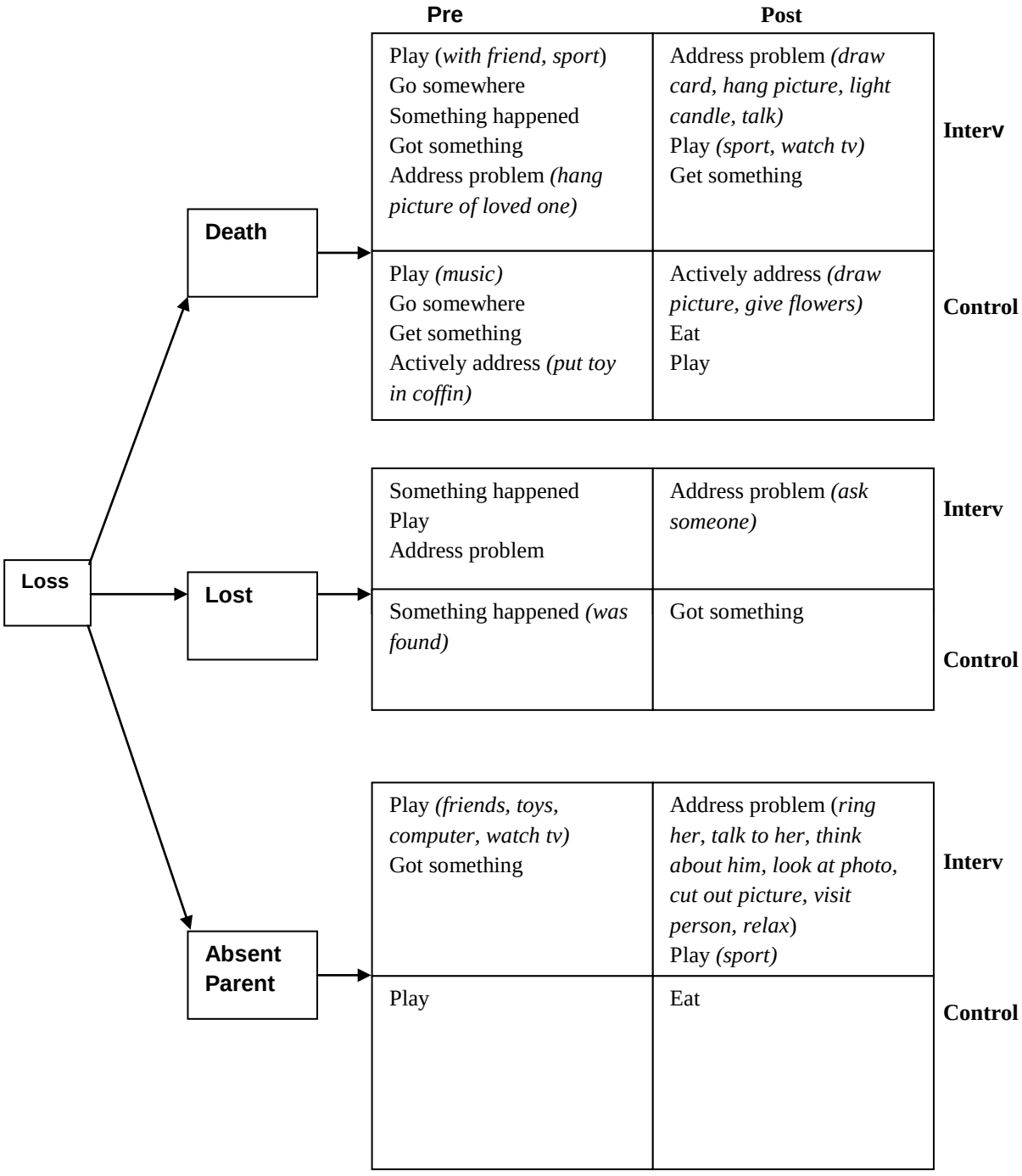
Feeling Alone
Some children recalled being alone / having nobody to play with as a time when they felt sad. There was a change in the strategies used by children in the intervention group between pre- and post-intervention. At pre-intervention, children used strategies such as playing in the park, feeling better as a result of something happening (playing with friends) and addressing the problem by finding someone to play with them. At post-intervention, however, all except one of the children in the intervention group attempted to directly address the problem. Examples of post-intervention responses include:
(Pic 1): "*I had no one to play with*". (Pic 2 address problem): "*I played with Ethan"*. (m)
(Pic 1): "*I felt sad when my friend left me alone on the playground*". (Pic 2 address problem): "*Ask my friend to play with me"* (f)
(Pic 1): "*Everyone has friends and I did not*". (Pic 2 address problem): "*I went to the … I saw a girl and I said 'Can you be my friend?', 'Yes I will be your friend'"* (f).

No child in the control group recalled feeling alone at pre-intervention. At post-intervention, children in the control group used strategies such as telling a friend and watching television:
(Pic 1): "*When I was lonely. I had no one to play with (*picture *'I am sad')*". (Pic 2 talk): "*Tell my best friends Claire, K and others*" (f)
(Pic 1): "*I was sad when my Mum left me at home and then that time I was sick*". (Pic 2 Watch tv): "*When I was sad then I went to watch TV and it made me better*" (m)

Theme: Loss

The theme of loss is made up of three categories: (i) death of a loved one (ii) a relative being absent and (iii) being lost. Figure 8 outlines the intervention and control groups' most frequently reported coping strategies at pre- and post-intervention (in order of frequency).

Figure 8: Conflict subcategories and coping strategies used by intervention and control groups at pre- and post-intervention



Death of a loved one

Several children in the intervention and control groups referred to the death of a relative at pre- and post-intervention. The majority of children wrote about the death of a grandparent. Some wrote about a pet dying. At pre-intervention, the intervention and control groups' most frequently reported coping strategy was playing and feeling better as a result of something happening. Other coping strategies included going somewhere, eating, getting something to feel better and addressing the problem by hanging a picture of their loved one in their bedroom.

At post-intervention, there was a significant increase in the number of children in the intervention group that attempted to actively address the problem by talking to friends, hanging a picture of the loved one on the wall, lighting a candle. Other children used coping strategies such as watching tv and playing sport. Some of the intervention group's post-intervention comments included:

(Pic 1): "*I felt sad when my Grandad died*". (Pic 2 address problem): "*I put a picture of my Grandad in my bedroom*" (m)

(Pic 1): "*I was sad when my Dad died*." (Pic 2 address problem): "*I talk about Daddy*" (m)

(Pic 1): "*I was sad when my Grandad died*". (Pic 2 address problem): "*I would go to the church and light a candle for my Grandad*" (m)

In terms of the control group, the coping strategies that were used at post-intervention included addressing the problem by drawing a picture and thinking of funny things. Other children said playing and eating pizza helps them to feel better.

(Pic 1): "*My granddad died when I was young"*. (Pic 2 address problem): "*I would draw a picture of him"* (f)

(Pic 1): "*I was sad when my dog died"*. (Pic 2 play): "*I was happy when I was playing basketball with Sophie*" (f).

Lost

Some children remembered a time when they were lost. The majority of the comments were in relation to being lost in a shop. At pre-intervention, the most frequently reported coping strategy was feeling better when they were found again. At post-intervention, only one child in the intervention and control groups recalled

being lost. The child in the intervention group addressed the problem by asking someone for help. In contrast to this, the child in the intervention group felt better when he/she got something:
(Pic 1): "*I felt sad when I was lost cause I was lonely*". (Pic 2 address problem): "*I had to go and ask a man who worked there*" (m) [Interv]
(Pic 1): "*I was sad when I got lost in Dunnes with my friend Carla. And at the end I was happy*". (Pic 2 got something): "*I was happy when I got something free in Dunnes with my friend Carla*" (f) [Control].

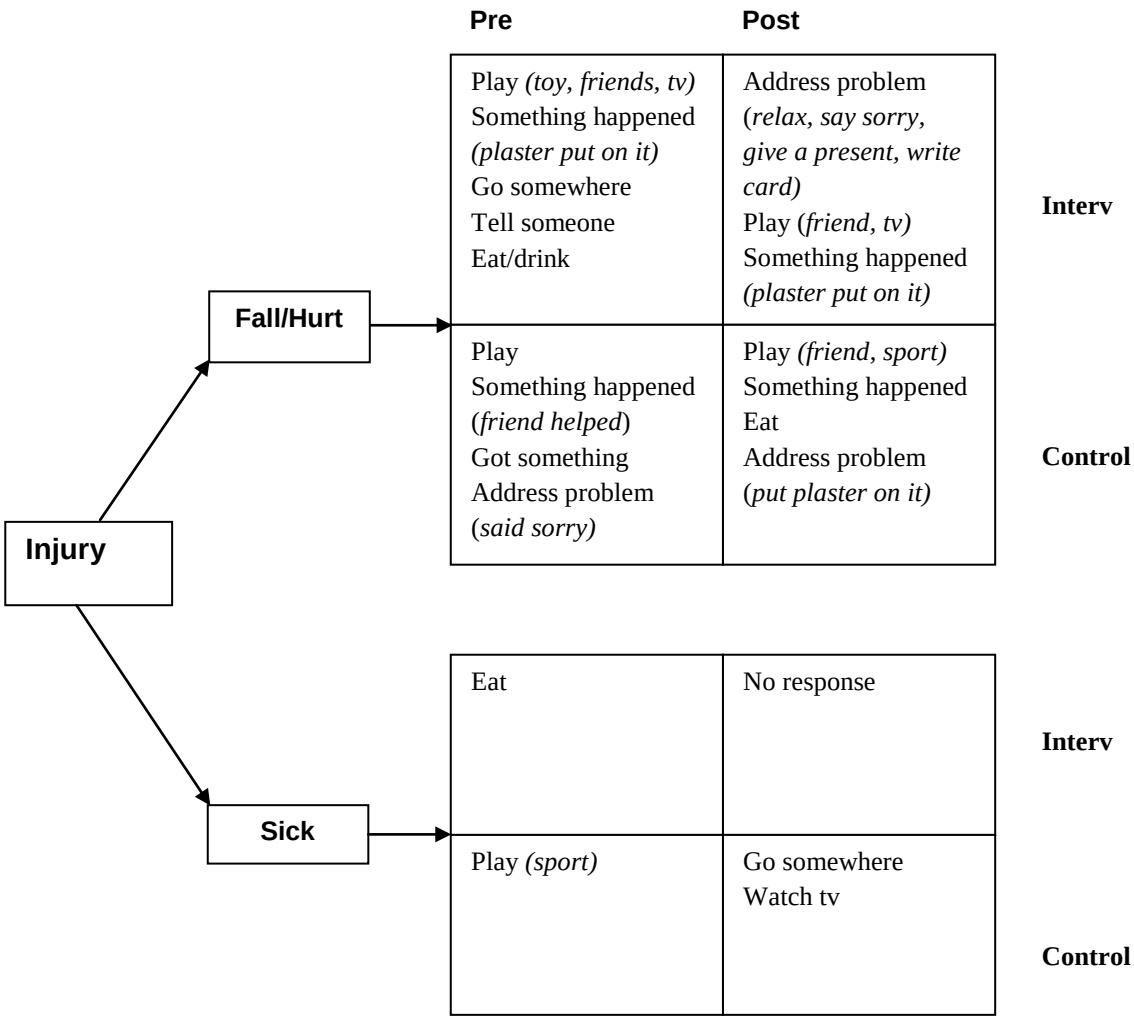
Absent Relative
A relative being absent from home was recalled by several children. In most cases the children referred to a parent being absent. At pre-intervention the most frequently reported strategy that was used by the children in the intervention and control groups was to play with friends, toys, a computer game or watch television. There was a change in the type of coping strategies used by the children in the intervention group at post-intervention. The majority of children attempted to directly address the problem of feeling sad by talking to the person on the phone, making a card, looking at photos and thinking about the person. Some of the children's comments included:
(Pic 1): "*My Dad was leaving to Shannon airport to go to Nigeria*". (Pic 2 address problem): "*Talk to me on the phone and say hello when he comes back home*" (f)
(Pic 1): "*I felt sad when my Mum went to Dublin* (picture '*I'll miss you Mum, bye bye'*)". (Pic 2 address problem): "*I rang my Mum, I felt so happy"* (f)
(Pic 1): "*I was sad when my brother left home. He was 17 then* (picture '*Bye*')". (Pic 2 address problem): "*It cheered by up when I looked at photos. He is now in Limerick*" (m).

In relation to children in the control group, playing sport and food were used to feel better at post-intervention;
(Pic 1): "*I was alone because I over slept and my Mum was gone*". (Pic 2 eat): "*I made myself some eggs and hot chocolate*" (f)
(Pic 1): "*My dog ran away*". (Pic 2 play): "*I play football I was happy*" (m).

Theme: Injury/Illness

This theme is made up of two categories (i) falling/being hurt (ii) being sick.

Figure 9: Injury subcategories and coping strategies used by intervention and control groups at pre- and post-intervention



Falling

This category was made up of children's references to falling or being injured. The majority of injuries were in relation to falling and hurting their leg. At pre-intervention, the majority of children used 'play' as a strategy to feel better. Other strategies included, feeling better as a result of something else happening, as a result of going somewhere, watching television, talking to a parent, eating/drinking. At post-intervention there were no notable changes in the types of coping strategies used by the children in the intervention and control groups. Play was the most

frequently reported strategy that was used by both groups. Other children in the intervention group and control group attempted to address the situation. Children in the intervention group only used relaxation as a way of coping with the situation:
(Pic 1): "*I was sad when I fell. I was sad when I was grounded*". (Pic 2 relax): "*I took deep breaths and said sorry to my Mum*" (m)
(Pic 1): "*I banged my head off the car*". (Pic 2 relax): "*I would go home and take a rest*" (m).

Sick
One child in the intervention and control group recalled a time when they were sick at pre-intervention. No child in the intervention group recalled such an event at post-intervention. The child in the intervention group used the strategy of eating to feel better at pre-intervention, whilst the child in the control group played sport. At post-intervention the children in the control group felt better as a result of something happening (visit sick cousin) and watching television;
(Pic 1): "*When I was told my wee cousin Sarah Ann was sick I was very very sad*". (Pic 2 something happened): "*I was going to see her in Scotland*" (m)
(Pic 1): "*I was sad when I was getting a needle*". (Pic 2 watch tv): "*I watched a movie*" (m).

The results from the pre- and post-intervention Draw and Write analysis indicate the range of coping strategies that the children used. At pre-intervention the children in the intervention and control groups used the strategy of 'play' most frequently. In addition, several passive coping strategies such as feeling better as a result of (i) going somewhere (ii) getting something and (iii) something happening (distraction) were used by both groups. At post-intervention there was a change in the type of coping strategies used by children in the intervention group in relation to particular problem situations (death, feeling alone, absent relative). Several children in the intervention group attempted to address the problem situation by, for example, talking to others, making or doing something to feel better, saying sorry, finding someone to play with when feeling alone. Whilst children in the control group also used problem focused coping strategies at pre- and post-intervention, there was a notable increase in the number of problem focused coping strategies used by the intervention group at post-intervention.

4.7.1.1 Gender differences

In terms of gender differences, conflict was the most frequently reported problem situation for males at pre- and post-intervention. This was followed by injury. Injury was the most frequently reported problem situation for females at pre-intervention. At post-intervention loss was the most frequently reported problem situation. The children's themed responses at pre- and post-intervention are shown in the bar charts in Figures 10 and 11.

Figure 10: Frequency with which males and females reported each theme at pre-intervention

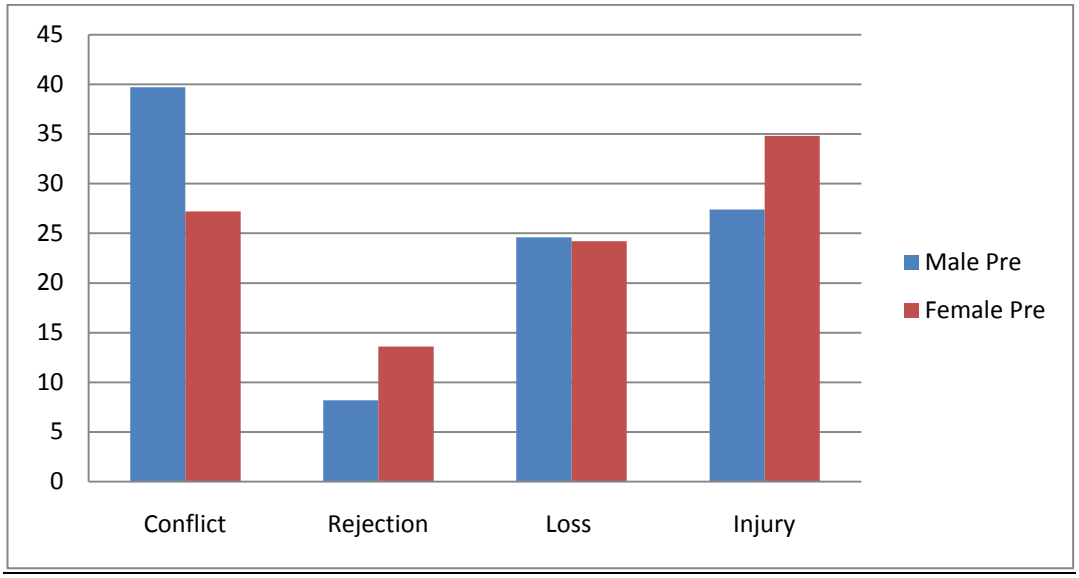
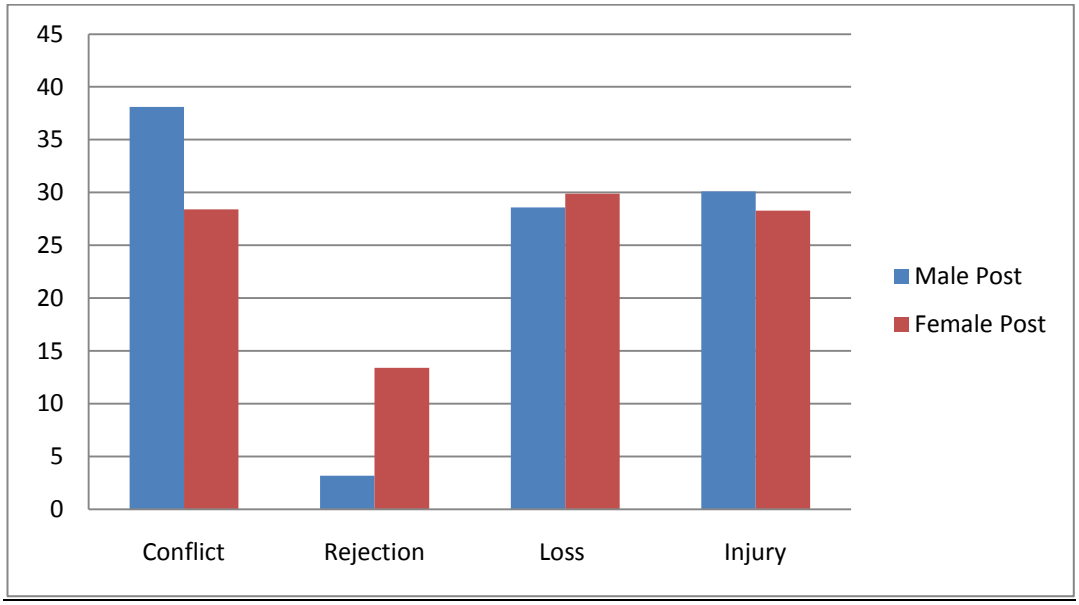


Figure 11: Frequency with which males and females reported each theme at post-intervention



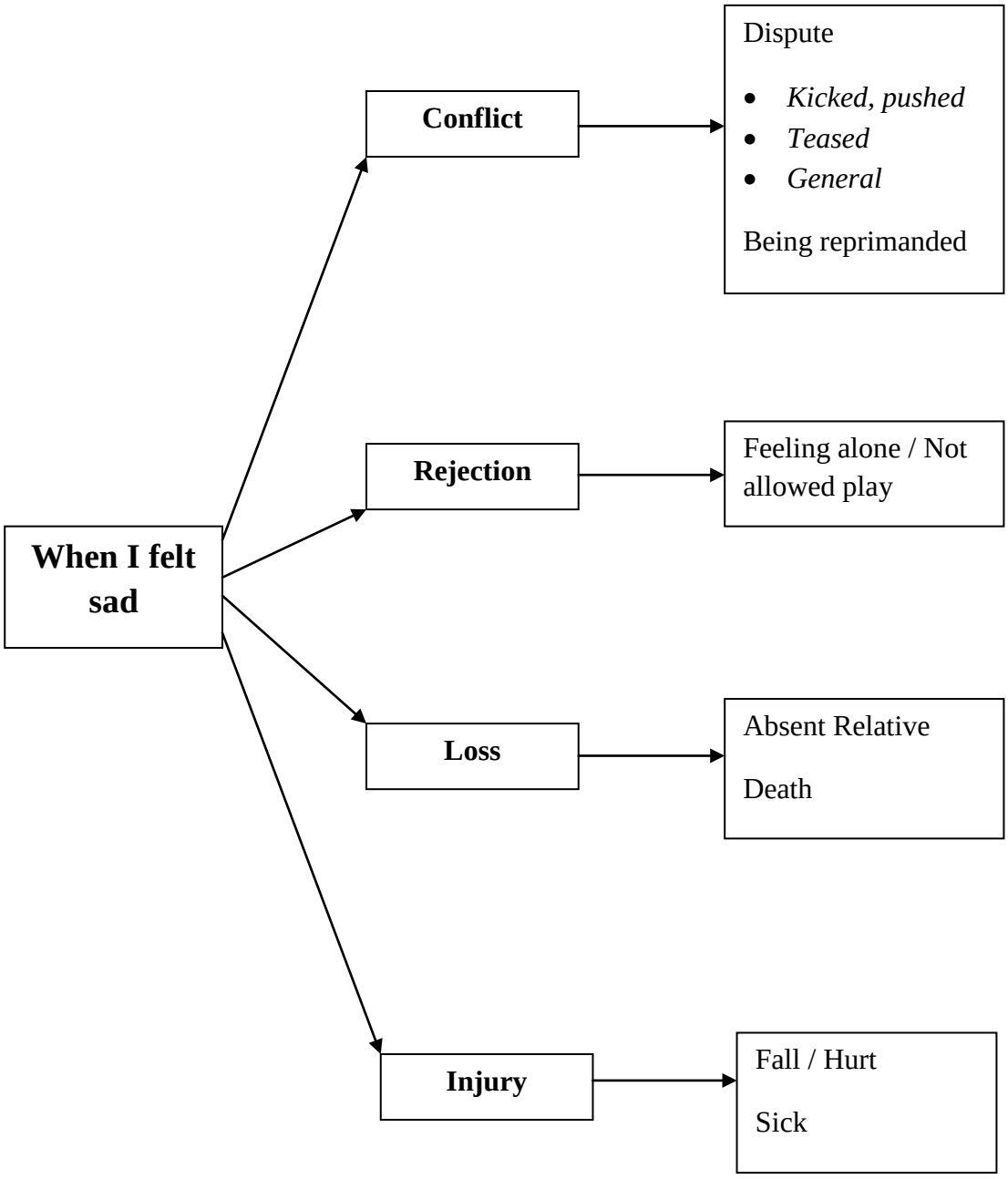
Further gender analysis was carried out on the types of strategies children said they would use to cope with the problem situation. In relation to the themes of conflict and rejection, females in the intervention group were more likely than males to use active coping strategies at post-intervention (such as telling someone about the problem situation or asking someone else to play with them). Males in the intervention group were more likely to play sport or play a computer game. Females who used the strategy of play were more likely to play with friends. Both males and females in the intervention and control groups equally used the strategy of feeling better as a result of something happening (e.g. someone said sorry). In relation to the theme of loss, there was no significant difference in the types of strategies used by males and females in the intervention group, both used active coping strategies such as talking to someone, drawing a picture, putting a picture on the wall to remember a loved one). Both males and females in the control group were equally likely to use distraction techniques such as play, feeling better as a result of something happening / getting something. In terms of the theme of injury, males in the intervention group were more likely to use play at pre- and post-intervention. Females in the intervention and control groups were more likely to feel better as a result of something happening at pre-intervention and at post-intervention were more likely to use eating as a strategy to feel better. Overall, the gender results indicate that females were more likely that males to use active coping strategies such as talking to someone about their problem situation. Males were more likely to use play as a means of coping with the problem situation. There was, however, an increase in the use of problem solving coping strategies among males in the intervention group at post-intervention.

4.7.2 Twelve months follow-up results

At twelve months follow-up a total of 152 children from the 11 schools (Intervention Type I = 3 schools, Intervention Type II = 4 schools and Control group = 4 schools) took part in the Draw and Write Technique. Thematic analysis was used to analyse the results from Picture 1 *("A time when I felt bad"*) and Picture 2 ("*What I could do to feel better*"). Figure 9 illustrates the overarching themes and categories which emerged from the children's responses in relation to a time when they felt sad. Similar to pre- and post-intervention results, the four themes, Conflict, Rejection, Loss and Injury emerged at twelve month follow-up. Of the four themes, conflict

was the most frequently reported by children in the intervention group and control group. This was followed by loss and injury. Figures 12, 13, 14 and 15 provide further detail in relation to the four themes and the strategies the children in the intervention and control groups would use at 12 month follow-up. A brief summary of the key findings in relation to each theme will be provided after each figure. A full description of the themes and coping strategies used by children in the intervention and control groups and sample quotes is provided in Appendix 11

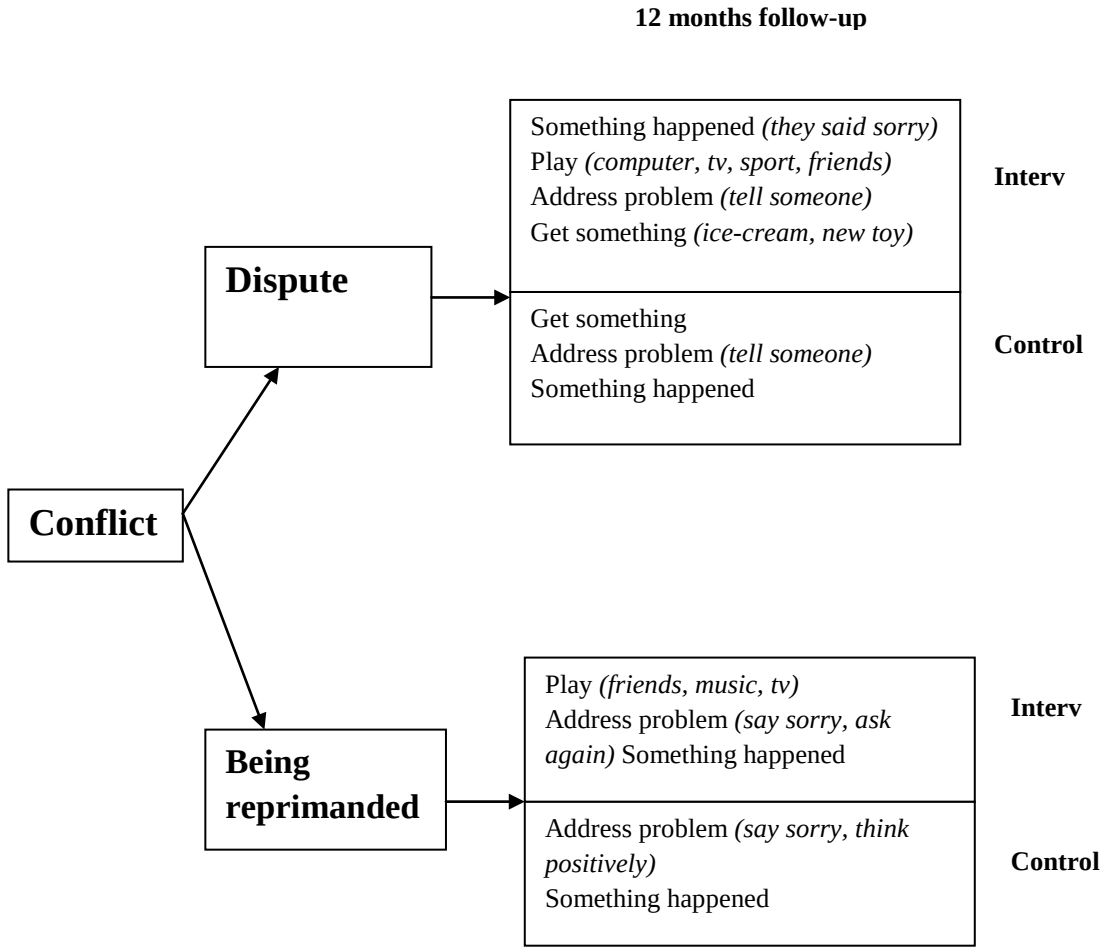
Figure 12: '*A time when I felt sad*': Children's themes and sub-categories at 12 months follow-up



Theme: Conflict

This theme was made up of two sub categories dispute and being reprimanded.

Figure 13: Conflict subcategories and coping strategies used by intervention and control groups at 12 months follow-up



Dispute

The category of dispute was divided into three sub-categories, *being hit/pushed/kicked, being teased* and *general – dispute with someone*. Most of the disputes that the children wrote about involved friends or siblings. In relation to the coping strategies used, there were no significant differences between the intervention and control groups' responses. Feeling better as a result of something happening (such as a friend/sibling saying sorry) and feeling better as a result of getting something were the most frequently reported coping strategies. Others strategies

used included play, addressing the problem by telling someone and relaxing (intervention group only).

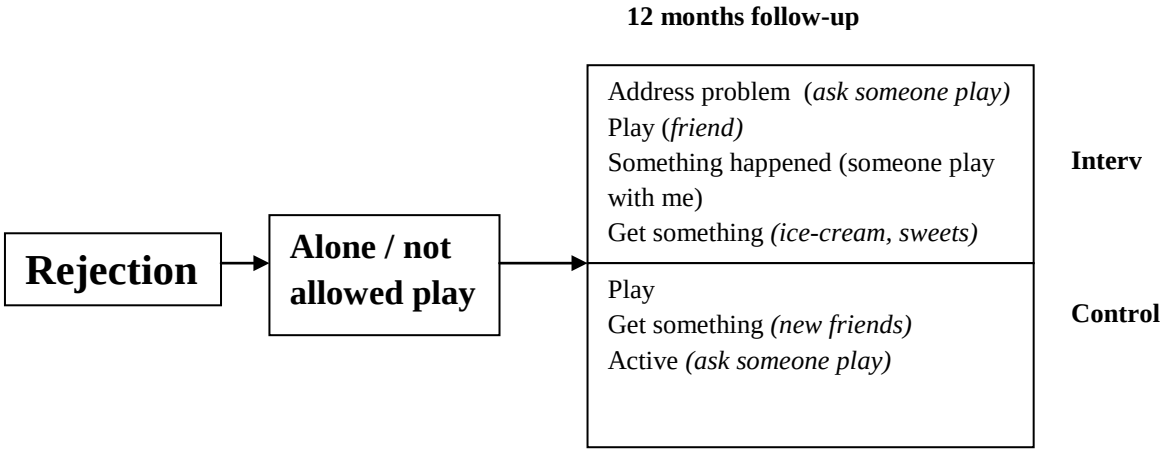
Being reprimanded

Several children in the intervention and control groups wrote about being reprimanded by their parents or not being allowed to do what they wanted to do. Play was the most frequently reported coping strategy used by the children in the intervention group. Children said they would play at home, play with friends and watch tv when they weren't allowed do what they wanted to do. The use active of coping strategies aimed at addressing the problem was also frequently reported by children in the intervention and control groups. Children said they could say sorry, ask their parent, think about nice things.

Theme Rejection

The theme of rejection was made up of one category - alone / not allowed play.

Figure 14: Rejection subcategory and coping strategies used by intervention and control groups at 12 months follow-up

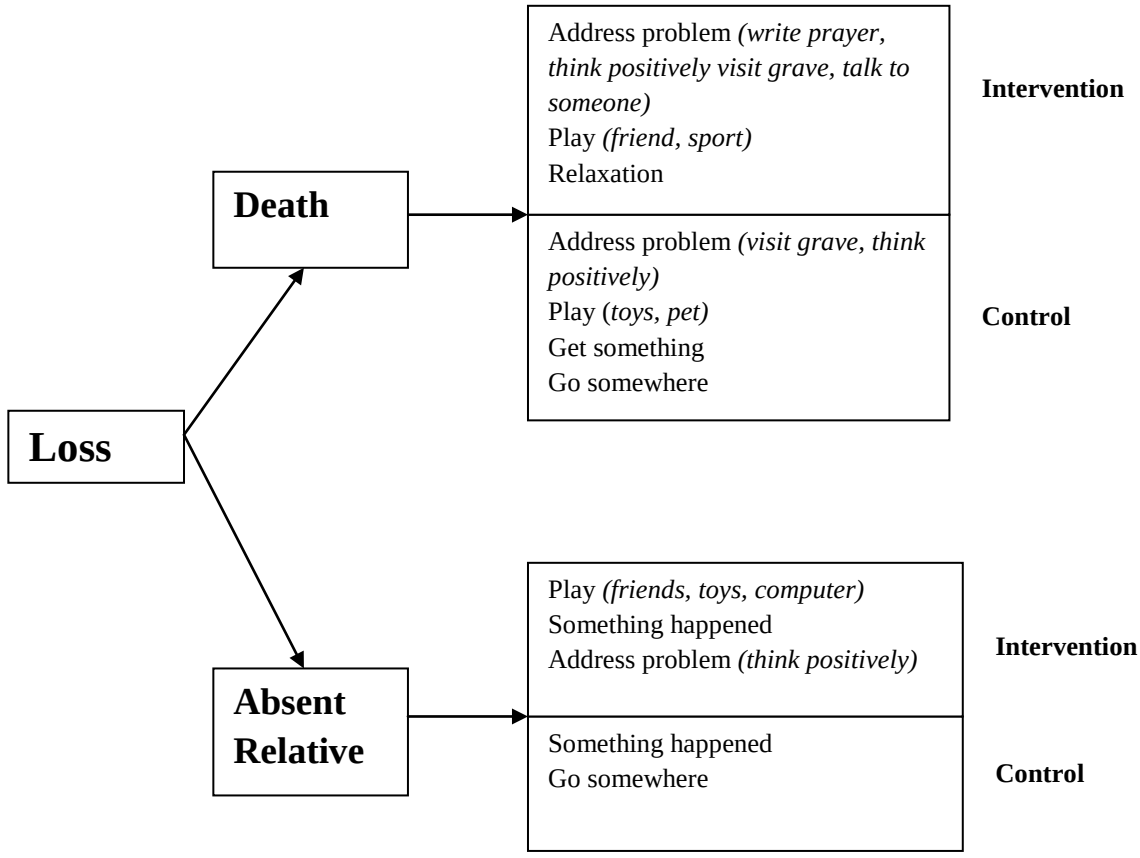


More children in the intervention group than control group wrote about a time when they felt alone / had nobody to play with. Children in both groups used play and feeling better as a result of something happening (when someone plays with me) / getting something (when get sweets/when get new friends). Children in the intervention group were more likely to use problem solving coping strategies (such as asking someone else to play).

Theme Loss

The theme of loss was made up of two subcategories, death and separation from a family member.

Figure 15: Loss subcategories and coping strategies used by intervention and control groups at 12



- Death

Children in the intervention and control groups wrote and drew about the loss of a family member, pet or friend. The children in the intervention group used a wide variety of coping strategies, however, the most frequently reported coping strategies used by the children in the intervention group were problem solving coping strategies. The children in the control group reported using problem solving and play equally. Children in the intervention group only used strategies such as seeking social support and relaxing.

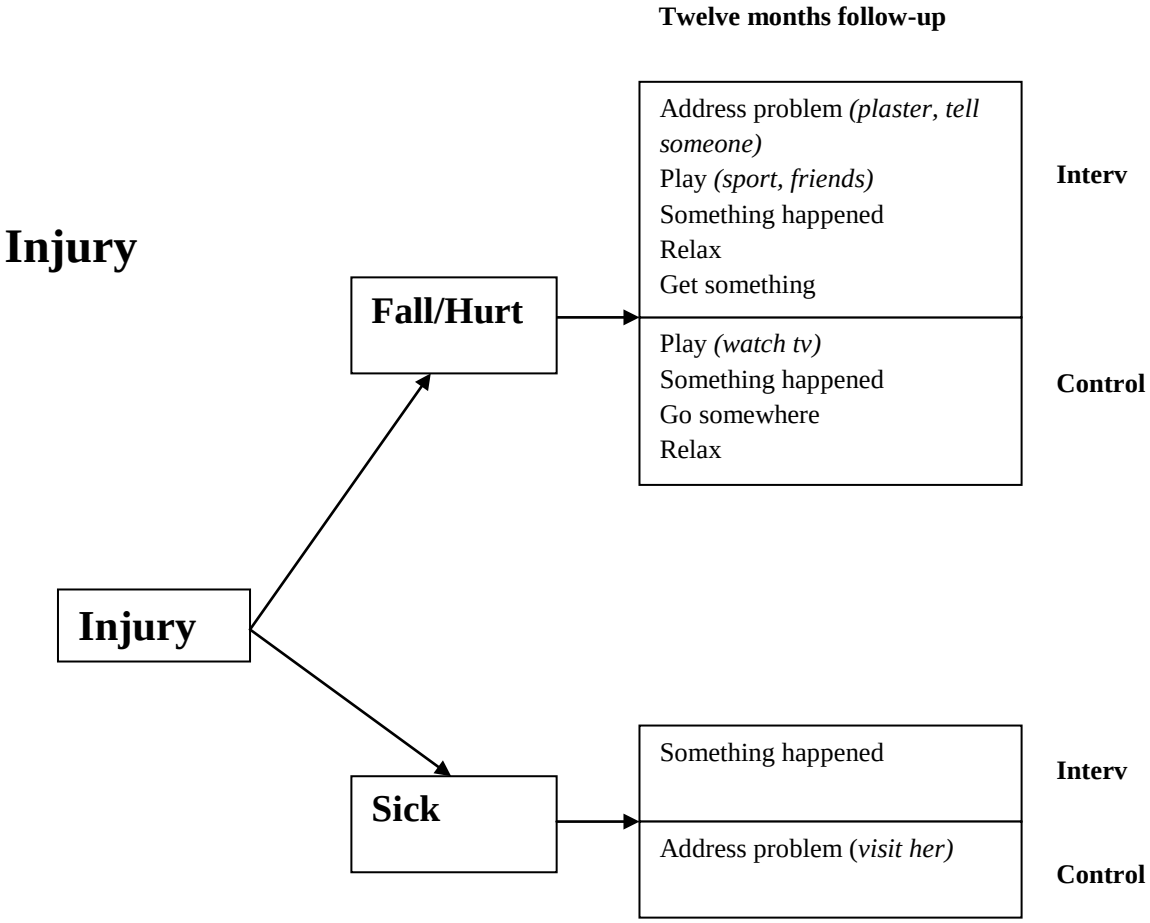
- Separation from family member

Children in the intervention and control groups wrote about a time when a family member left home, went into hospital, when they had to leave their extended family in another country or when their parents separated. Unlike dealing with death, no one strategy was used by children in the intervention or control group. Both groups reported using play (compuer game, watch tv), feeling better as a result of something happening (when they saw the person) and addressing the problem (thinking positively). Some children in the intervention group were unclear about what they could do to feel better.

Theme Injury

This theme was made up of two subcategories falling/hurt myself and being sick.

Figure 16: Injury subcategories and coping strategies used by intervention and control groups at 12 months follow-up



- Fall/hurt myself

Children in both groups wrote about time when they fell off their bike, fell off a wall, broke their arm/leg. Unlike children in the control group, children in the intervention group were more likely to use problem solving coping strategies such as getting a plaster or telling someone. No child in the control group used problem solving coping strategies. Other strategies used by children in the intervention group included, playing, relaxing, feeling better as a result of getting something or as a result of something happening (such as when their arm was better or when someone helped them). Children in the control group used strategies such as play, feeling better as a result of getting something or something happening and relaxing.

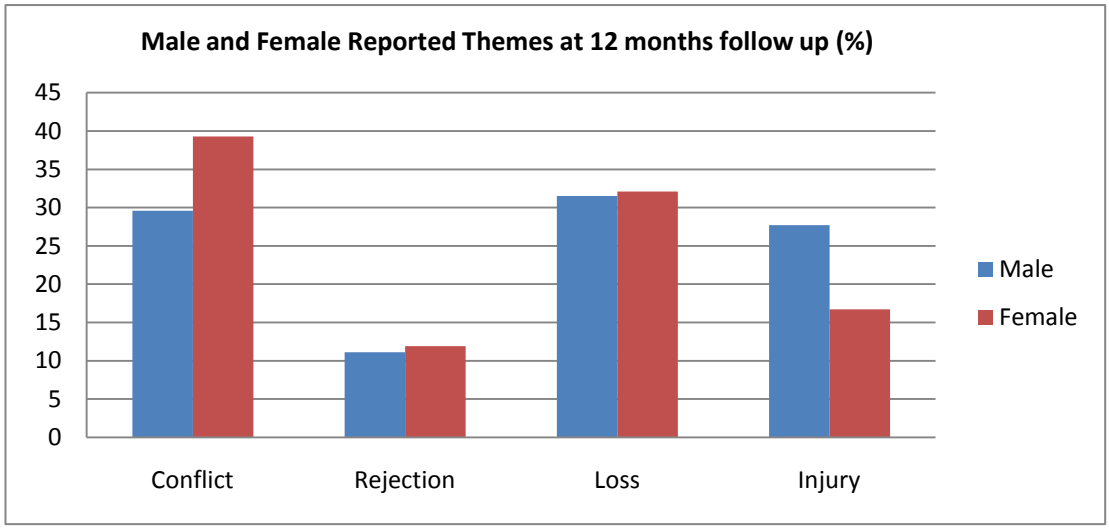
- Sick

Two children (one intervention and one control) said they felt sad as a result of sickness. Both said they would feel better as a result of something happening (when they were better).

4.7.2.1 Gender

Conflict was the most frequently reported problem situation among females in the intervention and control groups. This was followed by loss. Loss was the most frequently reported among males in the intervention and control groups. This was followed by injury. The bar chart in Figure 17 presents the themes as reported by males and females.

Figure 17: Frequency with which males and females reported each theme at 12 months follow-up



In relation to the strategies used to feel better as a result of conflict situations, there were no significant gender differences. Both males and females in the intervention group were most likely to use play, problem solving and feeling better as a result of something happening at 12 months follow-up. In terms of the category rejection, females were more likely than males in the intervention group to use problem solving strategies. Males in both the intervention and control groups used problem solving, play and feeling better as a result of getting something equally. Regarding the theme of loss, females in the intervention group were significantly more likely than males to use problem solving techniques than males. Play was used most frequently by males in the intervention group. In terms of injury, males and females in the intervention group were most likely to use problem solving coping strategies. This was followed by play and feeling better as a result of something happening. Males and females in the control group used similar coping strategies such as play and feeling better as a result of something happening. Overall, the gender result from the 12 months follow-up study indicate that females in the intervention group were more likely than males in the intervention group to use problem solving coping strategies. Males were more likely to use play. Regarding children in the control group, there were no significant differences in the coping strategies used by males and females.

4.7.3 Pre-, Post-Intervention and Follow-up Results

The results from the Draw and Write at pre-intervention, post-intervention and at 12 months follow-up reveal a clear pattern in terms of events that upset children and the types of coping strategies that children use to feel better. At all three time periods, the major events that upset children include conflict situations, feeling alone/ not being allowed play, loss of a loved one through death, absent relative (particularly parents) and falling/being hurt. The coping strategies that were most frequently used to deal with the problem situations across the two groups included play (with toys, friends, sport, computer game / watching tv), feeling better as a result of something happening (such as the other person saying sorry / getting into trouble), addressing the problem (telling someone about the problem, thinking positively, doing something to change the situation). Other strategies such as relaxing, eating, feeling

better as a result of going somewhere (to the park, play centre etc.) or getting something (such as a sweets, ice cream) were used with less frequency.

In terms of the changes in the types of coping strategies used across the three time periods, the children in the intervention group were more likely to talk to someone and directly address the problem in relation to conflict situations between pre- and post-intervention. These results were not sustained at 12 months follow-up with children most likely to feel better as a result of something happening. A similar pattern emerged in relation to an absent parent/relative. There was an increase in the use of problem solving coping strategies among children in the intervention group between pre- and post-intervention, however, play and feeling better as a result of something happening were reported with most frequency at 12 months follow-up. Significant long term effects in relation to the use of coping strategies aimed at directly dealing with the problem situation were apparent for the categories of rejection (not allowed play / feeling alone) and death. There was a significant increase in the number of children in the intervention group using problem solving coping strategies between pre- and post-intervention and these results were maintained at 12 months follow-up with the majority of children in the intervention groups using problem solving strategies such as telling someone about the problem, doing something to change the situation and thinking positively. Whilst children in the control group also used problem solving coping strategies, they used distraction strategies such as feeling better as a result of something happening, getting something and play equally as much. Finally, with regard the category fall/hurt myself, there were no significant differences in the types of coping strategies used by the intervention and control groups between pre- and post-intervention, however, at 12 months follow-up the children in the intervention group were most likely to address the problem situation by telling someone / putting a plaster on. Children in the control group used strategies such as play and feeling better as a result of something happening.

4.8 Children's Coping Skills: Participatory Workshops

This section presents the key findings from the children's participatory workshops. These workshops were conducted at the interim (June '08), at post-intervention (April-May '09) and at 12 months follow-up (April – May '10). The same sample of children from 12 schools that completed the Draw and Write activity took part in all three child participatory workshops.

4.8.1 Recognition of Feelings Activity

For this activity, the researcher read out six different scenarios and the children were invited to respond to each scenario by describing how the person might have felt. The scenarios included:

(1) Tom was pushed in the school yard
(2) Michael is going to Spain for three weeks
(3) Gráinne forgot to do her spellings and she had a spellings test the following day
(4) Sharon said nobody would play with her in the yard
(5) Paul's brother took his computer game from him and would not give it back
(6) Ronan's sister got a new bike but Ronan didn't get anything.

At post-intervention and at 12 months follow-up the scenarios were altered slightly (names and location changed), however, the type of event remained the same. An analysis of the types of responses that children in the intervention and control groups made across the three time periods was carried out. The following is a summary of the main findings from the Recognition of Feelings Activity.

4.8.1.1 Interim and Post-Intervention Results

- Types of Responses

Both intervention and control groups identified feelings such as being angry, sad, lonely and worried in relation to different scenarios. At the interim and at post-intervention, the intervention group were more likely than the control group to use several different feeling words for 'worried' and 'mad'. Examples include: worried - *"scared", "nervous", "afraid";* mad - *"angry", "cross", "mad", "annoyed"*. At post-intervention, it is apparent that the intervention group had a more elaborate and wider vocabulary for articulating feelings. The children in the intervention group

were more likely than the control group to mention feelings such as "*terrified", "embarrassed", "disappointed", "nervous", "proud", "shocked*". The children in the control group on the other hand were more likely to (i) repeat the same feeling that another child in the group had just said and (ii) add the word 'very' to exaggerate the point. For example, in response to the question "*How did Ronan feel when his sister got a new bike and he didn't?"* one child said, "*very sad*" and another child said "*very very very sad*". When asked about how Michael felt when he was told he was going to Spain for three weeks, the children in one control school responded: "*excited*", "*very very very happy*", "*really happy*", "*very very excited*" "*very excited*". In relation to the question about how Paul felt when his brother took his computer game, some of the control group's responses included: *"sad like a cry baby", "crazy", he's going to punch him", "fierce"*. When asked about how Ronan felt, some of the children in the control groups said: *"he's crying", "that's not fair", "stupid", "fierce"*.

- Explaining feelings

At post-intervention, there was an increase in the number of children in the intervention group that gave reasons as to why the person was feeling this way. For example, at the interim one child in the intervention group explained why Gráinne was feeling sad *"…because teacher was giving out to her"*. Two children in the control group explained why she was scared. At post-intervention, however, several children in the intervention group gave reasons. This is in contrast to the children in the control group who did not give reasons for their answers Examples of children's responses post-intervention include:

- *"She might have felt frightened because she didn't know what to do"*
- *"She might be really worried because she might be in trouble"*
- *"She might be scared that her teacher might be cross with her"*
- *"She might be scared in case her teacher scolds her"*.

- Possible solutions

In addition to giving reasons for the children's feelings, at post-intervention several children in the intervention group explained what the child could do to make the situation better. In relation to the scenario about Paul's brother taking his computer

game, at post-intervention a child in the intervention group suggested: "*He could say to him that he paid a lot of money for the PS* (computer) *and he wants it back cause it's not his"*. Several intervention children made suggestions about what Ronan could do to feel better after his sister got a new bike. These suggestions included:

- "*He could say 'I feel upset because you didn't get me a bike and you got my sister a bike, I'm not ungrateful but it's just you didn't get me a bike, could I please have a bike"*
- *"He could save up for one"*
- *"He could write a letter to Santa"*

Also, children in the intervention group gave suggestions regarding what Tom should do if he is pushed in the yard. Responses included:

- *"He might have felt terrible, he should have told the teacher"*
- *"He might have talked to his friends"*.
- "*He feels that he's very upset and he wants to do something that will make him feel better*".

The children in the control group did not make any suggestion about what the children could do to feel better.

4.8.1.2 Twelve months follow-up results

- Types of responses

At twelve months follow-up, the children in the intervention and control groups used several different feeling words to describe how the characters felt. Examples of the feelings words used by both groups include:

- *sad, unhappy, upset*
- *mad, angry, annoyed, cross*
- *afraid, nervous, scared, worried, frightened*
- *hurt*
- *happy, excited.*

Several children used additional, more elaborate feeling words. The majority of these words came from children in the intervention group. Examples of these include:

- Michael was pushed on the school football pitch - "*anxious"*, "*lonely"*, "*alone"* [Intervention]

- Liam was going on holidays to France for three weeks – *"terrific", "baffled", "embarrassed"* [Intervention]
- Sarah forgot to do her Maths homework – *"a bit disappointed", "terrified", "anxious", "shy"* [Intervention]; *"confused, disappointed, horrified"* [Control].

Children in both groups also responded with non-feeling words, however, more children in the control group responded with these words. Children in the control group were also more likely to refer to violent behaviour. Examples of non-feeling words include:

Donal's sister got a new Nintendo DS and he didn't

- "*wants to steal it", "odd one out", "crying", "unfair*" [Intervention]
- "*like his parents liked his sister more", "he wants to steal it", "taking his head off", "he feels like punching someone", "he feels like killing her*" [Control]

Conor's brother took his new football from him and wouldn't give it back to him

- *"violent", "he wanted to cry", "he wanted to fight", "like hurting his brother"* [Intervention]
- *"he felt like he wanted to hurt her", "going to punch her", "up for a big fight" "feels like taking his head off with a chain saw"* [Control].

Similar to the post-intervention results, children in the control group repeated what another child had already said and use the words '"very" or "very, very" or "really" to emphasis their point. However, unlike the post-intervention results children in the intervention group were also likely to repeat what others said at 12 months follow-up. Examples include:

Lorna said that nobody would play with her at break time

- "*really really sad"*[Intervention]
- "*very very sad"*[Control]

Conor's brother took his new football

- "*very very very angry"* [Intervention]
- "*very mad" "very angry"* [Control]

Liam was going on holidays to France for three weeks

- "*very excited"* [Intervention]
- "*very very happy", "really really excited"* [Control].

- Explaining feelings

At 12 months follow-up, children in the intervention group were consistently more likely than children in the control group to give reasons for the children's feelings. For example, in relation to the situation of Liam going on holidays to France for three weeks, children remarked:

- *"Might have felt sad cause he was going to miss his friends"* [Intervention]
- *"Sad that he might miss his friends"* [Intervention]
- *"He might be angry because he might not make friends"* [Intervention]
- *"Sad because he wouldn't want to leave his friends"* [Control].

Similarly, in relation to Lorna having nobody to play with at break time, some of the children's responses included:

- *"Upset and sad that nobody would play with her"* [Intervention]
- *"Embarrassed because she was on her own"* [Intervention].

4.8.1.3 Interim, post-intervention and follow-up results

The results from the Feelings Activity indicate that the children in the intervention group had a wider, more elaborate vocabulary of feeling words at post-intervention. The children in the control group were more likely to repeat the same feelings and use the word 'very' to emphasise the significance of the feeling. In addition, at post-intervention, the children in the intervention group were more likely than the control group to explain their feelings and to give possible solutions to the problems depicted in the vignettes. The differences between the intervention and control groups were less apparent at 12 month follow-up, particularly in relation to the repetition of feeling words and the use of the word 'very' or 'really' to emphasise the significance of the feeling. In addition, whilst the majority of the more elaborate feeling words came from children in the intervention group, several children in the control group used these feeling words. Similar to the results at post-intervention, however, children in the intervention group were more likely than the control group to give an explanation as to why the children might be feeling angry/lonely/embarrassed etc. Further, children in the control group were more likely to use non-feeling words in response to the problem situation. Several children in the control group also referred to violent behaviour when describing what the person felt like doing.

4.8.2 Vignette Problem-solving Activity

As part of the participatory workshop, the researcher read two vignettes to the children in the intervention and control groups. These vignettes were concerned with two separate children and a problem they experienced. In the first scenario Louise's colouring pencils were taken by another girl in her class and in the second story Ryan was not allowed to go to his friend's house because he did not tidy his room. The children were asked a set of questions about the vignettes: (i) *How did the person feel?* (ii) *What could they do to feel better?* (iii) *If you were Louise's friend what would you do to help her?* At post-intervention and at 12 months follow-up, similar vignettes were read out to the children, slight modifications were made so that the children wouldn't remember the story. A comparison between the intervention and control groups' interim, post-intervention and 12 month follow-up responses was carried out and the following section outlines the main findings from the vignettes activity.

4.8.2.1 How the characters felt

At the interim, the intervention and control children used feelings such as *"sad", "angry/annoyed", "upset", "unhappy", "scared"* to describe how the characters felt. At post-intervention the children in both group used other feelings such as "*lonely*", "*embarrassed*", "*confused*", "*unhappy", "disappointed" and "grumpy"*. Similar to the Feelings Activity, the control children were more likely than the intervention children to repeat what other children had previously said. In relation to how Louise was feeling some of the control children's comments at the interim included; *"sad", "very very very sad", "very very very sad", "very mad" "she was crying", "very very angry", "she wanted them* (the colouring pencils) *back"*. The word 'very' was used less frequently at post-intervention. The children in the intervention group were more likely to explain why the characters felt a certain way. At post-intervention, only children in the intervention group explained why Louise was feeling sad/angry. Examples include:

- *"Sad that she didn't have her ball anymore"*
- *"Worried cause she mightn't get her ball back"*
- *"Very confused because her ball just disappeared"*.

At 12 months follow-up, the children in the intervention and control groups used similar feeling words to describe how the characters might have felt. Similar to post-intervention findings, however, children in the intervention group were more likely give reason for the children feeling this way. In relation to Sarah who had the skipping rope taken off her, children in the intervention group said Sarah felt:

- *"worried because that was the teacher's skipping rope and the person might have lost it"*
- *"really sad because he wanted to tell the teacher"*
- *"hurt cause they took the skipping rope"*.

In relation to Peter who was not allowed to go to his friends house, children in the intervention group said Peter felt:

- *angry because he is not allowed go"*
- *jealous of Tom because he had the trampoline and all his other friends are there"*
- *he might be furious at his Dad and Tom might be worried because Peter didn't turn up"*
- *he probably was mad with the teacher because she told his Dad"*.

For both vignettes, children in the control group were more likely to refer to violent behaviour than children in the intervention group at 12 months follow-up. Children in the control group said Sarah feels like:

- *"shooting bazookas at her" (girl that took the skipping rope)*
- "*she wants to kick her and go tell teacher"*
- "*committing suicide"*.

In relation to Peter's problem children said:

- *"he might feel like killing his father"* [Control]
- "*he might want to punch him"* [Control].

4.8.2.2 What the characters could do

The children in the control and intervention groups were asked about what the two characters could do to make the situation better. There was a notable increase in the types of suggestions made by the children in the intervention group at post-

intervention. Regarding Louise and her problem at school, the most frequent suggestion made by the children in the intervention group at the interim was telling the teacher. Other suggestions included taking the pencils off her, or asking for them back. At post-intervention, however, the children gave a range of additional suggestions such as:

- *"She might ask them if they would like to play together"*
- *"She could ask her where did she get the ball"*
- *"She could go home and talk to her Mum or Dad"*
- *"She could ask a friend to help her get the basketball back"*
- *"Tell the principal"*
- *"Wait till she is ready"*.

There was very little change in the control group's responses between the interim and post-intervention. At both stages the control children suggested asking for it back, telling the teacher, asking would they like to play together. Only children in the control group suggested using aggressive behaviour to get the ball back: "*Punch her", "She could get mad*". Another child in the control group suggested, *"Don't be her friend"*. At twelve months follow-up, there was little difference between the intervention and control groups' suggestions. Children in both groups made similar suggestions such as, tell the teacher, ask the girl could she have it back, ask someone else to play, get another skipping rope. In addition to the positive problem focused coping strategies, children in both groups made additional suggestions such as;

- *"Ignore her"*[Intervention]
- *"She could start bullying her and then she would know how it felt"* [Intervention]
- *"She might take it off them"* [Intervention]
- *"Try and make them jealous by doing other things"* [Control]
- *"Make a group of your own friends and when they want to join in say 'No you didn't let me join in'"* [Control]

In relation to the second vignette, there was a significant increase in the number and variety of suggestions that the children in the intervention group made in relation to

what Ryan could do to feel better at post-intervention. At the interim, the intervention group suggested;

- *"he needs to clean his room"*
- *"he could make his Dad tea"*
- *"he should say I'm sorry I didn't tidy my room"*
- *"he could have crept out of his house but his Mum might catch him"*.

At post-intervention, however, the intervention group came up with a variety of additional coping strategies:

- *"clean the house"*
- *"he could draw some pictures or he could play with his toys or ask his Dad if he wanted to go to the park"*
- *"he might try better at school"*
- *"say sorry to his Dad"*
- *"write a forgiveness card"*
- *"stop, take a deep breath, count to ten and think about a solution"*
- *"sit on his bed and calm down"*
- *"have a nap"*
- *"listen to music"*
- *"go up to his room and think about what he should do"*.

There was little change in the control group's suggestions between the interim and post-intervention. At the interim the control group suggested Ryan should clean his room, jump out the window, ask his Dad if he can go after he cleans his room. At post-intervention, the control group's most frequent suggestions included: "*try to sneak out*" and "*tidy the house up"* Some children suggested he could play. Others children in the control group suggested; "*he could punch his Daddy*".

At 12 months follow-up, there was little difference between the intervention and control groups' responses. The majority of children in both group suggested that Peter could;

- help his Dad around the house
- say sorry to his Dad
- play (on his bike, computer games, football.

Other suggestions from children in both groups included: eat sweets, find someone else to play with, have a friend over. In addition, children in both groups suggested less positive strategies to deal with the situation. Examples include:

- *"punch somebody"* [Intervention]
- *"he could ruin the place if his Dad goes away, he could put salt all over the floor"* [Intervention]
- *"lock his Dad in the bathroom"* [Control]
- *"pretend that there is a rat in the basement and lock him (his Dad) in"* [Control]
- *"he could jump on his Dads bed"* [Control].

4.8.2.3 What would you do?

The children were also asked an additional question about the girl's problem at school: *"If you were Louise's friend what would you do to help Louise?*". There were no significant differences between the intervention and control groups' responses to this question at the interim and at post-intervention. At post-intervention, both groups gave more suggestions about what they would do if they were Louise's friend. Suggestions included:

- *"Go over and ask her for the ball back cause it's Louise's ball"*[Intervention]
- *"Tell the teacher"* [Control]
- *"We could go to the principal and the principal could sort it out"* [Intervention]
- *"If I was her best friend I would say 'Will we just play something else instead of basketball?'"*[Control]
- *"Play together in one big group"*. [Intervention].

At 12 months follow-up, children in the intervention and control groups made similar suggestions as those made at post-intervention. The most frequently reported suggestions included (i) asking the girls for the skipping rope back (ii) asking Sarah is she would like to play (iii) telling the teacher and (iv) playing a different game with Sarah. One child in the intervention group said, *"I would make her feel better. I would talk to her"*. Another child in the intervention group suggested, *"start bullying the other girl and make her give it back"*.

Overall, the results from the vignettes seem to echo the findings from the Feelings Activity in that the intervention group appeared to have a wider vocabulary of feeling words than the control group at post-intervention. At twelve months follow-up, whilst the intervention and control groups used similar feeling words, the intervention group was more likely to give reasons for the characters feelings. Also, children in the control group were more likely to refer to violent behaviour when describing what the characters felt like doing. In relation to the use of coping strategies, the results from the vignettes activity indicate that the intervention group had a wider repertoire of problem solving coping strategies at post-intervention when compared with the control group. There was an increase in the number of problem solving suggestions made by the intervention group in relation to the vignette characters and what they could do to feel better / improve the situation. These results were not maintained at 12 month follow-up, however, with children in both groups giving similar responses. In addition, at 12 months follow-up several children in the intervention and control groups referred to the use of less constructive, more aggressive type coping strategies. Collectively, these results seem to suggest that the programme had a significant positive effect on the intervention group's recognition of feelings and problem solving coping strategies, however, these results were not fully maintained at 12 months follow-up.

CHAPTER FIVE

Results II: Programme Implementation

This chapter will outline the main findings regarding the implementation of the programme. Additional results pertaining to programme fidelity will be presented first. These results will include (i) a comparison between fidelity results from the structured observations and the teachers' self report weekly questionnaire (ii) an examination of the impact of high and low fidelity of implementation on the children's emotional literacy and emotional and behavioural wellbeing scores (iii) an analysis of high and low fidelity in relation to teachers' views about the programme and views about the ethos and environment of the schools (as measures by the Ethos Questionnaire). Following this, the results from the teachers' weekly questionnaire regarding programme implementation will be presented. The results from the structured observations which were carried out in a sample of schools will be reported next. The findings in relation to the implementation of Zippy's Friends in the context of the SPHE curriculum will then be presented. Finally, the children's and teachers' views about the perceived strengths and weaknesses of the programme will be outlined.

5.1 Programme Fidelity

The previous results chapter presented key findings from the teachers' weekly questionnaire regarding programme fidelity among teachers in Intervention Type I (full implementation) and Intervention Type II (use of programme as resource). These results showed there was little difference in programme fidelity between the two intervention groups. Programme fidelity was high among both intervention groups. Teachers in Intervention Type I fully implemented 86.4% of the programme and teachers in Intervention Type II fully implemented 86.6% of the programme. In order to determine the teachers level of accuracy in reporting programme fidelity, a comparison was made between the programme fidelity results obtained from the structured observations and the teachers' self report results.

5.1.1 Programme Fidelity: Structured Observations

A total of 27 observations were carried out over the course of the 24 week programme, 13 observations took place during the first half of the programme and 14 observations were carried out during the second half of the programme. As part of the observations, observers were required to indicate the parts of the lesson that were fully implemented, partially implemented and not implemented by the teachers. The observers completed the same programme fidelity questionnaire that the teachers completed after implementing each session. This enabled a direct comparison between teachers' and observers' assessment of fidelity of implementation. The number and percentage of activities fully implemented, partially implemented and not implemented are shown in Table 47. The table compares programme fidelity as measured by the observers and teachers (teacher's weekly questionnaire).

Table 47: Programme fidelity results from class observations compared with results from teachers' weekly questionnaires: number and percentage of activities fully, partially and not implemented

	Full implementation		**Partial implementation**		**Not implemented**	
	N	**%**	N	**%**	N	**%**
Observations (N = 27)	427	**90.9%**	11	**2.3%**	32	**6.8%**
Teachers' Weekly Questionnaire	*430*	***91.5%***	*17*	***3.6%***	*23*	***4.9%***

The observation results indicate that programme fidelity was high with teachers fully implementing just over 90.9% of the sessions and partially implementing 2.3% of the session. When the teachers' self report (Weekly Questionnaire) results were analysed for the session that was observed, the results were very similar. Teachers reported implementing just slightly more than was observed, (full implementation 91.5%, partial implementation 3.6%). Additional analysis was carried out to determine if there was a difference in the level of programme fidelity among teachers that implemented the first and second half of the programme. The results from the observations indicate that there is very little difference in programme fidelity between teachers who implemented the first (N = 13) and second half of the programme (N = 14). Observers reported that 90.9% of the sessions from the first half of the programme were fully implemented and 89.9% of the sessions from the second half of the programme were fully implemented.

Further analysis was carried out to determine the differences in programme fidelity between teachers in Intervention Type I and Type II based on the structured observations. The number and percentage of activities that were fully implemented, partially implemented and not implemented by teachers in Intervention Type I and II (observation and teacher's self reports included) is presented in Table 48. The observation results showed that programme fidelity across both groups was high and that there was very little difference between the two groups. Similar to the teachers' self reports, the observations results indicate that teachers in Intervention Type II fully implemented a fraction more of the programme that teachers in Intervention Type I. The teachers in Intervention Type I fully implemented 89.7% and partially implemented 2.6% of the sessions. Teachers in Intervention Type II fully implemented 91.6% and partially implemented 2.2% of the session. These results from the observations were compared with the teachers' reports of programme fidelity from the weekly questionnaires. Interestingly, teachers in Intervention Type I reported fully implementing less than was observed (Observed = 89.7%, Teacher report = 87.2%) and teachers in Intervention Type II reported fully implementing more than was observed (Observed = 91.6%, Teacher report = 94.5%).

An individual analysis of teachers' observations and reports revealed that there was a discrepancy between observation and self reported fidelity for two teachers in Intervention Type II. One teacher reported fully implementing 100% of the session, however, it was observed that only 68.4% of the lesson was implemented and 26% of the lesson (5 activities) was not implemented. Another teacher reported fully implementing 93.7% of the session observed (15/16 activities), however, it was observed that 62.5% of the lesson was implemented and that 31.5% of the lesson (5 activities) was not implemented. Overall, these results indicate that (i) programme fidelity as measured by observations and self report was high among teachers in both groups and (ii) there was, in general, little discrepancy between teachers' self report and structured observation results, however, there is evidence to indicate that some teachers in Intervention Type II over reported fidelity of implementation. These results highlight the importance of observations as a means to monitoring programme adherence.

Table 48: Programme fidelity results from observations of teachers in Implementation Type I and Type II: number and percentage of activities fully, partially and not implemented

		Full		Partial		Not implemented	
		N	%	N	%	N	%
Interv Type I	Observations (N = 11)	175	**89.7%**	5	**2.6%**	15	**7.7%**
	Teachers' Questionnaire	*170*	***87.2%***	*9*	***4.6%***	*16*	***8.2%***
Interv Type II	Observations (N =16)	252	**91.6%**	6	**2.2%**	17	**6.2%**
	Teachers' Questionnaire	*260*	***94.5%***	*8*	***2.9%***	*7*	***2.5%***

5.1.2 Impact of high and low programme fidelity

Individual analysis of the teachers' self report fidelity results from the weekly questionnaire revealed that three teachers (two from Intervention Type I and one from Intervention Type II) reported implementing less than 75% of the programme and that ten teachers (five from Intervention Type I and five from Intervention Type II) reported implemented 90% or more of the programme. Given that there was a difference in the level of programme adherence between teachers, examination of the impact of implementing the programme with low fidelity (≤75%) and high fidelity (≥90%) on children's Emotional Literacy and Strengths and Difficulties scores was subsequently carried out.

Paired samples t-tests were used to examine the changes in the mean Total Emotional Literacy Scores and Total Difficulties Scores across high and low fidelity groups between pre and post-intervention. The mean Total Emotional Literacy and Total Difficulties scores for the high and low fidelity groups are shown in Table 49. In relation to the Total Emotional Literacy score, there was no significant change in the Emotional Literacy Scores of children in the low fidelity group between pre-intervention (M = 59.87, SD =11.7) and post-intervention (M = 60.17, SD = 9.9), t(29) = -.178, p = .860 (two tailed). In contrast to this, there was a significant improvement in the Total Emotional Literacy score among children the high fidelity group [Pre-intervention (M = 61.21, SD =11.6) and post-intervention (M = 67.92, SD = 11.5), t(86) = -5.59, p = .000 (two tailed)]. These results indicate that the

programme had a significant positive effect when implemented with high fidelity and had no effect when implemented with low fidelity.

In relation to the Total Difficulties Score from the Strengths and Difficulties Questionnaire, there was a significant decrease in the Total Difficulties score between pre- and post-intervention for both the low fidelity group [t(32) = 2.193, p = 0.036] and the high fidelity group [t(88) = 4.09, p = 0.000] thus indicating that programme fidelity did not have an impact on the children's Total Difficulties Scores

Table 49: Mean Emotional Literacy and Total Difficulties score at pre- and post-intervention for children in low and high fidelity classes

			Pre-Intervention		Post-Intervention	
Total Emotional Literacy Score		N	**Mean**	SD	**Mean**	SD
Low Fidelity	Pre-Intervention	30	**59.87**	11.7	60.17	9.9
High Fidelity	Pre-Intervention	87	**61.21**	11.6	67.92	11.5
Total Difficulties Score						
Low Fidelity	Pre-Intervention	33	**11.12**	8.1	8.88	7.2
High Fidelity	Pre-Intervention	89	**8.91**	7.4	6.08	6.4

- Programme fidelity and teacher's views about the programme

In addition to analysing the links between programme fidelity and the effect of the programme on children's emotional and behavioural wellbeing, further analysis was carried out in relation to programme fidelity and teachers' overall impression of the programme based on results from the end of programme Review Questionnaire. The views of the teachers that implemented the programme with high fidelity (N = 10) were compared with teachers that implemented the programme with low fidelity (N = 3) and are shown in Table 50. The results indicate that teachers who implemented the programme with high fidelity were more positive about the programme and its effects than teachers who implemented it with low fidelity.

Table 50: High and low fidelity teachers' mean ratings of the programme

	Low Fidelity Mean (N=3)	SD	**High Fidelity Mean (N=10)**	SD
Overall experience of the programme (Scale 1 – 10)	**8.0**	2.6	**8.8**	1.0
More aware of listening to the children (Scale 1 – 5)	**3.3**	2.1	**4.2**	1.0
Enjoyed teaching Zippy's Friends (Scale 1 – 5)	**4.3**	1.5	**4.5**	.53
Programme has given me structure to help children cope with difficulties (Scale 1 – 5)	**4.3**	1.2	**4.5**	.71
Children enjoyed Zippy's Friends (Scale 1 – 5)	**4.0**	1.7	**4.8**	.63
I feel my teaching has improved as a result of Zippy's Friends (Scale 1 – 5)	**3.0**	1.0	**3.8**	.78

High fidelity teachers gave the programme and mean overall rating of 8.8 (out of 10), while lower fidelity teachers gave it a mean rating of 8.0. Teachers who implemented the programme with high fidelity were also more positive about the impact of the programme on (i) their ability to help children to cope with difficult situations (i) their awareness of listening to the children and (iii) their teaching in general. The high fidelity teachers also rated their enjoyment and the children's enjoyment of the programme higher than teachers who implemented the programme with lower fidelity. It is important to note, however, that Mann-Whitney U test for each rating revealed that the differences were not statistically significant.

- Programme fidelity and Ethos Questionnaire

In order to determine if there were any links between programme fidelity and the ethos and environment of the school, the results from the Ethos Questionnaire were analysed by comparing and contrasting the results across high and low fidelity teachers. Due to small sample size a Mann-Whitney U test was used to compare the scores across high and low fidelity group. The results showed that there was a significant difference in the teachers' views about the SPHE curriculum giving sufficient coverage to mental health promotion with low fidelity teachers giving this statement a significantly higher rating [Mean = 3.0, SD 0.0] than teachers that implemented the programme with high fidelity [Mean = 1.28, SD .48; U = 0.00, z = -2.268, p = 0.05]. These results indicate that teachers who implemented the

programme with high fidelity were significantly less confident that the SPHE curriculum gives sufficient coverage to aspects of mental health than teachers who implemented the programme with low fidelity.

Table 51: Mann Whitney results comparing high and low fidelity intervention schools (Scale 0 = *Never*, 3 = *Always*)

SPHE and mental health promotion	Fidelity	N	Mean	SD	U	Z	Sig (2 tailed)
SPHE curriculum gives sufficient coverage to aspects of mental health	Low (≤75%)	3	3.00	0.0	0.00	-2.268	.000
	High (≥90%)	7	1.28	.48			

5.1.3 Activities that were partially / not implemented

An examination of the activities that were partially / not implemented was carried out in order to determine if any pattern emerged. The 7% of the programme that the teachers reported 'partially implemented' was mostly concerned with two activities that were a part of each session;

i. *Teacher gives an overview of the lesson* (at the start of the lesson)
ii. *Children described what they liked most and what they liked least about this session* (concluding part of the session).

Analysis of the activities that teachers reported not implementing revealed that these were mostly made up of four types of activities that were part of all/some of the lessons:

i. "*Children completed the feedback sheets*" - on average seven out of the 36 teachers stated that the children did not complete the feedback sheets each week
ii. *"Teacher wrote children's suggestions on the board"* - whilst this was only part of some sessions, a number of teachers reported not completing this activity
iii. *"Teacher put children's drawings on the wall"* - in Module 5, Session 1, 15 teachers did not put the children's drawings on the wall and in Module 6 Session 1, nine teachers did not put the children's drawings on the wall
iv. *Discussion after an activity* – there appeared to be some inconsistency in implementing the 'group discussion' after completing some activities. In Module 3 Session 2 for example, five teachers did not implement the discussion

after the role play about loneliness. In Module 5, Session 1 and Session 4, seven teachers did not implement the discussion about the children's drawings.

Overall, these results from the teachers' weekly questionnaires were consistent with the observers' reports of activities that were partially implemented or not implemented.

5.2 Teachers' Weekly Reports on Programme Implementation

As part of the weekly questionnaires teachers were asked to comment on the positive and negative aspects of each session. These comments provided a clear understanding about key elements of the programme and the implementation system that facilitated and hindered programme implementation. A summary of the key findings in relation to each module is provided. Sample quotes from teachers are also provided (T9 indicating the teacher's number).

Module 1: Feelings

Some of the positive comments about these sessions concerned (i) the story and pictures (ii) the resources/activities such as the drawing activity, use of the mystery box, the role plays and (iii) the insight children provided teachers about matter that affect them. One teacher stated the lesson provided an *"opportunity to spend time with this group and to learn more about each child – very informative – see different side of the children"* (T15). Another teacher noted the positive aspect of the first session was, "*Children talking about things that are life and death to them and things that I would never think of*" (T32). Several teachers commented on the children's willingness to participate and share their personal experiences, in particular children who would not normally contribute to class lessons. One teacher stated, *"Children that did not take part in other class activities were eager to talk about their own experiences"* (17b). Some teachers spoke about the usefulness of displaying the suggestions made by children in the classroom and using these suggestions in relation to incidents that arose during the day. One teacher wrote, "*Writing up the ideas of things to do when you feel angry – children like this and I displayed them in the classroom then"* (T11).

In terms of difficulties with the first module, a number of teachers mentioned the length of the lessons as a problem/difficulty. Some teachers said that the children were sitting in the circle for too long and as a result started to get agitated. One of the teachers said, "*Difficult for children to sit in circle at all times. A lot of discussion"* (T2). Other teachers spoke about the problem of all children wanting to take part in the activities, *"They mystery box game – everyone wanted a go and some huffed if they weren't getting a go – so we all had a go and session was too long then"*(T13).

Module 2: Communication

Similar to Module 1, the activity-based learning (taking part in the role play situations and use of the mystery box) was the most frequently reported positive aspects of the lessons in Module 2. Several teachers referred to the content of the programme in that it dealt with issues that children could identify with and discuss. One teacher wrote, *"I felt it was very child-centered, the situations portrayed in the lessons are ones every child in the room experienced at some time"* (T30). A number of teachers noted that positive impact of teacher participation on the lessons, "*Children loved the games and seeing teacher participating in the role play*" (T3). Similar to Module 1, one teacher commented on the importance of displaying their children's thought and ideas, *"Having the role play and writing the children's suggestions on the board worked really well"* (T12).

In terms of difficulties with Module 2, the amount of talking and the difficulty retaining the children's attention were mentioned repeatedly. A number of teachers noted that there was too much talking in these lessons and that as a result children seemed to get restless and distracted. In the first session of this module, one of the teachers commented, *"Felt there was a lot of talking (by teacher). Class weren't all paying attention."* (T1). The lengthy discussions during this module appeared to directly impact on keeping the lessons to time which was reported as an issue by a number of teachers.

Module 3: Making and Breaking Relationships

Module 3 received positive feedback from the teachers. Teachers wrote about the active involvement of all children throughout this module and the relevance of the content to the children's lives. In relation to the last session in this module, one

teacher commented on the practical nature of the skills learned, *"Very appropriate and relevant to children's daily lives in and out of school. Useful skills"* (15). Some teachers explained how the children were able to apply the strategies they learned in this module to their own lives, *"An incident had just occurred that day and the children resolved the conflict themselves"* (T40b). Some teachers noted the positive effect of this module on introverted children. In session 4 one teacher stated, "*Shy children becoming more confident. Children taking ownership. Child-centered learning*" (T40b). Another said, *"A child who would never have contributed to the lesson contributed today. There has been a huge improvement in his behaviour"* (T12). To conclude the first half of the programme, one teacher wrote as her final comment, *"My cousin's 18 year old son has recently committed suicide. I feel there really is a need for a programme like this for children in Ireland"* (T10).

Module 4: Conflict Resolution

Several teachers reiterated comments made in previous modules about the relevance of the stories to the children's lives. Teachers wrote about the children's enjoyment of the stories and their ability to empathise with children in the stories. Teachers repeatedly mentioned the effectiveness of the role plays in dealing with the topic of bullying. One teacher wrote, *"The role play showed the children what a real life situation would be like"* (T38a). Similar to previous modules, teachers again highlighted the impact of their own participation during the lesson. Teachers comments included: "*When I shared a personal story the children were very enthusiastic and inquisitive*" (T38.2); *"I felt that when I discussed ways which I relax such as gardening and going to the seaside, they were able to talk about how they relax in a broader way"* (T15). One of the main difficulties reported with this module was the lack of activities in Session 1 and 3. A teacher wrote, *"There was a lot of discussion and very little activity – children were getting restless"* (T1).

Module 5: Dealing with Change and Loss

In terms of the fifth module, the story, the variety of activities and the class discussions about real change and loss in the children's lives were cited as the most positive aspects of this module. A number of teachers noted that the children were active during the lessons. As in previous modules, teachers referred to the importance of their own contribution to the lessons. Teachers also commented on

the open discussions the children had with the teacher about death and loss. Some of the teachers' comments included: *"The children were very open and talked a lot about their own experiences"* (T8); "*Encouraged open, guided discussion. Children were really interested in hearing about their peers' experiences*" (T6). In relation to the visit to the local graveyard during Session 3 some of the teachers' comments included:

- "*The visit to the graveyard – all the children were excited and eager to take part. A lot of discussion in the area of death and loss was stimulated"(T14)*
- *"One troubled boy spoke of his father's heartbreak when his uncle* (father's brother) *died and this was very moving"*(T4)
- *"I was initially apprehensive about the lesson but it went very well"* (T29)
- "*It's a wonderful lesson for stimulating discussion and opening up an area that may be viewed as 'morbid'. It's essential for children to openly talk about it in order to erase any worries they may have*" (T34).

Module 6: We Cope

Once again the relevance of the issues dealt within Module 6 and the activity-based nature of the lessons were highlighted by the teachers repeatedly. Teachers noted that several children spoke openly about personal issues such as parental separation that they cannot change. One teacher wrote, "*A high number of separated, single parent and new marriages within this class set-up and this was one of the first subjects brought up by the children*" (T32). Another teacher wrote, "*One child discussed his parents split up very openly. We talked a little about parents going separate ways"* (T15). The activities in Session 3 (using the puppets) and Session 4 (making the crowns and receiving their certificates) were also referred as positive aspects of this module. Several teachers wrote about the children's sense of achievement and pride when they received their certificates. Similar to the previous module several teachers commented on the children's ability to recall and use strategies learned from previous lessons. After completing Session 2, one teacher wrote, *"I can see children finding solutions to problems in yard or in class themselves. This lesson was of great benefit"* (T10). One teacher spoke about the importance of applying the strategies learned to real-life situations and the need for whole school awareness, *"Using the ways of coping and of helping a friend cope are*

excellent. Works really well if implemented in real situations e.g. on yard / throughout the day rather than left to Zippy lesson only. Would be good to make all the school aware of this too" (T34). In terms of difficulties with the final four sessions, some teachers found Session 2 and 3 too long and as a result the children became restless. It was recommended that more activities would be included in these sessions.

Overall, the teachers' comments from the weekly questionnaires reveal quite a lot of information about aspects of the programme that worked and didn't work, factors that facilitated and hindered programme implementation and the impact of the programme on the children over the course of the 24 sessions. The activity-based nature of the programme and the relevance of the content to the children's daily lives were particularly important in terms of engaging the children. Teacher repeatedly commented on the manner in which activities such as drawing, taking part in role plays and the make-and-do activities engaged the children and generated meaningful discussions. Lessons that the teachers perceived to be less successful were generally lacking in activities. The teachers' recommendations of the need for more activities in some sessions highlight the importance of child-centered activity-based learning. Teachers frequently commented the relevance of the stories to the children's daily lives, in particular the stories about friendship problems, bullying, parental conflict/separation and death/loss. According to the teachers, the programme facilitated honest open discussions about dealing with these real life problems in a safe environment. The effects of the programme in terms of the children applying the strategies learned in Zippy's Friends were particularly apparent in the second half of the programme, with a number of teachers sharing examples of the children recalling strategies learned in previous lessons and sorting out their problems within the classroom and also out in yard.

In term of factors that facilitated the implementation of the programme, teachers wrote about the importance of sharing their own experiences with the children and taking part in the activities. In addition, teachers highlighted the benefits of writing children suggestions up on the white board and displaying the children's work on the walls. Regarding factors that hindered implementation, teachers found some lessons very long, particularly if there was a lot of discussion and not a lot of activities. In

addition, the timing of the first half of the programme (implemented at the end of 1st class) was viewed as problematic with teachers commenting that the content of the third module (forming new friendships) was implemented too late in the year.

5.2.1 Inclusion of additional material

As part of the weekly questionnaire, teachers were asked if they added anything extra to the lesson (e.g. poem, song, warm-up activity). The purpose of this was to determine the degree to which the teachers made the lessons 'their own'. Table 52 indicates the number and percentage of teachers that included additional material in each module. It is interesting to note that there in a steady increase in the number of teachers that used additional materials between Module 1 and Module 5. On average just under a third of teachers (31.2%) included their own materials / activities into the Zippy's lessons. In the case of Module 4 and 5, over 40% of teachers included their own materials.

Table 52: Number and percentage of teachers that included addition materials in each module

	Number of Teachers	Percentage of Teachers
Module 1: Feelings	29	21.3%
Module 2: Communication	27	21.7%
Module 3: Making and breaking relationships	30	27.5%
Module 4: Conflict resolution	44	41.1%
Module 5: Dealing with change and loss	48	49.5%
Module 6: We cope	37	26.2%

The types of materials / activities the teachers used to support the lesson included:

- making a Zippy puppet / clay model for the class
- making Zippy badges
- starting / concluding the lesson with a warm up activity such as Chinese Whispers, tell teddy how you feel
- creating a Zippy song / Zippy poem
- making rules posters based on strategies taught in lesson.

Some teachers integrated the content of Zippy's Friends with other curricular subjects. Examples include:

- "*Pictures of feeling and names of feelings in Gaeilge*" (T4)
- "*Sang "Connected" song from Alive O* (Religion) *and "It's a small world" – both are about how we are all really the same*" (T32).

Other teachers used their own material to illustrate feelings:

- *"I used a balloon to illustrate how anger builds up inside us and explodes if not let out. Children loved this. First balloon burst and second balloon was let go to show how we should deal with anger problems"* (T5)
- *"Used a puppet to discuss the idea of the body as a vessel after death. Also gave personal experience of time when I lost my Granddad"* (T33).

Several teachers included additional roleplays. One teacher explained, *"Children created a problem and then acted out how they would solve it, they came up with two solutions to each problem"* (T38b). Another teacher said the children took part in *"more roleplays – listening skills in pairs"* (T3).

Some teachers added music to the lessons, either listening to music, *"I played classical music on a CD as the children drew pictures of either something they could or could not change"* (T16) or creating their own songs,*"I added a song to the end of the lesson. I choose a song that the children already know and changed the words to include Zippy"* (T19). Another teacher explained, *"I encouraged the children to compose a Zippy song and perform it in their teams at the next session"* (T2).

Several teachers wrote about their own personal contribution to the lessons,

- *"Told the children story of when I was at school and I was bullied and how it got sorted"* (T1)
- *"I explained how my life has changed over the past year – both positive and negative changes"* (T16)
- *"I shared a personal experience of losing my brother Liam"* (T41b)
- *"I talked openly about my brother who died when he was two years of age. I discussed how I felt, how I experienced guilt after his death hut how I can talk to him now"* (T10)

- *"I took part in activity too by making my own puppet. The children really enjoyed this* (T12).

Teachers were asked to indicate on a scale of 1 to 5 (1 being *not at all* and 5 being *very much*) to what degree did the inclusion of additional materials / activities affect the children's positive reaction towards the lesson. The mean score for each module is shown in Table 53. The inclusion of additional materials had its greatest impact on the Module 1: Feelings (Mean = 3.91). It was during this module that teachers frequently referred to the creation of a Zippy puppet, a Zippy song and Zippy badge and a 'fun' activity such as "fruit salad". There was little change in the teacher's rating of the impact of additional materials across the modules with an overall mean impact rating of M = 3.82 (SD = 0.88).

Table 53: The effect of including additional materials in each module: mean scores
(Scale 1 *not at all* – 5 *very much so*)

	Mean	SD
Module 1: Feelings	3.91	0.9
Module 2: Communication	3.84	0.9
Module 3: Making and breaking relationships	3.79	0.6
Module 4: Conflict Resolution	3.85	0.9
Module 5: Dealing with change and loss	3.67	1.1
Module 6: We Cope	3.86	0.9

5.2.2 Length of Lesson

Table 54 presents the mean percentage of teachers (N=34) that found the lessons in each module (i) too long (ii) just the right length or (iii) too short. Over 50% of the teachers found the lessons just the right length. The majority of the remaining teachers found the lessons too long with only a very small percentage of teachers suggesting the lessons were too short.

Table 54: Mean percentage of teachers that regarded lessons in each module too long, just the right length or too short

	Module 1	**Module 2**	**Module 3**	**Module 4**	**Module 5**	**Module 6**
Too long	46.3%	35.6%	30.1%	33.2%	36.3%	40.4%
Just right	51.5%	56.2%	59.5%	63.9%	62.4%	54.8%
Too short	2.2%	8.2%	10.4%	2.9%	1.3%	4.8%

5.2.3 Teachers' Ratings of Lessons

Table 55 presents the mean scores for the teachers' statements regarding (i) content appropriateness (ii) their level of enthusiasm (iii) achievement of aims and (iv) their views of on how the pupils found the session. The session that received the highest and lowest mean score is also presented. In terms of the most successful module, it is clear that Module 5 Session 3 (The graveyard visit) was the most successful of the 24 sessions. It received the highest rating for all except one of the statements. Module 3 Session 4 (How to make a friend), received the highest ratings in relation to pupils understanding of the content. Looking at the lessons that received the lowest ratings, there is no lesson that scored consistently low.

Table 55: Teacher's rating of lessons: total mean score and sessions that received maximum and minimum scores (Scale 1 *not at all* – 5 *very much so*)

	Mean Score	**Max Score**		**Min Score**	
		Session	**Mean**	**Session**	**Mean**
Content is appropriate for children's age	**4.45**	**M5 S3**	4.75	**M1 S4**	4.03
I feel enthusiastic about lesson	**4.18**	**M5 S3**	4.70	**M6 S2**	3.84
I achieved what I aimed to do	**4.18**	**M5 S3**	4.55	**M2 S1**	3.87
Pupils enjoyed the session	**4.29**	**M5 S3**	4.80	**M5 S2**	3.93
Pupils understood the content	**4.27**	**M3 S4**	4.58	**M4 S3**	3.93
Pupils worked well together	**4.21**	**M5 S3**	4.70	**M3 S2**	3.83
Pupils displayed enthusiasm for the lesson	**4.29**	**M5 S3**	4.85	**M2 S4**	3.94

- Overall Programme Rating

As part of the weekly questionnaire, the teachers were asked to give each session an overall rating of between 1 and 10 (1 being *poor* and 10 being *excellent*). Table 56 shows the overall mean score for each session. All the sessions received an overall mean score of 7.3 or higher. Module 5 Session 3 (The graveyard visit) received the highest overall rating (M = 9.16). This was followed by Module 6 Session 4 (We celebrate together) and Module 3 Session 4 (How to make friends). These findings are consistent with the ratings from the previous table (content appropriateness,

teachers' enthusiasm for the sessions and pupils interaction with the lesson). Module 3 Session 2 (How to resolve conflicts with friends) received the lowest overall rating (M=7.38). This session also received the lowest rating in terms of how well the pupils worked together.

Table 56: Teachers' mean rating for each session

Overall rating of the session	N	Mean	SD
Module 1 Session 1: Feeling sad, feeling happy	33	**7.88**	1.5
Module 1 Session 2: Feeling angry or annoyed	34	**7.44**	1.6
Module 1 Session 3: Feeling jealous	34	**7.79**	1.5
Module 1 Session 4: Feeling nervous	31	**7.65**	1.8
Module 2 Session 1: Improving communication	30	**7.63**	1.2
Module 2 Session 2: Listening	29	**8.14**	1.3
Module 2 Session 3: Who can help us?	30	**7.63**	1.5
Module 2 Session 4: Saying what you want to say	30	**7.50**	1.7
Module 3 Session 1: How to keep a friend	29	**8.62**	1.1
Module 3 Session 2: Dealing with loneliness and rejection	29	**7.38**	1.6
Module 3 Session 3: How to resolve conflicts with friends	25	**7.96**	1.8
Module 3 Session 4: How to make friends	24	**8.83**	.82
Module 4 Session 1: How to recognise good solutions	26	**7.46**	1.1
Module 4 Session 2: Bullying	27	**8.22**	1.3
Module 4 Session 3: Solving problems	23	**7.83**	1.6
Module 4 Session 4: Helping others resolve conflicts	24	**8.38**	1.1
Module 5 Session 1: Change and loss are part of life	26	**8.27**	1.3
Module 5 Session 2: Coping with death	27	**8.22**	1.6
Module 5 Session 3: Visit to a graveyard	19	**9.16**	.96
Module 5 Session 4: Learning from change and loss	24	**7.71**	1.5
Module 6 Session 1: Different ways to cope	26	**7.69**	1.4
Module 6 Session 2: How to help others	24	**7.79**	1.8
Module 6 Session 3: Adapting to new situations	26	**8.42**	1.2
Module 6 Session 4: Celebrating together	26	**8.85**	1.1

- Most Successful Modules

When the lessons were grouped together into their modules and the ratings were analysed, a clear pattern emerged in relation to modules that scored consistently high. Tables 57 – 60 present the mean ratings for each module. The results indicate that Module 5 and Module 3 consistently scored the highest. Module 5 (Dealing with change and loss) received the highest overall rating (M=8.57) and the highest rating for content appropriateness. Module 3 (Making and breaking relationships) received

the highest rating for pupils' enjoyment of the sessions and pupils' understanding of the content. Module 1 (Feelings) received the lowest overall rating, the lowest rating for pupils' enjoyment of the sessions and the lowest rating for pupils' understanding of the content. Module 2 (Communication) received the lowest rating for overall content appropriateness.

Table 57: Teachers' overall experience implementing modules (Scale 1-10)

	Mean	**SD**
Module 1: Feelings	7.65	1.5
Module 2: Communication	7.79	1.4
Module 3: Making and breaking relationships	8.33	1.3
Module 4: Conflict Resolution	8.13	1.3
Module 5: Dealing with change and loss	8.57	1.3
Module 6: We Cope	8.2	1.3

Table 58: Teachers' rating of content appropriateness (Scale 1 -5)

	Mean	**SD**
Module 1: Feelings	4.44	0.7
Module 2: Communication	4.23	0.8
Module 3: Making and breaking relationships	4.53	0.6
Module 4: Conflict Resolution	4.45	0.7
Module 5: Dealing with change and loss	4.55	0.7
Module 6: We Cope	4.5	0.6

Table 59: Teachers' rating of pupils' enjoyment of sessions (Scale 1 -5)

	Mean	**SD**
Module 1: Feelings	4.16	0.7
Module 2: Communication	4.25	0.7
Module 3: Making and breaking relationships	4.43	0.6
Module 4: Conflict Resolution	4.22	0.7
Module 5: Dealing with change and loss	4.36	0.7
Module 6: We Cope	4.37	0.6

Table 60: Teachers' rating of pupils' understanding of content (Scale 1 -5)

	Mean	**SD**
Module 1: Feelings	4.06	0.7
Module 2: Communication	4.16	0.7
Module 3: Making and breaking relationships	4.45	0.6
Module 4: Conflict Resolution	4.27	0.7
Module 5: Dealing with change and loss	4.38	0.6
Module 6: We Cope	4.3	0.6

5.3 Structured Observations

As stated previously a total of 27 observations were carried out by the researcher and a Health Promotion Officer over the course of the 24 week programme, 13 observations took place during the first half of the programme and 14 observations were carried out during the second half of the programme. In addition to observing programme fidelity, the researcher / Health Promotion Officer monitored (i) pace of the lesson (ii) classroom environment (iii) inclusion of children with differing needs and abilities (v) teachers skills in using programme techniques and (vi) child participation. Observers also commented on factors which influenced the quality of programme implementation.

5.3.1 Pace of Lesson

The majority of lessons observed (81.5%) were regarded as being just the right pace. Two lessons were noted as being too long (7.4%) and 3 lessons were too short (11.1%).

5.3.2 Classroom Environment

The degree to which the classroom environment supported and enhanced the implementation of Zippy's Friends was monitored during the observations. Questions were concerned with the adoption of recommendations that teachers received during the teacher training, i.e. the creation of a Zippy's Friends corner in the classroom, the use of circle time when reading the story, ensuring that children are seated differently to normal academic class and using additional materials to create enthusiasm for the programme in general. The Classroom Environment results are shown in Table 61. Overall, the majority of teachers implemented several of the recommendations from the teacher training. Just over 75% of teachers created a Zippy's Friends corner in the classroom and displayed items such as the children's drawings, the Zippy's class rules, strategies taught in certain modules, the mystery box, Zippy puppet etc. All except one teacher ensured the children were seated differently to normal class. Regarding the use of additional materials to support the lesson, 40.7% of teachers (N=11) included other materials / activities that were not directly part of the lesson. Examples include:

- *"Zippy song"*
- *"Zippy poem"*
- *"Zippy's name badge for each child"*
- *"Teacher used photograph of her First Holy Communion to explain meaning of ceremony"*
- *"Teacher scanned pictures from story onto overhead projector so children could see pictures while story was being read out"*
- *"Teacher had written Zippy rules from each week on chart paper"*
- *"Use of Zippy puppet"*
- *"Tape recorder with waves playing".*

Table 61: Observation results regarding classroom environment: number and percentage of teachers that made recommended changes to support positive learning environment

	Yes		**No**	
	N	**%**	**N**	**%**
Zippy's corner in the classroom	21	**77.8**	6	**22.2**
Children were seated differently to normal class	26	**96.3**	1	**3.7**
Children sat in circle for story and discussion	26	**96.3**	1	**3.7**
Teacher used additional materials that were not part of the lesson (e.g. Zippy puppet)	11	**40.7**	16	**59.3**

5.3.3 Children's Needs and Abilities

Observers were asked about the inclusion and participation of children with differing needs and abilities during the lesson. The results from this section which are presented in Table 62 are positive. Nine of the 27 classes (33.3%) had children with special needs present in the classroom and all nine teachers catered for children with special needs. Examples of how teachers catered for children with special needs include;

- *"Child handed out feedback sheets. Teacher asked her to show him a smile"*
- *"Asked them a question directly and waited for them to finish speaking"*
- *"Giving both children extra time to respond"*
- *"Sat beside teacher during story, took part in making of puppet and group work with help of Special Needs Assistant teacher"*

It was reported that in one class only, the range of abilities affected the flow of the lesson. This was a multigrade class with children in first and second class present for the Zippy's Friends lesson. For all other classes, including other multigrade classes (N=11), the observers reported that the range of abilities did not affect the flow of the lesson / there was no observable range of abilities. Incidents of disruptive behaviour were observed by the researcher / Health Promotion Officer in 14 of the 27 classes. It was reported that disruptive behaviour affected the flow of the lesson in three of these classes (11.1%). In terms of children from other cultures, it was reported that when present, children were actively involved in the lesson.

Table 62: Inclusion of children with differing needs and abilities and degree to which this affected lesson

	Yes		**No**		**Not applicable**
	N	**%**	N	**%**	
Teacher insured all children were given opportunity to participate	25	**92.6**	2	**7.4**	
Children with special needs were present during the lesson	9	**33.3**	18	**66.7**	
Teacher catered for children with special needs	9	**100**	0	**0**	
Range of abilities affected the flow of the lesson	1	**3.7**	16	**59.3**	No observable range N = 10 (37.0%)
Children's disruptive behaviour affected the flow of the lesson	3	**11.1**	11	**40.7**	Not observed N = 13 (48.1%)
Children from other cultures were actively involved in the session	17	**63.0**	10	**37.0**	

5.3.4 Teachers' Skills

Observers were asked to rate on a scale of 1 to 5 (1 = *never any extent* and 5 = *a very great extent*) the degree to which teachers created an active and supportive group process within a positive learning environment. The results from this section are most encouraging with all positive worded statements receiving a mean score of 4.0 or higher. The mean and standard deviation score for each statement is show in Table 63. The statements that received the most positive ratings included:

- Teacher seemed to genuinely appreciate children's comments (M = 4.48)
- Teacher used the materials for the lesson appropriately (M = 4.37)
- Teacher displayed confidence in his/her own knowledge and skills (M=4.37)
- Teacher displayed enthusiasm for the lesson (M=4.33).

Table 63: Teachers' skills: mean scores (Scale 1= *never any extent*, 5 = *a very great extent*)

To what extent did the teacher...	N	Mean	SD
Depend on the manual for instruction	27	**3.30**	1.2
Display confidence in his/her own knowledge & skills	27	**4.37**	.74
Use variety of teaching strategies	27	**4.30**	.99
Use the materials for the lesson appropriately	27	**4.41**	.63
Follow activities exactly as suggested in manual	27	**4.31**	.68
Display enthusiasm for lesson	27	**4.33**	.92
Make critical or negative remarks about the children	27	**1.00**	.00
Seem to appreciate children's comments & ideas	27	**4.48**	.64
Maintain children's attention throughout the lesson	27	**4.15**	.86
Verbally praise children's participation during lesson	27	**4.22**	.89
Encourage cooperation during activities	27	**4.00**	.96
Have discussions that seemed to confuse children	27	**1.19**	.62

5.3.5 Children's reaction towards lesson

Table 64 presents the mean and standard deviation scores for the statements regarding the children's reaction towards and interaction with the lesson (scale 1: *never* – 5: *a very great extent*). The results indicate that the children were enthusiastic for the session (M= 4.37), comfortable with the content of the session (M = 4.19) and actively involved during the session in terms of (i) speaking about their feelings (ii) coming up with their own ideas and solutions and (iii) interacting with each other (M≥4.15). It was also reported that to some extent children lost attention / became distracted when they were not actively involved in the session (M = 2.44).

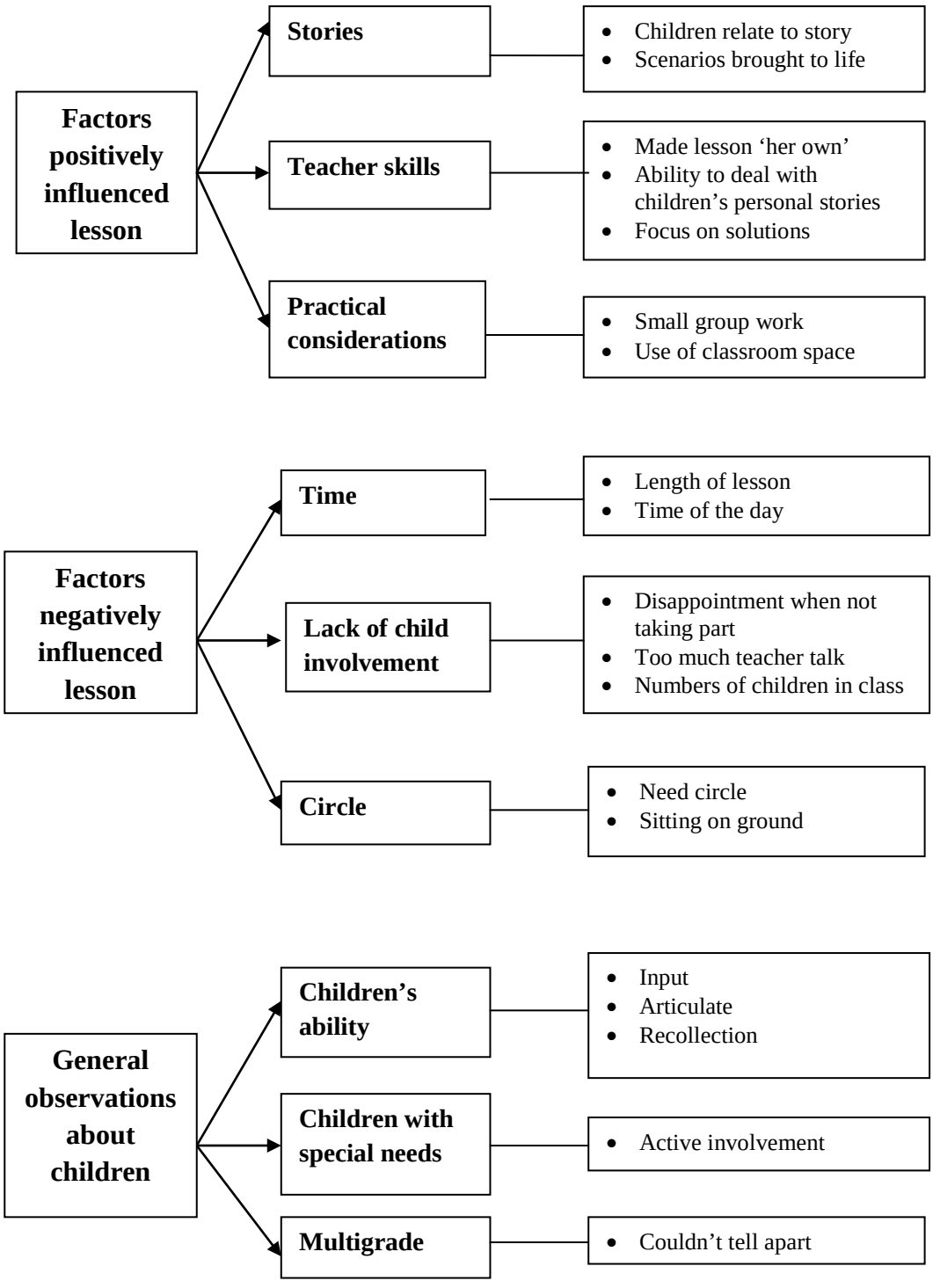
Table 64: Children's reaction towards lesson: mean score

To what extent did the children…	N	Mean	SD
Display enthusiasm for the session	27	**4.37**	.74
Appear comfortable with the content of the session	27	**4.19**	.92
Listen to each other	27	**4.22**	.75
Lose attention/become distracted when not actively involved	27	**2.44**	1.0
Interact with each other during the activities	27	**4.15**	.72
Speak about their feelings during the lesson	27	**4.22**	1.2
Come up with own ideas rather than relying on teacher	27	**4.48**	.75

5.3.6 Additional factors which influenced the lesson

Observers were asked to take note of factors that influenced the quality of the lesson. Thematic analysis was used to analyse the observers' comments, the results of which are illustrated in Figure 18.

Figure 18: Factors which influenced quality of observed lessons: key themes



5.3.6.1 Factors that positively influenced the lesson

- Stories

Observers reported the positive influence of the stories on the quality of the lesson with the most frequency. It was observed that the children related to the characters and events in the stories. In one class, it was noted that, *"Children really related to Sandy's feelings of loneliness and rejection – this was well facilitated by the teacher"*. In addition, relating the events in the stories to children's everyday experiences appeared to have a significant positive effect on the quality of the lesson, particularly in terms of engaging the children. Some of the comments from the observers include:

- *"Scenarios were brought back to real life situations (which the children brought up) which made the learning very tangible for the children"*
- *"Teacher related events in story to real life situations – moving home. Children were very engaged as a result"*
- *"The way the teacher related the discussions about rejection to incidents in the yard helped children's understanding of the concept. Children were more able to think of times they felt rejected and more able to come up with solutions"*.

- Teachers' Skills

The caring sensitive nature of the teachers was noted as having a positive impact on the quality of the lesson. Observers commented on the skilled manner in which the teachers engaged with the children, contributed to the lessons and consistently reinforced the use of coping strategies. Some of the observers' comments included:

- *"A lot of additional parts to this lesson, teacher really made it her own. Children sang their song at the start of the lesson. Children read their two poems at the end of the lesson 'Ode to Zippy' and 'Poem about change'. These, I feel, helped to stimulate enthusiasm and engage the children"*
- *"Teacher gave example of time when she felt guilty when her dog went missing, children were really engaged"*
- *"Very strong focus on solutions – what would you do to feel better?"*
- *"Teacher kept emphasising use of coping techniques 'What might you do if this happened in the yard?'"*.

Observers also commented on the teachers' ability to deal with children's personal experiences in a sensitive and thoughtful approach. The compelling teacher–child relationship was also frequently commented on. Examples include:

- *"Teacher had a great rapport with the children and supported their input throughout.*
- *"Teacher had a great relationship with the children, sat on the ground with them"*
- *"Teacher's relationship with the children - she appeared to be very close to the children and they seemed very happy"*.

- Practical Considerations

Several practical considerations were identified in terms of facilitating quality of implementation. One teacher used the chairs as tables for group work, with the children sitting on their chairs in a circle for the story and then kneeling on the floor and using the chair as a table for the drawing activity. The observer reported, *"Very little disruption during activities as a result"*. Another lesson was implemented with a small group of children. The observer for this lesson noted, *"Having a small group really helps participation and child interaction. A lot of child talk and very little teacher talk during this lesson"*. In addition, showing the children the pictures to accompany the story appeared important in terms of quality implementation, *"Teacher read story and showed children pictures, this seems to make all the difference, children were very focused on the pictures and what's happening in the story"*. In addition to showing the photos, another teacher encouraged the children to complete the sentences in the story, *"When reading the story the teacher let the children finish the sentences, an excellent way of keeping them engaged"*.

5.3.6.2 Factors that negatively influenced the lesson

Several issues that negatively affected the quality of the lesson were the reversal of factors the positively influenced the quality of the lesson. Such factors included children's lack of involvement, not putting the children in a circle and teacher's lack of familiarity with the programme. The most frequently reported factor that negatively influenced the lessons was time.

- Time

Lack of time was a problem for a number of teachers. It was reported that some lessons were too rushed and that teachers did not have enough time to complete the entire lesson. In addition, the time of the day was also an issue with lessons which were implemented in the afternoon being of lower quality as a result of interruptions, children being tired and the teachers being under pressure to complete the lesson before home time. Some of the observer comments included:

- *"I observed this lesson several times and it is not possible to make puppets, talk about friends and complete feedback sheets in allocated time. Several teachers struggle with this – perhaps this lesson needs to be made into two lessons"*
- *"Lesson was in the afternoon, last half hour, too rushed. Children seemed tired and listless"*
- *"Because the lesson was in the afternoon there were a lot of interruptions – kids being collected early. Timing of programme is an important issue"*.

- Children's lack of involvement

Observers commented on the lack of child involvement in some lessons (too much teacher talk) and children's disappointment when they did not get to participate in the activity. It was also noted that by not showing children the pictures to accompany the stories, children became restless and distracted. It was suggested that in some classes the large numbers of children in the class hindered quality of implementation. Some of the observers' comments included:

- *"Some children expressed disappointment, through feedback sheets that they didn't get to part take in the role play. This seems to be a common complaint especially with bigger classes (+24)"*
- *"Children were disappointed when they didn't get to speak"*
- *"Difficult lesson to implement, lack of activities for the children, too much teacher talking and not enough teacher interaction. The teacher could have asked the children more questions in relation to the children's own lives"*
- *"Teacher read the story and did not show pictures, children did not appear to be engaged, a lot seemed distracted"*.

- Circle

Observers also referred to some issues with children not sitting in a circle (sitting at their desks) or children sitting in a circle on the floor:

- *"I felt that the children would have benefited from sitting in a circle; sometimes the lesson was very similar to teaching other subjects"*
- *"Sitting on the floor for 40 minutes, children became restless, probably easier if they sat on chairs".*

- Unfamiliarity with the programme

Unfamiliarity with the lesson / over dependence on the manual during implementation was noted as an issue on three occasions. Observers commented:

- *"Dependency on the manual, seems to affect the flow and quality of the lesson"*
- *"Teacher was very dependent on the manual. When the teacher did relate the story to the children's lives the children were much more attentive".*

5.3.6.3 General Observations about the Children

Several comments were made about the children's participation and behaviour during the Zippy's Friends lesson. Specifically, it was noted that children had an excellent command of vocabulary in relation to feelings and coping skills. Observers also commented on the children's ability to recollect content from previous lessons. In addition, children appeared very comfortable with discussing difficult personal issues during Zippy's Friends. Observers reported:

- *"The children were very comfortable discussing feelings and emotions. Complex issues (e.g. separation from a parent) were brought up and discussed by the children. The children thought of practical ways to cope with the situation themselves"*
- *"Children were very open, discussed death, feelings and coping with loss of a loved one".*

Observers also commented on the children's sense of confidence and the level of respect they had for each other;

- *"I noticed a number of children had gained in confidence since I last visited the class. The teacher agreed, said that one child in particular had started to actively participate in the past two sessions – he said nothing previously. A*

really good example of Zippy's Friends working with the support of an excellent teacher"

- *"Great sense of respect among the children for each other".*

Observers also referred to the use of Zippy's Friends with children with special needs. It is apparent that the children engaged with and enjoyed the programme immensely and also benefited from taking part:

- *"Teacher explained that programme has really helped a child in the class with autism. He is very attached to the programme and was very upset when Zippy died. Teacher explained that his mother wrote into the school after the graveyard visit. She said it was so beneficial, that it opened up a forum to discuss death not just with Paul but with all of her children at home"*
- *"Excellent integration of child with special needs, took part in all activities and appeared to really enjoy the lesson".*

One observer commented on the use of the programme in the multigrade setting with four class grades in the one classroom; *"Although there was a first, second, third and fourth class in the classroom, all children spoke with similar stories and confidence – it was difficult to tell the ages apart".*

5.3.7 Overall reaction towards the lesson

On a scale of 1 – 10 (1 = *poor*, 10 = *excellent*) observers were invited to give their overall reaction towards the lesson in terms of how well it was implemented. The mean score for the 27 lessons observed was 8.22 (SD = 1.5, Min = 5, Max = 10). The sessions that were observed during the first half of the programme (Module 1 – 3) were more positively rated than sessions observed during the second half of the programme (Module 4 – 6). The results for the first and second half of the programme and the combined results are shown in Table 65.

Table 65: Observers overall reaction towards implementation of lesson (Mean, Scale 1 – 10, Min & Max Score)

	N	Mean	SD	Min	Max
Lessons from 1st half programme	13	**8.38**	1.6	5	10
Lessons from 2nd half programme	14	**8.07**	1.5	5	10
All lessons observed (Module 1-6)	27	**8.22**	1.5	5	10

Further analysis was carried out on the quality of implementation of the first half of the programme in comparison to the second half of the programme, based on the observations. The results indicate that the observations carried out during the first half of the programme were consistently more positive than the second half of the programme. Independent samples t-tests revealed that teachers implementing the first half of the programme were significantly more likely to (i) display more confidence in knowledge and skills [$t(25) = 2.36$, $p = 0.027$] (ii) follow every activity as the manual prescribed [$t(25) = 2.55$, $p = 0.018$], and (iii) display enthusiasm for the lesson [$t(25) = 2.07$, $p = 0.048$]. In relation to the children's reaction towards the lesson, the results were similar, while the means scores indicate that children were more enthusiastic and engaged during the first half of the programme. Independent samples t-tests revealed, however, that there was no significant difference between children's level of enthusiasm and engagement during the first and second half of the programme.

Collectively, the results from the teachers' weekly questionnaires and the observations reveal important findings in terms of programme fidelity and quality of implementation. The programme was implemented with high fidelity with teachers in both intervention Type I and Intervention Type II fully implementing just over 85% of the programme. Implementation of the programme with low fidelity (≤75%) resulted in the programme having no effect on the children's Emotional Literacy scores between pre- and post-intervention. Furthermore, teachers who implemented the programme with low fidelity were less positive about their experience teaching the programme In terms of quality of implementation, the findings from the observations highlight the quality with which the programme was implemented across the schools. The inclusion of additional materials to supplement the lessons, the adoption of recommendations regarding the creation of a supportive classroom environment, the inclusion of children with special needs and abilities and the children's positive reaction towards lesson all provide evidence of high quality implementations. Factors such as the activities and stories, teachers' skills in engaging with the children and the relevance of the content to the children's lives were noted by observers as factors that facilitated implementation. Lack of time and children's lack of involvement negatively influence quality of implementation.

5.4 Impact of the Programme on the Teaching of SPHE Curriculum

In order to determine the impact of the Zippy's Friends programme on the teaching of the SPHE curriculum strand and strand units, teachers in the intervention and control groups were asked to complete the Social Personal and Health Education (SPHE) questionnaire in March 2009. A total of 12 intervention and 11 control teachers completed and returned the SPHE questionnaire.

5.4.1 SPHE: Strand units completed

As part of this questionnaire teachers were asked to indicate the strand units they (i) fully implemented (ii) partially implemented and (iii) did not implement during the 2008 – 2009 academic year. Table 66 indicates the number and percentage of teachers that reported having fully implemented or partially implemented each strand unit.

Table 66: Number & percentage of intervention and control teachers that fully / partially implemented SPHE strand units

Strand Unit	**Implementation**	**Intervention (N=12)**		**Control (N=11)**	
		N	Percent	N	Percent
Self Identity	**Full**	**10**	**83.7%**	**5**	**45.4%**
	Partial	*2*	*16.7%*	*4*	*36.4%*
Taking care of my body	**Full**	**8**	**66.6%**	**6**	**54.5%**
	Partial	*3*	*25.0%*	*3*	*27.3%*
Growing and changing	**Full**	**7**	**58.3%**	**5**	**45.4%**
	Partial	*3*	*25.0%*	*3*	*27.3%*
Safety and Protection	**Full**	**6**	**50%**	**8**	**72.7%**
	Partial	*5*	*41.7%*	*3*	*27.3%*
Myself and my family	**Full**	**11**	**91.6%**	**7**	**63.6%**
	Partial	*1*	*8.4%*	*2*	*18.2%*
My friends and other people	**Full**	**10**	**83.3%**	**7**	**63.6%**
	Partial	*2*	*16.75*	*4*	*36.4%*
Relating to others	**Full**	**11**	**91.6%**	**4**	**36.4%**
	Partial	*1*	*8.4%*	*5*	*45.5%*
Developing citizenship	**Full**	**7**	**58.3%**	**5**	**45.4%**
	Partial	*2*	*16.7%*	*3*	*27.3%*
Media education	**Full**	**1**	**8.3%**	**0**	**0**
	Partial	2	16.7%	2	18.2%

Regarding full implementation, a greater percentage of teachers in the intervention group fully implemented eight out of the nine strand units. In some cases there is a substantial difference between the percentage of control and intervention teachers that fully implemented the strand units. In the case of the strand unit "Relating to Others" 91.6% of the teachers in the intervention group fully implemented this unit. This is in contrast to 36.4% of control teachers that reported fully implementing this unit. Similarly, 83.7% of the teachers in the intervention group reported fully implementing the strand unit "Self Identity" and 45.4% of the control teachers reported fully implementing this unit. Full/partial implementation of the strand unit "Media Education" was low amongst both groups with one teachers in the intervention group and no teacher in the control group implementing this unit.

5.4.2 Barriers to teaching SPHE

In relation to barriers to teaching the SPHE curriculum, four main themes emerged from the teachers' comments and are presented in the bar chart in Figure 19.

- Time

The most frequently cited barrier to teaching SPHE was curriculum overload/lack of time. One teacher wrote that the biggest barrier for her was "*…the need to concentrate so much on the core subjects"* (T38.1 intervention). Another teacher noted, "*Time constraints in a jam packed day can sometimes tend to push SPHE down the list of vital subjects and the discreet time is not adhered to*" (T33 intervention). A similar comment was made by another teacher, "*Time factor. The curriculum is over loaded and SPHE is often 'slotted in' where there is time*" (T36 control).

- Lack of resources

The lack of resources and lack of continuity between resources was also recognised as a problem. Some of the teachers' comments included:

- "*With the SPHE material – RSE, Walk Tall and the Stay Safe programme they are individual lessons and have very little continuity*" (T12 intervention)
- *"Lack of resources. A lot of resources used are handmade"* (T24 control)
- *Existing SPHE programmes don't cover coping strategies for difficult situations e.g. death* (T18 intervention).

- Lack of support from home

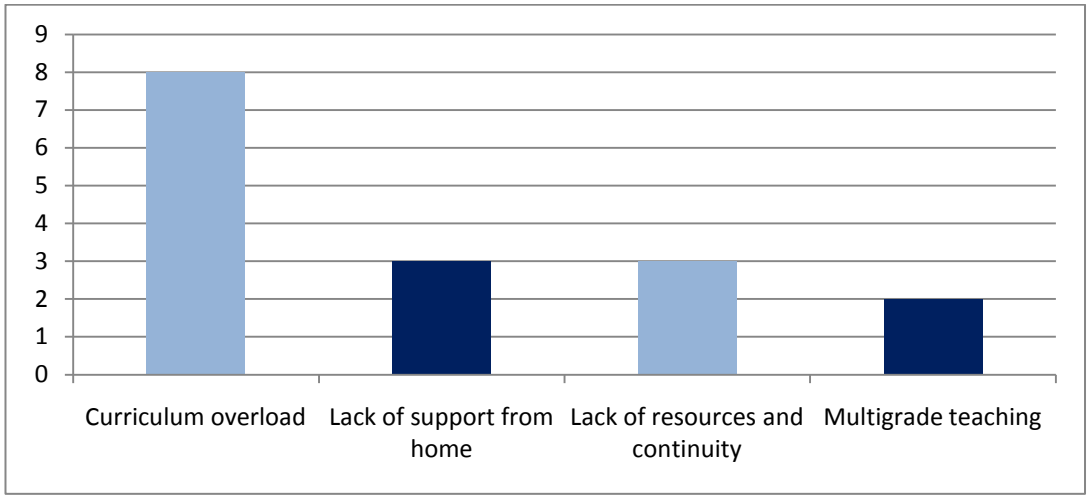
Three teachers cited the lack of support from parents as a barrier. Teachers wrote:

- "*A lot of what is done at school is not followed through at home*" (T38b intervention)
- *"Lack of support from home"* (T38a intervention).

- Multigrade teaching

Two teachers noted the difficulty of teaching SPHE in the multigrade setting. One of the teachers wrote, "*Multigrade - very difficult to teach all strand units and resources are hard to find to suit. Also, time constraints in a multigrade situation*" (T27 control).

Figure 19: Barriers to teaching SPHE curriculum



5.4.3 What could assist in teaching SPHE?

The final question in the SPHE questionnaire asked the teachers what could be done to assist in the teaching of SPHE. Three main themes emerged and are presented in the bar chart in Figure 20.

- More resources

The need for more resources was mentioned the most frequently. Teachers said there was a need for resources that *"are easy to use and ones which the children find interesting"* (T17 intervention). Some teacher suggested the need for multimedia resources. Others commented on the need for a comprehensive workbook for the children to use.

- Whole School Approach

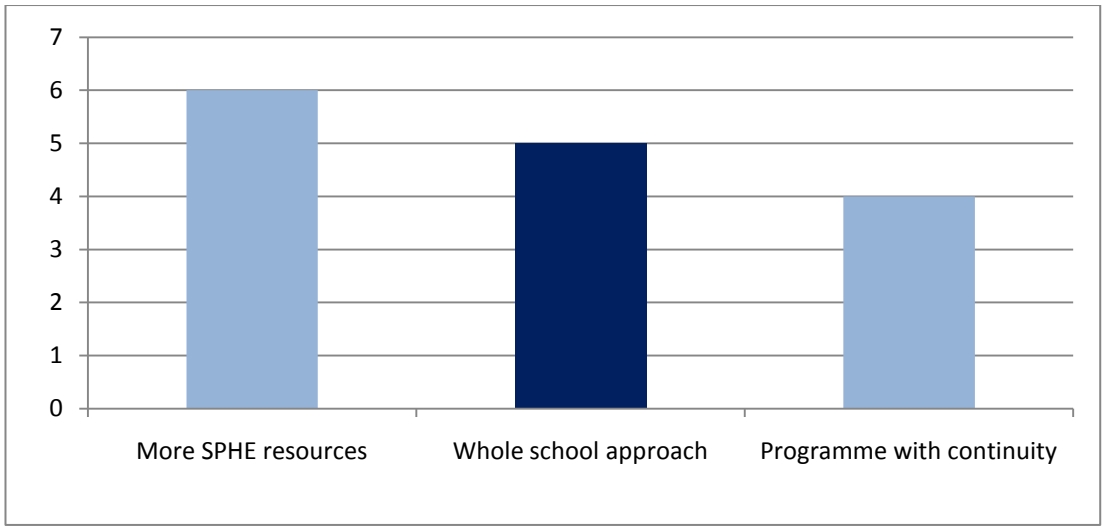
Several teachers recommended the adoption of a whole school approach to implementing SPHE. Teachers wrote about the need for:

- a programme with continuity: *"A programme that could run throughout the primary years such as Zippy which is self-contained and excellent"* (T3 intervention)
- parental involvement: "*More help from parents in following through with class work"* (T38a intervention)
- whole school teacher training: "*In-service for new programmes that are being developed and whole school knowledge of programmes that are being used in the school as some years you may be teaching a different grade and unless the in-service is offered to all staff it would be hard to deliver the programme effectively*" (T43b control).

- Programme with continuity

Several teachers in the intervention group highlighted the need for a comprehensive self-contained resource similar to Zippy's Friends that covered multiple strand units. One teachers commented wrote, *"Having a programme like Zippy's Friends that incorporated many different themes around one story. The children in my opinion would benefit much more from a programme like this where there is continuity throughout"* (T12 intervention)

Figure 20: What could assist in teaching SPHE?



5.5 Perceived Strengths and Weaknesses about the Programme: Child Participatory Workshops

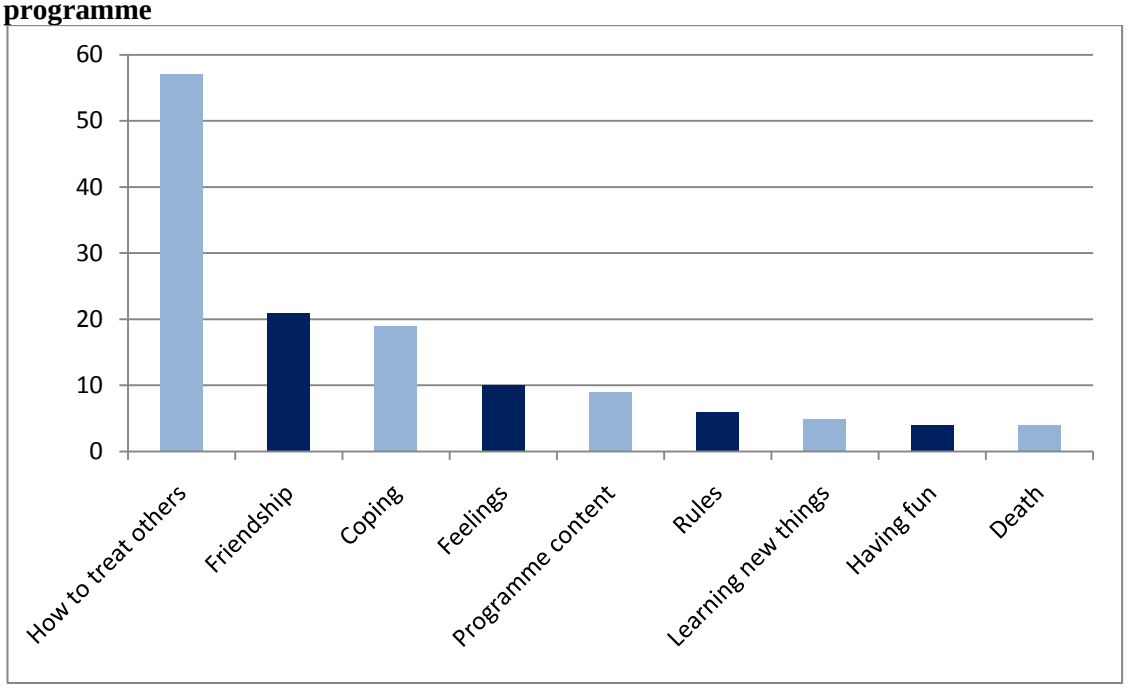
As part of the end of programme and 12 month follow-up child participatory workshops, the children in the intervention group (N=130 end of programme, N = 129 months follow-up) were asked a series of questions about the programme. In groups the children brainstormed (i) what they thought the programme was about, (ii) what they liked about the programme (iii) what they disliked about the programme and (iv) what kind of things the programme had taught them. Thematic analysis was used to analyse the data. A brief description of the key themes that emerged from the end of programme and follow-up results along with sample quotes will be provided.

5.5.1 What is Zippy's Friends all about?

- ***End of Programme Results***

The children's responses to this question were analysed and grouped into themes. The bar chart in Figures 21 illustrates the key themes. Three themes were reported with the most frequency (i) how to treat others (ii) friendship and (iii) coping.

Figure 21: Children's views regarding what Zippy's Friends is all about at end of programme



How to treat others

Over 40% of the children's responses to this question were related to the theme "how treat others". This theme was made up of seven sub-categories. The categories and some of the children's responses include:

- Being kind / caring for others
  - *"Care for people"*
  - *"Being nice to each other"*
- Helping people
  - *"If someone is lonely like Tommy, help them"*
  - *"Helping your friends"*
- Respect
  - *"Respecting other people"*
- Share
  - *"Share with others"*
- Listen to others
  - *"It's about being a good listener"*
- Include others
  - *"Play with each other"*
  - *"Don't leave anyone out of the game"*
- Don't bully
  - *"Don't bully our friends"*
  - *"Stop being a bully"*.

Friendship

Several children across all schools referred to the theme of friendship. Children said that the programme was about how to make friends, taking care of your friends and how to keep your friends. Some of the children's responses included:

- *"Friendship and making friends"*
- *"Taking care of your friends"*
- *"It's about friends, like how to make new friends and how to keep your friends"*
- *"Playing nicely with one another"*.

Coping with things / solving your problems

A number of children said that Zippy's Friends is about learning how to cope with things and that it helps you to solve your problems. Some children gave examples of the kind of things they learned to cope with and how to cope;

- *"Coping with things like death, when pets die, moving house"*
- *"Calming down"*
- *"Learning what to do"*
- *"Always talk to each other if someone dies"*
- *"Solving problems"*
- *"Don't bottle it up"*.

Feelings

The fourth most frequently reported theme was feelings. Several children said the programme was about feelings. The feelings of jealousy, happiness and sadness were mentioned by several children. Other children explained that the programme was about learning about your feelings. Some of the children's responses included;

- *"Feelings, jealousy"*
- *"Talking about your feelings when you're grumpy"*
- *"Feelings – tell people about how you feel – Zippy helps you do this"*
- *"About happiness and sadness and how to make yourself better"*
- *"Tells you how to cope with things"*.

Programme content

Some children recalled activities they took part in and /or events in the stories.

Rules

Other children said the programme was about *"rules"*.

Learning new things

Children said the programme was about learning things. Some of the comments included:

- *"About learning different things"*
- *"Learning about change"*
- *"Learning new things"*.

Having fun

Several children said the programme was about "*having fun*".

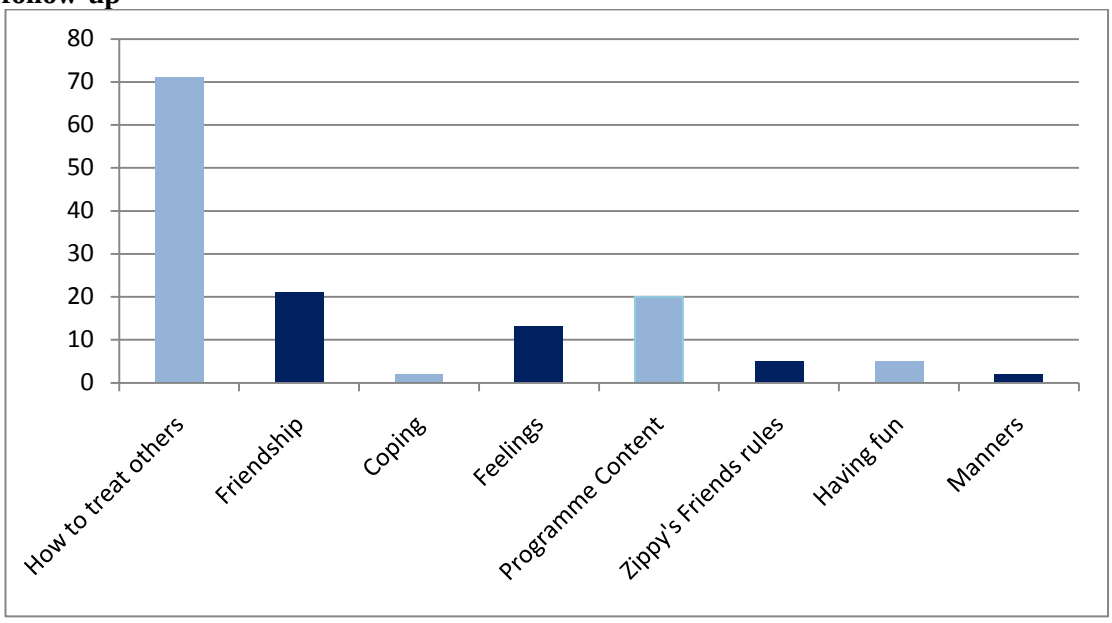
Death

Four children said the programme was about death. Their comments included "*remembering those who die*" and "*death*".

- ***12 months follow-up results***

At 12 months follow-up, the children's responses to this question were categorised into eight overarching themes. The bar chart in Figure 22 outlines these themes and the frequency with which they were reported. One noticeable difference between post-intervention is the sharp rise in the number of responses that were related to the theme "how to treat others' (51% of responses). Similar to the results from the post-intervention workshops this theme was made up of several sub categories including (i) be nice / kind to others (ii) include others (iii) share (iv) don't bully (v) help others and (vi) listen to others. Whilst the theme of friendship remained high (15.1% of responses), the children did not recall the theme of coping with the same frequency at 12 months follow-up. Interestingly, just under 15% of all responses referred to programme content. Children recalled the activities they took part in and the events some of the stories. In addition, some children recalled the Zippy rules that were a part of each lesson.

Figure 22: Children's views regarding what Zippy's Friends is all about at 12 month follow-up



5.5.2 What do you like about Zippy's Friends?

- ***End of Programme Results***

The bar chart in Figure 23 shows the children's most frequent responses to the question "*What do you like about Zippy's Friends?*".. The two most frequent responses were the stories and the activities. In relation to the stories, some children spoke about the parts of the stories that they particularly liked. It is interesting that all of the events that the children recalled from the stories were positive solutions to the characters problems:

- "*When Jill and her friends helped Tommy*"
- "*When they got Apple to cheer Tig up*"
- "*When they made friends*"
- "*When they met a new friend called Tommy*".

The children also said that they liked the pictures that accompanied the stories; "*I liked looking at the pictures*". Several activities were highlighted by the children as being particularly enjoyable. The most frequently cited activities were using the mystery box and taking part in the role plays, making the puppets, drawing pictures, going to the graveyard and making the crowns in the final session.

Several children said they liked coming up with solutions to their own problems and helping others. Some of the responses included:

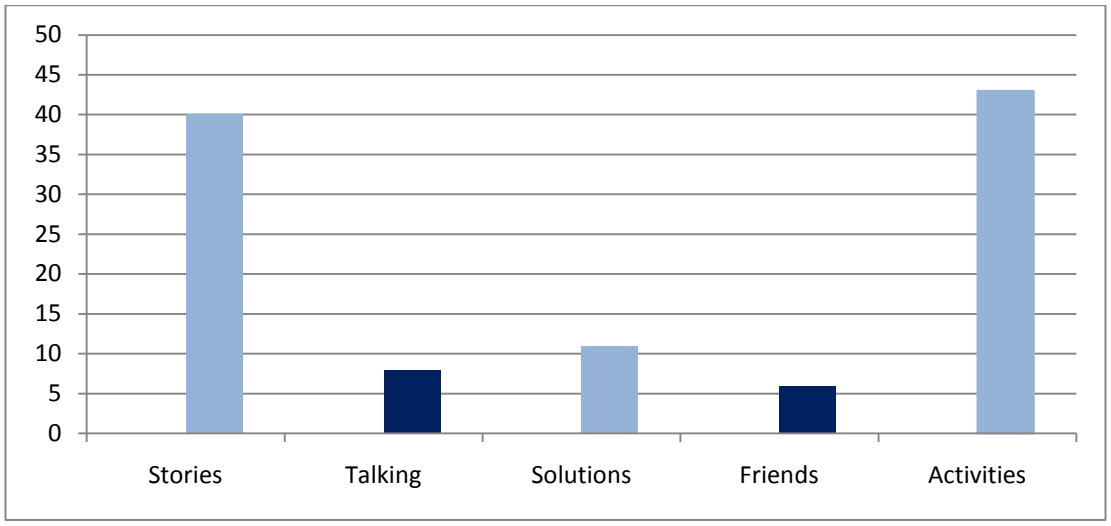
- "*Liked how to fix your problems, finding solutions, it helped*"
- "*Solving problems*"
- "*Learning new things*"
- "*Helping each other*".

A number of children said they liked talking in the circle and sharing their experiences with the group:

- "*I liked when we had to share our feelings*"
- "*Talking about my problems*"
- "*I liked talking about helping each other*"
- "*Talking and sitting in the circle*".

Making new friends as a result of the programme was another aspect of the programme that the children liked. One child said, *"You got to make new friends"* and another said, *"You got to learn about making friends"*. Some of the children's responses did not fall under any particular category. One child said she liked *"when teacher pretended"*. Another child said *"you have loads of fun"*. One child explained that he liked doing the programme because he *"wasn't getting bullied"*.

Figure 23: What children liked the most about Zippy's Friends at end of programme



- ***12 months follow-up results***

Similar to the end of programme results, the stories and the activities were the most popular aspects of Zippy's Friends at 12 months follow-up. In relation to the stories, children explained they liked listening to the stories and they also recalled events in the stories that they particularly liked. The activities that the children recalled were consistent with the end of programme results. The third most frequently reported theme at 12 months follow-up was 'learning new skills'. Children's comments included:

- *"Including people and not leaving people out"*
- *"Sharing"*
- *"Helping people"*
- *"Respect people"*.

Other less frequently reported themes included sitting in the circle and talking, having fun and *"not having to do work"*.

5.5.3 What do you not like about the programme?

- **End of Programme Results**

The bar chart in Figure 24 shows the key themes in relation to what the children did not like about the programme. Certain events in the stories were disliked the most by the children. The events that the children referred to were problem situations encountered by characters in the stories. Two specific events from the stories were mentioned repeatedly:

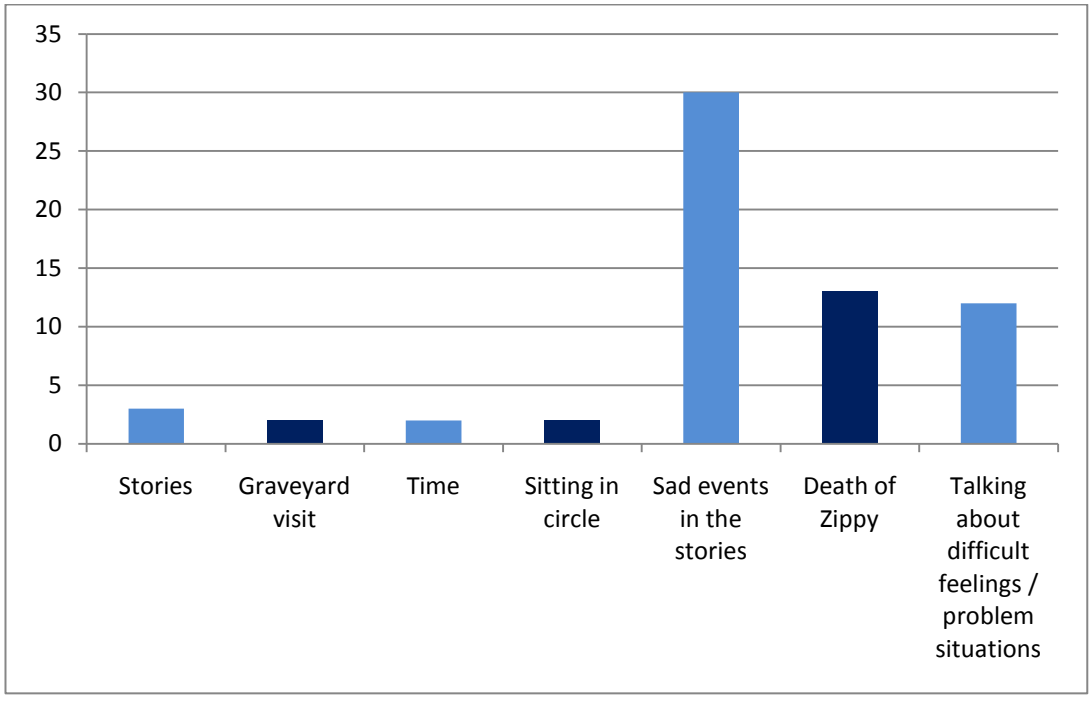
- *"When Tommy's Mom and Dad were fighting"*
- *"When Sandy got bullied"*.

Just under a quarter of the children also referred to Zippy's death as an aspect of the programme that they did not like. A similar number of children said they did not like talking about death or talking about sad events / feelings:

- *"Talking about when people die because it made me sad"*
- *"It made me sad when we talked about sad feelings"*
- *"When we had to say some of our feelings because it made you sad"*.

Two children said they didn't like the graveyard visit because it was sad. Lack of time to complete the activities was an issue for other children. Two children spoke about sitting in the circle for too long.

Fig 24: What the children did not like about the programme at end of programme



- ***12 Month Follow-up Results***

Similar to the end of programme results, the majority of children said they did not like when Zippy died and other sad events in the stories. Most of the 'other sad events' that the children recalled were concerned with friendship problems that the characters encountered. At 12 months follow-up some children again said they did not like talking about their feelings. One child said he did not like *"Feeling the feelings when you're sad, when the feelings hurt"*. Other parts of the programme that children said they did not like included drawing pictures, the feedback sheet and sitting in a circle.

5.5.4 What have you learned from Zippy's Friends?

- ***End of Programme Results***

In groups the children brainstormed what the programme had taught them. The children's responses were placed on the wall and the children were asked to identify the two most important things that they learned as a result of the Zippy's Friends programme. Each child voted using two post-its. The children's responses were grouped into themes. The percentage of votes for each theme is shown in the Table 67.

Table 67: Key learning points for children at end of programme: percentage of votes each theme received

Theme	Percentage of votes received	Percentage of votes
Be nice / kind to others	14.8%	How to treat others = 37.2%
Include others	5.7%	
Don't bully others	10.5%	
Listens to others	2.6%	
Share with others	3.9%	
Manners	2.2%	2.2%
Feelings	11.2%	11.2%
Friendship	17.9%	17.9%
Coping	31.6%	14.5%

How to treat others

Five sub themes made up the overarching theme of 'how to treat others' and this theme received the most number of votes (37.3%) from the children at post-intervention. Responses included:

- Be nice / kind to others
  - *"Always be nice to each other"*
  - *"Think of nice things to say"*
- Include others
  - *"Let people play with you"*
  - *"Don't leave anyone out"*
- Don't bully / fight with others
  - *"To not be a bully"*
  - *"Don't be fighting with anyone"*
  - *"If you bully someone you just get into more trouble"*
- Listen to others
  - *"Listening to others"*
- Share with others
  - *"Share things"*.

Coping

Learning to cope with difficult situations received just over 30% of the children's votes. Within this theme several responses related to talking to someone when experiencing a difficult situation. Examples include:

- *"Tell teacher or talk to an adult if you are being bullied."*
- *"Always talk to someone if someone dies"*
- *"Always talk to each other"*
- *" If somebody makes you cry tell a grown-up"*
- *"If someone makes you sad you have to tell them why you're feeling sad"*
- *"That if you ignore things sometimes it doesn't go away"*
- *"Learn how to deal with bullying"*.

Friendship

The theme of friendship received just over 17% of the votes. Learning how to make friends, how to keep your friends and how to help your friends were regarded by several children as the most important lesson learned during Zippy's Friends. Some of the children's responses included:

- *"No hurting your friend's feelings"*
- *"You can be friends with anyone if you just try"*
- *"How to keep your friends"*
- *"Like your friends for who they are"*
- *"I learned that being friends is much easier than being mean"*.

Feelings

Learning about feelings received just over 11% of the votes. Statements included:

- *"Taught us about our feelings"*
- *"Learned about jealousy"*
- *"You can transform your feelings, if you're feeling sad you can transform it to feeling happy"*.

Manners

The theme of learning good manners received a small percentage of the chidrens votes. Children said they learned *"good manners"* and that its *"bad manners to whisper"*.

- ***Twelve Months Follow-up Results***

At 12 months follow-up, the children in the intervention group were asked the same question. The children's responses were grouped into themes and the scores for each theme were collated. The percentage of votes that each theme received is shown in Table 68. The over-arching theme of 'how to treat others' received the most number of votes. When compared with the end of programme results, this theme received significantly more votes at 12 months follow-up (64.6%) than at end of programme (37.2%). Learning how to cope received the second most number of votes by the children at 12 months follow-up (14.5%) and this was followed by learning about feelings (12.5%) and friendship (8.6%).

Table 68: Key learning points for children at 12 months follow-up: percentage of votes each theme received

Be nice / kind to others	27.6%	How to treat others = 64.6%
Include others	7.2%	
Don't bully others	13.2%	
Listens to others	3.9%	
Share with others	6.6%	
Respect others	5.9%	
Feelings	12.5%	12.5%
Friendship	8.6%	8.6%
Coping	14.5%	14.5%

5.5.5 End of Programme and follow-up results

Overall, the results from the post-intervention and 12 month follow-up workshops are similar. At post-intervention the children recalled the key elements from the six modules; feelings, communication, friendship, conflict resolution and coping with change and loss. Learning how to treat others, learning about friendship and how to cope with difficult situations appear to have been the most important learning points from the children's perspective. At 12 months follow-up, most of the main learning objectives from the six modules were recalled, particularly in relation to feelings, communication, friendship and conflict resolution; however the concept of learning to cope with difficult situations was mentioned with significant less frequency at 12 months follow-up. In terms of what the children learned as a result of taking part in the programme, learning about how to treat others was recalled by over 60% of the children. Feelings and friendship were recalled with less frequency when compared with the post-intervention results.

The results regarding aspects of the programme the children liked and disliked were very similar at end of programme and 12 months follow-up. Children indicated that they particularly liked the stories, the activity-based nature of the programme and the new skills learned in relation to making friends and dealing with problem situations in their own lives. Aspects of the programme the children did not like included sad events in the stories (particularly in relation to friendship problems), the death of Zippy and talking about sad events and/or feelings.

5.6 Perceived Strengths and Weaknesses about the Programme: Teachers' Review Questionnaire

After completing the first and second half of the programme, the teachers in the intervention group completed a review questionnaire. The purpose of this questionnaire was to ascertain teachers' opinions about their impression of the programme, the impact of the programme, the children's experiences of the programme and recommended changes to improve programme implementation. A total of 30 teachers completed the interim review questionnaire and 24 teachers completed the end of programme questionnaire. Of the 24 teachers that completed the end of programme review questionnaire, 50% (N=12) had taught the first half of the programme.

5.6.1 Overall Experience teaching the Programme

The teachers were asked to rate their experience of teaching the programme on a scale of 1-10 (1 being *poor* and 10 being *excellent*). Table 69 provides the mean overall score for the teachers in Intervention Type I and Type II. Overall, the teachers rated their experience of the programme very positively. Teachers were, however, more positive at post-intervention than at the interim. Interestingly, teachers in Intervention Type I were consistently more positive than teachers in Intervention Type II across the two time points. At post-intervention, a comparison between the teachers who taught the entire programme and the teachers who taught the second half of the programme only, revealed that the teachers who taught the entire programme gave the programme a higher rating [M=8.92, SD =1.5] than the teachers who only taught the second half of the programme [M=8.58, SD=1.5].

Table 69: Teachers' overall experience teaching programme: mean, interim & post-intervention scores (Scale 1-10)

		N	Mean	SD
Interim results	Intervention Type I	14	7.5	1.9
	Intervention Type II	16	8.6	1.2
	Total	**30**	**8.07**	**1.6**
End of programme results	Intervention Type I	13	8.6	1.5
	Intervention Type II	11	8.9	.94
	Total	**24**	**8.75**	**1.2**

The teachers were asked to comment on their experience of teaching the programme. A number of teachers said that the programme was practical and well structured with good resources. Several teachers remarked on the children's enjoyment of the programme and their ability to relate to the content. Teachers also commented on changes in the children particularly in relation to confidence. On completion of the programme one teacher said, "*Changes in children by the end of the programme are already evident*". Two teachers referred to the need for such a programme in Ireland:

- "*An emotional wellbeing programme is badly needed in today's Ireland. Zippy's Friends is a well set out, structured programme which is both teacher and child friendly. I thoroughly enjoyed teaching it"*
- "*It is an excellent programme and should be introduced to all teachers. Both pupils and myself gained a lot from this programme"*.

5.6.2 Effect of the programme on the children

At the interim and at end of programme the teachers were asked to what extent they agreed or disagreed with a number of statements about changes that occurred in the children as a result of the programme. The negatively worded statements were re-coded into positively worded statements and the results from all of the statements were collapsed into three groups (i) strongly agree/agree (ii) unsure and (iii) disagree/strongly disagree with the statement. Table 70 shows the number and percentage of teachers that strongly agreed/agreed with the statements at the interim and at end of programme. There is a notable increase in the percentage of teachers that agree/strongly agree with the statements between the interim and end of programme. In the case of the children being more respectful as a result of taking part in Zippy's Friends, 46% of teachers agreed/strongly agreed on completion of the first half of the programme, however, just over 87% of teachers agreed on completion of the entire programme. Overall, the end of programme results are very positive. Just over 95% of the teachers said that the children's relationship with each other improved. Over 90% of the teachers strongly agreed/agreed that the children's (i) ability to manage their feelings (ii) verbal communication skills (iii) ability to cope with difficult situations and (vi) social skills had improved as a result of the programme. An improvement in the children's behaviour received the lowest scoring

(83% of the teachers strongly agreed/agreed with this statement). Three teachers strongly disagreed/disagreed with this statement.

Table 70: Number of teachers at interim and end of programme that *strongly agree / agree* with statements about changes in the children as a result of the programme

	Strongly agree / agree			
	Interim		End of Programme	
	N	%	N	%
Ability to manage feelings improved	27	90.0%	22	91.7%
Problem solving skills improved	21	70%	21	87.5%
Verbal communication improved	26	86.7%	22	91.7%
More respectful	14	46.7%	21	87.5%
Listening skills improved	21	70%	21	87.5%
Relationship with each other improved	18	60%	23	95.8%
Social skills improved *(Post-Intervention Q only)*			22	91.7%
Antisocial behaviour improved *(Post-Intervention Q only)*			20	83.3%
Ability to cope with difficult situations *(Post-Intervention Q only)*			22	91.7%

5.6.3 Effects of the programme on the teacher

The teachers were asked to rate on a scale of 1-5 (1 being *not at all* and 5 being *very much so*) how much the programme affected them in terms of their relationship with the children, their ability to help them emotionally and their overall teaching. They were also asked how much they and the children enjoyed the programme. The interim and post-intervention results are shown in the Table 71. There is a notable increase in the mean scores across all statements between the interim and end of programme. Also, there is consistency between the set of results with the statements "*The children enjoyed Zippy's Friends"*, "*The programme has given me a structure to help the children to cope with difficult situations*" and "*I enjoyed teaching Zippy's Friends"* receiving the highest ratings at the interim and at end of programme. The

statement "*I feel that my teaching has improved as a result of teaching the programme*" received the lowest overall rating on both occasions.

Table 71: Mean teacher ratings on perceived effects of the programme at interim and post-intervention (Scale 1 – 5)

	Interim			End of Programme		
	N	**Mean**	**SD**	**N**	**Mean**	**SD**
More aware of children's feelings	30	**3.93**	.9	24	**4.33**	.76
Relationship with the children has changed	30	**3.63**	1.0	24	**4.17**	.87
More aware of listening to the children	30	**3.97**	1.0	24	**4.17**	1.1
Programme has made a difference to the atmosphere in the classroom	30	**3.47**	1.1	24	**3.92**	1.1
Programme has given me a structure to help children cope with difficulties	30	**4.07**	1.0	24	**4.54**	.66
Enjoyed teaching Zippy's Friends	30	**4.27**	.87	24	**4.5**	.66
Children enjoyed Zippy's Friends	30	**4.43**	.77	24	**4.71**	.75
Teaching has improved as a result of teaching the programme	30	**3.30**	1.2	23	**3.91**	.85

5.6.4 Broader Effects

As part of the review questionnaires teachers were asked a series of questions about the broader effects of the programme. These questions were concerned with the effects of the programme (i) outside the classroom (ii) in the home environment (iii) on academic achievement and (iv) the use of the strategies taught in Zippy's Friends in other areas of teaching.

5.6.4.1 Effects of the programme transferred outside the classroom

At the interim 68% of teachers said the effects of the programme transferred outside the classroom (Table 72). This increased to 87.5 % at post-intervention. Some of the teachers' comments included:

Interim comments:

- *"(Yes), I have 3 girls who at the start of the programme who were constantly fighting and leaving each other out of the group and games but discussions and activities helped to improve this"*

- *"(No), the children are very good in the classroom but after the Zippy lesson is over they resort back to their 'old' ways"*
- *"Children find it difficult to transfer this knowledge to the yard unless reminded by an adult"*.

Post-intervention comments

- *"Children who took part in the programme seem to be more able and more aware of the 'right solutions' if encountering or witnessing disagreements or problems in the yard. They also seem to look out for each other more"*
- *"Children will demonstrate 'Zippy behaviour' when reminded but not on a daily basis independently"*.

Table 72: Number and percentage of teachers at the interim and at post-intervention that reported that programmes effects had transferred outside the classroom

		Interim		End of programme	
		N	%	N	%
Effect of the programme transferred outside the classroom	Yes	17	**68**	21	**87.5**
	No	8	**32**	3	**12.5**

5.6.4.2 Effects of the programme in the home

When the teachers were asked if they had heard from a parent or sibling about the effects of the programme at home, two out of a possible 30 teachers (6.7%) at the interim and eight teachers (34.8%) at end of programme said that they had heard about the effects of the programme in the home environment (Table 73). At the interim, several teachers spoke about the disconnect between parents and children's schooling. One teacher said, *"parents seldom come into the classroom"*. Another teacher commented, *"In a school such as this with many social problems it is doubtful in many homes if they are even asked how their day was"*. At post-intervention a teacher noted, *"Parents of children in my class don't really interact much with classroom teacher / activities. Although, from meeting a minority of parents they have commented on the development of their children, i.e. more outspoken and interactive"*. One reason for the increase in the number of teachers that heard about the effects of the programme at home between the interim and end of programme was as a result of the fifth module which dealt with change and loss.

Teachers explained:

- *"Yes there was a mother whose son had passed away and before the programme she had found it very difficult to talk to her little girl about it. Since the programme it has opened up the opportunity to do so and the parent was very grateful. I have also hear that some siblings of the children doing Zippy's Friends wished that they were doing the programme too"*
- *"Two of the children's grandparents died shortly after the programme was completed. Their family came in to thank me as they felt that Zippy's Friends helped the children to deal with their loss in a very open way"*
- *"One parent said her child's confidence has grown a lot since the programme began. Another parent said when a family friend died the child came up with good ways to feel better"*

Table 73: Number and percentage of teachers at the interim and at post-intervention that heard about programme effects at home

		Interim		End of programme	
		N	%	N	%
Heard that programmes effects are evident at home	Yes	2	**6.7**	8	**34.8**
	No	28	**93.3**	15	**65.2**

5.6.4.3 Effect of programme on academic achievement

There was a notable increase in the percentage of teachers that said the programme had a positive effect on the children's academic achievement between the interim (44.4%) and end of programme (77.3%) (Table 74). At the interim one teacher wrote, *"I feel in this short space of time I didn't notice any effect on their learning. Maybe you would once the course is completed"*. Teachers who observed an effect commented on the impact of the programme in relation to three main areas:

(i) Several teachers said that the programme enhanced the children's self confidence:

- *"Confidence has definitely improved which does impact academically. Not sure to what extent"* (interim)
- *"Pupils are more confident to request help and let me know if work is difficult so this obviously leads to better understanding"* (end of programme).

(ii) A number of teachers noted an improvement in the children's oral language and communication and listening skills:

- *"I have noticed an improvement in oral language – expression, opinions, feelings, discussing topics in other curriculum areas*" (end of programme)
- *"The quieter children are more confident when we are doing oral discussions and activities in the class. They aren't afraid to speak out. It has helped their listening skills especially towards one another and not just the teacher*" (end of programme).

(iii) Some teachers also noted that the children were better able to recognise and articulate their feelings and that this in turn helped them academically:

- *"Some children who used to fret a lot over activities are more likely to express their difficulties"*(interim)
- *"Encouraged children to focus on their work and to control their emotions, in my class in particular we would experience a lot of tantrums so Zippy encourages them to stop and relax"* (end of programme).

Table 74: Number and percentage of teachers at the interim and at post-intervention that reported that programme had positive effect on academic achievement

		Interim		End of programme	
		N	%	N	%
Programme had an effect on academic achievement	Yes	**12**	44.4	**17**	77.3
	No	**15**	55.6	**5**	22.7

5.6.4.4 Use of Zippy's Friends strategies in other areas of teaching

With regard use of the strategies being used in other areas of teaching, there was a decrease in the percentage of teachers that used Zippy's Friends strategies between the interim (90%) and end of programme (79.2%). At the interim the majority of teachers said they (i) incorporated the Zippy's Friends rules into the classroom rules and (ii) used the listening and communication strategies repeatedly throughout the day. Three teachers said they used the Zippy's Friends strategies to help children resolve conflict situations. At post-intervention, teachers gave more examples of ways in which they have incorporated the strategies into other areas of teaching including:

- Use of circle time: *"The children are now very familiar with circle time and this can be useful in many lesson. Children are more willing to respond orally in other subject areas when in the circle"*
- Peer relationship problems: *"I have applied some of the stories with children with social and emotional problems who have difficulty forming relationships with their peers"*
- Problem behaviour: *"When there is a problem after yard time we sometimes bring what we learned in Zippy into solving the problem"*
- Link with other subjects: *"Religion – caring and forgiveness" "The children like being asked about how they feel about stories in History / Religion / English. Also how they would feel if they were in a situation in a story e.g. taken prisoner, slave etc"*.

5.6.5 Recommended changes to the programme

Four main changes were recommended by the teachers in order to improve the implementation of Zippy's Friends in the Irish setting. These changes included:

- Implement programme over one year

Teachers requested that the programme would be implemented over one academic year as opposed to two. One teacher wrote:

- *"Apply the programme over one year – with additional more advanced modules that could be tapped into in later years"*.

- Shorten lessons

A number of teachers said that some of the lessons needed to be shortened. Some teachers said that there was too much repetition and that this could be reduced. Other teachers recognised the importance of repetition:

- *"Shorten the lessons. Omit some of the repetition"*
- *"Repetition is an issue but at the same time repetition is important to consolidate what they've learned"*.

- More activities

Several teachers said there was a need for more 'hands-on' activities, particularly in some lessons that had a lot of discussion. Related to this, Module 2 was highlighted

as a problem module with some teachers suggesting it should be improved or removed. Teachers wrote:

- *"I think maybe some additional activities for the children. They love the 'hands on' activities, e.g. the mystery box and the dramas."*
- *"Scrap Module 2 or else add more material to it"*

- Need for whole school approach.

Several teachers commented on the need to implement a programme throughout the school so that all pupils and teachers are aware of the strategies being taught. Teachers' comments included:

- *"Will work best if taken on as a whole school approach with everyone being aware of the strategies"*
- *"I think many of the issues addressed are not appropriate to just children in 1st/2nd class age group. Many younger children experience death / separation /fallings out / bullying etc and Zippy's Friends would provide then with the necessary skills to deal with these. Maybe introduce the programme in Junior Infants and run throughout the remaining classes"*.

Of the 24 teachers that completed the post-intervention questionnaire, 23 teachers said that they would teach the programme again. Some of the comments included:

- "*I feel very lucky to have been part of Zippy and the whole area of improving the mental health of children"*
- *"I found this programme extremely valuable and fills the gap in the SPHE curriculum as a core resource"*.
- *"I would like to teach it again. I feel that if even some of the children benefit from it then it has to be worthwhile. I do think there needs to be training for all staff"*
- *"I would love the opportunity to teach the programme again. I think it would be a fantastic idea if a programme for the senior classes was compiled also. In order for the Zippy's Friends programme to be successful I believe it needs continuity"*
- *"This is an excellent programme and all the teachers that I have spoken to who have taught it found it very useful"*
- *"I feel it should be a 3/4 year programme"*.

5.7 Perceived Strengths and Weaknesses about the Programme: Teachers' Focus Group Review Sessions

The purpose of the review sessions were to ascertain the teachers' views about the programme in terms of their experience of teaching the programme, factors that affected programme implementation, the effects of the programme and possible areas for improvement. A coding frame, which included six sections was applied across the six transcripts. The sections included (i) experience of teaching Zippy's Friends (ii) Zippy's Friends and SPHE curriculum (iii) factors influencing programme implementation (iv) perceived effects of the programme (v) teacher training and (vi) recommendations. The common themes that emerged across the transcripts are described under each section. Sample quotes are provided.

5.7.1 Experience of Teaching Zippy's Friends

Teachers discussed their overall experience of teaching the programme. Teachers who taught the programme in the multigrade setting were asked about their experience of teaching the programme to multiple classes. In addition, teachers who were trained in September '09 discussed their experience of having to teach the second half of the programme without having taught the first half.

Teachers' Views on Delivering the Programme

- Relevance of content

The teachers consistently reported that the programme was very easy to teach. A number of teachers said that one of the reasons it was so easy to teach was because the children could relate to the stories and the problems/difficulties that the characters in the stories experienced. Teachers also recalled being able to use the content from the programme to deal with children's problem situations in the classroom or out in yard:

- *"I thought it was really easy to teach because it was so relatable to the children. All the stories had something that they had probably experienced. They understood what it was about, they didn't think it was just a story"* (T38.2 end of programme)

- *"I think it's easy to teach because the kids can all relate to it. They will always have something to tell you, in the story they will say 'Oh yeah this has happened to me'"* (T38.1 end of programme)
- *"I had three little girls in first class who at the start of the year you had 'Kate is not talking to me', 'Paula is not talking to me'. So I kept referring back to Zippy's Friends and it seemed to have sorted it cause I think in the last month or so I don't hear complaints from the yard. It definitely has helped"* (T6 interim).

- Resources

The resources (role play, mystery box, stories, making puppets and drawing) were commented on by the majority of teachers. The teachers said that the varied activities and resources made the programme easy to teach:

- *"The resources were good too, that made it an awful lot easier to teach, there was something different for them to do most days. So it really helped them, they knew that there was something exciting coming at the end of the lesson too"* (T38.1 end of programme)
- *They loved the activities and the role plays and the magic box, they loved that"* (T9 interim).

The teachers repeatedly highlighted the importance of the stories for programme implementation:

- *"The enjoyed listening to the stories. The liked the pictures, they are bright and colourful, it was a focus point for them"* (T38d interim)
- *"I think the stories worked really well and having the pictures to go with them it kind of focuses your attention on what you are doing and then in the other parts of the lesson you could go back to the stories, say reread whatever and ask questions about it"* (T4 end of programme).

Experience of teaching in the multigrade setting

Several teachers had multiple class grades in their classroom and as a result taught the Zippy's Friends programme to several classes of children. The majority of multigrade teachers implemented the programme with children in first and second class. However, some teachers taught the programme to children in junior infants, senior infants and first class. Other multigrade teachers taught the programme to

first, second and third class children. In one school, children in first, second, third and fourth class received the programme.

In relation to teaching the programme to the junior classes, most of these teachers said that they taught the programme to the children in first class when the infants had gone home as the concepts and strategies were too advanced for the infant children. A number of teachers who taught the programme to first and second class children said that the programme was more suited to children in second class. The majority of teachers remarked that the children in second class were able to concentrate for longer periods of time, *"The first class, it was a bit beyond them, you didn't really get the same response from them, there were maybe one or two able children but second class were able to sit and focus and contribute and really get involved. I thought it was a very good age"* (T8 end of programme). A number of teachers made similar comments in that that first class children "*loved the pictures and stories*" whilst children in second class *"got more out of it"* (T35 interim). Several teachers who taught the 24 sessions over the two academic years considered the programme more suitable for the children when they were in second class. One teacher commented, *"I had them* (the children) *last year but I thought this year they were more able for it, being in second class, definitely they were more receptive. They opened up to me more this year than they did last year and they kind of understood it more, maybe it was the extra year of maturity"* (T17 end of programme).

The teachers who taught the programme to second and third class children commented on the suitability of the programme for the children in both classes. A number of teachers said that the children in third class may have benefited from it more than the children in second class, "*I think that they were able to take more of the terminology and even remembering the stories… They had more of an interest I think, their attention was better, the programme was able to sustain their attention better*" (T13 end of programme). One teacher said that it was "*in no way babyish for third, they got as much out of it was the rest of the class*" (T10 end of programme). Another teacher who taught the programme from first to fourth class commented on the benefits for each class grouping in their own way, "*Every single one of them loved it … there was something for everybody in it. They all use the strategies. It was just as beneficial with first as with fourth*" (T34 end of programme). This

teacher also said that the children in the older classes benefited from learning the strategies to deal with problem situations; *"It's the strategies I think that these children really want. They know how they are feeling but they want to know what to do about it"*.

Experience of teaching half of the programme

In total, 16 teachers who taught the first half of the programme were unable to teach the second half of the programme as they did not follow through with the children into second class. This resulted in the training of 16 second class teachers to teach the second half of the programme. These teachers discussed their experience of joining the teaching of the programme half way through its implementation. Two main themes emerged from the teachers' comments.

- Children's enthusiasm

The majority of teachers who were trained in September '09 said that although it took a while to become accustomed to the programme, it was the children's enthusiasm that motivated and encouraged them. Some of the teachers' comments included:

- "*The kids loved telling me about this story and that story. They knew exactly what they had done, they could tell you what happened in the modules*" (T40a end of programme)
- "*I thought it would be a lot different. I suppose I thought you would be starting off from scratch but it was amazing how much they retained. Once you mentioned Zippy they were delighted"* (T38a end of programme).

- Revision lessons

The three revisions lessons for Modules 1-3 that were devised by the Health Promotion Officers involved with the pilot study appeared to be an important resource for the teachers who had not taught the first half of the programme. A number of teachers commented on the usefulness of these lessons. One teacher said *"I just picked it up. When you recap on the previous lessons using the revision lessons it really helps and it was no problem"* (T14 end of programme).

5.7.2 Zippy's Friends and SPHE

The teachers were asked to comment on the Zippy's Friends programme in relation to SPHE. They were asked specifically about how the programme compared to other resources and how the programme fits into the SPHE curriculum.

How Zippy's Friends compares to other resources

- Comprehensive

The most frequently cited difference between Zippy's Friends and other SPHE resources was the comprehensive nature of Zippy's Friends. Several teachers said that unlike other SPHE resources the Zippy's Friends programme deals with each topic in depth and there is continuity between topics. One teacher noted, *"It's* (the Zippy's Friends programme) *very different, you have a full module on death and a full module on conflict resolution, whereas with the other SPHE resources everything is just skimmed over*" (T3 end of programme). Similarly, another teacher said ,*"It does go deeper into subjects than the RSE programme, like an RSE lesson on friendship just covers it, it doesn't really do anything in detail, certainly not about making friends and keeping friends, with Zippy's there's a lot more content"* (T1 end of programme). Speaking about other SPHE resources one teacher said, "*There is no continuity, it's just like you're taking a lesson here on fire safety and another lesson there on friendships"* (T38a end of programme).

- Teacher friendly

Several teachers referred to the programme as being more '*teacher friendly'* than other SPHE resources. Some of the teachers' comments included:

- *"I think it's much easier to teach. I think it's an excellent SPHE programme if you had started with it in September. I think to be honest if I had started it in September I would be delighted – a year's programme that covers everything and you're doing circle time and you know what you are doing and they were happy with it"* (T17 interim)
- *"The stories make it so easy, you know if you were doing another aspect of SPHE you would have to look up and find a story, find resources and all that"* (T38b end of programme)

- *"I just loved to be able to go to it and say yeah we're going to do this, this and this, it's so simple and it's all structured and you know what to do…. I think it helps especially if you are in a multi class situation to have structure where everything is laid out for you"* (T30 end of programme).

- Child friendly

In addition to being a teacher friendly resource several teachers also referred to it as a child friendly resource. Comparing the Zippy's Friends programme to another SPHE resource one teacher said, *"The Zippy's Friends is more at their level. It's more child friendly I think and the resources, they love them and it's all kind of visual. Whereas the other one is all talk, there are pictures alright but they wouldn't be as child friendly as Zippy"* (T40a end of programme).

How Zippy's Friends fits into SPHE curriculum

- Planning

There was a general consensus that the programme needs to be made a part of the SPHE curriculum and in order to do this, each individual school needs to plan what parts of the SPHE curriculum Zippy would cover and what other resources need to be used to cover the remainder of the curriculum's strand units. One teacher remarked, *"See it covers quite a bit of the SPHE, all you have to do is plan for the little bit extra on RSE (Relationships Sexuality Education)"* (T4 end of programme). Another teacher said,*"There is no way you can do Zippy and Walk Tall and Stay Safe and RSE in the one year, you couldn't be tossing and turning. What you would have to do is sit down and say right this, this and this I want to do and you'd have to be picking from a menu. I do think that Zippy would be a powerful backbone to build other things out of, especially at that younger age. And children find it much easier with the story and situation cards"* (T30 end of programme).

- Whole school approach

Some teachers said that the programme needs to be seen as something more than 24 lessons within the SPHE curriculum and that it should be a part of the school ethos with the strategies being reinforced throughout the day. Teachers commented:

- *"I don't think it (Zippy's Friends) has to be a dedicated SPHE time, it does obviously until the initial rules are established but I think after that it just integrates into everything you are doing throughout the day and it becomes part of the classroom environment"* (T1 end of programme)
- *"You don't have to do every single bit of it all the time to get the message through if it's being reinforced throughout the school day. That's the one thing I find that if you leave it as just SPHE time and that's it, you never mention it again, it won't be as effective as if you are actively looking for them to use the strategies throughout the day. If you take like PE, like picking teams, picking captains, because you are aware of where the strategies are it can be carried out right throughout the day and that way you are not spending all the time saying I have this class only to get through all this work"* (T34 end of programme).

5.7.3 Factors Influencing Programme Implementation

The teachers were asked about factors that helped the programme to run smoothly and factors that hindered the implementation of the programme. A number of factors were highlighted by the teachers.

<u>Factors that helped the programme to run smoothly</u>

- Activities

The most frequently report factor that facilitated programme implementation was the activity-based nature of the programme. Some of the teachers' comments included,

- *"The activities throughout helped. When you break up the lesson, they'd listen to the story and then they might do an activity and then come back again. So that worked well"*(T12 interim)
- *"Things like the role play, they knew that the minute Zippy was starting they might get a chance to come up – they loved that"* (T32 interim).

- Personal Experience

A number of teachers commented on the positive effect of telling the children about their own personal experiences during the lesson. The teachers said that by contributing to the lesson, the children were more likely to contribute as a result. One

teacher explained that she gave the children an example of a time when she felt jealous, *"So that they knew that being jealous was ok, I gave them an example of a time that I was jealous and then they started opening up and talking about times when they were jealous cause at the start they thought oh no that's wrong, you're not supposed to be jealous*" (T1 Interim). Another teacher spoke to the children about a time when she felt nervous, *"I told the story of when I started my first day here in the school and that I was very nervous in the staffroom and that myself and Ann didn't know anybody but that we made friends and they were really surprised to hear that somebody else, or even an adult would be feeling the same way….I think when an adult tells them that they feel the same way as them, you know, they can't believe it. But they definitely become more comfortable with themselves"* (T40a Interim).

- Use of the circle

Several teachers said that putting the children in a circle is an important part of each lesson. One teacher said the circle was of benefit because *"The children were able to express themselves better in this situation"* (T6 end of programme). Some teachers noted an improvement in children with behavioural difficulties, *"In particular I have quite a number of children with behavioural difficulties and you could see for the first few weeks that they wanted to misbehave in the circle but after a while they actually started to contribute to the lesson so I found that brilliant*" (T12 interim). Other teachers commented on the effectiveness of the circle for quieter children who would be less likely to speak, *"I have a lot of very quiet wee girls and I found that the girls were more willing to speak in the circle*" (T17 end of programme).

- Teacher training

The training, according to some teachers was most useful in terms of providing an overview of the programme and motivating the teachers before implementing the programme. Some of the teachers' comments included:

- *"The training, with those two days you knew exactly what to do"* (T1 interim)
- *"It's good to get the overview of the programme to talk to other teachers and to get enthused about it and to get motivated"* (T2 interim).

- "*You probably wouldn't have the same enthusiasm if you were just handed the pack and told to go do it. Whereas you got to know Zippy and the pack and you knew what it was about*" (T6 interim).

Several teachers commented on the benefits of getting to talk to other teachers who teach the same class level. One teacher said, *"I suppose, to focus everybody, you were talking to everybody else and you could hear what kind of situations they were in and you could get ideas from others. Yeah you could take the pack and just go off but it's much more beneficial to talk with others, just to get ideas"* (T32 interim).

- Prepared

Being prepared for each lesson was regarded as an important factor that helped the programme to run smoothly. One teacher said, *"You need to have looked through it all the night before"* (T16 interim). Another teacher remarked, *"Good preparation on the teacher's part is essential"* (T34 end of programme).

- Consistency

Some teachers highlighted the importance of implementing the programme every week and having a set time to implement the programme. One teacher noted, *"I did it regularly, once a week and they knew once a week that it was Zippy time and they were familiar with the routine. If you had a huge gap between the lessons it might not have run as smoothly"* (T33 interim). Another teacher said that *"having a set time every week with no interruptions helped the programme to run smoothly"* (T38d interim).

- Children's Enjoyment of the programme

Several teachers remarked on the children's enthusiasm for the programme and that this motivated the teachers to implement the programme. Teachers explained:

- *"It makes all the difference when the kids enjoyed it. D'know if you're trying to do something that they don't like, like part of the Stay Safe program, they couldn't give a monkeys for half of it. And that's a bit of a drag then. But when they enjoy it and when they want to find out about stuff and when they're interested and they show they're interested. That makes all the difference"* (T40a interim)

- *"The children's enthusiasm also helped as they were very eager to participate in the programme"* (T15 end of programme)
- *"I think the fact that the children enjoyed it so much made it run smoothly. They looked forward to it each week"* (T8 end of programme).

Factors that hindered the implementation of the programme

- Time

Time was the most frequently reported problem associated with implementing the programme. Firstly, the teachers said that it was difficult to find time during the day when all of the children were present. Teacher's commented included;

- "*I have like 11 of my children going out to resource and learning support, I found it so hard to get an hour. I had to say to the other teachers 'Zippy's is at this time, you're not allowed to take any of the kids out for this hour'. And I found that really difficult and it was difficult to find a time when there would be no interruptions at the door"* (T1 interim).
- *"It's just the classrooms are so busy now, it's not like years ago when you had them all day. Now there is a constant stream in and out"* (T6 interim)
- *"Trying to find a time when all of the children were there, when they were not going out to learning support or whatever"* (T10 end of programme).

Secondly, time of implementation during the school year (starting the programme half way through the academic year) was also problematic for several teachers:

- *"I think it was just so late in the year because we had a school concert and I was trying to fit it in around that I only finished in on Monday and the children are exhausted not at this stage. I just felt they weren't as enthusiastic. You know if I had got it earlier in the year my energy levels would be higher and so would their"* (T1 interim)
- *"Towards the end of the school year I felt there was less time to spend on the programme due to school outings, texts and other projects that the children were participating in" (*T17 interim).

Thirdly, the length of each lesson was reported as an issue by a number of teachers. One teacher noted, "*Some lessons were too long"* (T32 interim). Another teacher said, "*There were times when you felt you were cramming it in really"* (T29

interim). Keeping the children's attention was reported a problem as a result of the lessons being too long, *"Just keeping their attention for the length of time of the stories. It might have been better to just do 20 minutes story and 20 minutes activities but then you are losing the momentum of the lesson"* (T41b interim).

- Size of room

Lack of space in the room meant that some teachers were not able to put the children into a circle for Zippy time. Teachers found this to affect the programme negatively. Some of the comments included:

- "*But the one thing that hindered the lesson was space in the classroom, we were all cramped in. It would be ideal if you had a multi purpose room that you could move to for the lesson. Cause they liked the idea of Zippy space rather than just staying where they were" (*T40b interim)
- *"The size of my classroom was my big issue"* (T13 end of programme)
- *"The size of the room definitely, trying to organise them into a circle was one thing that hindered my lessons* (T34 interim)
- *"Having to go to the hall because of lack of space in class to make a circle"* (T19 end of programme).

Related to this one teacher explained the effect of not putting the children into a circle on one occasion. *"One day I left them in their seats and they weren't at all as interested as when they were in the circle, cause they love sitting in the circle and being able to look at each other. Yeah the day I did it in their seats, it was kind of a bit of a dry run"* (T40a interim).

- Multigrade Teaching

Teaching the programme in a multigrade setting over two academic years was problematic for some teachers. One teacher explained, "*Having multi classes is kind of difficult, you know I have a class leaving now and half a class coming in that is missing the first half of it and they will be doing the second half of it and it's not the kind of thing that you can do, you need to know the beginning of the story. I would think if I was doing it I would do it through the full school year"* (T10 interim). Another teacher suggested doing it every second year in the multigrade setting to overcome this problem.

5.7.4 Perceived Effects of the Programme

During the review sessions the teachers were asked for their opinions about the effects of the programme on the children, themselves as teachers and the wider school environment and community. They were also asked specifically if the children had any negative effects on the children and if certain children benefited more than other children and in what way. All teachers said that the programme had no negative effect on the children. The positive effects were summarised into key themes.

Effect on children

- Relationship with each other

According to the teachers, there was a significant change in the children's relationship with each other as a result of the programme. Several teachers observed a change in the children's interaction in the yard in terms of the way they looked out for each other and made an increased effort to include all children in games. One teacher explained, *"They have jelled together as a class"* (T3 end of programme). Another teacher commented, *"They look out for each other that bit more since the programme began, like if anything happened they'll make sure the other child is alright or they'll make sure that somebody else is told, like the teacher on yard or myself"* (T11 end of programme). One teacher gave the example of a child who rarely played with anyone in yard, *"I had a boy who is very much out on his own and even in the yard he wouldn't have wanted to play with other children but now he has somebody to play with and is making more of an effort himself to have somebody to play with and the other children will make sure that there is nobody left out"* (T12 end of programme). Some teachers also noted a change in friendship dynamics in the class over the course of the year, *"I can see different friendships forming like in my class. There would be a group of girls that would always play together and that would have been the way it was for the past three years but I can see different girls joining and you would hear 'Oh I'm going to her house' and I thought that would never have happened. But they are now close and you can see them playing in different groups"* (T5 end of programme).

The majority of teachers observed a reduction in problems in the yard since the start of the academic year. The teachers also commented on the children's ability to sort minor disputes amongst themselves as a result of the programme:

- *"At the start of the year there were a lot of small arguments. A lot of that has stopped. You would hear the odd thing now, like you wouldn't hear of small things, it's only if something serious has happened. They seem to be able to solve small disputes amongst themselves"* (T38b end of programme)
- *"They definitely don't come up half as much in the yard. They are able to cope and deal with their little problems"* (T40b interim)
- *"They'd actually mentor each other in yard, maybe it's because my class were older that they would be able to say to them 'You know you need to say how you're feeling and don't shout' and all these things. They were actually mentoring each other out on yard* (T34 interim).

- Awareness

The teachers also spoke about the effect the programme had on the children's awareness of their feelings and ability to deal with the problem situation. Some teachers said that before the programme children had difficulty expressing their feelings and that this resulted in them "*taking it out on other children or the teacher"* (T40a end of programme). Teachers said that as a result of the programme the children are:

- *"…more aware of their feelings, you know at the concert they were able to, one boy said "I'm really nervous" and he was just able to tell me how he was feeling. I don't know if they would have been able to do that before Zippy"* (T1 interim)
- *… quicker to express anxiety about something they weren't able to do* (T33 interim)
- *…able to communicate more, like if something happened outside they would come in and they would tell you how they felt and why they felt it and then ask you for help as well"* (T16 interim)
- *… able to express themselves better* (T29 end of programme).

- Confidence

Teachers repeatedly mentioned the effect of the programme of the children's confidence:

- *"I think confidence is a big thing and even quite a few children wrote that down at the end of the programme – 'I am more confident now and I can speak out loud'* (T10 end of programme)
- *"One parent said to me that she found a massive jump in her child's confidence and she said that every evening after Zippy's Friends he used to come home and go through the entire lesson from beginning to end, exactly what they did and what they talked about"* (T9 end of programme)
- *"I suppose they are more open and can discuss topics more openly, even in other subject areas, with some of the children they have gained confidence in giving their opinions"* (T6 end of programme).

Related to this teachers spoke about the impact of the programme on the children's ability to talk about their own personal problem situations. Several teachers observed the positive impact of children collectively sharing their own stories, particularly in relation to family separation. Some of the teachers' comments included:

- *"You know the separation, it's so real for them and there are so many children that are living in families that are separated"* (T34 interim)
- *"I think that relief of hearing what other children were saying. To hear that it happened to someone else. Or even to hear that it happened to you , they were so shocked when they heard you told them about something that happened to you"* (T32 interim)
- *"There are a lot of broken families and different relationships between Mums and Dads but before it would never have been talked about but with Zippy the change was acceptable. It was ok to say that Dad had another girlfriend or that you had a half brother and sister. It was ok to talk about those things cause the children in the stories experienced them so this must be normal so it kind of made all that acceptable"* (T33 end of programme).

- Children with particular difficulties

There were conflicting views about children that benefited the most from the programme. Several teachers noted improvements in children with behavioural and

anger management difficulties. One teacher said, *"There would have been some with behavioural difficulties and I noticed a huge change in them"* (T13 end of programme). Other teachers gave more specific examples of the effect of the programme on children with behavioural difficulties:

- *"There is a particular child in the class and he has anger management issues and at the start of the year before Zippy came around he would have just lost it if he didn't get the colour he wanted. But now there are rules on the wall – you stop, you take a breath, you think about the situation and I can see the other kids when he is about to blow, the kids will say 'Paul remember, remember' and they will all remind him of the rules and you can see him thinking ok this is what I have to do and very often it just defused the whole situation, so that is one thing I have found that has helped in a huge way"* (T33 end of programme)
- *"I have a boy in my class and he is a very angry boy and he said at the end of the programme 'I used to be very different, I used to hit people but I know now I shouldn't' and he's so funny, on a daily basis he would say 'Múinteoir such and such would have made me angry but I knew that it wasn't a good thing to hit him back'"* (T17 end of programme).

Some teachers observed positive changes among introverted children in terms of them opening up and sharing their experiences in the circle and becoming more confident. Teachers explained:

- *"I had a child with selective mutism who had her hand up the most asking the questions and talking in a very informal setting"* (T3 end of programme)
- *"There is one wee girl in particular and about six months ago the mother came to me and said she had a panic attack at home and there was no explanation for it. Now it has recently come to light that her parents are separated but this week girl has definitely benefited from Zippy's Friends, I can see it in her. I know that she has told nobody in the past but since starting Zippy she has told one particular wee friend and especially the lesson on 'We Cope' the things that she was saying back to me was showing me that she was coping with this and I could see that Zippy's had helped with the separation of her parents"* (T10 end of programme).

Other teachers suggested that the more mature children in the class benefited the most form the programme:

- *"The more able, the ones who would like stop and think about things"* (T34 interim)
- *"There are a few children in every class that are really mature and reliable and I would have found that these children contributed the most and got involved and really enjoyed it the most and benefitted the most probably"* (T8 end of programme).

Several teachers spoke about the positive effect of the programme on children with special needs:

- *"We had an autistic boy and we started a buddy system and it didn't work, you know where three kids everyday would play with him cause he very much played on his own and now since doing Zippy's Friends everyday he has somebody now and they are really willing to play with him and he has no problem"* (T11 end of programme)
- *I'm a learning support teacher and one of the second class children has Aspergers and at the beginning of the year he would have been very much on his own and rocking. I think last year he used to bang his head against the wall with frustration but Zippy has really tied in with what I was trying to do with him, getting him to talk about his feelings, or mix or just be more sociable. I was delighted that the programme tied in with what I was doing with him and that it was a class based programme. The teacher is much happier with him and I'm delighted. It really is a programme that fitted in with other aspects for his development and we see a huge improvement. He was a very different child in September"* (T4 end of programme).

<u>Effect on teacher</u>

- Improved child teacher relationship

The majority of teachers commented on the improved relationship they had with the children as a result of the programme. Speaking about the effect the programme, one teacher said, *"I think the bond I have with my class this year, the relationship, Zippy's Friends has helped with this closeness. I think there is a sharing there, I would have shared my experiences with the children like jealousy, I would have told*

them 'well I was jealous when this happened' and they loved to hear that I was jealous, it was one thing they remembered weeks on" (T10 end of programme). Another teacher spoke about the effect of sharing personal experiences with the children, *"When you were doing some of the modules you were giving examples of I felt angry or I felt jealous and they were just amazed that you would have these feelings. I suppose when you're talking to them at that level you're relationship with them changes slightly"* (T8 end of programme). One teacher referred to the teaching of the Zippy's Friends programme as *"an hour of closeness with the children"* (T10 interim).

- Awareness

Teachers said that the programme raised their awareness and understanding of the children's feelings and problem situations:

- *"It think it just made us more aware as well, the fact that there are mental health issues among children, it's something that we associate with adults more so. It's important"* (T29 end of programme)
- *"I think the jealousy and nervous lessons were brilliant but more for myself. I didn't realise how nervous they would get over stuff that I would never have even thought of. I found that great for myself"* (T32 interim)
- *"It's nice to be able to have time to sit and talk to them. One of mine in particular and you kind of sit back and think 'Oh my God she was talking about feelings and she was talking about one night she was lying in bed and one night Mammy and Daddy were arguing downstairs' and you just forget sometimes, like you know you're sitting there trying to teach them ABC and 123 but what's going on in the background is so different"* (T10 interim)
- *"You kind of take it for granted that they know what they are feeling but I realised that they don't actually recognise what they are feeling, you know they don't understand what to do"* (T6 interim).

- Structure to deal with problems

Some teacher spoke about benefit of the programme in terms of providing the teachers with a structure to deal with the children's problem situations. Speaking about one boy with emotional and behavioural difficulties one teacher said the programme has given her *"a structure to work with him. He is so much more able to*

cope than he use to. He was like a time bomb, he could throw a chair across the classroom or he could stamp his feet but that's all stopped now. Now he's moved on from why to what do you think you could do or would it be a good thing to cry or to tell somebody. So it just goes to show like this age is such a critical age if you can alter their behaviour and just their ability to cope" (T40b interim).

Other teacher explained;

- *"As a resource it's very good, just for yourself like – for one liners. They're very good. At least you have something to come back on, did Lela do that or whatever"* (T4 interim)
- *Even it gives you good ideas for how to solve problems out in the yard, you can refer back to it"* (T11 interim).

Effect on wider community

All of the teachers said that the programme had no effect on the school as a whole or the wider school community. The main reasons for this were:

- Lack of school awareness

At post-intervention, most of the teachers said that with the exception of the teachers who taught the programme the previous year and the resource teacher who took children out of class for additional help, there was little awareness of the programme throughout the school. One teacher said that level of school awareness "*depends on the principal"* (T32 end of programme). Others teachers' comments included:

- *"I wouldn't have seen any impact outside the classroom. I think more teachers would need to have been trained for there to be more of an awareness"* (T17 interim)
- *"Maybe if there was more classes, when you do something in the classroom it's not easy brought around the school or it's not easy to transfer it out into yard. So it would be good if more classes were involved"* (T40a interim).

- Lack of parental knowledge

All of the teachers said that there was very little awareness about the programme among the parents, *"The parent's really didn't know what Zippy's Friends was, they didn't know it was a mental health programme. Even our secretary in the school, her*

little boy is in my class and I had him last year and she said 'I have no idea what Zippy's Friends was about' and she is in the school" (T8 end of programme). Some schools, however, held a 'Parents Evening' to introduce the parents to the programme and the topic of mental health promotion. Speaking about the Parents Evening one teacher said, "*I think the parents really benefited from attending the session, she (the Health Promotion Officer) did an awful lot on their own (the parents) mental health too*" (T3 end of programme). Another teacher said, "*All those that came were really receptive towards the programme. Very interested in it, thought it was fantastic, great idea and again just wondered about a programme in the senior end of the school to follow on from Zippy's Friends. That was the parents' only disappointment"* (T13 end of programme).

5.7.5 Teacher Training

Two themes in relation to the teacher training emerged:

- Confidence

All of the teachers said that the teacher training was important in terms of providing them with background knowledge about the programme and also guiding them through the implementation of the programme which in turn increases their confidence while teaching the programme. One teacher remarked, *"I think you need that background to know if you're doing it properly. I know there is not real set right and wrong way but at least if you have some sort of idea. It gives yourself a bit of confidence"* (T6 end of programme). Another said, *"Even for just a bit of confidence in dealing with it (the programme), yeah I did find the training helpful"* (T17 end of programme).

- Continued contact

Several teachers spoke about the importance of continued contact (trainer visits to the schools) and how this further boosted their confidence during the year. Speaking about a visit from one of the Health Promotion Officers to the school, one teacher said, "*It was handy to have that as well, just to be able to chat and see what they thought of them because sometimes you don't realise how good or otherwise the children are until you can watch somebody else with them because when you're doing it and when you're in it, it's kind of hard to see how good they are and it was*

like a check but they didn't see it like that. You know you can see what they learned" (T40.1 end of programme). In relation to further training one teachers said, *"...as long as you have someone to contact if you have a question but I don't think you need to go to further training sessions year after year*" (T17 end of programme).

5.7.6 Recommendations

Three key recommendations emerged from the focus group discussions with the teachers.

- Activities

It was recommended that more hands-on activities would be included in the sessions. Teachers explained why there was a need for more activities;

- *"They love the drama, the mystery box, they loved coming up and doing stuff* (T1 post-intervention)
- *"One of the lessons there was so much discussion and I felt I was doing all the talking and it was hard to keep their attention, cause I would have a class where their attention span is quite short. And you needed a lot of activities. It was one of the ones in the communication, I just felt I lost them half way through. They need something to keep them going"* (T1 interim).

One teacher suggested the use of multimedia to further engage the children "*If there was a short cartoon version on DVD or a CD version I think that might have been good….They loved all the posters and the cards so I think if there was a CD or a DVD they would really love it"* (T40a interim).

- Whole school approach

A number of teachers suggested implementing the programme throughout the school. The majority of teachers spoke about the need for a programme in the senior classes of primary school and some teachers suggested having a pre-Zippy programme for the infant classes. One teacher explained, *"There are a few in my class that would argue a lot in yard but they had got better with that, kind of sorting things out for themselves and then the talking about coping. Their coping skills improved during the year and being able to express things better. But I think it would be important to continue, if Zippy would be more than a year or two years cause I would be afraid that they would forget it"* (T29 end of programme). Another

teacher spoke about the importance of repetition and reinforcement as children progress through the school, *"You know how you were saying that there were some children that the programme didn't reach, perhaps in a year or two having to do it again, eventually they may be able to get more out of it because some children just take longer. Like Sarah said, repeat, repeat, you'd have the opportunity to do that again"* (T11 end of programme). Some teachers spoke about the demand for a more whole school approach from other teachers in the school. One teacher commented, *"All the other teachers have been asking is there going to be another programme or is there more training for all teachers"* (T9 end of programme). The majority of teachers spoke about the importance of a whole school approach from the point of view of incidents out in yard:

- *"I think every teacher in the school needs to be aware. If you are implementing something in the school like that, every teacher in the school needs to be aware so that means every teacher on yard is aware of what to say or what, you know, a line from Zippy's Friends. Everyone needs to be singing from the same hymn sheet. The rules were excellent and can be applied to every class and every lesson"* (T41b interim)
- *"With the other teachers some of them weren't really aware of what I was doing. It would have been good if I was able to share with the teachers because in the yard I was able to say to mine if they were having an argument or anything, you were able to say well what did we learn, whereas other teachers weren't able to do that, they didn't know what we had been doing"* (T1 interim).

- Parental involvement

Several teachers commented on the need for parental involvement in the programme. One teacher remarked *"I felt it needed something to let the parents know what we had discussed so that they could even reinforce it at home"* (T10 interim). Some teachers suggested that a letter could be sent home to the children's parents informing them about the topics being dealt with each module and the strategies being taught. Others suggested the use of a workbook at home that would reinforce the strategies taught each week. Some of the teachers' comments included:

- *"But some kind of letter home to the parents or that they'd have some kind of homework kind or maybe their own little Zippy copy that they could see what they have done and how they have progressed"* (T38.2 end of programme)

- *"Actually in RSE (Relationships Sexuality Education) which is good, they have little letters to the parents and you are supposed to send them out a week or a few days before you do the lesson so that they can have a chat with their parents before it actually comes to the lesson so the parents actually know what's going on in school. It wouldn't actually be any harm to have something like that for Zippy"* (T40.1 end of programme).
- *"If the feedback sheets had a heading on them, if they had one sentence on it or one picture showing what they did in that lesson and sent it home to discuss what they did today"* (T10 interim).

Collectively, the findings from the child participatory workshops, the teachers' review questionnaire and the teachers' focus group review session provide a rich insight into the direct experiences of programme participants which assist in the understanding of programmes effectiveness, the strengths and weaknesses of the programme, factors which affect implementation and conditions which could support the ongoing role out of the programme.

CHAPTER 6
DISCUSSION

The purpose of this study was to (i) determine if an international evidence-based programme could be adapted and successfully implemented in the local context of disadvantaged primary schools in Ireland (ii) examine the immediate and long term effect of the programme and (iii) examine the process of implementation and the relationship between this process and the programme's outcomes. It is clear from the evaluation that the programme was successfully implemented in the Irish primary school setting and resulted in a number of significant positive effects for both pupils and teachers. The main findings will now be reviewed, bringing together results from the different methods used in the study. These findings will be examined in the context of existing knowledge in this field. Firstly, the impact of the programme on the children's emotional literacy skills, emotional and behavioural wellbeing and coping skills will be summarised. Secondly, the impact of the programme on the teachers, the school and the wider community will be considered. This will be followed by an examination of the key findings in relation to the implementation process, including the environmental context within which the programme was implemented, programme fidelity, quality of implementation, programme implementation in the context of the SPHE curriculum and children's and teachers' feedback on programme implementation. The implications for practice, policy and research will be presented, along with an appraisal of the study's limitations. This chapter will conclude with recommendations for future research.

6.1 Assessing the Impact of the Programme

The positive impact of the programme is supported by findings from both the standardised scales and from the teachers' and pupils' qualitative reports.

6.1.1 Programme Effects on the Children

6.1.1.1 Children's Emotional Literacy

The evaluation results indicate that the programme had an overall significant positive effect on the children's emotional literacy skills. Post-intervention scores from the Emotional Literacy Checklist (Faupel, 2003) showed a significant increase in the

intervention group's Total Emotional Literacy score when compared with the control group. Specifically, there was a significant increase in the intervention group's Self-Awareness, Self-Regulation and Motivation scores between pre- and post-intervention. At 12 month follow-up, repeated measures analysis of variance across the three time periods (pre-, post-intervention and 12 month follow-up) revealed a significant *time x group* effect. Further analysis showed that there was a significant increase in the intervention group's Total Emotional Literacy score between pre-intervention and 12 months follow-up. This is compared with no change in the control group's score. In terms of the subscales, the programme had a significant long-term impact on the children's Empathy and Social Skills. Previous evaluations of the programme report a similar trend in findings. In the case of the Holmes & Faupel study (2004, 2005), there was an increase in the intervention group's Total Emotional Literacy score and decrease in the control group's score between pre and post-intervention, however, unlike the findings from the present study, these differences did not reach significance.

The results from the Emotional Literacy Checklist showed that the programme was equally effective for boys and girls. There was, however, a difference in programme effectiveness across score bands with the results highlighting the significant positive effect of the programme on children scoring 'average' and 'above / well above average'. There was no significant difference between the children in the intervention and control groups scoring 'well below / below average', both groups showed significant improvements between pre- and post-intervention. These results highlight the positive effect of the programme on children that had a baseline score within the 'average / above average / well above average' categories. These findings are particularly noteworthy given the principle that a large number of people exposed to a small risk may generate more cases of adjustment problems than a small number people exposed to a high risk (Rose, 1992). Durlak (1995) explains that if only 8% of well adjusted children go on to have serious adjustment problems as adults (as opposed to the 30% of clinically dysfunctional children) the well-adjusted children represent 50% more of the population of maladjusted adults based on real numbers. Furthermore, Weare (2004) contends that the more people in a class / school who are emotionally and socially competent, the easier it is to help those with more acute problems in that peers will then have the capacity to help and support those with

problems. The fact that the programme did not have a significant impact on the children scoring within the 'below / well below average' range does, however, point to the need for the use of a more targeted approach with children considered at risk, in combination with a universal approach. As mentioned previously, the Incredible Years programme (Webster-Stratton & Hammond, 1997) is an example of an evidence-based intervention that offers a universal classroom management programme combined with a small group intervention that targets children who are already displaying signs of aggressive behaviour.

Due to the fact that interactions between students of the same class can lead to inter-correlation of variables, multilevel analysis was used to determine the impact of the programme on the intervention group's emotional literacy skills with individual subjects nested within their respective schools within an random intercept model. The multilevel analysis revealed that there were some differences in programme effects when examined at the individual level and at the school level. The positive effect of the programme on the intervention group's Total Emotional Literacy score was no longer significant after controlling for school effect at post-intervention and at 12-month follow-up. One plausible reason for this is that the sample size may not have been large enough when the data were examined at the school level. In this study the sample size at the higher level was 34 schools between pre- and post-intervention and 32 schools between pre- intervention and 12 months follow-up. Numbers within each class varied from N = 10 to N = 31. Thus, it's possible that the sample size at the higher level was too small and as a result there was not sufficient power to detect cross-level group interactions. This argument is supported by two studies that examined power to detect cross-level interactions which found that at least 30 groups, and 30 observations within each group are needed. Using fewer observations (either groups or individuals) leads to a rapid decline of power for the detection of cross-level interactions (Bassiri, 1998; van der Leeden and Busing, 1994).

Nevertheless, it is important to note the significant impact of the programme on the intervention group's Emotional Literacy subscales after controlling for school effects. Specifically, the programme had a significant positive effect on the intervention group's Self Awareness score between pre- and post-intervention and

Self Regulation and Social Skills between pre-intervention and 12 months follow-up. These results clearly demonstrate the positive effect of the programme on certain aspects of the children's emotional literacy outcomes. In addition, separate analysis of the emotional literacy results from children in Intervention Type I and Type II revealed that the programme had a significant long term effect on the emotional literacy skills of children in Intervention Type II (partial implementation). These findings are in line with findings from the observations which showed that teachers in Intervention Type II implemented the programme with slightly higher fidelity (91.6% vs 89.7%) than teachers in Intervention Type I. In addition, results from the review questionnaires also revealed that teachers in Intervention Type II were consistently more positive about their overall experience of teaching the programme at the interim and at post-intervention than teachers in Intervention Type I. Collectively, these results point to the relationship between programme fidelity, the teachers' experience of teaching the programme and the programmes outcomes.

Results from the Feeling's Activity that was a part of the Child Participatory Workshops reinforce the positive findings from the Emotional Literacy Checklist, with the children in the intervention group having a more elaborate and wider vocabulary for articulating feelings at post-intervention. Children in the intervention group were also more likely than the control group to explain the reasons why people felt a certain way and to suggest what they could do to make the situation better at post-intervention. In addition, at 12 months follow-up, whilst the differences between the intervention and control groups in terms of the results from the Feeling's Activity were less striking, children in the intervention group were more likely than the control group to give an explanation as to why the children might be feeling angry/lonely/embarrassed etc. Furthermore, children in the control group were also more likely to refer to violent behaviour in response to the problem situation at 12 months follow-up. It is clear that the qualitative results from the children's participatory workshop support the quantitative findings from the Emotional Literacy Checklist and that there was a significant improvement in the intervention group's emotional literacy between pre- and post intervention and that some of these positive changes were maintained at 12 months follow-up.

The significant positive findings from the Emotional Literacy Checklist are further supported by feedback given during the focus group review sessions. Teachers referred to the children's heightened awareness of their own feelings and their willingness to open up and discuss difficult situations as a result of completing the programme. In addition, results from the review questionnaire showed that 90% of the teachers strongly agreed / agreed that the children's (i) ability to manage their feelings (ii) verbal communication skills and (iii) social skills has improved as a result of the programme. Although not specifically assessed in this study, based on the teachers' comments the improvements in the children's emotional wellbeing had an indirect positive effect on the children's academic performance in terms of improved communication and listening skills, the children being able to recognise problem situations and having the confidence to ask for help / articulate their feelings. This finding is supported by strong evidence that documents the link between social emotional learning competencies and improved academic performance (Durlak et al., 2011; Payton et al., 2008; Eisenberg, 2006; Guerra & Bradshaw, 2008; Masten & Coatsworth, 1998; Weissberg & Greenberg, 1998).

Although not fully understood, compelling conceptual rationales based on empirical findings have been offered to link social and emotional learning to improved academic performance. For example, it has been shown that students who are more self-aware and confident about their learning capacities try harder to persist in the face of challenges (Aronson, 2002). Also, students who use problems-solving skills to overcome obstacles and to make responsible decisions about studying and completing homework do better academically (Zins & Elias, 2006). Researchers have also highlighted how interpersonal, instructional and environmental supports produce better school performance through (i) caring and teacher-student relationship (ii) engaging teaching techniques (iii) peer and adult norms that convey high expectations and support for academic success and (iv) safe orderly environments (e.g. Hawkins, et al. 2004; Jennings & Greenberg, 2009; Blum & Libbey, 2004; Hamre & Pianta). Based on the evidence in the current study, it is possible that some combination of improvements in children's emotional wellbeing, the child-teacher relationship, the engaging learning techniques and the classroom atmosphere may have contributed to indirect improvements in the children's

academic achievement as observed by the teachers. Further research would, however, be required to verify this argument.

6.1.1.2 Children's Emotional and Behavioural Wellbeing

The results from the Strengths and Difficulties Questionnaire (Goodman, 1997) show that at the individual level the programme did not have a significant impact on the children's Total Difficulties score between pre- and post intervention or between pre-intervention and 12 months follow-up. Examination of the subscales, however, revealed that at post-intervention there was a significant decrease in the intervention group's Hyperactivity score when compared with the control group. These findings are consistent with those reported in the Southampton and the Lithuania/Denmark study (Holmes and Faupel, 2004; Mishara & Ystgaard, 2006) both of which found significant improvements in the intervention groups' Hyperactivity score. Furthermore, similar to the Southampton study (Holmes and Faupel, 2004), an unexpected trend in the children's conduct problems score was found in this study. Between pre- and post-intervention, children in the control group evidenced a significant decrease in their Conduct Problems subscale score. This was in contrast to a non-significant reduction in the intervention group's Conduct Problems score. These findings are in contrast to reports from the teachers about improvements in the children's antisocial behaviour in the end of programme review questionnaire (83.3% of teachers strongly agreed/agreed that the children's antisocial behaviour had improved as a result of the programme). Several teachers also spoke about the positive effect the programme had on specific children who experienced difficulty managing their anger. Given the evidence that behaviour problems are a major concern for teaching staff in schools (Vinson, 2002), one possible reason for this unexpected result could be that the control teachers, who were not teaching the emotional wellbeing programme, were more focused on the improvement of children's externalising behaviour over the course of the study.

In relation to the Strengths and Difficulties score bands, the children that benefited the most in terms of a reduction in their Total Difficulties score between pre- and post-intervention were children in the intervention group that were categorised as 'normal' at pre-intervention. There was no significant programme effect for children

categorised as ‘borderline’ and ‘abnormal’, both intervention and control children within this category improved significantly between pre- and post-intervention. Comparing the percentage of children classified as ‘normal’, ‘borderline’ and ‘abnormal’ with normative data from the UK (children age 5-10 years old, both sexes), it is important to note the percentage of children that were classified as ‘abnormal’ in terms of their Total Difficulties score at pre-intervention. Just over 19% of children in the control and intervention group were classified as ‘abnormal’. This is in contrast to the UK norms of 9.6%. These results point to the prevalence of emotional and behavioural difficulties in disadvantaged Irish schools as rated by the class teachers. Whilst there was a decrease in the percentage of children in both the intervention and control groups classified as ‘abnormal’ between pre and post-intervention, the percentage of children in both the intervention and control groups that were classified as ‘abnormal’ at post-intervention and at 12 month follow-up remained higher than the UK norms. Such findings highlight the need for a comprehensive, sustained, multi-component approach that targets all children and provides additional support for those presenting with specific emotional and behavioural needs. Several authors highlight the importance of a holistic ‘joined up’ approach which includes all relevant stakeholders in providing for the needs of pupils with additional emotional and behavioural needs (Stewart-Brown, 1998; Rowling, 2009; Barry & Jenkins, 2007). It is argued that combining universal with targeted interventions through a whole school approach ensures that much less effort will be needed to carry out a targeted approach as many cases will have been prevented and there will be a supportive context to which people can return to which will sustain the changes made rather than undermining them (Weare & Murray, 2004).

Analysis of the results from the Strengths and Difficulties Questionnaire using multilevel analysis revealed no significant changes in the intervention and control groups’ Total Difficulties scores and Prosocial scores between pre- and post-interventions. However, examination of the subscales showed that there was a significant improvement in the intervention groups’ Hyperactivity and Peer Relationship Problems between pre and post-intervention. Similar to the individual level results, there was also a significant improvement in the control group’s Conduct Problems when compared with the intervention group. In relation to the 12

month follow-up results, multilevel analysis revealed that there was a significant improvement in the intervention group's Total Difficulties score and Prosocial score. These findings were unexpected, particularly given the fact that analysis of the results at the individual level showed that there was no change in the intervention group's Total Difficulties score and Prosocial score between pre-intervention and 12 months follow-up. One possible reason for a difference between the two sets of results is that variability was in the classes and controlling for this left a more sensitive test. As a result of controlling for this variability, multilevel analysis perhaps revealed changes in the intervention group's results Total Difficulties, Prosocial and Peer Relationship results that would not have otherwise been detected.

The significant improvement in the intervention group's Hyperactivity score between pre- and post-intervention is supported by additional feedback provided by the teachers. Teachers reported in the weekly questionnaires and during the focus group review sessions that the children's concentration and attention span had improved. Several teachers noted the children were less restless as the programme progressed and that sitting in the circle has a significant positive on children with behavioural difficulties. Similarly, the positive finding regarding the impact of the programme on the children's peer relationships problems is reinforced by the children's and the teachers' comments about the programme. From the children's perspectives, learning how to treat others and how to make and maintain friends with others were the two most important lessons learned during Zippy's Friends at post-intervention. The theme of learning how to treat others also received the most number of votes again at twelve months follow-up. During the focus group review session, the teachers spoke about the positive effect of the programme on the children's relationship with each other in that the children were more empathic towards others, they were more willing to look out for each other and include others in their games. Several teachers said there was a notable reduction in the number of minor disputes and that the children were more able to sort out issues and resolve conflicts amongst themselves. The results from the end of programme review questionnaire further supports these positive findings with just over 95% of teachers stating that the children's relationship with each other has improved as a result of the programme. The positive effect of the programme on the children's relationship with each other is particularly relevant given the findings from the first picture of the

Draw and Write activity which shows that conflict situations with peers and siblings was the most frequently reported problems situation for children in both the intervention and control groups at pre-intervention and at 12 months follow-up.

6.1.1.3 Children's Coping Skills: Draw & Write Results

The results from the Draw and Write Technique (Williams et al., 1989) provide an insight into the problem situations that concern children age 7-9 and also the types of coping strategies children would use to feel better. In terms of the problem situations, the results from this study show that children's problem situations revolved around four key areas: (i) conflict situations with friends, siblings and parents (ii) rejection (iii) loss including death and separation and (iv) injury. Conflict was reported with the most frequency at pre-intervention and at 12 months follow-up. This is similar to findings from a previous evaluation of Zippy's Friends (Mishara & Ystgaard, 2006) where conflict was the most frequently observed problem situation among children in Lithuania and Denmark.

In terms of the coping strategies used by children at pre-, post-intervention and 12 months follow-up, three main coping strategies emerged (i) actively addressing the problem (ii) play and (iii) feeling better as a result of something happening (other child said sorry / was allowed to play etc). Other coping strategies that were used with less frequency included having something to eat, feeling better as a result of getting something (e.g. sweets) / feeling better as a result of going somewhere (e.g. the park). Combining the results from Picture 1 *("A time when I felt sad")* and Picture 2 *("What I could do to feel better")*, it is clear that children use coping strategies differently according to the problem situation. For example, in relation to the coping strategy of actively addressing the problem situation, children said that for conflict situations they would tell someone / ask the other person to stop / ask someone else to play. For situations involving loss of a loved one through death children explained that they would address the problem by drawing a card / hanging a picture to remind them of their loved one / lighting a candle / talking to someone. For situations involving injury children said they would relax / put a plaster on the cut / write a card if it was someone else that was injured. The strategy of play was used in a variety of ways, however, no pattern emerged in relation to the problem

situations. Children said they would play with their toys / play with friends / play sport / play with their computer game / watch tv. The strategies of feeling better as a result of something happening / getting something / going somewhere were strategies that were dependent on the behaviour / action of another person and not on what the children themselves could do to feel better.

Using the model of dispositional coping proposed by Ayers and colleagues (1996), the strategies used by the children in this study could be subsumed under Ayers' four factors (i) active coping (ii) social support (iii) distraction and (iv) avoidance. Active coping strategies included direct problem solving activities such as asking someone to play / making a card from someone who is sick / hanging a picture to remind them of a loved one / saying sorry after fighting with someone. Social support included both emotion focused (talking to someone about feeling sad after the death of a loved one) and problem focused support (telling teacher when pushed out in yard). Distraction strategies used by the children included the physical release of emotions (playing sport) and actions aimed at avoiding thinking about the problem situation such as playing with toys / computer game / watching tv. Avoidance strategies included behavioural efforts to avoid the stressful situation (feeling better as a result of going somewhere) and / or efforts to avoid thinking about the problem situation such as wishful thinking. In the case of this study, children repeatedly wrote about feeling better as a result of something happening / getting something.

Regarding the changes in use of coping strategies between pre-, post-intervention and 12 months follow-up, distraction strategies were used most frequently by children in both the intervention and control groups at pre-intervention. At post-intervention, there was a significant increase in the intervention group's use of active coping strategies and support seeking strategies in relation to particular problem situations including conflict, feeling alone, death and absent relative. There was no significant change in the control group's use of strategies, i.e. distraction, avoidance, support seeking and active coping strategies were used equally. Between post-intervention and 12 months follow-up, there was a change in the type of coping strategies used by children in the intervention group in relation to certain problem situations. With regard to conflict situations and an absent parent/relative, children in the intervention group were most likely to use active and support seeking coping

strategies at post-intervention, however, at 12 month follow-up distraction and avoidant strategies were used more frequently. Significant long term effects in relation to the use of active and support seeking coping strategies were apparent for problem situations concerning rejection (not allowed play, feeling alone) and death. There was a significant increase in the number of children in the intervention group using active and support seeking coping strategies between pre and post-intervention and these results were maintained at 12 months follow-up. There was no change in the control group's use of coping strategies for these problem situation between pre-post-intervention and 12 months follow-up with children using distraction, avoidance, support seeking and active coping strategies equally.

Overall, the results from the Draw and Write Activity indicate that the programme had a significant positive effect on the children's use of active and support seeking strategies in relation to conflict, rejection and loss between pre- and post-intervention. In line with this, there was a reduction in the use of distraction and avoidance strategies among children in the intervention group. At 12 months follow-up, the use of active and support seeking strategies was maintained for situations involving rejection and loss of a loved one, but was not maintained for conflict situations and absence of parent / relation. The positive impact of the programme on the children's use of active and support seeking strategies is particularly note worthy given Compas and colleagues' (2001) review of the evidence regarding the associations between coping and psychological adjustment. Results from over 60 studies found that the way children and adolescents cope with stress in their lives is an important correlate of psychological adjustment. The majority of studies that examined engagement coping and problem focused coping reported them to be associated with better psychological adjustment (lower internalising and externalising symptoms). Coping strategies that were associated with poorer adjustment included cognitive and behavioural avoidance, social withdrawal, resigned acceptance, emotional ventilation, wishful thinking and self blame. Combining the results from the Draw and Write Activity, the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire, there was an increase in the use of active and support seeking strategies among children in the intervention group between pre- and post-intervention, alongside this, there was a significant improvement in children Emotional Literacy skills and a significant reduction in

children's hyperactivity levels. Collectively, these results indicate that the programme provided the children with a wider repertoire of active and support seeking coping skills with which to cope with every day problem situations and that these coping strategies were associated with better psychological adjustment in terms of improved emotional literacy skills and hyperactivity.

The results from the Draw and Write also provide valuable data in relation to informing intervention research on the nature of children's problems and the types of strategies children use to deal with such situations. The children's frequent use of avoidance strategies, particularly the use of strategies that were beyond the control of children / dependent on the actions of others, is an important finding and could be used to inform the development and refinement of interventions designed to enhance the ways in which children can take control over and cope with the stress in their lives. Folkman and Lazarus (1988) highlight the issues surrounding the use of avoidant strategies. They contend that if avoidant strategies are called into play prematurely, they can interfere with the information search and thereby prevent a realistic appraisal of the options for coping. It is argued that in such cases emotional relief in the short run is purchased at the expense of long-run effective problem-focused coping.

- Participatory Workshops

The positive findings from the Draw and Write technique are supported by very similar findings from the child participatory workshops, which were carried out at the interim, post-intervention and at 12 months follow-up. Analysis of the data from the vignettes depicting conflict situations showed that there was an increase in the use of active coping strategies among children in the intervention group between the interim and post-intervention. However, similar to the Draw and Write conflict results at 12 month follow-up, there was no apparent difference in the types of coping strategies suggested by children in the intervention and control groups at 12 month follow-up. The findings point to the need for reinforcement of the strategies taught on completion of the programme in order to ensure that the immediate end of programme effects will be maintained.

- Schoolagers' Coping Strategy Inventory

Few significant findings emerged from the Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990) apart from the finding that the children in the intervention group were more likely to use the strategy *"Try to relax and stay calm"* than children in the control group at post-intervention. Furthermore, children in the intervention group were more likely to rate this strategy as effective than children in the control group. Whilst there was no change in the children's use of neutral and violent strategies between pre- and post-intervention there was, however, a significant reduction the perception of violent coping strategies as effective among males in the intervention group at post-intervention. These results suggest that the rules for coping, which are used in Zippy's Friends (Do something that (i) does not harm myself (ii) does not harm others) had a significant positive effect on males' perception of violent coping strategies as being effective. Interestingly, the results from the 12 months follow-up participatory workshops found that males in the control group were more likely than males in the intervention group to suggest violent type coping strategies as a means of dealing with the vignettes problem situations.

Further gender analysis revealed a difference in the use of coping strategies among males and females. Similar to the results from the Draw and Write activity, males were more likely than females to use the strategy of "Play" and to perceive it as effective. Females on the other hand were more likely to "Do something about it". Results from the Draw and Write showed that females were more likely to use active coping strategies and/or support seeking strategies in an attempt to deal with the problem situation. Similar findings have been reported in previous studies (Sharrer & Ryan-Wenger, 1995; Spirito et al., 1995). It is important to note, however, that there were notable discrepancies between the results from the Schoolagers' and the Draw and Write Technique. Based on the findings from the Schoolagers' Coping Strategy Inventory females were most likely to use the strategy of "Praying" when dealing with a problem situation. No child reported using the coping strategy of praying in the Draw and Write Technique at pre-, post-intervention or 12 months follow-up. It is possible that the children answered questions that were related to their perception of the social desirability of their answers. Bryman (2001) highlights this as an issue with self-completion questionnaires particularly when the interviewer

is present. With this study, both researcher and teacher were present in the classroom and this potentially impacted on the children's answering of questions. In addition, the fact that 173 children at pre-intervention and 219 children at post-intervention failed to fully complete the questionnaire indicates the level of difficulty children had with this questionnaire. Despite the fact that the questionnaire was piloted in disadvantaged schools (O'Mullane, 2005) it appears that more interactive, 'child friendly' methods, such as the Draw and Write and Participatory Workshops were better suited for the children in this study.

6.1.2 Programme Effects on the Teacher

In addition to determining the effect of the programme on the children, this study also examined the effect the programme had on teachers, an area which, according to Wells and colleagues (2003) is underreported in evaluation studies. The results from the teachers' review questionnaire and the focus groups point to the positive impact of the programme on the teachers themselves, in terms of raising their awareness about the children's emotional wellbeing, providing them with strategies to help the children deal with difficult situations and enhancing their relationship with the children. These findings are consistent with the findings from previous evaluations of the Zippy's Friends programme in Denmark, Lithuania and Southampton. In both Denmark and Lithuania, Mishara and Ystgaad (2001) reported that teachers felt that the programme helped them to talk to the children openly and also to handle everyday problems in the classroom. Similarly, in Southampton the programme had a positive effect on the teachers' awareness of the children's emotional wellbeing. The teachers were also more confident in helping the children deal with difficult situations (Holmes & Faupel, 2003). Collectively, these findings are comparable with evaluations of other emotional wellbeing interventions (Slee et al., 2009; Hallam et al., 2996). In the UK it was reported that the SEAL curriculum units increased staff understanding of the social and emotional aspects of learning which (i) helped teachers to understand their pupil better (ii) changed their behaviour (iii) enhanced their confidence in their interactions with pupils and (iv) led them to approach behaviour incidents in a more thoughtful way (Hallam et al., 2006).

The positive impact of the programme on the teachers is particularly noteworthy given the growing body of evidence that identifies the role of a supportive teacher-

child relationship in enhancing students' social emotional and academic outcomes (Lynch et al., 2004; Doll & Lyon, 1998; Howard & Johnson, 2000; Durlak, 1995; Durlak & Wells, 1997; Wubbels et al., 1991; Hawkins & Catalano, 1992). It is argued that a supportive relationship with a teacher can promote feelings of safety and connectedness among students, thus providing the social support necessary to thrive socially, emotionally, and academically (Weare & Gray, 2003). Jennings and Greenberg (2008) contend that whilst this is true for children of all ages it is particularly important for younger students as a young child's experience with his/her teacher can affect future relationships with teachers and peers. Several researchers also identify the importance of a supportive child-teacher relationship for children living in high risk circumstances for whom relationships may be compromised (Bagdi and Vacca, 2006; O'Neil, 1996).

Overall, the results from this study indicate that empowerment, one of the key principles that underpin the implementation of mental health promotion programmes (Barry, 2007), was an important outcome from the implementation of Zippy's Friends. Teachers were trained in the promotion of positive mental health and as a result were empowered to actively engage with the children and their problem situations. It is through this process that children were empowered to gain understanding, knowledge and skills thus enabling them to take control over their own lives. In light of research indicating that one half of all life time cases of mental disorder begins by the age of 14 (Kessler et al., 2005), empowering primary school teachers as facilitators in the promotion of positive mental health is critical for fostering school and life success.

6.1.3 Programme Effects on the School and Wider Community

In terms of the effect of the programme on the school as a whole, most teachers said that there was a lack of 'whole school' awareness about the programme and as a result broader effects of the programme throughout the school were not found. Several teachers commented on the need for whole school training, so that the strategies that are used in Zippy's Friends could be reinforced with all children within the classroom and also in the school yard. Teachers also recognised the need for parental involvement in the programme in order to reinforce the strategies taught in school in the home environment and in the local community. Several authors

contend that a collaborative approach where parents and schools work together to promote social and emotional learning is more likely to yield substantial and sustained improvements for children (Durlak, 1995; Weare & Markham, 2004; Hauf and Bond, 2002; Weissberg & Greenberg, 1998; Weissberg et al., 2003). The author argues that the need for a 'joined up' collaborative approach is even more pressing in disadvantaged areas given the greater number of risk factors to which children are exposed to.

6.2 Assessing the Process of Programme Implementation

This section will consider the key findings in relation programme implementation.

6.2.1 Environmental Context within which the Zippy's Friends Programme was implemented

Overall, the results from the Ethos Questionnaire indicate that both intervention and control schools provided a positive and supportive school environment for the children and that teachers within the schools worked towards providing for the children's needs. Three main issues that were common to both intervention and control schools were highlighted through the Ethos results. Firstly, the needs of staff were not reputed as being a high priority of schools in this study. The majority of schools did not have a policy on staff health and welfare. In addition, staff were unlikely to seek help when feeling stressed and most teachers said support was not available for staff involved in stressful incidents. Secondly, links with the wider school community were not reported as being well established for control and intervention schools. Despite the fact that most teachers said that schools were receptive to approaches from community agencies in relation to health matters, both intervention and control schools reported low levels of collaboration with these agencies. The majority of teachers also said that staff are not provided with the necessary information about local services and their accessibility. Thirdly, whilst most teachers reported that parents are interested and supportive of the school and its governance, fewer teachers reported the active involvement of a broad range of parents in school life. Furthermore, teachers also noted the lack of opportunities given to parents to participate and learn about the content of the school's SPHE curriculum.

In general, the results from this questionnaire confirm the lack of consideration for the needs of staff. Weare and Markham (2005) argue that teachers cannot be expected to promote the mental health of others if their own needs are not met. Research has shown that feelings of overload and stress can reduce productivity and quality of performance (Domitrovich et al., 2008; Ransford et al, 2009) and can also translate into higher levels of conflict, poorer adult-child relationships which are in turn associated with poor adjustment of the child (Crouter & Bumpus, 2002). Future efforts need to address these shortcomings. Given the high rates of stress and burnout in the teaching profession (Koller & Schvboda, 2002), there is a very real need for support structures to be put in place that will assist teachers in addressing their own needs including their mental health needs.

The results also illustrate the need for greater collaboration between schools and key stakeholders within the local community. The schools must view their role as being a vital part of the wider community, in reaching out to and receiving support from parents and local agencies. Greenberg (2010) highlights this as a key challenge in the field of prevention and promotion work. Most communities have an array of fragmented and often duplicative services with little coordination and collaboration between these different bodies. Greenberg points to the need for the development of models that integrate programmes across the institutional structures of schools, community agencies, hospitals and youth development organisations. Barry (2007) argues that collaborative working is at the core of mental health promotion practice. It enables communities to draw upon its diverse and unique strengths and ensures that the identified health needs and strategies to address health are relevant to and owned by the community. Evaluations of community based models such as ‘Communites that Care’ (Hawkins & Catalano, 1992; Hawkins et al., 2002) provide encouraging evidence about the positive impact of an integrated approach in the promotion of positive youth development. Further research regarding the development of effective community-school partnerships is needed in Ireland.

In terms of differences between the intervention and control schools the teachers in the intervention group were consistently less positive than the control group about the promotion of positive mental health through the ethos and environment of the school. Teachers in the intervention group were less likely than teachers in the

control group to agree with the statements (i) the SPHE curriculum gives sufficient coverage to aspects of mental health (ii) mental health skills are promoted through the academic curriculum (iii) the school works closely with families and the local community regarding health services. It is important to note that the intervention and control teachers completed the SPHE Questionnaire three months post Zippy's Friends training. It is possible that as a result of the intervention groups' training in mental health promotion and the implementation of the Zippy's Friends programme, the teachers were more sensitised to these issues and were, therefore, more stringent in their assessment of the degree to which mental health was promoted throughout the ethos and environment of the school.

Further differences were evident when the data were analysed according to school location. When comparing rural with urban schools, the results for the rural schools were more positive in terms of (i) support being available for teachers (ii) the physical environment contributing to the positive mental health of children and staff (iii) positive mental health skills being promoted through the academic curriculum and (iv) a broader array of parents being interested and actively involved in school life. Overall, these results highlight the importance of understanding the school context prior to programme implementation. The contrasting issues across rural and urban schools demonstrate that schools are at different stages of 'readiness for change'. A deeper consideration of factors relevant to school context should facilitate the transition from intervention research to school practice. As McLaughlin and colleagues (1997) argue, the establishment of an array of interventions alone will be insufficient to promote capacity building within local schools and districts. Such an intervention-driven focus could leave schools in the position of expending precious resources in 'collecting' interventions without modifying the necessary organisational structures to support such interventions or without paying adequate attention to promotion changes in professional behaviour (Ringeisen et al., 2003). The differing capacity of schools to engage in change and development means that varying supportive strategies at different stages will be needed. The author contends that future successful attempts to truly integrate mental health interventions in a school environment will depend on the provision of a period of pre-implementation planning that would encourage readiness, a deeper consideration of the context

within which the intervention is being implemented and based on this, the creation of a supportive implementation context.

6.2.2 Programme Fidelity

Programme fidelity was monitored through the use of teacher self-report weekly questionnaires and structured observations. The results from the teachers' weekly questionnaires indicate that the level of programme adherence was high. The teachers in Intervention Type I (full implementation) and Intervention Type II (partial implementation) fully implemented over 86% of the programme. These findings correspond with the fidelity results from the structured observations which found similar high levels (>89%) of programme fidelity across both intervention groups. The fact that teachers in Intervention Type II, who were given the option to implement the programme as a resource, implemented the programme with such high fidelity is indicative of the level of teacher commitment and support for the programme. The teachers' comments about the programme during the focus group review sessions and the end of programme questionnaire give some indication as to why the programme was implemented with such compliance. In terms of the programme itself, its structured user-friendly nature, the suitability of the content for the children and the variety of engaging activities were all cited as factors that facilitated programme implementation. Previous research has shown that programme characteristics such as ease of administration and a user friendly manual with clear instructions, have been found to positively influence programme fidelity (Dusenbury et al., 2003; Bauman et al., 1991; Fullan and Pomfret, 1977; Gottfredson, 1984).

The high level of fidelity amongst the teachers in Intervention Type II also suggests that the level of teacher 'buy in' in terms of their acceptance of the intervention was achieved early on. Several teachers spoke about the need for an emotional wellbeing programme particularly in disadvantaged areas when the necessary supports are often not available at home. Other teachers spoke about not having the skills and resources to help support children in distress prior to the Zippy's Friends training. It is clear from the teachers' comments that they saw a need for an emotional wellbeing programme like Zippy's Friends and were willing to try new teaching methods in order to assist the children. Several authors state that teachers' sense of efficacy and

judgments of the acceptability of an intervention significantly influence (i) their interest and willingness to implement the programme and (ii) the degree to which they implement the programme with fidelity (Han & Weiss, 2005; Domitrovich et al., 2008; Beets et al. 2008; Dusdenbury et al, 2003). The high level of programme fidelity reported in the present study, together with the teachers' comments about programme implementation, strengthen the conclusions that can drawn about the programme's role in producing change. In addition, strong programme adherence amongst the teachers who were given the option to use the programme as a resource indicates the likelihood of future faithful replication of the programme in the Irish school setting.

Analysis of high and low programme fidelity results revealed important findings in terms of its impact on children's outcomes. The programme had a significant positive impact on children's emotional literacy skills when implemented with high fidelity (>90%), however, children who received less than 75% of the programme showed no improvements in their emotional literacy skills between pre- and post-intervention. Furthermore, teachers who implemented with programme with high fidelity were more positive about the impact of the programme on themselves as teachers in terms of their ability to help the children, their awareness of children's emotional needs and their teaching in general. These findings are consistent with a number of other studies, which found that greater fidelity is associated with better outcomes across a diverse set of prevention and promotion models such as social skills training interventions (Botvin et al., 1990; Kam et al., 2003; Gresham, 1993; Wilson & Lipsey, 2000), coordinated community based prevention programmes (Pentz et al., 1990) and classroom ecology interventions (Harachi et al., 1999).

Given that the Ethos Questionnaire showed no significant differences in the ethos and environment of the high and low fidelity schools (in terms of policies, resources, available support, links with parents etc), it is likely that teacher-level characteristics impacted on the teachers' willingness and ability to implement the programme with fidelity. Indeed the results from the Ethos Questionnaire would point to the significant difference in teachers' attitudes regarding the SPHE curriculum giving sufficient coverage to aspects of mental health. On a scale of 0 – 3 (0 = never, 3 = always) low fidelity teachers gave this statement a mean rating of 3 and high fidelity

teachers give it a mean rating of 1.28. These results highlight the teachers' contrasting views about the need for further investment in children's mental health through the SPHE curriculum. It is possible that these views influenced teachers' acceptance and perceived value of the Zippy's Friends programme which impacted on the level of fidelity with which teachers implemented the programme. Furthermore, the fact that high fidelity teachers used the Zippy's Friends strategies in other areas of teaching more often than teachers who implemented the programme with low fidelity confirms their perceived value in the programme. In addition, high fidelity teachers enjoyed teaching the programme more than low fidelity teachers, which suggests a greater level of comfort with the programme and its techniques. Overall, these results indicate a correlation between (i) programme fidelity and programme outcomes (ii) programme fidelity and teacher's attitudes towards the programme and the role of mental health in the SPHE curriculum. These findings thus support Chen's (1990) argument that the implementation system is as important to programme effectiveness as the intervention itself. Equally, these findings point to the importance of monitoring programme fidelity from the point of view of protecting against the dangers of a Type III error (Patton, 1997).

6.2.3 Quality of Implementation

The results from the structured observations provide strong evidence that the programme was implemented with high quality. Firstly, the majority of teachers that were observed had succeeded in creating a classroom environment that supported the implementation of the programme through the creation of a Zippy's Friends corner, the use of circle time, and the inclusion of additional material that were not part of the lesson. Additional materials used during the lessons included singing a Zippy's Friends song, reciting a Zippy's Friends poem, making Zippy puppet/badges, using warm up activities, devising additional role plays and teachers sharing their personal experiences with the children. Secondly, the observers' ratings of the teachers' skills in creating an active group process within a positive learning environment were notably high. In particular, teachers displayed confidence in their knowledge and skills, used the materials for the lesson appropriately, displayed enthusiasm for the lesson and seemed to genuinely appreciate the children's comments and ideas (Mean > 4.3). These results were supported by qualitative feedback from the observers which emphasised the positive influence of the teachers' skills on programme

implementation. Observers commented on the manner in which teachers engaged with the children, used personal stories to facilitate discussion and focused on positive outcomes to problem situations, all of which highlight the teachers' use of personal skills and the quality with which the programme was implemented.

Evidence of high quality programme implementation was also apparent in the teachers' comments about the factors that affected programme implementation. Teachers recognised the importance of teacher preparation before implementing each lessons and also the need to implement the programme consistently every week. Further evidence of high quality programme implementation is apparent from the teachers' integration of Zippy's Friends in other areas of teaching (79.2% of teachers said they use the strategies taught in Zippy's Friends in other areas of teaching). Some teachers commented on the integration of the Zippy's rules in Physical Education and the cross curricular learning between Zippy's Friends, oral language development in English and Religious Education. This integrated approach is in line with recommendations from the Department of Education and Science in relation to the teaching of SPHE (NCCA, 1999).

The quality of programme delivery is further validated by the children's responses during the participatory workshops. When asked about the programme and what they had learned at post-intervention, children recalled key themes from each module – 'Feelings', 'Friendship', 'Caring for others', 'Not fighting/bullying others'. 'Listening, 'Coping with your problems'. The accurate recollection of the programme content by the children suggests that they were engaged and actively learning throughout the programme. In addition, the results from the Feelings Activity and Vignette Activity demonstrated the wide repertoire of vocabulary that the intervention group had accumulated in relation to feelings and also a notable increase in the use of active coping strategies to deal with a problem situation between pre- and post-intervention. Collectively, these findings from multiple sources demonstrate the quality with which the programme was implemented. The teachers' and the children's enthusiasm for the programme, the use of strategies in other areas of teaching, the use of personal resources and the creation of a supportive learning environment reflect the teachers' commitment to high quality programme delivery.

6.2.4 Zippy's Friends and SPHE

The results from the SPHE questionnaire are revealing in terms of curriculum implementation. In contrast to what was expected, the teachers in the intervention group implemented more of the SPHE curriculum than the teachers in the control group. In relation to some strand units 'Relating to Others', 'Self Identity', 'Myself and my Family', there were significant differences in the level of implementation between intervention and control groups. It is possible that teachers in the intervention group were encouraged to teach other parts of the SPHE curriculum as a result of teaching Zippy's Friends. During the focus group review sessions one teacher spoke about the use of Zippy's Friends as a backbone to implementing SPHE. This suggests that Zippy's Friends provided the intervention teachers with a framework and a structure within which to teach other parts of the SPHE curriculum.

One of the key differences between the Zippy's Friends programme and other SPHE resources as reported by the teachers in the intervention group was the comprehensive, structured nature of the Zippy's Friends programme. Several teachers noted the lack of continuity between other SPHE resources and the lack of structured, activity-based lessons. In terms of improving the SPHE curriculum, the need for more structured, child friendly, comprehensive resources was the most frequently reported recommendation by intervention and control teachers.

6.2.5 Feedback from teachers on Programme Implementation

The teachers' ratings of the programme in terms of their enthusiasm for the sessions, content appropriateness, achievement of aims and pupils' enjoyment and understanding of the sessions were consistently positive and highlight the level of teacher satisfaction with the programme. It is interesting to note that the teachers' overall ratings of the programme was higher in Ireland (M=8.75 / 10) than in Denmark (M=4.1 / 5) and Southampton (Year 1 M=3.9 / 5; Year 2 M=3.81). Unlike other countries where the programme has been implemented and evaluated, in Ireland the programme was implemented in single class units and also in multigrade settings. Overall, the multigrade teachers' experiences differed greatly. Some teachers used the multigrade setting to their advantage with children in the older classes mentoring children in younger classes. Other teachers found that children in older classes had a negative influence on the younger children, however, this was in

contradiction to multigrade teachers who found that the programme was less suitable for younger children as some of the concepts were too difficult for them to understand. These results thus indicate that the nature and impact of multigrade teaching on the implementation of Zippy's Friends in Ireland was different across schools. This finding is in keeping with implementation literature which highlights the importance of understanding the local context within which the programme implementation occurs. Rowling & Weist (2004) contend that ignoring the school context in implementing school mental health is to ignore the very elements that confound the dissemination of policy or research, from a controlled environment of implementation to real-life settings. The results also underline the importance of providing ongoing support during programme implementation to assist teachers in dealing with 'local' issues. Interventions such as the Gatehouse Project use an external facilitator (critical friend) to work with schools to identify their issues, consider options and provide support, motivation and links to external resources (Bond et al., 2001). It is suggested that in Ireland the Health Promotion Officers could potentially work with individual schools in dealing with identified barriers to implementation.

- Factors that influenced programme implementation

Using the model of implementation system developed by Chen (1998) and expanded by Greenberg and colleagues (Greenberg et al., 2005), this study identified factors related to the programme, the implementer and the recipients which facilitated programme implementation. Firstly, in terms of the programme the teachers repeatedly made reference to the active engagement of the children through child-centered learning techniques and the relevance of the content to the children's lives. Looking at the most successful modules (Module 5: Dealing with Change and Loss and Module 3: Making and Breaking Friendship), the suitability of the content to the children's daily lives, the child-centered activities used in the sessions (role play, making puppets, drawing pictures) and the practical nature of the lessons, were the most frequently reported positive aspects of these modules. A number of teachers commented on the way in which the programme facilitated them in approaching difficult topics, such as death, parental separation and conflicts with the children, in a child friendly manner. Of the modules that received the lowest ratings (Module 1: Feelings and Module 2: Communication), lack of activities and over-use of teacher

talk were consistently reported. The findings from the child participatory workshops further accentuate the importance of activity-based child centered learning in the implementation of Zippy's Friends with children identifying that stories and the activities as their favourite part of Zippy's Friends. These results demonstrate that the children responded better when they were away from their desks and actively involved in a variety of activities such as role play / drawing / group discussions etc. This finding is in line with previous research carried out on educational interventions regarding the need for varied teaching methods (Warwick et al., 2005; Nation et al., 2003; Tobler & Stratton, 1997; Dusenbury & Falco, 1995).

Another element of the programme that facilitated programme implementation was the provision of teacher training. All of the teachers that implemented the Zippy's Friends programme commented on the value of teacher training. Several teachers also spoke about the importance of ongoing support which they received from the health promotion officers throughout the year. The teachers' views are supported by research relating to programme implementation and sustainability which have shown that high quality teacher training combined with the provision of ongoing technical support increases providers' (i) knowledge of how the programme works and what is necessary to implement the programme effectively (ii) ability to deal with implementation challenges in a timely manner and (iii) understanding and acceptance of the intervention (CASEL, 2003, Hallam et al., 2006; Bishop & Roberts; Lewis et al., 1990; Kam et al., 2003). Fixsen and colleagues (2005) state that the conventional approach of 'train them and send them on their way' is ineffective in promoting high quality implementation. Instead, effective programme adoption and implementation requires initial training that is interactive and engaging, provides opportunities for behavioural rehearsal and is followed up with ongoing coaching, technical assistance and support (Bumbarger et al., 2010).

In relation to the teacher themselves, their involvement with the lesson in terms of taking part in the role plays and sharing their personal experiences with the children was regarded as a factor that greatly facilitated child participation. Whilst the author is not aware of previous research which specifically points to the importance of teacher participation, the development and maintenance of a safe, supportive learning environment where children feel cared for and respected is regarded as one

of the key components necessary for the promotion of social and emotional learning (Zins et al., 2004). It is clear from this study that the teachers' participation had a significant impact on the creation of a supportive environment which enhanced child participation.

Finally, in terms of the recipients, the teachers regarded the children's enjoyment of the programme as a salient facilitating factor. Teachers spoke about the children's enthusiasm for the lessons and the knock-on effect this had on their motivation to teach the programme. Although not widely discussed in the literature, the children's enjoyment and enthusiasm for the programme appears to influence teachers' perception of and attitude towards the intervention, factors which are known to facilitate/hinder quality of implemenation (Domitrovich et al., 2008).

- Teachers' Recommendations

The teachers made a number of recommendations to improve the implementation of Zippy's Friends including the adoption of a whole school approach and as part of this, parental involvement with the programme. The majority of teachers commented on the need for all teachers in a school to receive training and also the implementation of an additional Zippy's Friends follow-up programme in the senior cycle of primary schools. It is clear that the teachers recognised the need to adopt a more holistic multi-component approach to the promotion of children's emotional wellbeing in schools. In addition, it is possible that the use of a whole school approach would help to counteract some of the barriers that teachers experienced whilst implementing Zippy's Friends, including the issue of lack of time to implement the programme combined with the problem of curriculum overload in primary schools. These issues point to the need to move away from the notion of the weekly 'Zippy's Friends class lesson' to the adoption of a whole school approach which includes the training and involvement of all key stakeholders, the promotion of emotional wellbeing through the ethos and environment of the school, and the enhancement of parental and community partnerships. Large scale systematic reviews conclude unequivocally that children will benefit the most when families, schools, community organisations and health care work together to strengthen each others' efforts (Catalano et al., 2002; Wells et al., 2003; Stewart-Brown, 2006). McLaughlin (1990), however, argues that this complex approach will not occur

unless teachers are encouraged to further develop their skills and are supported to take committed action. Teacher training and effective leadership are an essential part of this process.

The issue of parental involvement further highlight the teachers' awareness about the need for a joined up approach. Parental involvement has long been recognised as a key component of school success particularly for low-income children. Specifically, parental involvement has been shown to be a key protective factor that fosters cognitive and emotional resilience in the face of multiple stressors (Garmezy, 1991; Waanders et al., 2007). Given the important role parents play it is appropriate that the school acts to strengthen the home-school links so that parents can actively participate in the curriculum thus ensuring that learning is supported and enhanced within the home environment. Parental involvement in school health education has, however, proved one of the greatest challenges and this is not unique to Ireland (e.g. Inchley et al., 2006; Wyn et al., 2000). Therefore, it may be necessary to devote more energy in supporting staff particularly around their skills and confidence in relating to parents on these issues.

6.3 Implications for Practice

Overall, the results from this study indicate that the Zippy's Friends programme had a significant positive effect on children's emotional literacy, coping skills, hyperactivity and peer relationships. In addition, the programme also had a positive effect on the teachers themselves, specifically, their awareness of the children's feelings and the child-teacher relationship. An implication of the findings from this study is the possibility that when this programme is implemented with high quality and fidelity it can have a significant positive effect on both the children and the teachers. In addition, the results from the study confirm the important role that teachers can play in enhancing the emotional wellbeing of disadvantaged children in primary school. The positive finding from this study are particularly noteworthy given the fact that economically disadvantaged children are especially at risk for the development of mental health problems because of the greater number of risks they are exposed to (Keenan et al., 1997; Lavigne et al., 1998; McLeod & Shanahan, 1996; McLoyd, 1998). Furthermore, evidence suggests that the foundation of good

mental health throughout life is laid in the early years and that without intervention, emotional and behavioural problems in young children may be less amenable to intervention after age eight (Tennant et al., 2007; Leckman & Leventhal, 2008; Eron, 1990).

The results from the process evaluation also provide practical information regarding factors that facilitate and hinder programme implementation. Factors such as the engaging activities, the use of circle time during discussion activities, teacher participation in the activities, implementing the programme consistently every week and teacher preparation prior to implementing the lessons are important in terms of ongoing high quality implementation and sustainability of the programme in Ireland. These factors are also of relevance to other school-based emotional wellbeing programmes. Speaking about the Social Personal and Health Education curriculum in Ireland as a whole, teachers recommended the need for comprehensive, user-friendly resources that are engaging and relevant to children's lives. The issues of time and lack of student involvement (too much teacher talk) which arose during the implementation of Zippy's Friends are also relevant for the broader implementation of emotional wellbeing programmes in schools. Strategies to promote positive mental health and emotional wellbeing using a cross curricular approach could assist in ameliorating the barrier of time.

Furthermore, the request from teachers for (i) another 'Zippy's Friends' programme in the senior end of primary schools (ii) whole school teacher training and (iii) parental involvement all point to the need for a whole school approach to implementing emotional wellbeing in primary schools. Teachers in this study were acutely aware that a once-off programme was not sufficient in enhancing and sustaining children's competencies and that a long term, developmental approach involving all key stakeholders is necessary. The 12 months follow-up results from the participatory workshops and the Draw and Write Technique also support the need for a whole school approach, with the results indicating that the long term effect of the programme on the children's coping skills and behavioural wellbeing (hyperactivity) were not fully sustained. Based on the findings of this study, there is a clear need for a broadening of current practices in relation to social emotional learning in Ireland which tend to focus on the curriculum and the individual pupil, to

one which includes other important aspects such as school ethos, management, communication, teacher preparation, physical environment, relations with parents and relations with the community. As part of this, schools need to be provided with the resources and training that they need to help them work collaboratively with pupils, parents and the broader community.

6.4 Implications for Policy

The results from this evaluation contribute to the growing international evidence base which recognises the importance of mental health promotion for schools and education as a whole. This recognition, however, needs to be matched with carefully articulated policy and plans in order to mainstream mental health promotion in a more systematic way. The linkage between local action and top level political and departmental support needs to be made concrete through policy and plans. At a national level, benefits could accrue from the establishment of a national coordinating committee for mental health promotion in schools. This centralised body could bring together diverse groups including governmental agencies, professional organisations within the teaching and health professions, family, youth and community advocacy organisations. Such a national body could function as a key agent for advocacy and as a national project training and support centre. The main functions could include: (i) providing policy guidelines and advice to schools undertaking mental health promotion (iii) strengthening interdisciplinary relations between education and health (iii) providing adequate training, technical assistance and ongoing support to ensure that evidence-based practices can be implemented and sustained with high quality.

An initial task of this national coordinating committee could be the development of a common language of key terms and concepts in relation to school-based mental health promotion. A further task could be to build on preliminary work being carried out in the United States regarding the development of a common set of competencies to support interprofessional practice in school mental health (Ball et al., 2010). Interestingly, the competencies which were identified by Ball and colleague [(i) Key Policies and Laws (ii) Interprofessional collaboration (iii) Cross-System Collaboration (iv) Provision of Academic, Social and Behavioural Learning Supports (v) Data Drive Decision Making (vi) Personal and Professional Growth and

Wellbeing (vii) Cultural Competence] are similar to several issues which were highlighted through the Ethos Questionnaire results regarding mental health promotion in schools. The development of a core set of competencies in Ireland could be could be used a foundation for creating curricula and programming for key stakeholders involved in mental health promotion and could also be used to help identify important areas for ongoing professional development.

The importance of teacher training in terms of teacher buy-in, high quality implementation and programme fidelity was evident in this study. The results from this study also highlight the need to provide ongoing support as a means to assist in the amelioration of context specific implementation issues. The fact that multigrade teachers had very different experiences implementing the programme combined with the results from the Ethos questionnaire which showed that schools were at different stages of readiness depending on school size and school location demonstrates then need to support teachers during programme implementation and assist them in navigating implementation barriers. It is also suggested that as part of the technical support process the wellbeing of staff could be addressed. The results from the Ethos Questionnaire confirmed the lack of supports structures in place to assist teachers in addressing their own needs. Teachers as drivers of change in schools must be supported in their role and it is, therefore, suggested that this could be incorporated as a key component of teacher training and the provision of ongoing support in schools. Given that technical support has been identified as one of the most important dimensions of the implementation support system (Kam et al., 2003; Milhalic & Irwin, 2003) the delivery of pre-service and in-service teacher training and ongoing high quality support needs to be addressed at a national level. Weist and Paternite (2006) contend that the provision of strong training, technical assistance and pragmatic ongoing support increases the likelihood of positive outcomes being achieved. These outcome findings in turn fuel advocacy and policy agendas, which subsequently leads to increased resources which are strategically applied to expand and improve the quality of services. The provision of training and support, according to Weist and Paternite, is therefore, a critical element of the ‘snowballing’ process of growth and improvement of services in schools, across the community and beyond.

6.5 Implications for Research

Unlike previous evaluations of Zippy's Friends, this study used a cluster randomised controlled trial to evaluate the effectiveness of the programme. Use of a cluster randomised controlled trial was deemed necessary in terms of providing evidence based on high-quality evaluation research. In addition, a process evaluation was used to interpret the results on implementation according to empirical evidence and to provide information about best practice for replicating and sustaining the programme in the future. The results from this study underline the importance of monitoring the process of implementation as a means to understanding the impact results. First, it is clear from this study that programme fidelity matters with the programme having no significant effect on the children's emotional literacy skills when implemented with low fidelity. Second, teachers' views about the programme and the need for mental health promotion impacted on fidelity and the programmes outcomes. Third, the results from the Ethos Questionnaire highlighted the contextual factors at school level (including parental involvement, links with community services and the integration of social emotional learning throughout the ethos of the school) which varied across schools depending on school location and size. Fourth, teachers provided valuable information in term of factors that facilitate and hinder implementation and recommended changes to support ongoing implementation and sustainability in Ireland. Fifth, qualitative data from the focus group review sessions, weekly questionnaires and the end of programme review questionnaire, supported evidence from structured questionnaires assessing the impact of the programme and also assisted in further understanding the impact of the programme on outcomes that the structured questionnaires did not necessarily measure. Outcomes such as improved confidence, improved teacher-child relationship, although not quantitatively measured, were important findings in terms of programme effects. Overall, the results from the processes evaluation provide essential insights into the conditions and process within which the programme was implemented, thus helping in the movement towards a new level of understanding about what makes programmes work, with whom, and under what circumstances. Given the complexity of the school as a setting (Rowling & Jeffreys, 2000, 2006), it is clear that the study of implementation is a crucial part of programme evaluation in schools

and that RCTs alone cannot provide the claimed sole source of evidence that should inform an all-embracing view of evidence-based policy.

The value of including data from a range of study methods in the form of triangulation is evident in this study. A range of quantitative and qualitative methods were used to determine the impact and outcome of the programme and to assess the process of implementation. The use of triangulation in this study enhanced the reliability and validity of the data through the exploration of convergence and dissonance. In this study commonalities between findings from different sources and methods revealed a convergence in interpretation, thus increasing confidence in the credibility of study findings. For example, the results from the teachers' structured questionnaires concerning the impact of the programme on the children was supported by qualitative evidence from the teachers (focus group review sessions) and the children (child participatory workshops) and quantitative evidence from the teachers' review questionnaires. In addition, the results from the class observations regarding quality of implementation corresponded with the teachers' comments about implementation and the children's views about the programme during the participatory workshops. The use of triangulation also revealed some discord between fidelity as reported by the teachers and the observers. Two teachers reported implementing significantly more of the lesson than was observed by the researcher. These findings highlight the importance of using multiple methods and sources as a means of increasing the likelihood that the findings and interpretations will be found credible and reliable.

The wealth of information provided by the teachers about programme implementation during the focus group review sessions, the teachers' weekly questionnaires and the review questionnaires, demonstrates the importance of what Domitrovich and Greenberg (2000) refer to as the 'wisdom literature'. This information is based on the teachers' practical experience of programme delivery on the ground. This wisdom knowledge assists in the creation of contextualised research which contributes to our understanding of how to move evidence-based programmes into practice with high-quality implementation. The results from this study support the view held by others regarding the need for greater attention to documenting and assessing this body of knowledge in order to become informed about the

circumstances and practices that enhance programme implementation (Barry et al., 2005; Domitrovich & Greenberg, 2000; Rowling & Jeffreys, 2006).

Another unique element of this study when compared with other evaluations of Zippy's Friends was the use of child participatory methods as part of the data collection. The child participatory workshops and the Draw and Write Technique were used to determine the impact of the programme on the children's coping skills and also to ascertain their views about the programme. Given the young age of the children in this study, these activity-based methods were important in term of enhancing participation and eliciting comprehensive valid and reliable responses from the children involved. The Draw and Write Technique provided information from their perspective, information which as evidenced by the Schoolagers' Coping Strategy Inventory was difficult to ascertain using a structured questionnaire.

6.6 Limitations

In considering the findings of the present study, it is important to also discuss the limitations of the study.

Design and sample size: The results from this randomised controlled trial were analysed at both the individual level and at the level of randomisation (i.e. school level). Given the relatively small sample size at the higher level (N = 34), it is possible that there was not sufficient power to detect cross-level group interactions. Therefore, it is unclear whether sample size or inter-correlation of variables as a result of interactions between students of the same class resulted in some differences between impact results at the individual level and the level of randomisation. Using a larger sample size at the higher level (greater number of schools) would have assisted the conclusions that could be drawn from the multilevel analysis results in this study, A limitation of this study is that power analysis was not used at this higher level prior to school recruitment in order to determine the number of pupils within schools (level 1) and the number of schools (level 2) that would be required to enable statistical judgements that are powerful and reliable. Given that a sample size at level two of 50 or less leads to biased estimated of the second level standard errors (Maas & Hox, 2004), it is likely that the sample size in this study at level 2 (N = 34

between pre- and post-intervention; N = 32 between pre-intervention and 12 months follow-up) was insufficient and as a result there was not sufficient power to detect cross level group interactions.

Attrition: A further limitation of this study was the loss of pupils between pre-intervention, end of programme and 12 months follow-up, Just over 20% of the total sample were lost through attrition (schools withdrew from study, pupils moved to other schools). This was compounded with the problem of some teachers not returning / not fully completing the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire at post-intervention and 12 months follow-up. This resulted in a significant loss of data between the three time points (Emotional Literacy Checklist, pre-intervention N = 676; post-intervention N = 471; 12 months follow-up N = 461) which corresponds with a reduction in statistical power and a restricted sample that limits the generalisability of the results.

Measures: In terms of the measures used, one source of weakness was the use of the Schoolagers' Coping Strategy Inventory (Ryan-Wenger, 1990) to assess the children's use of coping skills. The high level of incomplete questionnaires at pre- and post-intervention, combined with anecdotal evidence from the teachers about the number of children that they felt were not completing the questionnaire honestly, points to the potential inaccuracy of the results from this questionnaire. The overall level of dissatisfaction with the use of the Schoolagers' Coping Strategy Inventory highlights the importance of using multiple methods in the form of triangulation to enhance the reliability and validity of the data. Similarly, the use of teacher self report questionnaires combined with structured observations was important in terms of assessing accuracy and reliability of the teachers' reporting of programme fidelity. The fact that two teachers significantly over estimated programme fidelity suggests that some teachers may not have responded truthfully when completing self-report questionnaires, either because they did not complete the questionnaire after implementing the lesson and, therefore, could not remember or because they wanted to present themselves in a socially desirable manner. Repeated observations across all schools could have assisted in (i) discovering the percentage of teachers that inaccurately reported programme adherence and (ii) gaining a more accurate picture

of programme adherence, quality of implementation and other school and teacher level characteristics that affected programme implementation.

A further limitation was the notable lack of parental input throughout this study. Although the involvement of parents was part of the study originally, several unsuccessful attempts to meet parents in a sample of schools to ascertain their views resulted in this section of the study being removed. Given that previous evidence has found that for children in low-income families, parental involvement in education can be a key protective factor that fosters cognitive and emotional resilience in the face of multiple stressors (Garmezy, 1991; Myers & Taylor, 1998; Shumow et al., 1999) an investigation into the parents' perspective was considered an important part of the study in terms of understanding the current situation and making recommendations for the future. Specifically, this study wanted to examine the level of parental involvement with the schools, their views about the programme and its effects and the supports that are needed to bridge the gap between home and school. Further efforts should have been made to examine the views of a range of parents' beliefs and values as well as teachers' beliefs and practices specific to parent involvement.

In addition, this study did not ascertain the views of the school principals in determining their level of (i) knowledge about and endorsement of the programme and (iii) involvement with planning, training and programme implementation. Strong administrative leadership and support for the programme is central to high quality programme implementation, positive programme outcomes and its sustainability in a school (Hauf & Bond, 2002; St. Leger, 2002; Domitrovich et al., 2008; Kam et al., 2003; Han & Weiss 2005). Examining the level of principal involvement and support for the Zippy's Friends programme could have furthered our understanding about the impact of contextual factors at school level on programme implementation.

Another limitation of this study is that the broader effects of the programme on the children's academic outcomes were not examined. Whilst it was planned (and permission was obtained from school principals) to obtain the children's academic results from the national standardised maths and reading attainment tests (SIGMA-T and MICRA-T tests) at pre-intervention, post-intervention and 12 months follow-up,

support was not received from the Department of Education and Science to carry out this part of the study. Not analysing the impact of the programme on the children's academic achievement is regarded as a significant limitation of this study as the potential educational benefits of mental health promotion intervention needs to be better understood and could be an important 'selling' point from the schools perspective. Given the growing evidence base, particularly in the United States which confirms the links between positive mental health and learning, educational attainment and behaviour for learning (Zins et al., 2004; Payton et al., 2008; Durlak et al., 2011; Durlak, 1995; Durlak & Wells, 1997; Catalano, 2002), there is a strong need to link research and interventions with educational outcomes in Ireland.

Data Collection: A further limitation of this study is concerned with baseline data collection. After schools were randomly assigned to intervention and control groups, teachers in the intervention group received two days of programme training. Following this, teachers in both groups were asked to completed the Emotional Literacy Checklist and the Strengths and Difficulties Questionnaire. Baseline analysis revealed a significant difference in the intervention and control groups' Total Emotional Literacy score, Prosocial score (intervention group's scored significantly lower) and the Emotional Problems score (intervention group's scored significantly higher). With the schools being randomly assigned to control and intervention group one would expect there to be no difference in the children's emotional literacy and emotional, behaviour wellbeing scores prior to implementing the programme. However, it is possible that as a result of the teacher training the teachers in the intervention group were more stringent in their assessment of the children's skills at pre-intervention. Despite that fact that this study was able to control for baseline differences through the use of ANCOVA, the researcher should have been more mindful of this issue in the planning stages.

6.7 Recommendations for future research

Measures: Whilst the standardised measures used in this study examined some aspects of positive mental health (emotional literacy skills and prosocial behaviour), additional evidence from the teachers indicates the positive effect of the programme on skills / attributes that were not measured by the structured questionnaires,

including improved confidence, improved teacher-pupil relationship. These results, coupled with the recent shift in focus from negative to positive indicators of wellbeing calls for the need to develop valid and reliable measures of positive indicators of mental health outcomes, including measures to assess confidence and positive functioning (psychological wellbeing), relations with others (social wellbeing), physical health (physical wellbeing) and sense of meaning and purpose in life (spiritual wellbeing). Greenberg and colleagues (2003) suggests that such measures could be utilised by schools as part of their accountability process and could be shared with parents as a way of informing and collaborating with parents in the promotion of positive mental health. They also propose that this information could be used as a 'report card' on individual schools which could be used to for planning on aspects of schools success and/or needs.

In terms of measuring children's coping, the previously mentioned issues in relation to using the standardised measure to assess children's coping strategies highlights the need to examine the measurement of coping during childhood. Whilst the results from the Draw and Write Technique provided a useful insight into the type of problems experienced during childhood and the types of coping strategies used, more research into the development of valid and reliable measures is needed. In addition, with the result from the Draw and Write Technique highlighting a significant gender difference in the use of certain coping strategies, there is a need to better understand the differing factors which influence coping during childhood. Furthermore, given the children's high dependence on avoidance techniques particularly prior to receiving the intervention, further work is needed to establish the associations between different coping strategies and emotional wellbeing. This research could inform the development and refinement of interventions designed to enhance ways in which young people cope with stress in their lives.

Alongside the development of valid and reliable tools to measure positive indicators of wellbeing and copings strategies, there a need for mental health professionals to understand and respect the fact the schools are essentially places of learning and are under significant pressure to demonstrate academic achievement. It is, therefore, the responsibility of the mental health professionals to emphasis not only the role of programmes to promote emotional and social wellbeing but also the growing and

strong evidence base for the links between positive mental health and learning. There is a need for future research to focus on academic and school success outcomes in assessing the effectiveness of school-based mental health interventions and to use this evidence as a key selling point to schools.

Context: Overall, the findings from this study highlight the importance of monitoring programme implementation. In particular, the results point to the differing growth stages of schools in terms of organisation and implementer characteristics. Further investigation into how schools can be supported at school and teacher level to ensure high quality programme implementation needs to be carried out. During the focus group review sessions, the teachers referred to the importance of programme training and ongoing support. Further research could explore the advancement of providing schools with ongoing support as a means to assisting them in dealing with barriers as they arise. The use of online resources could potentially assist with this process.

In relation to monitoring the process of implementation, there is a need for the development of valid and reliable tools to measure aspects of programme implementation including fidelity, dosage, quality, participant responsiveness, programme differentiation, control conditions and programme reach. The development and use of such tools should greatly assist in the progression of the 'science of implementation' which will in turn advance our knowledge on best practice for replication in 'real world' settings.

Sustainability: Given the positive outcomes from this pilot study, an area for future research relates to the sustainability of the programme, i.e. how to (i) maintain the benefits achieved through the initial programme (ii) continue the programme within the Irish education system and (iii) build the capacity of the key stakeholders to continue with the programme. Whilst the results from the current study revealed important findings in terms of factors that facilitate and hinder implementation, further research needs to be carried to enhance our understanding of how to sustain interventions beyond the pilot phase. An in-depth study into the factors which contribute to sustainability (factors in project design and implementation, factors within the organisational setting of the programme and factors in the broader community) would assist in identifying the conditions under which Zippy's Friends is likely to be sustained in Ireland. Once these conditions have been identified,

further research could focus on how to ensure the continuance of these elements within the operational structure of the programme, the school and its community as a whole. Combining this information could help to inform best practice around maximising the potential for long term sustainability of school-based mental health promotion programme.

CONCLUSION

This study sought to examine the implementation of an international evidence-based emotional wellbeing programme in the local context of disadvantaged primary schools in Ireland. Using a cluster randomised control design, 44 schools (N = 766 pupils) were randomly assigned to Intervention Type I (full implementation), Intervention Type II (partial implementation) and control groups. A series of quantitative and qualitative measures were used to assess the (i) immediate and long term impact of the programme and (ii) the process of implementation.

Participation in Zippy's Friends resulted in a significant improvement in the children's emotional literacy skills and hyperactivity between pre- and post-intervention. The improvements in the intervention groups' emotional literacy scores were maintained at 12 months follow-up. Multilevel analysis revealed some differences in programme results with significant improvements only found in certain subscales including Self Awareness, Self Regulation, Social Skills, Hyperactivity and Peer Relationship problems. The contrasting results point to the importance of analysing the results at the level of randomisation and ensuring there is sufficient power to detect change. Results from the Draw and Write Technique demonstrate the positive effect of the programme on the intervention group's use of active and support seeking coping strategies. Significant long term effects were maintained for certain problem situations including loss and rejection. These results were supported by similar findings from the Child Participatory Workshops. Qualitative feedback from the teachers provided additional information about the positive effect of the programme on the children's confidence, ability to articulate their feelings, problem solving skills and relationship with their peers. The programme was also reported to have a significant positive impact on the teachers' relationship with the children, their awareness of the children's emotional wellbeing and their ability to assist children in dealing with problem situations.

The results from the process evaluation provided an insight into the conditions and processes within which the programme was implemented, which in turn assists in the understanding of how to move evidence-based programmes into practice with high quality implementation. The findings from the Ethos Questionnaire indicate that

whilst schools provided a positive and supportive school environment, three key areas including the needs of staff, developing links with parents, and the wider community were perceived as being consistently neglected across intervention and control schools. Additional analysis highlighted the differing capacity of schools to engage in change and development depending on school location, thus indicating the importance of understanding the local context within which the programme is being implemented and the potential need for varying support strategies at different stages to assist in the creation of a supportive implementation environment.

Results from the teachers' weekly questionnaires and structured observations confirm that the intervention was implemented with high fidelity across both intervention groups. Fidelity was found to have a direct impact on programme outcomes in that the programme had a significant positive effect on the children's Emotional Literacy skills when implemented with high fidelity (>90%), however, children who received less than 75% of the programme showed no improvements in their Emotional Literacy skills between pre- and post-intervention. The results from the structured observations combined with teachers' feedback about implementing the programme, and the children's recollection of the programme during the child participatory workshops, provided strong evidence that the programme was implemented with high quality. The structured nature of the programme, the suitability of the content for the children, teacher involvement during the lessons, the variety of engaging activities, teacher training and the provision of ongoing support were cited as factors that facilitated programme implementation. Time was noted as a considerable barrier to programme implementation. Key recommendations that emerged from this study regarding the role out and sustainability of Zippy's Friends in Ireland include the need for a whole school approach and as part of this, the need for active parental involvement with the programme. These recommendations are also supported by evidence from the 12 month follow-up results which highlighted the need for a long term developmental approach in order to sustain the positive effects of the programme on the children's emotional and behavioural wellbeing and coping skills. Given the importance of an ecological approach, it may be necessary for future research to devote more energy to establishing supportive structures within the school, and between the school and community, that serve to increase awareness, provide support and facilitate implementation efforts.

Overall, the findings from this study are in keeping with a broader base of international evidence on the benefits of emotional wellbeing programmes for children's social and emotional functioning. The results from this study highlight the important role that schools and specifically teachers can play in the promotion of positive mental health from an early age. The teachers' implementation of this evidenced-based programme with high quality and fidelity resulted in significant gains for the children in terms of the enhancement of protective factors at the individual, social and structural level. These factors are known to strengthen positive mental health and moderate the impact of stress on social and emotional wellbeing, thereby reducing the likelihood that mental health problems will develop. These findings are particularly noteworthy given that disadvantaged children are especially at risk for the development of mental health problems due to the greater number of negative life events and risk factors to which they are exposed. The study of programme implementation provided valuable information in terms of the relationship between the Zippy's Friends intervention, the implementation system and the programme's outcomes. At a broader level, the findings from this study contribute to the advancement of knowledge regarding the planning, implementation and effectiveness of school-based mental health promotion interventions.

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Appendices

APPENDICES

Appendix 1: Evidence of Effectiveness: Summary of findings from school-based mental health promotion interventions

Universal Interventions

Programme & Country	Target Group	Aims & Objectives	Risk and Protective Factors	Type of Research	Health Impact	Social and Economic Impact	Impact on inequality	Implementation Issues
PATHS Programme (Promoting Alternative Thinking Strategies) Greenberg et al. (1995) (US)	Primary school children in grades K-6	Aims to develop children's social emotional competence and violence, aggression and other behavioural problems	Social, emotional, cognitive and behavioural skill development. self-efficacy, resiliency, recognition of positive behaviour and prosocial norms	Experimental design (RCT) N=286	Significant improvement in children's emotional vocabulary and understanding, sense of self-efficacy and interpersonal problem solving. Continued effects found at one year follow up. Lower aggression and passivity levels also reported	Improved overall cognitive skills and reduced aggressive behaviour	Children in special needs group showed significant improvements in emotional & social competence, empathy, and ability to resolve conflicts.	Teacher training is available but not compulsory. Lessons taught three 30 minutes lessons per week.

Zippy's Friends Mishara & Ystgaard (2006)	Children age 5-7 N=850 children from Lithuania & Denmark	Aims to help young children expand their range of effective coping skills	Coping skills Social skills, Emotional skills, Problem solving skills	Quasi experimental design	Significant short term effects on children coping skills, social skills and empathy.	Significant decrease in behaviour problems		Two day teacher training. Similar results found in both countries. 24x 45min class sessions
Aussie Optimism Rooney et al., 2006	Children in middle primary, upper primary and lower secondary school	Aims to promote mental health and prevent depression and anxiety in childhood and early adolescence.	Positive thinking, social life skills, coping strategies and problem solving	Experimental Design (RCT) N=120	Reduced depressive symptomatology and improved style post-intervention. Lower prevalence of depressive disorders at posttest and few intervention children developed depressive disorder at 9 month follow up		Schools from low socioeconomic areas	Programme also contains family based component Teacher training is compulsory. School based components = 10x60 minute class sessions.
FRIENDS universal intervention Lowry-Webster et al., 2001, 2003	Children age 7-11 and youth age 12-16	Aims to increase resilience and prevent childhood anxiety and depression	Promotes self-esteem, positive thinking, problem solving, psychological resilience, self-expression and building positive relationships	Experimental Design (RCT) N= 120 aged 8-9	Significant decrease in anxiety symptoms. Intervention gains maintained at 12, 24 and 36 month follow up. Fewer high-risk students at 36 month follow-up in interv group.		Females reported significantly lower anxiety at 12 month and 24month follow up but not at 36 month.	Teacher training is compulsory. Programme involved 10 weeks of 1 – 1.5 hour sessions Two parent sessions are optional

Social Decision Making / Social Problem Solving Elias, 1986	Children in grades K - 8	Aims to help children acquire social and decision making skills	Social competence skills, decision making and problems solving skills, self control and coping skills	Quasi experimental N=158 fifth grade students	Significant improvements coping with peer pressure and adjusting to academic requirements.		Full training group experienced significantly fewer stressors than children in the partial training group	Programme consists of 25-40 lessons per year
I Can Problem Solve Boyle & Hassett-Walker, 2008	Children in kindergarten and elementary school	Aims to prevent anti-social behaviours	Problem solving skills, recognizing and labeling emotions, considering other's perspectives	Experimental design RCT N=226	Intervention group - significant improvement in prosocial behaviour Significant additive effect with children receiving two years of ICPS showing greater improvements than children receiving one year and control group	Significant reduction in intervention groups' aggressive behaviour	Programme implemented in racially and ethnically diverse urban school district	ICPS for : Preschool = 59 lessons, Kindergarten and Primary Grades = 83 lessons Intermediate elementary grades = 77 lessons
Second Step Grossman et al., 1997	Children age 4 – 14 years	Aims to develop children's social and emotional skills and to prevent violent behaviour	Empathy, emotion management, problem solving, anger management, bullying prevention, communication skills, coping skills,	Experimental design RCT N=790	Increase in intervention groups' neutral and Prosocial behaviour . Effects maintained at 6 month follow up	Reduced physical aggression among children in intervention group. Effects maintained at 6 month follow up		Staff training provided but not compulsory Programmes is delivered to children in pre-school/kindergarten, grades 1-5 and middle school (11-14 years)

			substance abuse prevention					8-25 lessons delivered per year Second Step family DVD and family training programme available
Al's Pals Lynch & McCracken, 2001; Lynch et al., 2004	Children age 3-8	Aims to develop personal social and emotional skills	Social and emotional competence, problem solving, communication skills, positive relationships	RCT N=399 children	Intervention group demonstrated better social emotional competence and coping skills than control group.	Control groups problem behaviours increased significantly, intervention groups remained constant		46 core lessons, delivered for 10 – 15 min lessons delivered twice a week 9 lesson booster session for 2nd and 3rd grade Two day training is compulsory
Seattle Social Development Project – Hawkins et al., 2005	Children age 6-11 N=605	Aims to reduce risk factors for drug abuse, school drop-out and delinquency.	Improve classroom management, children's social, emotional skills and parenting practices during elementary grades	Non-randomised controlled trial, Longitudinal study: 9 years	9 year follow up, full intervention group: (i) significantly better functioning in schools or at work (ii) reported significantly better regulation of emotions and fewer suicidal thoughts than part intervention or control	Intervention group signif less likely to be involved in crime, to have sold illegal drugs and to have official lifetime court record at age 21	Schools served high-crime neighbourhoods Children from families of low socioeconomic status. Women in full intervention showed reduced anxiety symptoms at 9 year follow up.	Teacher & parent training. Full intervention group received on average 4.13 years of intervention exposure (through grades 1 to 6). Late intervention group received on average 1.65 years. Control group received no intervention.

Good Behaviuor Game Ialongo et al. 2001, Furr-Holden, 2004.	Children in 1st and 2nd grade N-678 students in 9 elementary schools.	Universal programme aims to promote positive development and to decrease aggressive/ disruptive behaviour	Positive reinforcement, positive student behaviour, tangible and abstract rewards	Experimental design (RCT)	5 year follow up, intervention group less likely to have conduct disorder, to have been suspended, to have received mental health services than control group.	7 year follow up, intervnetion group less likely to have started smoking, taken drugs, tried alcohol than control group.	Children in study predominantly African American and economically disadvantaged	Teacher training: 60 hours. Game is played for ten minutes three times a week, eventually incorporated into whole day and entire week.

Whole School Approach

Programme & Country	Target Group	Aims & Objectives	Risk and Protective Factors	Type of Research	Health Impact	Social and Economic Impact	Impact on inequality	Implementation Issues
Kidsmatter Slee et al., 2009	Primary school children and entire school community	Kidsmatter provides a framework for mental health promotion in Australian primary schools with the overall aim of improving the mental health and wellbeing of primary school children	Positive school community Social and emotional learning for students, Parenting support and education, Early intervention for students experiencing mental health difficulties	Pilot phase 100 schools, no control schools 15 school case study.. Case study of 15 schools, 4 year study	Teachers and parents' rating of positive impact of KM on students social and emotional competencies increased by 7%. Students Total Difficulties score on SDQ significantly declined between pre and post intervention. Increase in teacher's ratings of their knowledge, competence and	Teachers' ratings of positive impact of KM on students schoolwork increased by 14%.	Reduction in Total SDQ Difficulties for students in borderline and abnormal range. Students in abnormal range: there was medium to large effect size associated with reductions in Emotional	High implementation schools displayed higher degree of involvement of all stakeholders. Schools reported Kidsmatter facilitated putting mental health on school agenda and making impact on school culture. Strong leadership and maintenance of support and

					confidence in teaching students about social emotional competencies. Increase in number of parents involved with school.		Symptoms, Conduct Problems, Peer Problems and Hyperactivity.	resources were considered necessary to ensure sustainability of KM in schools
SEAL (UK) Primary Behaviour and Attendance Strategy Pilot 2003-2005 Hallam et al., 2006	Children in Primary and Secondary School	Improve attendance and behaviour by addressing inter-related issues at the whole-school level, in the classroom and in relation to individual pupils.	Improve teachers' skills and confidence through CDP training. Develop children's social and emotional skills, empathy and motivation	Pilot Study 16 schools, pre-post evaluations N=156 teachers, 26 parents and 4237 pupils	Teachers reported improvement in their skills and confidence in promoting positive behaviour . Teachers reported positive impact on children's behaviour, wellbeing, confidence & social and emotional skills. Improved behaviour in playground. Girls scored higher in self-esteem, emotional awareness & motivation pre and post-intervention Majority of parents positive about programme.	When the programme was implemented across the school, a positive impact on the school environment was reported. Improvements in national English and Mathematics scores at KS2 Positively affected absenteeism and attainments scores.	At risk children: improvements in emotional symptoms and pro-social behaviour. Key Stage 2 positive age related changes in social skills and relationships.	Training in school improvement was highly valued by teachers. For effective dissemination in schools, trained staff member needed to be in an influential position in school. Need for ongoing support to staff formal training for working with at risk children. Need for whole schools community engagement. Parents reluctant to get involved in programme.

Skills for Growing **Lions Quest website** http://www.lions-quest.org/pdfs/EvaluationResultsShortReport.pdf	Children in elementary school Grades K - 5	Programme aims to promote social and emotional wellbeing and academic success	Self discipline, communication skills, problem solving	Quasi experimental Students in grades K-5 N=1,916	Significant improvements knowledge of positive peer relationships, decision-making skills, feelings of positive self concept Significantly more positive health-oriented behaviours	Significant improvements in attitudes about the risks of harmful substances and conflict management skills		Five components: classroom curriculum, parental meetings, community involvement, training and follow up support positive school climate. Teacher training compulsory
Raising Healthy Children Catalano et al., 2003	Children in primary school	School based programmes aims to promote positive youth development and prevent adolescent problem behaviours	Proactive classroom management, student motivation, student involvement, interpersonal and problem solving skills,	Quasi experimental N=938 from 1st / 2nd grade	Intervention group showed significant increase in social competency and significant decrease in antisocial behaviours	Intervention group had significantly higher teacher and parent reported academic performance and stronger commitment to school	Reduction in male antisocial behaviour, no change in female antisocial behaviour	Teacher intervention includes series of workshops Parents take part in 5 session workshop Student intervention consists of simmer camps targeted at academic / behavioural problems

Caring School Communities (was called **Child Development Programme**) Battistich et al, 2000, 2004	Primary schools: entire school community	Aims to increase the sense of community within schools in order to promote children's connectedness to school as well as their social,, emotional and intellectual development.	Promotes development of supportive relationships, resilience, social, emotional and decision making skills	Quasi-experimental design. 24 elementary schools N=1,246 students	"High implementation" schools reported (i) positive effect on students' school related attitudes and motives, social skills and values (ii) reduction in problem behaviours. 4 year follow up: students more engaged in and committed to schools, were more prosocial and engaged in fewer problem behaviours than comparison students.	Increased academic performance and commitment to school Decrease in antisocial behaviour		Substantial variability in implementation across the 12 schools. When implemented throughout the school, larger number of significant outcomes for students. 4 yr follow up, 'high implementaiton' studends had higher academic performance and less antisocial behaviour
Whole School Approach with specific focus on violence / bullying prevention								
Olweus Bullying Prevention Programme Olweus (1991)	Students (6-15 years old) N=2,500 children in 42 primary and secondary schools	Reduce existing bully/victim problems inside and outside the school setting: Improve peer relations.	Whole School Approach School climate, self esteem, adult student positive peer interactions; anxiety, permissive parenting	Experimental desing (RCT)	Reduction in children reporting being victims, in children bullying others and in student ratings of the numbers of children being bullied in their class.	Reduction in general anti-social behaviour such as vandalism, theft, drunkenness and truancy.	Similar effects found for boys and girls.	Different results found in implementation of Olweus Bullying programme in other areas/countries

Sheffield Anti-Bullying Project Smith & Sharp, 1994 Eslea & Smith, 1998	Children in primary and secondary schools N=657 children age 7-11 from 23 schools	Aims to reduce bullying problems through use of whole-school approach	Whole School Approach: Anti-bullying policies, curriculum exercises, environmental improvements and individual work with bullies and victims	Non-experimental, pre-post design.	Decrease of 17% in children being bullied and 7% decrease in number bullying others. 12 month follow up:. 2 out of 4 schools reported decline in bullying, one school reported rise after initial fall	12 month follow up: all schools developed policy documents and used curriculum resources	12 month follow up all 4 schools reduced bullying among boys, 3 schools experienced rise in bullying among girls.	Important all staff were involved in policy document. Wide consultation and pupil involvement in planning was seen as important for successful results. Inconsistencies in approach thought to impact success of programme in one school
LIFT (Linking the Interests of Families and Teachers) Eddy et al 2000	Children in elementary school N=600 youth and their families from high juvenile crime neighbourh-oods	Whole school approach aims to modify child and parent behaviours thought to be most relevant to the development of adolescent delinquent and violent behaviours.	Classroom: social & problem solving skills, rewards model. Playground: demonstration of problem solving skills Parent Training Positive play & negotiation skills	Experimental design (RCT)	Reduced aggression in playground, children perceived as more positive by teachers. Parents behaved less aversively with children	Fifth graders – significantly delayed in exhibition of problem behaviours, significantly less likely to affiliate with misbehaving peers, less likely to be arrested during middle school	Effect of LIFT was strongest for children who had highest level of behaviour problems prior to intervention.	Class session 10/1hr sessions Parent training once a week for 6 weeks.

Peace Builders Flannery et al., 2003	Children in elementary school (Grades K-5) N=4128 from 8 elementary schools in an area with high juvenile arrests	Whole School Approach attempts to alter the climate of a school by teaching students and staff rules and activities aimed at improving social competence and reducing aggressive behaviour.	School climate, individual behaviour, Rewards prosocial behaviour. Reduces negative behaviours and conflict situations.	Experimental design (RCT)	Significant gains in social competence & child self-reported peace-building behaviour in Grades K-2. Reduction in aggressive behaviour in Grades 3-5	Most effects were maintained in Year 2 including increases in child prosocial behaviour. Decreased level of violence in schools. Increases prosocial interactions in schools.	Larger treatment effects for students in Grades 3-5 who were higher on aggression at baseline.	Extensive teacher training –2hrs per week in first 3 to 4 months of the intervention.
Resolving Conflict Creatively Aber et al., (1998)	Children in elementary school N=5053 from 11 elementary schools	Whole School approach aims to reduce violence, promote caring and cooperative behavior, teach students life skills in conflict resolution and intercultural understanding.	Conflict resolution strategies, fostering cooperation, social, emotional, communication skills & peer mediation	Quasi-experimental design	*High Lesson* group significantly slower growth in aggression and conduct problems & higher competent interpersonal negotiation strategies than children in *Low Lesson* or *No lesson* Group.		Programme effective for boys and girls equally. No evidence that effects of High Lessons was weaker depending on children's risk status	25 hour teacher training. Training and supervision of children as peer mediators for the classroom and the yard. Additional training for parents and principal (optional). Number of lessons taught by teacher had significant impact on children's level of aggression

Targeted Interventions

Programme & Country	Target Group	Aims & Objectives	Risk and Protective Factors	Type of Research	Health Impact	Social and Economic Impact	Impact on inequality	Implementation Issues
Incredible Years Webster-Stratton et al., 2004	Children age 4-8 N=159 fs, children with ODD and their families	Aims to promote social competence and prevent, reduce, and treat aggression and related conduct problems in young children	Classroom training – social skills, conflict resolution Parent training – parenting & interpersonal skills Teacher training – classroom management strategies, proactive teaching	RCT, families assigned to parent training (PT), teacher training (TT), child training (CT), PT+TT, CT+TT, PT+CT+TT or control group	Fewer conduct problems with mothers, teachers & peers. Lower negative bahaviour with fathers in the PT Increased prosocial skills in CT conditions. Mothers & teachers less negative	Improved behaviour management and reduced conduct problems		PT -2 hr group sessions for 24 weeks CT – 2hr small group sessions for 19 weeks TT – 4 days (32hr) group training
Penn Prevention Programme Roberts et al., 2004	Children in late elementary and middle school with elevated levels of depressive symptoms	Aims to prevent anxiety and depression symptoms in middle-school-aged children	Cognitive distortions, behaviour problems, poor peer relations, poor self – esteem, and poor academic achievements.	Quasi experimental design N=303 children from 7th grade Post follow-up (30 month)	30 months post-intervention: lower levels of anxiety symptoms, no significant change in depressive symptoms and . lower level of social skills	Parents reported an impact upon students overall competence at 30 month follow up	More preventive effects for students with low initial levels of anxiety and depressive symptoms	Attrition rates high at 30 month follow up

Cool Kids Mifsud & Rapee, 2005	Children age 7-16	Aims to reduce anxiety symptoms in at-risk children from low socioeconomic status neighbourhoods	Cognitive, behavioural skills development, social & emotional skills and problem solving	Randomised Controlled Design N=91 (8-11 year) at-risk children	Significant reduction in anxiety symptoms, results maintained at 4 mth follow up			Eight x 90 min sessions. 2 parent evening sessions - parent involvement was low.
Early Risers August et al. 2003	Elementary school children age 6-10 N=1,489 moderately to highly aggressive 4th grade children	Multifaceted 4yr intervention that targets aggressive elementary children at heightened risk for the development of antisocial behaviour	Social skill training, friendship building, educational enrichment activities, parent training & family support	RCT	Intervention children had significant more positive social skills, leadership skills and chose less aggressive friends. Improved self-regualtion	Significant improvement in academic achievement Parents who completed training reported less personal stress	Severely aggressive children less aggressive towards others post-intervention.	Programme integrated nonaggressive with aggressive children at 6-week summer school – developed buddy system.
Coping Power Program Lochman & Wells, 2003	At risk children in late elementary school and early middle school years N=678 at risk students and their parents	Violence prevention programme aims to address behaviour problems in aggressive youth.	Child sessions: coping skills, peer relations, anger managements, academic, problem solving skills Parent sessions: Discipline strategies, family communication & management skill	Experimental design (RCT)	Reduction in children's risk for delinquency and physical aggressive behaviour towards peers.	Older children engaged in lower rates of tobacco, alcohol and marijuana use than control.	Intervention was equally positive for boys and girls, and for children who came from neighbourhoods with high crime or from non-problematic neighbourhoods	Teacher training (10 hrs). Parent Component: 16 sessions Classroom intervention: 34 sessions over 16 months

APPENDIX 2: Number of children that have received Zippy's Friends programme to date (Partnership for Children, July 2011)

Country	Number of children
Argentina	1,371
Brazil	124,733
Canada	10,949
China - Beijing	10,253
China - Hong Kong	63,149
China - Shanghai	54,515
Denmark	6,560
Iceland	19,040
India	8,670
Ireland	5,200
Lithuania	85,947
Mauritius	6,714
Mexico	646
Netherlands	2,325
Norway	46,594
Panama	2,541
Poland	82,815
Singapore	8,156
USA	4,609
UK	23,709
TOTAL	568,496

APPENDIX 3: Script for the *Schoolagers' Coping Strategy Inventory*

Hello everyone. My name is ….. and I work in Sligo/Galway/Donegal. My job is to go around visiting all the schools. For the past two weeks I have been asking the boys and girls in first class if they would help me. I would like to find out all about what it's like being a child nowadays because it is a long time since I was your age.

Now, so far all the boys and girls in the other schools have been really good at helping me. They all really tried their best but your teacher Ms….. was telling me she thinks your going to be the best little helpers ever . She also told me that you're the best listeners in all of Sligo/Galway/Donegal.

What I need you to do today is to fill in this sheet. It's all about you. I will show you what you have to do in a minute but don't worry if you don't understand, both myself and Ms … are here to help. Before I give you out the sheets I want to tell you about the school I visited yesterday. I asked the children in first class to think of a time when they were worried or nervous about something. Would you like to see some of the things they came up with?

- Pictures of the 3 stories are put up on the board and discussed one by one

1. One little boy said that he was worried about his granny. She is very sick and had to go into hospital last week. He was worried about her because she didn't give him a hug like she always did and she wasn't very chatty.

2. Another boy said that he went shopping with his Mum at the weekend and he was looking at the toys in the shop but when he turned around his Mum was gone. He thought she had left without him and he was really worried.

3. One girl said that one day she came into school his teacher called her for her homework. She went to take out her homework copy and reader, but when she looked in her bag she couldn't find it. She was worried because she was afraid her teacher might think she didn't do it. She thought his teacher might be really cross with her.

Now boys and girls what I want you to do is to think of times when you were worried. I want you to think of them in your head for a few seconds. I am going o

stop talking and we are all going to be really quiet and think of times when we were worried about things just like the children in the school yesterday. It doesn't have to be like their worries, it can be totally different. I know I can think of lots of things I worried about before. You can put your head down and think about them if you like…….

- 30 second pause

Right instead of telling me about times when you were worried, I want you to keep those thougths in your head and we are going to fill out this sheet. This sheet is asking you questions about your worries. Before we do this sheet we are going to do a practice sheet. While I am handing out the sheets will you get your pencil ready. You do not need a rubber.

- Sheets are handed out (the first page is a practice sheet)

Does everyone see where it says Name *at the top of the page? Will you write your name on the line please. You see underneath* Name *it says* Boy *and beside this there is a box. There is also the word* Girl *and beside that there is a box, if you are a boy will you tick the boy box and if you are a girl will you tick the girl box.*

Underneath this you will see some writing and some empty boxes. Now I need you to listen carefully to what you have to do. At the top is says "How often do you do this?" Can everyone put their finger on the No. 1… Excellent. I will read what is says beside this. It says "Share my sweets with my friends". Now they are asking you how often do you share you sweets with you friends. You have four options "Never, Once in a while, A lot or Most of the time" Can you put your finger on never… once in a while… a lot… and most of the time. Well done! Now you have to decide how often you share your sweets with your friends. Remember there are no right or wrong answers. What matters is that you are saying what you do. Some of you might never share your sweets and that's fine and some of you might share them most of the time and that fine too! If I wanted to say I never shared my sweets, where would I put a big tick?... Well done. If I wanted to say I share my sweets a lot, where would I put a tick? Excellent.

- Researcher models putting a tic in the Once in a while box and asks the children to choose a box to tic.
- Researcher asks the teacher how often she shares her sweets with her friends. Teacher gives a different answer to the researchers (modeling that both answers are fine, there are no wrong answers)
- Researcher repeats this process of explanation for the second example "Go to the beach when it is sunny" and moves around the classroom to ensure all the children understand what they are doing.
- Researcher asks the children to put up their hand when they have completed each one so that she is able to identify children having difficulty.
- Researcher emphasises that there are no right or wrong answers.
- Children turn to page two.
- Researcher explains what they have to do.

Now this page is the exact same as the last page you just filled in except there are more of them. Remember I asked you to think about times when you were worried about something, just like the children in the other school yesterday. Have you all thought of something. Now I want you to try and remember how often you did these things when you were worried.

Put your finger on No. 1… Excellent. It says 'Be by myself, be alone'. So when you were worried about things how often did you go off into a quiet corner or room so that you could be by yourself? Was it "Never", "Once in a while", "A lot" or "Most of the time"? Remember there are no right or wrong answers but it is very important that you tick the right box for you. If you never go off to be by yourself when you are worried about things tick the box under 'Never'. If you do it once in a while tick the box under 'Once in a while'. If you do it a lot, tick the box under 'A lot' and if you like to be by yourself most of the time when you are worried, tick the box under 'Most of the time'. Put your hand up when you have this done. Well done!

- Teacher and researcher circulate the class and ensure everyone has filled out the first one appropriately.

We will now move on to number 2. It says…..…

- The researcher moves onto the second statement and explains it in the same way.
- Researcher and teacher circulate the room and check that each pupil is on the correct line and looking at the appropriate boxes to tick.
- When the 26 statements are completed the researcher congratulates the pupils on doing so well and she tells then that we are half way there and they are doing so well
- Researcher asks the children to turn to page 4

Now if you can all turn to page 4. Look for the number 4 at the bottom of the page. This page looks like one we have done before doesn't it? But look there is something different. This time we are being asked "How much does this help?". Can everyone put their finger on No. 1. It says "Putting a plaster on my knee when I fall". So they are asking how much putting a plaster on my knee when I fall helps? We can tick only one of the four empty boxes The first box says 'Never do it'. So if you never put a plaster on your knee when you fall you tick this box. The second picture says 'Does not help'. So if you have put a plaster on you knee when you fell and it did not help you tick this empty box below it.. The third one says 'Helps a little'. If you have found a plaster to help a little you tick the box below this and the last one says 'Helps a lot'. So if you think a plaster helps a lot you can tick this box.

Again there are no right or wrong answers, Some of you might tick the never box because you don't use plasters when you fall. Some of you might tick the helps a little box because you find the plaster helps the pain to go away. Both answers are correct. If I was to answer this box I would tick Helps a little like this. Teacher models ticking this box.

Ms (teacher), what box would you tick? Teacher says a different answer to highlight both answers are right

- Researcher asks the children to tick the box most appropriate for themselves.
- Teacher and researcher move around the class to ensure the children understand what they are doing.
- The same process of explanation is repeated for the second example and researcher ensures all the children know what they are doing before moving to the next page.
- Researcher asks the children to put up their hand when they have completed each one so that she is able to identify children having difficulty.
- Children are asked to move on to page 5 when everyone is finished.

Now children, this is the exact same as the last page only there are more on the page. You are being asked How much does this help. You have 4 options. Can everyone put their finger on the first option 'Never'… the second one 'Once in a while' the third option 'Helps a little' and the last option 'Helps a lot'.

Right I need you to think back to times when you were worried about something. Great! Can everyone put their finger on No. 1 please. It says be by myself, be alone. So when you are worried about things how much does it help if you go off into a corner or into a room on your own. How much does it help you to feel better. If you don't go off on your own, you can tick the box below Never do it.. If you do it and you find it does not help you tick the box below where it says Does not help. If you like to be by yourself and find it helps a little you can tick the box below where it says Helps a little. If you find it help a lot you can tick the box below where it says Helps a lot.

- Teacher and researcher move around the class and ensure the children know what they are doing.
- Researcher asks the children to put up their hand when they have completed each one so that she is able to identify children having difficulty.
- Children are asked not to move on to the next one until we are all ready.
- Researcher reads out the 26 statements and ensures that everyone is keeping up and able to understand the exercise.
- When everyone is finished the researcher thanks the children after collecting all the sheets and praises their ability to listen and carry out such excellent work.
- Researcher asks the children would they like to hear the rest of the children's stories from yesterday.
- Researcher explains:

1 The little boy who's Granny was sick decided to go home and make his Granny a card for her. He made a really nice one for her and he felt much better after making the card because he drew a lovely picture of him looking after his Granny in hospital. His Granny loved the card and has it beside her bed for everyone to see.

2. Remember the boy who was lost in the shopping centre. He was really worried his Mum had left him but he told himself not to cry and to have a look around the corner. He called her and when he looked around the corner he saw that she was right there looking at some books that she was going to buy him. He was so thrilled and hugged and hugged his Mum.

3. Remember the little girl who forgot he homework and was really worried the teacher would be cross with her. Instead of crying she decided to ask her friend could she borrow her book. She went up to the teacher and showed her her schoolbag with only her lunch box in it. She explained how she forgot her homework but she did it all and she did her reading from her friends book. Her teacher was so happy that she told the truth and that she had borrowed her friends book to do her reading. This little girl was so delighted with herself for the day!

So you can see the boys and girls in the school yesterday had lots of little worries just like we all have but they came up with different solutions that helped make them feel better just like we can all think how to best solve our worries

I really think you were all fantastic today! You were the best group of workers I have ever visited. I think your teacher is very very lucky to have you, what do you think?

I would really really love to come back and visit you later on in the year, would you mind if I come back?

- Researcher thanks the children for working so hard and tells them is looking forward to seeing them later on in the year.

Appendix 4: Script for the Draw and Write Activity

Hello everyone. My name is Aleisha and I have come from the University in Galway. I am going around to lots of different schools in Donegal, Sligo and Galway and I visit the children in first class. I want to find out what its like being 7/8 years old because I can't really remember so I need your help.

I'm going to ask you if you would draw two pictures for me today. I brought colouring pencils and paper with me. The drawings won't take very long and while you are drawing I will come around and ask you about your drawing. You don't have to tell me if you don't want to but I would love to know.

Before I hand out the sheets, I am going to tell you about something that happened to a little girl in first class in another school last week. The children came in from yard and a little girl (her name was Elenor) came up to me while the other children were taking off their coats. Elenor said that she was with her friends at the start of break and they were about to play a game together. They had to pick teams but another girls in her class said that she couldn't play because she wasn't fast enough. All her friends agreed and so Elenor had nobody to play with while all her friends played her favourite game. Elenor stood there all alone, she didn't know what to do.

Now, what I would like you to do is to think of a time when just like Elenor you were sad or upset about something. It doesn't have to be a time in the yard. It might be something that happened at home or in the classroom or a friend's house. I want you to think quietly about this time when you were sad or upset in your head first. You can put your head down and picture it in your mind.

Now I am handing you out your sheets and colouring pencils. Just stay on the first sheet for now. On the first sheet I would like you to draw the time something difficult happened to you , Think about this time and draw it for me. I will go around to each of you and you can tell me about your drawing.

- Children are given 10 minutes to draw their picture
- Children write a sentence about a time that they felt sad underneath the picture.
- Researcher will act as scribe for children who choose not to write.

Your drawings are excellent, you all put so much effort into that! Well done. I have just one more thing to ask you to do. You see how you have a second page, well can you all turn over to this page please. On this page I would like you to draw picture about how you could make things better. In the first picture you drew about the problem, for the second picture I'd like you to draw about how you could make things better. If we think about Elenor for a second, her first picture was about her friends playing in one corner of the yard and she in the other on her own. For the second picture she would have drawn what she could have done to make things

better for herself. I would like you to draw what you could do to make things better for you in your problem situation. I will come around and you can tell me what you are drawing.

- Researcher praises the children for their efforts and thanks them for being so helpful
- Researcher explains to the children that she would like to tell then what happened the following break when Elenor went back into the yard

Now before we finish up I would really like to tell you about what happened to Elenor when she went out to yard for lunch break. Well she was really worried that she would be left on her own for lunch break so she decided she needed to do something about it. She thought to herself "*There is no point in getting mad at my friends because they definitely wouldn't let me play then*". So she decided to talk to them. She said "*I don't think its fair not letting me play, I really love playing that game and anyway I have my runners on my today so I can run fast. I really don't want to be on my own for this break. Please can I play?*" The girls looked at each other and all said yes she could play and they even said they were sorry for not letting her play during first break.

So you see just like the way you drew a picture about how you could make things better, Elenor thought of a way too and see how happy she was when she did it!

Questions and responses for the Draw and Write

Scribing Question

Can you tell me about your drawing?

- Who is in your picture?
- Where are you?
- What is happening?
- How did you feel?

Children who can't think of what to draw

Picture one

- Remember I was telling you about Elenor, what happened to her in yard?
- Have you ever had a problem like Elenor at home or at school?
- Has anything ever happened at home or at school that you didn't know what to do?

Picture two

- What do you think Elenor could do to make things better the next time she went out into the yard?
- Ok, you drew a picture of the time you….. , now what do you think you could have done to make things better for youself?

Children who are unable to think of anything after discussing it with them

Picture one

- If you can't think of anything don't worry, just draw a picture about Elenor in the yard when her friends said she couldn't play.

Picture two

- If you can't think of anything don't worry, maybe you would like to draw a picture about Elenor and what she could do to make things better for herself out in the yard.

Children who demand more attention than others

- Your drawing is very good, well done. Now I must go around and hear about all the other beautiful drawings.

APPENDIX 5: Outline of *Zippy's Friends* Child Participatory Workshop

1. Group Warm Up

2. Rules (Group Agreement)

3. Brainstorming (Intervention Group only)

Children are split into two groups and the teacher and researcher acts as scribe for the two groups. Four questions will be written on 4 sheets of poster paper. Children will brainstorm their ideas and their thoughts are written down onto the poster paper. The two groups will share their thoughts after the brainstorming and a discussion about what was written down will ensue.

Four Questions:

- What is Zippy's Friends all about?
- What did you like about Zippy's Friends?
- What did you not like about Zippy's Friends?
- What kind of things has Zippy's Friends taught you?

4. Voting

Based on the children's responses to the last question in the brainstorming session, the children are asked to decide the two most important things that the Zippy's Friends programme has taught them. They will each be given two post-its and have to stick their post-it on the poster of their choice. A number of posters will be hung up around the room, with the children's responses to the question: *What kind of things has Zippy's Friends taught you?*

(Researcher emphasises the point that there is no wrong answer)

5. Recognition of Feelings (Control and Intervention Group)

Children have to state how the people in each scenario are feeling:

Scenarios I gave the children last year…

- *Tom was pushed in yard*
- *Michael was going to Spain for four weeks*
- *Gráinne forgot to do her spellings last night*
- *Sharon said that nobody would play with her in yard.*
- *Paul's brother took his PS2 from him and wouldn't give it back to him*
- *Ronan's sister got a new bike and he didn't.*

6. Vignettes Problem Solving Activity

(a) Louise took her basketball to school and it disappeared from under her desk before break. When Louise went out into yard, she saw that another girl in her class was playing with a basketball that looked just like her ball.

Questions:

- How did Louise feel?
- What could Louise do?
- Who could she tell?
- If you were Louise's friend what would you do to help her?

(b) Ryan's friends are all going to the cinema for Paul's birthday. Ryan asks his Dad if he is allowed to go but his Dad says no because he got a note home from Ryan's teacher today to say that Ryan is messing in class and not doing his work properly.

Questions

- How does Ryan feel?
- How does Ryan's Dad feel?
- How do you think Ryan reacts when his Dad says no?
- What could Ryan do to feel better when his Dad says he is not allowed to go?

7. Closure (Game and Group Yell)

APPENDIX 6: Ethos Questionnaire

Name _____

Name of your school _____

Your position in the school _____

Number of pupils in the school _____

Number of teachers in the school _____

Does your school have a policy on:	**Yes**	**No**
Bullying		
Integration of new students into school		
Welfare and Discipline		
Gender equity / discrimination / harassment		
Critical incident policy (for example, dealing with death, suicide, fire, accidents and other emergency situations)		
Reported or suspected child abuse		
Staff health and welfare		
Referral of suspected child health problems (for example depression, eating disorders)		
Administration and safe storage of medication for children		

Are you familiar with your schools policies?

Yes ☐ No ☐

Are the schools policies revised and updated on a yearly basis?

Yes ☐ No ☐ Don't Know ☐

How often do these occur in your school?	**Always**	**Often**	**Sometimes**	**Never**
Staff members act as role models by their positive interactions with children, other staff and parents.				
Girls and boys have equal access to the school's resources such as staff time, sports time, and safe spaces.				
Staff members seek help when feeling stressed or over-committed.				
Staff members have a clear understanding of emergency procedures relating to medical or hospital treatment.				
Children and staff members rehearse evacuation plans for fire and other emergency situations.				
Promoting children's health (including mental health) and welfare is a continuing priority of the school's management or strategic plan.				
The school provides adequately for the welfare needs of the children and staff.				
There is a procedure that allows all students to voice concerns about inappropriate / abusive behaviour in school.				
Support is available for children who have been involved in stressful incidents.				
Support is available for teachers who have been involved in stressful incidents				
The value of counselling and talking things through is recognised as a high priority in this school.				

SPHE and Mental Health Promotion	Always	Often	Sometimes	Never
Adequate time is allocated to the teaching of SPHE in the school every week.				
The SPHE curriculum gives sufficient coverage to aspects of mental health such as grief and loss, bullying, communication and coping skills.				
I feel well equipped to educate children about positive mental health such as problem solving skills, coping skill and communication skills.				
The work in the school shows consideration of people's diverse cultural backgrounds when dealing with positive mental health.				
Staff are encouraged to attend professional development programmes about mental health.				
Children develop skills in help-seeking and communication.				

Environment and Ethos	Always	Often	Sometimes	Never
The physical environment of the school contributes to the positive mental health of children and staff (for example adequate areas for games and play, and areas for quiet discussion).				
Positive mental health skills are promoted through the regular academic curriculum				
Opportunities are provided for staff, children and parents to develop positive and meaningful relationships.				
All children are encouraged to participate in the school's decision-making process.				
Opportunities are provided for children to experience success in a variety of ways (for example, academic study, creative arts, physical activity, and technology).				

The school provides a safe, caring environment with the provision of sanctions and strategies to actively discourage violence.				
The school provides a safe, caring environment with the provision of sanctions and strategies to ensure valuing of all cultures.				
The school caters for children who experience periods of mental health problems.				

Support and Local Services	Always	Often	Sometimes	Never
The school is committed to regular exchange of information between families, the local community and the school regarding mental health services in the area.				
Staff at the school are clear about procedures for the identification and referral of children with specific mental health problems.				
Support staff such as special needs assistants and learning support teachers work closely with teachers in promoting positive mental health in the school.				
The school works closely with community mental health services and agencies to meet the mental health needs of children and staff.				
Staff are provided with information about local mental health services and their accessibility for counselling and referral.				
The school is receptive to approaches from community services and agencies in relation to partnership about health matters.				

Parents	Always	Often	Sometimes	Never
Parents are interested and supportive of the school and its governance.				
A broad range of parents are actively involved in a variety of ways in the life of the school.				
Parents are encouraged by the school to help their children consolidate their learning at home.				
Parents are given an opportunity to participate and learn about the content of the school's SPHE curriculum.				
Parents are consulted when sensitive content areas in health are to be addressed.				
Parents regularly ask questions and discuss their worries they have about their child with the class teacher / principal.				

Do you teach SPHE to your class?

Yes ☐ No ☐

If yes how often do you teach it?

Once a week ☐ Once a fortnight ☐ Once a month ☐

Other ☐ Please state _____

Does your school have support measures available for students in distress?

☐ Yes ☐ No

If yes what support is available?

_____
_____
_____

Do you feel there is a need to teach emotional wellbeing / mental health promotion in primary schools?

Yes ☐ **No** ☐

Why/Why not?

_____
_____
_____

What barriers exist in your school to providing classes in emotional wellbeing / mental health promotion?

_____
_____
_____

APPENDIX 7: Structured Observation Questionnaire

Module 2 Communication

Session 2 Listening

A: Were the following events or processes done successfully

		Yes	In Part	No
a.	Children and teacher read over the rules.			
b.	Teacher gave an overview of the session.			
c.	Children recalled how Tig showed us that he was angry in Session 1.			
d.	Children recalled what they talked about in the Session 1.			
e.	Teacher re-read part of the story.			
f.	Teacher asked children questions about the story.			
g.	Teacher role played with the children - teacher pretended not to listen to a child.			
h.	Children discussed times they have tried to talk to someone who would not listen.			
i.	Children discussed how we know if someone is listening and if someone is not listening to us.			
j.	Children identified how to show someone that we are listening to them.			
k.	Teacher wrote their suggestions on the board.			
l.	Teacher had to help the children to come up with ideas.			
m.	Children role played situations that show they are listening to a friend who is talking.			
n.	Teacher and children discussed how they knew that the child was listening.			
o.	Teacher explained to the children that somebody might want to tell us something when we cannot listen.			
p.	Children suggested reasons why a person cannot listen to another.			
q.	Teacher helped the children think of reasons why			
r.	Children discussed times when they could not listen to someone.			
s.	Teacher asked the children what we can do when a person is not ready to listen to us.			
t.	Children gave solutions.			
u.	Children discussed whether this is a good or bad solution and why.			
v.	Children completed feedback sheet			
w.	Children discussed what they likes most and least about this session.			

B: Did the following events occur…

1. The children were seated differently to normal class

☐ Yes ☐ No

2. The children sat in a circle for the story / group activities

☐ Yes No

3. The teacher used something at the start of the lesson to indicate Zippy's Friends was starting (e.g. children sang a song, music was played, children put on a badge…)

☐ Yes ☐ No

Please explain

_____
_____
_____

4. There was a designated *Zippy's Friends* corner in the classroom (i.e. Zippy's rules, Zippy's characters, children's work was displayed somewhere in the room)

☐ Yes ☐ No

5 There was an adult helper in the room who assisted the teacher during the lesson

☐ Yes ☐ No

In what way?

_____
_____
_____

6 There was a break in the middle of the session

☐ Yes ☐ No

7 Children were given enough time to complete the feedback sheet at the end of the session

☐ Yes ☐ No

8. How would you describe the pace of the session?

☐ The session was too long and the children were bored

☐ The session was just the right length

☐ The session was too short and not enough time was allocated for the different activities

9. Did the teacher use additional materials that were not part of the session?

(e.g. Zippy puppet)

☐ Yes ☐ No

If yes, what was used?

_____

_____

_____

10. How would you rate the teacher's relationship with the children?

(Circle one number)

poor									**excellent**
1	2	3	4	5	6	7	8	9	10

C. Different Needs and Abilities

1. The teacher ensured that <u>all</u> children were given the opportunity to participate during the session

☐ Yes ☐ No

2. Children with special needs were present during the lesson

☐ Yes ☐ No

3. The teacher catered for the children with special needs.

☐ Yes ☐ No

How?_____

_____

_____

4. The range of abilities in the class affected the flow of the lesson

☐ Yes ☐ No ☐ No observable range of abilities

5. A child's / group of children's disruptive behaviour affected the flow of the lesson

☐ Yes ☐ No ☐ No disruptive behaviour observed

6. Children from other cultures were actively involved in the session

☐ Yes ☐ No ☐ No children from other cultures present

D: To what extent do you…

1. Feel enthusiastic about how this session went?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

2. Think the children acquired or improved their ability to ask for help?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

3. Think the children learned how to communicate when it is difficult to do so?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

4. Think the children understood the materials?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

5. Think the children gained confidence in their abilities as a result of this session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

E: To what extent did the teacher…

1. Depend on the teacher's manual for instructions?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

2. Display confidence in her own knowledge and skills?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

3. Use a variety of teaching strategies in order to maintain the children's attention (e.g. role play, questioning, discussion activities, problem solving)/

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

4. Use the materials for the lesson appropriately?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

5. Follow every activity exactly as suggested in the manual?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

6. Adapt the session to suit the class?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

7. Display enthusiasm for the session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

8. Make critical or negative remarks about the children?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

9. Seem to genuinely appreciate children' comments and ideas?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

10. Maintain the children's attention throughout the session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

11. Verbally praise the children's participation throughout the session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

12. Encourage cooperation during activities?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

13. Have discussions that seemed to confuse the children?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

F: To what extent did the children…

1. Display enthusiasm for the session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

2. Appear comfortable with the content of the session?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

3. Listen to each other?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

4. Loose attention / become distracted when they were not actively involved in the activities?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

5. Interact with each other during the activities?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

6. Speak about their feelings during the lesson?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

7. Come up with their own ideas / solutions rather than relying on the teacher?

☐ Never any extent ☐ A little extent ☐ Some extent ☐ A great extent ☐ A very great extent

G. In terms of how well it was implemented, how would you rate this session overall?

poor									**excellent**
1	2	3	4	5	6	7	8	9	10

H. Please describe any additional factors, which you felt influenced the quality of the session

_____

_____

_____

_____

_____

APPENDIX 8: SPHE Questionnaire

Please indicate what parts of the SPHE curriculum you have taught this school year. Tick one of the three boxes depending on whether you "*Fully implemented*" / "*Partially implemented*" / "*Did not implement*" each strand and strand unit this academic year.

Also, please indicate what resources you used to teach the different strands/strand units e.g. Walk Tall Programme, Stay Safe…

Strand	Strand Unit	Completed this year			Resource used
		Fully implemented	Partially implemented	Did not implement	
Myself	**Self-Identity**				
	• Self awareness				
	• Developing self-confidence				
	• Making Decisions				
	Taking care of my body				
	• Health and well-being				
	• Know about my body				
	• Food and nutrition				
	Growing and Changing				
	• As I grow I change				
	• New life				
	• Feelings and emotions				
	Safety and Protection				
	• Personal safety				
	• Safety issues				
	Making Decisions				
Myself and others	**Myself and my family**				
	My friends and other people				

	Relating to others				
Myself and the wider world	**Developing Citizenship**				
	• My school community				
	• Living in the local community				
	• National European and wider community				
	• Environmental care				
	Media Education				

Please indicate (i) what parts of the SPHE programme that you plan to teach between now and the end of the year and (ii) what resources you intend on using

Strands and Strand Units to be completed by the end of the year	Resources that will be used

Are there any additional SPHE / emotional / behavioural wellbeing programmes that are being implemented in 2nd class by you the class teacher or an outsider?

(Example of such programmes: *The Incredible Years classroom management programme, The Incredible Years Dino Dinosaur Treatment Programme, Food Dudes Health Eating Programme* etc.)

Yes ☐ No ☐

If yes, please specify which programmes

_____

_____

_____

What do you find are the barriers to the teaching of SPHE in your school?

_____

_____

_____

_____

_____

What could be done to assist you in the teaching of SPHE?

_____

_____

_____

_____

_____

APPENDIX 9: Focus Group Review Questions

12 core questions, additional questions included

Overall Experience

1. What are your feelings about the Zippy's Friends programme?

- Did the programme achieve what it set out to do?

Content of the first three modules

2. How did you find the content of: **Module 1: Feelings**

Module 2: Communication

Module 3: Friendship

Module 4: Conflict Resolution

Module 5: Coping with change

Module 6: We cope

- Were the modules pitched at the right level?
- Was there any of the content that you felt unsuitable for the children?
- Was there any of the content you found difficult to deliver/understand?
- Do you think there are any topics specific to the first three modules missing from the programme?
- Do you think any part of the first three modules were repetitive/unnecessary?
- Was the programme equally suited for both boys and girls?

Structure of the first three modules

3. How did you find the structure of the modules?

- Were the lessons pitched at the right level for the children?
- How did you find the layout of the manual?
- How did you find the length of the lessons?

Implementation of the programme

4a What helped the programme to run smoothly?

4b What hindered the implementation of the programme?

- How did you deal with pupils being absent for the previous lesson?
- How did you deal with pupils joining your class after you started the programme?

Effect of the programme on the children

5. What was the overall effect of the programme on the children?

- How have the children benefited from doing Zippy's Friends?
- Has the way they relate to each other changed as a result of the programme?
- Has the programme had an effect on the atmosphere in the classroom?
- Are Zippy's rules integrated into the classroom throughout the day or is it kept separate?
- Have you noticed the children apply the core elements of *Zippy's Friends* to other areas of their life outside the classroom (such as in the yard)?
- Do you think some children have benefited from the programme more than others? Why might this be?
- Do you think some children have a better understanding of feelings and the importance of expressing our feelings as a result of *Zippy's Friends*?

6. Were there any specific aspects of the programme that you feel the children really benefited from?

- What parts worked well with the children?
- What parts did the children really enjoy?
- Did their enthusiasm for the programme increase with the number of lessons they completed?

7. Were there any specific aspects of the programme that you feel the children did not benefit from?

- What parts did not work well with the children?
- What parts did they not enjoy?
- Do you think any part of the programme had a negative effect on the trainees?

Effect of the programme on the teachers

8. Did you benefit from implementing the programme?

- Would you say the programme had a positive or a negative impact on you?
- Did you learn anything new from the programme?
- Did the programme impact on your understanding of children and coping skills? How?
- Has your relationship with the children changed over the twelve weeks?
  How?
- Did you enjoy implementing the programme each week?

9. How did you find the training sessions?

- Did the training session prepare you sufficiently for the first twelve sessions?
- Is there anything else that needs to be addressed during the training sessions?

Effect of the whole programme on the centre

10. What impact (if any) did the programme have on the rest of the staff in the school?

- Were teachers aware you were teaching *Zippy's Friends*?
- Was there a positive response towards the programme from the staff as a whole?

Changes to the Programme

11. If you were to teach the programme again what changes would you make to the programme?

- In what ways could the programme be improved?
- What could be done to make the programme more enjoyable?

Conclusion

12. Will you be interested in implementing the programme again?

- Any other comments

APPENDIX 10: End of Programme Review Questionnaire

Please complete the following:

1. Gender: Male ☐ Female ☐

2. Years teaching:

1st year teaching	2-5 years	6-10 years	10-15 years	15+ years

3.Which intervention group were you assigned to?

Intervention Type I – full implementation ☐

Intervention Type II – use of the programme as a resource ☐

4. Did you teach the first half of the programme to the children last year?

Yes ☐ No ☐

4b. Did you teach the three revisions sessions for Modules 1,2,3 at the start of the year?

Yes ☐ No ☐ In part ☐

5. How would you rate your overall experience of teaching Zippy's Friends?

1	2	3	4	5	6	7	8	9	10
poor									excellent

Please comment

_____

_____

6. Were your expectations about the programme met?

1	2	3
yes definitely	somewhat	not at all

Additional Comment

_____

_____

_____

Please circle one of the options for each statement

7. As a result of Zippy's Friends….

(a) The children's ability to manage their feelings has improved.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(b) The children's social skills have **not** improved.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(c) The children are more respectful of each other.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(d) The children's listening skills have **not** improved.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(e) The children's problems solving skills has improved.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(f) The children's verbal communication has improved.

Strongly agree	**Agree**	**Unsure**	**Disagree**	**Strongyly disagree**

(g) The children's relationships with each other have **not** improved.

Strongly agree	Agree	Unsure	Disagree	Strongyly disagree

(h) The children's antisocial behaviour has improved.

Strongly agree	Agree	Unsure	Disagree	Strongyly disagree

(i) The children's ability to cope with difficult situations has improved.

Strongly agree	Agree	Unsure	Disagree	Strongyly disagree

8. Have the effects of the programme transferred outside the classroom – such as school yard?

Yes ☐ **No** ☐

Please comment

_____

_____

_____

9 Have you heard from parents and/or siblings whether any of the programme effects are evident in the home?

Yes ☐ **No** ☐

Please comment

_____

_____

_____

10. On a scale of 1-5 how much would you say the following happened as a result of the programme (1 being *not at all* and 5 *being very much so*)

(a) I am more aware of the children's feelings as a result of the programme.

1	2	3	4	5
Not at all				**Very much so**

(b) My relationship with the children has improved.

1	2	3	4	5
Not at all				**Very much so**

(c) I am more aware of listening to the children as a result of the programme.

1	2	3	4	5
Not at all				**Very much so**

(d) The programme has made a difference to the atmosphere in the classroom.

1	2	3	4	5
Not at all				**Very much so**

(e) *Zippy's Friends* has given me a structure/support to help children cope with difficult situations.

1	2	3	4	5
Not at all				**Very much so**

(f) I enjoyed teaching *Zippy's Friends.*

1	2	3	4	5
Not at all				**Very much so**

(g) The children enjoyed *Zippy's Friends.*

1	2	3	4	5
Not at all				**Very much so**

(h) I feel that my teaching has improved as a result of teaching the programme.

1	2	3	4	5
Not at all				**Very much so**

11. Do you use Zippy's strategies in other areas of your teaching?

Yes ☐ **No** ☐

Please explain

_____

_____

_____

12. Do you think *Zippy's Friends* has an effect on the children's academic achievement?

Yes ☐ **No** ☐

Please comment

_____

_____

_____

13. What would you do to improve the programme?

_____

_____

_____

14 If given the opportunity, would you teach the programme next year?

Yes ☐ **No** ☐

15 Any Additional Comments

_____

_____

_____

APPENDIX 11: Copy of Letter of Ethical Approval from NUI Galway Research Ethics Committee

APPENDIX 12: Analysis and Write up of 12 month follow up Draw and Write results

Theme: Conflict

This theme was made up of two sub categories fight with someone and being reprimanded.

Fight

The category of fighting was divided into three sub-categories, *being hit. pushed/kicked, being teased* and *general – fight with someone*.

- Being hit / pushed / kicked

The majority of children in the intervention and control group wrote about a time when a sibling pushed / kicked / hit them. Other incident included being hit or pushed by a friend. The most frequently report coping strategy used by the children in the intervention group at 12 months follow up was feeling better as a result of something happening such as the friend / sibling saying sorry or as a result of getting something

(Pic 1): *I felt sad when my friend hit me*". (Pic 2 something happened) "*I was happy when my friend made up with me* (f)";

(Pic 1): "*I felt sad when I got kicked in the leg by my cousin*". (Pic 2 something happened) "*I felt happy when my cousin said sorry* (m)".

(Pic 1): "*Two years ago a girl slapped me on the face*". (Pic 2 get something) "*Then my mum said I can get ice cream* (f)"

Similarly, feeling better as a result of getting something was the most frequently reported coping strategy from children in the control group

(Pic 1): *"I felt sad when I got hit by my sister*" (Pic 2 get something): *"I would feel happy if I got a dog from my sister"* (f)

(Pic 1): "*I felt sad when Joe's friend kicked the football at my foot*" (Pic 2 get something): *"If I went to get new football boots"* (f)

Children in the intervention group also reported using play and relaxation as a coping strategy

(Pic 1): "*I felt sad when my brother hit me*" (Pic 2 play computer): "*Go to my room and go on my computer*" (f)

(Pic 1): *"I felt sad two days ago when my brother pushed me off the slide"* (Pic 2 relax): *"To make myself happy again I went inside and sat down"* (m)

One child in the control group reported using an active coping strategy

(Pic 1*): "I was very sad when my sister pushed me off the trampoline, it was very sad"*. (Pic 2 address problem): *"I will say to my sister it is ok, lets be good sisters"* (f)

One child in the intervention group said she felt better when she punched her sister back

(Pic 1*): "I was sad when my sister punched me"* (Pic 2: retaliate*): "I feel better when I punched her back"* (f)

- Being teased

At 12 months follow up the children in the intervention group were most likely to talk to someone when they were being teased / laughed at. Children said they would tell a parent / teacher / sibling:

(Pic 1*): "I felt sad when my friends were calling me names*" (Pic 2 talk*): "To make me happy I would tell the teacher on them*" (f)

(Pic 1*): "A time when I was sad was this morning when everyone called my Sharon mc Donals*" (Pic 2 talk*): "Tell teacher or Mam or Dad*" (f)

Other coping strategies used by children in the intervention group included play and feeling better as a result of getting something

(Pic 1*): "I felt sad when I hit my nose of a piece of wood and my cousins were laughing at me"* (Pic 2 Play*): "I played my own games with my laptop*" (f)

(Pic 1*): "I felt sad when I fell off my bike and my friend laughed at me"* (Pic 2 get something*): "I felt better when I got a ice pop then"* (m)

One child in the control group reported being sad when she was bullied. This child said she could talk to someone as a means of coping with the problem

(Pic 1*): "I felt sad when i was being bullied* (Pic 2 talk*): "I could tell any adult or teacher and they could be friends with me"* (f)

- General - Fight with someone

Within this category children in the intervention and control group wrote about feeling sad when they were fighting with someone or when someone took / broke something belonging to them. Several coping strategies such as eating, feeling better as a result of getting something or when something happened were used by the children in the intervention group. The most frequently report coping strategy used by the children in the intervention group was play

(Pic 1*): "When my sister took my quad and didn't give it back"* (Pic 2 play*): "Go on my bike*" (m)

(Pic 1*): "I felt sad when people hurt my feelings*" (Pic 2 play*): "Play with my friends*" (f)

One child in the intervention group reported using a problem solving coping strategy

(Pic 1*): "I was sad when my little brother broke my phone"* (Pic 2 address problem*): "I could save up and get a new phone"* (m)

Two children in the control group were sad as a result of fighting. One child did not know what he could do and as a result did not complete picture two

(Pic 1*): "I felt sad when my Mum and Dad were fighting together*"(m)

The other child reported feeling happy when something happened

(Pic 1*): "I feel sad when I fight with my friends"* (Pic 2 something happened*): "I felt happy when we were friends"* (f)

Being reprimanded

Several children in the intervention and control group wrote about being reprimanded by their parents or not being allowed to do what they wanted to do. Play was the most frequently reported coping strategy used by the children in the intervention group. Children said they would play at home, play with friends and watch tv when they weren't allowed do what they wanted to do. The use active coping strategies aimed at addressing the problem was also frequently reported by children in the intervention and control group. Children said they could say sorry, ask their parent, think about nice things:

(Pic 1*): "I felt sad when I hid from my friend and my mum didn't let me go outside because of that"* (Pic 2 address problem*): "I could feel better if I said sorry to my friend and learn from my mistakes"* (f) [Intervention]

(Pic 1*): "I felt sad when I didn't go to the rides"* (Pic 2 address problem*): "Mammy can I go to the park*" (f) [Intervention]

(Pic 1*): "I felt sad when Mom told me to go to my room"* (Pic 2 address problem - cognitive restructuring*): "I could think about Ipod and things"* (m) [Control]

Other children in the intervention and control group said they would feel better as a result of something happening or getting something:

(Pic 1*): "I felt sad when I'm not allowed to play the playstation"* (Pic 2 something happened*): "I'm allowed play the playstation"* (m) [Intervention]

(Pic 1*): "I felt sad when I didn't get an ice-cream"* (Pic 2 getting something*): "I felt happy when I got a puppy"* (f) [Intervention]

(Pic 1*): "I felt sad when I didn't go to where I wanted"* (Pic 2 something happened*): "To make me feel happy my Mum could say go next time"* (f) [Control]

Theme Rejection

More children in the intervention group than control group wrote about a time when they were rejected. In both groups children described times when they felt alone / had nobody to play with. Children in the intervention group were more likely to use problem solving coping strategies to feel better than any other coping strategy. Examples of the children's responses include:

(Pic 1*): "I felt sad when I was left out of the game"* (Pic 2 address problem*): "To go and ask someone else to play"* (m)

(Pic 1*): "I felt sad when I was alone and nobody wanted to play with me"* (Pic 2 address problem*): "I could ask the two girls could I play with them and be friends"* (f)

(Pic 1*): "I felt sad when I was four and no one was playing because I got a prize"* (Pic 2 address problem*): "I could share my prize with the class so they would play with me"* (f)

Children in the intervention group also used play to cope with the problem situation. Some children reported feeling better as a result of something happening or getting something;

(Pic 1*):* "I felt sad yesterday because my Dad did not want to play with me" (Pic 2 play*): "I could play with my friends"* (m)

(Pic 1*):* "I was sad when no one wanted to play with me" (Pic 2 when something happens*): "I will feel better when someone wants to play with me in school"* (f)

(Pic 1*): "I feel sad when people won't play with me"* (Pic 2 get something*): "My mammy gave me sweets"* (m)

In the control group children used problem solving and play to feel better;

(Pic 1*): "I felt sad on my first day of school in junior infants. I didn't know anyone"* (Pic 2 problem solve*): "I could ask people what their name was and be friends"* (m)

(Pic 1*): "I was not allowed to play"* (Pic 2 play*): "Play by myself"* (m)

One child in the control group did not describe how she would cope with the situation.

(Pic 1*): "I am left out"* (Pic 2*): "I feel better"* (f)

Theme Loss

The theme of loss is made up of two subcategories, death and separation from a family member.

- Death

Children in the intervention and control group wrote and drew about the loss of a family member, pet or friend. The children in the intervention group used a wide variety of coping strategies, however, the most frequently reported coping strategy used by the children in the intervention group was problem solving coping strategies. The children in the control group reported using problem solving and play most frequently. Problem solving strategies used by children in the intervention and control group included;

(Pic 1*):* "I felt sad when my Grandad died" (Pic 2 address problem*):* "I could feel happy when I go to my Granddads grave" (f) [Intervention]

(Pic 1*):* "I felt sad when my Great grandfather died" (Pic 2 address problem*):* "I would write a little prayer" (f) [Intervention]

(Pic 1*):* "I felt sad when my dog got run over" (Pic 2 address problem*):* "Think about the good times that I had with him" (f) [Intervention]

(Pic 1*):* "I felt sad when my Granny died" (Pic 2 address problem*):* "Remembering my Granny" (f) [Control]

(Pic 1*):* "I felt sad when my Grandad died" (Pic 2 address problem*):* "I would believe that she has gone to a happy place and she wasn't suffering (f) [Control].

Similar to children in the control group, the children in the intervention group used other strategies such as playing with a friend or their toys, getting something (e.g. a new pet or a treat), going somewhere (e.g the beach) and having something to eat. However, children in the intervention group only used strategies such as seeking social support and relaxing;

(Pic 1*): "When my Granny died*" (Pic 2 social support*): "I could give my Mummy a hug or go to my bed"* (f)

(Pic 1*): "When my Grandad died"* (Pic 2 relax*): "Go to bed"* (f)

- Separation from family member

Children in the intervention and control group wrote about a time when a family member left home, went into hospital, when they had to leave their extended family in another country or when their parents separated. Unlike dealing with death the children in the intervention and control group were less clear about how to cope with the difficult situation. One child in the intervention group used problem solving coping strategy

(Pic 1*): "I felt sad when my Mum was in hospital"* (Pic 2 address problem*): "To feel better I would help my Mum and think of the positive things"* (f)

Children in the intervention group also used play as a coping strategy.

(Pic 1*): "I was sad when I flew from Poland to Ireland"* (Pic 2 play/ tv*): "I could watch a funny film"* (m)

(Pic 1*): "I felt sad because my Dad wasn't at my house for 2 days in a row"* (Pic 2 play): *"I would play my xbox"* (m)

In both the intervention and control group children said they would feel better as a result of something happening.

(Pic 1*): "I felt sad when my brother went to Kossevo for 6 months"* (Pic 2 something happen*): "I felt better when I saw my brother on skype"* (m) [Intervention]

(Pic 1*): "When my Mammy left"* (Pic 2 something happen*): "When I went to see Mammy"* (m) [Control]

(Pic 1*): "I felt very sad when I found out my parents divorced"* (Pic 2 something happen*): "Going to see my mum and dad"* (f) [Control]

Some children in the intervention were less clear about what they could do to feel better:

(Pic 1*): "I felt sad when I left my grandparents in India and came to live with my Mum and Dad in Ireland"* (Pic 2*): "I went to Ireland and I felt better"* (f)

(Pic 1*): "I felt sad when I was in Holland, I was homesick"* (Pic 2*): "I went that day"* (m)

<u>Theme Injury</u>

This theme was made up of two subcategories falling/hurt myself and being sick.

- Fell/hurt myself

Children in both groups wrote about time when they fell off their bike, fell off a wall, broke their arm/leg. Unlike children in the control group, children in the intervention group were more likely to use problem solving coping strategies such as getting a plaster or telling someone. No child in the control group used problem solving coping strategies. Some of the intervention groups' responses included;

(Pic 1*): "I felt sad when I fell off my bike"* (Pic 2 address problem*): "I could help my Mum clean then dishes and tell my Mum what happened"* (f)

(Pic 1*): "I felt sad when I feel and my knee was bleeding"* (Pic 2 address problem*): "I would feel happy if I covered my knee with tissue so the bleeding would stop"* (m)

(Pic 1*): "I felt sad when I fell off my bike"* (Pic 2 address problem*): "I could talk to my friend Alanna about it"* (f)

Other strategies used by children in the intervention included playing, relaxing, feeling better as a result of getting something or as a result of something happening (such as when their arm was better or when someone helped them). Similarly, the children in the control group used strategies such as play, feeling better as a result of getting something / something happening and relaxing. Some of the children's responses include;

(Pic 1*): "I fell into the ground I was sad"* (Pic 2 play*): "I am riding the bike"* (m) [Intervention]

(Pic 1*): "When I fell out of a tree I felt sad"* (Pic 2 play*): "What I could do to feel better was watch tv"* (f) [Control]

(Pic 1*): "I felt sad when I fell and cut my knee"* (Pic 2 when something happened*): "I felt better when my friend helped me up"* (f) [Intervention]

(Pic 1*): "I fell off my bike and my brother looked after me"* (Pic 2 when something happened*): "My friend maked me happy"* (f) [Control]

(Pic 1*): "I felt sad when I hit myself with my football"* (Pic 2 get something*): "I would get ice-cream and go to the shop and get sweets"* (m) [Intervention]

(Pic 1): *"Last year I felt sad because I fell"* (Pic 2 go somewhere): *"When I go outside It make me feel happy"* (f) [Control]

(Pic 1*): "I felt sad I broke my arm"* (Pic 2 relax*): "Resting my arm"* (m) [Intervention]

(Pic 1*): "I felt sad when I got hit by a ball"* (Pic 2 relax*): "I would go to bed to feel better again"* (m) [Control]

- Sick

Two children (one intervention and one control) said they felt sad as a result sickness. The child in the intervention group wrote about a time when he was sick while the child in the control group wrote about a friend who was sick. Both said they would feel better as a result of something happening

(Pic 1*): "I felt sad when I was in hospital"* (Pic 2 when something happened*): "I was happy when i was better"* (m)

(Pic 1*): "I felt sad when Sarah was in hospital with a very very bad heart and she lives in Scotland"* (Pic 2 when something happened*): "I felt better when I seen her and I got to spend time with her but I wish I got to see her every day after school* (f).