An Independent Evaluation of Zippy’s Friends for Children and Young People with Special Educational Needs:

Final Report for the Judith Trust

Full Title: A mental health promotion programme to improve emotional, social and coping skills in children and young people in special schools: A feasibility study

Project Advisory Group:

Lead: Dr. Annette Lawson OBE,
The Judith Trust
Email: info@judithtrust.org.uk

Chief Investigator: Dr. Biza Stenfert Kroese,
School of Psychology,
University of Birmingham
Email: B.Stenfert-Kroese@bham.ac.uk
Tel: 0121 414 4915

Principal Investigator: Dr. Gemma Unwin,
School of Psychology,
University of Birmingham
Email: G.L.Unwin@bham.ac.uk
Tel: 0121 414 7225

Funder: The Judith Trust

Acknowledgements: Thank you to Partnership for Children who provided the Zippy’s programme, including resources, training, and supervision to the teachers involved in this project. Thanks to Kelly Tipton for her research support on the project whilst on placement for her Masters degree. Ioanna Tsimopoulou assisted with the parent and child interviews; many thanks for her help with interviewing, analysing the data and writing up the results. Finally, thanks to the teachers who facilitated the programme – without their support and enthusiasm, the evaluation would not have been possible.
Executive Summary

Background information

Research shows that a child’s emotional, social and psychological wellbeing influences their future health, education and social prospects. Research has also demonstrated that positive, well-developed coping skills and high emotional literacy lead to improved self-esteem, reduced stress and reduced incidence of serious emotional problems in later life. Children with special educational needs (SEN) are at a disadvantage as they tend to have lower levels of emotional literacy and may have limited opportunities or capacity to develop coping skills. Emotional literacy and coping skills have been the target of programmes such as the UK Government’s Social and Emotional Aspects of Learning (SEAL). However, SEAL has not been adapted for children with SEN.

Zippy’s Friends is a school-based mental health promotion programme, coordinated by Partnership for Children. The aim of Zippy’s Friends is to teach social, emotional, problem-solving and coping skills to help children develop strategies to deal with difficult social situations and help them feel better about such situations whilst avoiding harm to others and themselves. For this purpose Zippy’s Friends focusses on the development of emotional literacy and takes a positive, solution-focussed approach to emphasise positive emotions, strengths and sources of support. It comprises six modules delivered in weekly sessions that cover a range of topics: emotions, communication, friendships, and dealing with change and loss. Teachers are provided with training and a resource pack that includes session plans, stories, activities and supportive materials. Each session begins with the teacher reading part of a story, which sets the context of the session. The story is followed by two activities through which children explore a topic in more detail.

The mainstream programme is used internationally and has been widely evaluated. Zippy’s Friends for Pupils with SEN is an adapted version of the mainstream programme, recently developed by Partnership for Children. Teachers use a Special Needs Supplement alongside the mainstream pack. Although the mainstream version was developed for children aged five to seven years, the SEN programme was designed for a wider age range to include those in primary and secondary education.

The study

This 18-month study evaluated the effectiveness, acceptability and feasibility of Zippy’s Friends for Pupils with SEN. The study focussed on the first three modules of the programme, implemented over the course of an academic year (2014-2015). Fifty-three children and young people attending eight SEN schools based in Birmingham, Northamptonshire, Greater London and Surrey were recruited. Quantitative and qualitative data were collected using standardised assessment scales, purposed-designed questionnaires, interview schedules, and emotion recognition tasks to assess typical and maximal behaviour of the children and to collect feedback on the programme. Data were collected from children, parents/guardians/care givers, and teachers before and after the intervention.

Main aims of the study

- To evaluate the effectiveness of Zippy’s Friends as an intervention for improving social skills, coping skills and emotional literacy in children and young people who attend SEN schools.
- To assess the feasibility of the research methods, including provision of the intervention, recruitment and assessment procedures.
- To explore the experience and acceptability of the intervention to children and young people, parents/guardians and teachers.
To ensure that issues of diversity (gender, ethnicity, age and ability) are considered in data collection, analysis and discussion.

Key findings

- The Zippy’s Friends for SEN programme is both feasible and acceptable to children with SENs, their teachers and their parents.
- Before and after Zippy comparisons (teachers’ ratings) indicated that the children’s social skills, emotional literacy, and emotional recognition improved. Significant improvements were observed in communication, cooperation, assertion, responsibility and self-awareness.
- The children demonstrated improvements in key areas of emotional literacy (three of the five domains identified by Salovey and Mayer, 1990: self-awareness, ability to manage emotions, and relationship skills).
- Self-motivation and empathy did not improve.
- None of the demographic variables (gender, ethnicity, age and ability) were related to change from baseline to end-point.
- The children and young people demonstrated improved emotion recognition skills. Specifically, they demonstrated improved emotion naming when presented with symbols.
- Teachers provided positive feedback about the programme and the support and training they had received.
- Teachers noted that the programme had to be tailored to individual needs and for some pupils elements of the programme had to be further simplified.
- Teachers reported that the children struggled to understand the concepts of jealousy and nervousness.
- Teachers found the programme unsuitable for some pupils (children with severe communication and cognitive deficits and those with severe autistic features and peer relationship and engagement problems).
- Teachers reported anecdotally improvements in the children’s use of verbal language, ability to identify and communicate emotions, self-expression, asking for help and trying out alternative coping strategies. However, the teachers were cautious about attributing all these positive effects to Zippy.
- The quantitative parent measures did not demonstrate any changes. These measures indicate that improvements shown by the children at school do not appear to have generalised to the home environment.
- However, the parents interviewed provided positive feedback. They recognised the importance of teaching emotional literacy to children with SEN and they felt that the programme was engaging and appropriate.
- These parents provided anecdotes of a number of behavioural improvements in their children, including improved communication skills and mood.
- The children interviewed were positive and enthusiastic about the programme. They could recall features of the programme (including some of the ‘rules’ they were taught) and had enjoyed learning about Zippy and Zippy’s friends.

Practice recommendations

The findings of this study suggest that the adapted version of the Zippy’s Friends mental health promotion programme can have beneficial effects for children with SEN particularly in the areas of self awareness, ability to regulate emotions and relationship skills. The evaluation also identified a
number of further modifications that need to be considered in order to improve efficacy and make the programme suitable for a wider range of children attending SEN schools.

- The SEN classes took longer to complete the three modules (average of 16 sessions instead of 12). Schools should factor this in when scheduling the programme to allow sessions to be split over multiple lessons and to allocate additional time to more complex topics.
- One class terminated the programme early as the teacher felt it was unsuitable for her largely non-verbal pupils. The programme may therefore require further adaptations to improve its suitability for children with limited verbal skills.
- There is also a need to develop specific adaptations for pupils on the autistic spectrum and use materials that are less reliant on abstract concepts and hypothetical situations.
- As it stands, the programme appears to be most suited to those with P Levels 6 and above.
- Teaching on nervousness and jealousy and how to cope with these emotions was least successful and requires further modification.
- It should be clarified in the SEN supplement package that learning components need to be practised and consolidated before the children may fully understand and retain some of the concepts. Teachers should be reassured that the programme revisits the materials and provides opportunities for repetition and practice.
- Positive changes in behaviour were not identified from the parent measures (although parents did provide some anecdotal evidence). Furthermore, the parents interviewed reported little or no knowledge of the programme. Schools may consider active involvement of parents in the programme to improve consistency and generalisation from school to home environments.

Recommendations for future research

- Further research involving larger samples and with a longer duration is required to establish efficacy of the whole programme (this study evaluated the first half of the programme only).
- Children with significant hearing or visual impairments were excluded from the current study. Further research should explore whether the programme is suitable for these pupils.
- Further research should include a post-intervention follow-up period to investigate whether positive outcomes are maintained after the programme.
- Future research should involve parents more actively to improve response rate for the parent measures and interviews.
- There is currently a lack of literature to assist with the selection of outcome measures for use with children with SEN. Future research may consider using the Social Skills Improvement Rating Scale (SSiS) as a primary outcome measure as the SSiS demonstrated face validity and was sensitive to change over time in this study.
- The Strengths and Difficulties Questionnaire (SDQ) did not demonstrate any significant changes over time. Other researchers have also commented on the apparent lack of sensitivity of this measure and we do not recommend the SDQ for future research.
- The programme aims to support children in developing their own coping strategies rather than prescribing specific coping strategies. Further research should investigate how teachers implement this element of the programme, establish whether it is effective and whether, according to behavioural outcome measures, such an approach is superior to a prescriptive ‘rulebook’ approach for children with SEN.
Introduction and Aims

Clinically diagnosed mental disorders may affect 10% of children and young people aged 5-16 years (Green et al., 2004). Lack of investment in mental health promotion in primary schools is likely to lead to significant costs for society. The World Health Organisation emphasises the importance of coping skills in mental wellbeing (WHO, 2001). Ineffective coping skills can lead to problems in psychological development, including depressive symptoms (Kraag et al., 2006; Herman-Stabl et al., 1995). Research shows that a child’s emotional, social and psychological wellbeing influences their future health, education and social prospects. Children who experience emotional and social problems are more likely in later life to misuse drugs and alcohol, have teenage pregnancies, lower educational attainment, be untrained, unemployed and involved in crime or violence (Adi et al., 2007a; Adi et al., 2007b).

The National Institute for Health and Care Excellence in the UK (NICE, 2008) published guidelines to promote social and emotional well-being in primary school education. NICE recommends that help should be provided for those most at risk of or already showing signs of social, emotional and behavioural problems, and that schools should be equipped to deliver programmes to develop children’s social and emotional skills. Such skills include problem solving, coping with stress, conflict management/resolution, and understanding and managing feelings. The UK Government recognises the importance of promoting social and emotional wellbeing in their National Initiative Social and Emotional Aspects of Learning (SEAL) but as yet there are no adaptations for children with SEN.

Emerson & Hatton (2007) reported that the incidence of mental problems among children and adolescents with learning disabilities (LD) is 36% compared to 8-10% among the general child population. The high prevalence of mental health problems and challenging behaviour in adults with LD indicates that teaching emotional management and coping skills are components of the SEN syllabus that are as yet under-emphasised.

Zippy’s Friends is a preventative educational programme for children aged 5-7 years. It has been used in mainstream schools since 2002 and is currently implemented in 28 countries. The programme was developed by Mishara and colleagues as a universal, low-cost programme that is flexible and not resource intensive so it can be delivered in schools worldwide, regardless of culture or language (Mishara & Bale, 2004). The programme is currently co-ordinated by Partnership for Children, a charity based in the UK. Partnership for Children promotes mental health in children across the world and has recently developed a SEN supplement for the mainstream programme to provide adapted resources for use with children with SEN of primary and secondary school age.

Zippy’s Friends is focussed on the development of emotional literacy to enable children to develop skills that can lead to improved adjustment to social stressors and to psychological wellbeing in later life. Emotional literacy is defined as the ability to recognise, understand, manage, and express emotions (Sharp, 2001). Salovey and Mayer (1990) identify five domains, namely, self-awareness, ability to manage emotions, self-motivation, empathy, and relationship skills. The aim of Zippy’s Friends is to support children to develop skills relating to these five domains with a focus on problem solving and expanding their repertoire of coping skills (Partnership for Children, 2007; Mishara & Bale, 2004). Furthermore, improving adaptive skills to appraise situations and evaluate the utility of specific coping strategies is central to the programme (Mishara, 2007). The programme takes a positive, solution-focussed approach to emphasise positive emotions, strengths and sources of support.

---

1 Learning disabilities and special educational needs are used interchangeably throughout.
Research has demonstrated that developing such coping skills can improve self-esteem, prevent dysfunctional stress reactions, and reduce incidence of serious emotional problems (Spence et al, 2003; Sandler et al, 2000; Mantzicopoulos, 1997). Lazarus and Folkman (1984) proposed that coping with stress ‘refers to changing cognitive and behavioural efforts to manage specific demands that are appraised as taxing or exceeding the resources of the person’. There is evidence that children and adults with a wider repertoire of coping strategies experience fewer negative consequences from stressful situations, both in the short and long term (Mishara, 2007).

A systematic review found support for the effectiveness of Zippy’s Friends in relation to children’s use of coping skills, increased emotional vocabulary and positive behaviours (Wills, 2010). The review identified four English-language controlled studies, conducted in England, Denmark and Lithuania between 2000 and 2010. Since Wills’ review, Clarke and Barry’s (2010) high quality research on the effect of Zippy’s Friends on the emotional wellbeing of 523 primary school children in ‘disadvantaged’ schools in Ireland found a significant positive effect of Zippy’s Friends on emotional literacy, with significant increases in the intervention group’s scores for self-awareness, self-regulation, motivation, empathy and social skills. No programme effects were found, however, for behavioural problems as measured by the Strengths and Difficulties Questionnaire, which is made up of four subscales: emotional symptoms, conduct problems, hyperactivity/inattention and peer relationship problems. More recently, Clarke, Bunting, and Barry (2014) reported that the significant increase in emotional literacy in the intervention group was maintained at 12-month follow-up. One limitation of this research, which applies to many of the studies evaluating the mainstream Zippy programme, is that it relies on informant measures from teachers who are not blind to the status of the participants or the aims of the research, so there is a risk of response bias.

Holen et al (2012) also conducted a large randomised controlled trial with 1483 7-8 year old children in Norway. They found the Zippy programme to have a significant positive impact on coping and mental health outcomes. Coping improved more significantly in girls, whereas mental health improved more in boys.

Zippy’s Friends for pupils with Special Educational Needs was developed by partnership for Children to provide early preventative interventions and address the paucity of resources specifically designed for those with SEN. The programme has not yet been formally evaluated, so this study aims to investigate the feasibility, acceptability and effectiveness of the SEN programme. It is a particular goal of the Judith Trust (funders of the evaluation) to investigate and seek to prevent and provide remedies for mental ill-health in children and adults with learning disabilities, retaining awareness of the variations in types of mental ill-health suffered by girls and boys, women and men.

**Aims of the evaluation**

- To evaluate the effectiveness of Zippy’s Friends (restricted to modules 1-3 to ensure the study could be completed within one academic year) as an intervention for improving social skills, coping skills and emotional literacy in children and young people with SEN who attend SEN schools.
- To assess the feasibility of the research methods, including provision of the intervention, recruitment and assessment procedures.
- To investigate process issues in the implementation of the intervention, including fidelity, mechanisms of impact and effect of context.
- To explore the experience and acceptability of the intervention to children and young people, parents/guardians and teachers (including assistants).
- To ensure that issues of diversity (gender, ethnicity, age and ability) are considered in data collection, analysis and discussion.
Method

Study Design

A mixed methods, repeated measures study of children and young people with SEN who participated in the Zippy’s Friends for SEN programme (modules 1-3). Participating schools started the programme between November 2014 and January 2015. Quantitative data collection included testing children and young people (to assess maximal behaviour) and questionnaires completed by informants (teachers/teaching assistants and parents/guardians/caregivers to assess typical behaviour) administered at baseline, prior to the intervention (October-December 2014) and at end-point (May-August 2015). Qualitative interviews with teachers at mid- (January-May 2015) and end-point (May-July 2015) were conducted. A sub-sample of parents and children were also interviewed after completion of the programme (August-September 2015).

Zippy’s Friends

Zippy’s Friends, coordinated by the charity Partnership for Children (www.partnershipforchildren.org.uk) is a manualised, educational, mental health-promotion package comprising six modules. It is based around a set of six illustrated stories about a stick insect called ‘Zippy’ and his friends (a group of young children). Each story involves Zippy and his friends confronting issues that are familiar to young children including friendship, communication, feeling lonely, bullying, dealing with change and loss, and making a new start (titled: Feelings, Communication, Making and Breaking Relationships, Conflict Resolution, Dealing with Change and Loss, and Coping).

The programme is delivered by teachers and teaching assistants during routine classroom time, typically over a 24-week period with one 45-minute session per week (four sessions per module, 24 sessions in total). Each session begins with a review of what pupils learned the previous week. The teacher then reads part of the story followed by the pupils participating in activities such as playing games, drawing or discussion. Repetition is a key feature of the programme to reinforce key messages and embed learning.

The SEN programme closely aligns with the mainstream programme but has additional resources and supplements to facilitate the implementation of the programme to children with a wide range of abilities. The SEN programme provides a selection of alternative activities (around five for each of the mainstream activities), and the stories have been adapted at four different ability levels using WIDGIT symbols. The activities include craft sessions, completion of worksheets, role-plays, discussion and use of metaphors.

Whilst the mainstream programme was developed for children aged 5-7 years, the SEN programme was designed to be appropriate for a wider age range to include those in primary and secondary education. Teachers are advised to take a flexible approach to make the programme ‘age appropriate’ (including consideration of mental/emotional age). Owing to the increased complexity of running the programme with SEN pupils, completion may take longer to allow for shorter sessions, repetition of sessions, or completion of a range of activities attached to each session before moving onto the next. Therefore, this study evaluated the first three modules to ensure adequate time for completion within one academic year, and allowing time for end-point data collection.
The first module aims to improve the ability to recognise difficult feelings and to use coping strategies to deal with those feelings. The second module aims to improve the ability to communicate feelings and more general communication with others. The third module aims to improve the ability to make friends and to cope with rejection and loneliness.

Prior to running the programme, teachers attended a one-day training course. Teachers also received standard support and supervision through direct observation of one session and attendance at two support meetings. Additional telephone and email support was available upon the request of the teacher. All training and support was provided by Partnership for Children.

Participants and Recruitment

Schools were recruited from three locations, namely the West Midlands (predominantly, Birmingham), Northamptonshire and the South-East (predominantly London and surrounding areas). SEN schools were identified from those known to the research team, those known to Partnership for Children, internet searching, Local Authority lists of special schools and through networks of special schools. Websites of potentially eligible schools were screened for relevance: those specialising in education for pupils with profound and multiple learning disabilities, sensory needs, or ages below 6 or above 15 years were not contacted.

Forty-three schools representing a range of independent, local authority, primary, secondary, co-educational, urban, rural, faith and non-faith schools were contacted by email and phone. Interested schools were provided with information packs. Recruitment closed when the target number of schools had been reached and schools were closing for the 2014 summer break.

Ten community day (non-residential) SEN schools were recruited in June-July 2014. Two schools subsequently withdrew due to a lack of capacity and changes in circumstances, leaving a sample of 8. Four schools were located in Birmingham, two in Northamptonshire, one in Surrey, and one in Greater London. Seven schools were local authority maintained and one was independent. All schools were mixed gender and provided education to pupils with learning disabilities with/out additional needs; one school was a specialist school for pupils with autism. Three were primary (pupils aged 3-11 years), two were secondary with colleges (pupils aged 11-19 years) and three were all-age for pupils aged up to 19 years.

A teacher in each school was selected to coordinate the programme. Teachers were selected through discussion with Head Teachers or other school representatives based on their motivation and openness to the approach. Schools were offered flexibility in how they implemented the programme: six schools chose to involve an existing class and two schools formed a class specifically for the programme, drawing pupils from multiple classes to ensure that at least five pupils met the eligibility criteria described below.

Eligibility Criteria for Individual Children and Young People:

- Aged 5 to 15 years
- Performance (P) level for Personal, Social and Health Education (PSHE) between 5 and 8, based on most recent assessment
- Performance (P) level for English Speaking of at least 4 (to indicate presence of communication through at least single words, signing or symbolic communication)
- Absence of significant hearing or visual impairments that may limit the child’s access to the programme (to be determined through discussion with the teacher, on a case-by-case basis).
The Performance (P) Scales (Qualifications and Curriculum Authority, 2009) are statutory assessment scales in the UK used when reporting attainment for pupils with SEN who are working below Level 1 of the National Curriculum. P level assessment is not compulsory for Personal, Social and Health Education (PSHE), but is commonly assessed in schools towards the end of each academic year. The assessment carried out at the end of the academic year 2013-2014 was used to screen potential child participants. A P level 4-5 for PSHE indicates that the child can maintain interactions in small groups with some support and can combine two elements of communication to express feelings, needs and choices. A P level of 8 indicates that the child demonstrates autonomy and awareness of others. P levels for PSHE were not available for one school so the teacher was asked to provide estimations.

Parental/guardian consent was sought using postal recruitment packs sent to the parents/guardians of each eligible child in the identified class. A letter of invitation, information sheets, reply slip and pre-paid envelope were included in each pack. An opt-out system for recruitment was selected to minimise any burden on parents/guardians. Parents/guardians were given over two weeks to respond and only one parent returned a reply slip to decline participation.

Assessments and Outcome Measures

A range of measures was used to assess typical and maximal behaviour of the child participants (see Table 1; further details on the measures are presented in Appendix 1). Measures of typical behaviour are obtained through self- and informant- report and are based on respondents making a judgement about how the child usually behaves. Measures of maximal behaviour require respondents to complete a task, designed to tap into the underlying construct in question. Measures of maximal behaviour are considered to be a more ‘direct’ measure of emotional literacy and are not subject to the high levels of bias and social desirability inherent in typical measures (Wigelsworth et al, 2010).

Demographic information relating to the child participants was collected from teachers at baseline using a self-complete questionnaire (date of birth; gender; ethnicity; cultural/religious affiliations; living arrangements; expressive verbal communication; comorbid diagnoses, including autism spectrum conditions, mental health conditions, genetic conditions, physical health conditions, physical disabilities and sensory impairments; family structure; current interventions, including medication and psychological and medication).

Informant-rated social, emotion, and coping skills and problem behaviour were assessed at baseline (1-12 weeks prior to the intervention and at least 8 weeks into the start of the academic year to allow children to settle) and end-point (3-8 weeks after completion of the third module). Self-complete, postal questionnaires were sent to parents/guardians and teachers who were asked to rate each child participant for the previous six-month period at baseline (or the period they had known the child if less than six months) and the previous one-month period at end-point. Parents/guardians were offered the option of completing the questionnaire as a telephone interview and reminder letters were sent to those not responding.

The emotion recognition tasks were conducted at baseline and end-point with a sub-sample of children (all child participants in the Birmingham schools were invited to take part). The tasks were designed by the research team and are based on tasks used in previous research. All assessments were conducted at school, by a member of the research team (KT and GU) in a quiet room (preferred to minimise distractions) or a quiet space within the classroom. The order of the tasks and items within each task were randomised across participants to control for order effects. Participants were not given any feedback on the accuracy of their responses.
<table>
<thead>
<tr>
<th>Measure, author/publisher</th>
<th>Respondent</th>
<th>Subscales</th>
<th>Items</th>
<th>Scoring and direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measures of typical behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Emotional Literacy Assessment and Intervention (EL)             | Teacher    | Self-awareness                   | Total: 20 | 1-4 per item  
| Southampton Psychology Service (2003)                          |            | Self-regulation                  | 5 items per subscale     | Total 5-20 for each subscale  
|                                                                 |            | Motivation                       |                     | Subscale scores can be totalled to provide an overall emotional literacy score of 20-80  
|                                                                 |            | Empathy                          |                     | Higher scores indicate higher levels of emotional literacy  
|                                                                 |            | Social skills                    |                     |                                                   |
| Strengths and Difficulties Questionnaire (SDQ)                  | Teacher    | Emotional symptoms               | Total: 25 | 0-3 per item  
| Goodman (1997)                                                  | Parent     | Conduct problems                 | 5 items per subscale     | Total 0-10 for each subscale  
|                                                                 |            | Hyperactivity/inattention        |                     | Subscale scores (excluding prosocial behaviour) can be totalled to provide an overall difficulties score of 0-40  
|                                                                 |            | Peer relationship problems       |                     | Higher scores for the difficulty items indicate increased difficulties. Higher scores for the prosocial behaviour subscale indicate higher levels of prosocial behaviour  
|                                                                 |            | Prosocial behaviour              |                     |                                                   |
| Social Skills Improvement Rating Scale (SSIS)                   | Teacher    | Communication                    | Total: 46 | 0-3 per item  
| Gresham & Elliott (2008)                                        | Parent     | Co-operation                     | 6-7 items per subscale  | Total 0-17/21 for each subscale  
|                                                                 |            | Assertion                        |                     | Subscale scores can be totalled to provide an overall social skills score of 0-138.  
|                                                                 |            | Responsibility                   |                     | Higher scores indicate higher levels of social skills  
|                                                                 |            | Empathy                          |                     |                                                   |
|                                                                 |            | Engagement                       |                     |                                                   |
|                                                                 |            | Self-control                     |                     |                                                   |
| **Measures of maximal behaviour**                               |            |                                  |       |                                                   |
| Emotion recognition tasks                                       | Children   | Emotion recognition in symbols   | Total: 20 | 1 point per item  
| and young people                                               |            | Emotion recognition in photographs| 5 items per task     | Total 0-4 for each task  
|                                                                 |            | Emotion naming in symbols       |                     | Scores for the emotion tasks (excluding the control task) can be totalled to provide an overall emotion recognition score of 0-16.  
|                                                                 |            | Linking emotions and activating  |                     |                                                   |
|                                                                 |            | events                           |                     |                                                   |
|                                                                 |            | Control task                     |                     |                                                   |
To explore the experiences of stakeholders in the intervention, semi-structured interviews were conducted with teachers, parents and child participants. All teachers involved in the study were invited to take part in a face-to-face or telephone interview during the programme (after 8-11 sessions) and at the end of the programme (1-6 weeks after completion of the third module). Six teachers were interviewed at mid-point (it was not possible to arrange an interview within the timeframe with two teachers) and all teachers were interviewed at end-point. Twenty-six parent/child dyads (representing half of the sample) were invited to take part in interviews using a letter of invitation sent to parents. Recipients were selected to obtain a subsample with maximum diversity (based on gender, ethnicity, age of child participant, type of school and location of school). Four parent/child dyads agreed to be interviewed. These interviews were conducted face-to-face, in the family home, within 3-4 months of completion of the programme. All interviews were audio recorded.

**Interviews with Parents/Guardians for those who live at home**

Four parents were interviewed. The interviews were guided by an interview schedule designed to explore the acceptability of the intervention to parents, the perceived impact of the intervention on the child’s coping skills and emotional literacy, as well as home atmosphere and family dynamics. The interview schedule was adapted to allow parents with little or no prior knowledge of the programme to take part. A selection of materials from the programme were presented for feedback and discussion. The interviews lasted 30-50 minutes. One parent had limited English language skills and asked a family member to act as translator.

**Interviews with Child Participants**

Interviews with child participants were conducted on the same day as the interview with their parent, in the presence of their parent/guardian. In addition to parental consent, verbal agreement was obtained from child participants immediately before the interview. Interviews lasted 10-20 minutes and explored the participants’ understanding of Zippy, what Zippy meant to them and how they identified with the stories. The participants were also asked about how they felt about the programme, how it had affected their relationships with peers, and how they deal with and articulate their emotions. Visual aids (for example, pictures of Zippy and a copy of the rules for choosing a helpful solution) were used in the interview and the interview schedule was designed to be flexible so that it could be adapted to meet the communication style of the participant. Children with limited expressive verbal communication were interviewed with transcripts supplemented by observer notes.

**Interviews with Teachers**

Interim and end-point interviews lasted 10-40 minutes and explored the process of implementing the intervention, how the materials were used and teaching strategies employed, the acceptability of the intervention, recommendations for refinements, and perceptions of the impact of the intervention on individuals and classes.

**Session Feedback Sheets**

Teachers completed a process log form after every session. This was an extended version of a feedback form already in use by Partnership for Children and included Likert rating scales as well as open ended questions. The forms recorded the content of each session (including ratings on each activity used based on a 5-point scale) and any feedback on implementation, reflections, barriers, facilitative practices and modifications/adaptations. Information on whole class dynamics and
classroom atmosphere was also recorded as well as individual participants’ concentration, comprehension and participation in sessions, positive interactions with peers, coping with conflicts, emotion regulation (each rated on a 11-point scale), and information on any life events that may have affected the child participants.

Data Analysis

The subscale scores from the measures of typical and maximal behaviour were analysed to:

- Examine the profile of typical behaviour at baseline
- Explore the relationships between behaviour and demographic variables (age, gender, ethnicity, expressive verbal communication, PSHE level, and English speaking level)
- Examine changes in typical and maximal behaviour from baseline to end-point
- Investigate the effect of demographic variables on change in typical behaviour over time.

Appendix 2 provides further details of the quantitative data analyses. The ‘p-level’ (used to indicate statistical significance of statistical tests) was set at 0.01 so that a p-value at or below this figure indicates a significant effect.

The interviews with teachers were transcribed verbatim to allow for a thematic analysis. An initial sample of two transcripts from the interim interviews were analysed by the research team using a thematic approach (Braun & Clarke, 2006) to identify common and important themes relating to the programme (content and delivery), students (including evidence of impact on students) and teachers themselves. These themes were used to develop an analytic template which was applied to the remaining interim and end-point interview transcripts. This process involved coding the text in the transcripts under thematic headings, in order to assemble data relating to each identified topic. The template was modified as analysis progressed to include new themes and remove redundant themes. Members of the research team (GU & KT) independently conducted the analysis which was then discussed amongst the team.

The interviews with parents and children were analysed directly from the audio-recording (IT). A thematic approach was used to analyse the parent interviews (Braun & Clarke, 2006) and similarities and differences in their accounts were explored. Emerging initial themes were identified and subsequently grouped into broader themes through discussion amongst the research team. Owing to the nature of the data from child participants, the data were analysed with reference to the children’s response to and recollection of Zippy. A summary of their feedback about the programme is presented, supplemented by observations made during the interview to provide an impression of how the child felt about the programme. A narrative synthesis is provided to outline the key findings of the interviews, along with illustrative quotes.

The session feedback forms provide detailed session-by-session data. We report the main findings from the pre- and post- intervention data analysis here, however, additional work will analyse the feedback forms to generate detailed information on the process of implementing the programme and recommendations for development of the resources. The template derived from analysis of the interviews with teachers will be used to organise the data. Analysis will focus on the content, duration and acceptability of each session along with any recommendations for modifications.

Ethical Considerations

Ethical approval was obtained from the University of Birmingham Ethical Review Committee prior to recruitment of participants. Parental/guardian consent was obtained for each child participant. Consent was also obtained for all parents/guardians/care givers and teachers who participated in an
Assessments with child participants were conducted in the presence of an appropriate adult (parents whilst at home and teachers whilst at school). Teachers and teaching assistants advised on whether child participants would be able to tolerate assessments, including how they would respond to strangers and any changes to routine. Verbal agreement was obtained from child participants prior to any assessment or interviews.

Results and Discussion

Fifty-three children and young people were recruited to take part in the study. Table 2 presents the demographic profile of the sample.

Table 2: Demographic profile of the child participants (N=53)

<table>
<thead>
<tr>
<th>Type of school</th>
<th>35.8% Primary</th>
<th>34.0% All age</th>
<th>30.2% Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at baseline</td>
<td>Mean (SD): 9.93 years (2.59)</td>
<td>Range: 5-14 years</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>75.5% male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>48.1% White British</td>
<td>21.2% Pakistani</td>
<td>9.6% White ‘Other’</td>
</tr>
<tr>
<td>Residence</td>
<td>97.8% Family home (with birth parents)</td>
<td>2.2% Family home (with grandparents)</td>
<td></td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>47.2% Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressive verbal communication</td>
<td>9.4% Non-verbal (with/out symbolic communication)</td>
<td>5.7% Single words</td>
<td>49.1% Words and phrases</td>
</tr>
<tr>
<td>Behaviour problems</td>
<td>48% Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory impairments</td>
<td>18% Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical disabilities</td>
<td>30% Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P level for PSHE</td>
<td>Mean (SD): 6.97 (1.20)</td>
<td>Range: P level 3-8</td>
<td></td>
</tr>
<tr>
<td>P level for English Speaking</td>
<td>Mean (SD): 7.57 (1.59)</td>
<td>Range: P level 3 to National Curriculum level 2</td>
<td></td>
</tr>
</tbody>
</table>

Progress with the Programme

The SEN schools took a mean of 7 sessions (range: 4-9 sessions) to complete module 1 (based on feedback from 7 schools), 5 sessions (range: 4-6 sessions) to complete module 2 (based on feedback from 5 schools) and 5 sessions (range: 4-7 sessions) to complete module 3 (based on feedback from 5 schools). A mean of 16 sessions (range: 12-21 sessions) were needed to complete the first three
modules (based on feedback from 5 schools). Classes spent less time on the later modules. This increased pace may reflect expedited learning by the students or reflect the teachers’ desire to complete the modules by the end of the academic year, in line with the research protocol. The classes tended to need more than the standard four sessions per module suggesting the progress was slower than in mainstream schools.

**Attrition**

One child was withdrawn from the study as their teacher felt the programme was unsuitable, and another participant moved classes half way through the programme for reasons unrelated to the programme. Additionally, one school ceased the programme early (after 12 sessions; n=6 child participants) because the teacher felt that it was unsuitable for the pupils. End-point data were collected for this school and the reasons for termination were explored in the teacher interview. The demographic profile and baseline teacher scores for the child participants in this class were compared to the other classes using Chi-Square and Mann-Whitney Tests. The demographic profile was similar to other classes. However, there was a larger proportion of non-verbal pupils in the class which left the programme early compared to the other classes (33.3% compared to 6.4%). The class that left the programme early also had lower scores than the rest of the classes on the SSiS Responsibility and Engagement subscales and higher SDQ peer relationship problem scores.

The SSIS Engagement subscale includes items which relate to expressive verbal communication (e.g. starting conversations with peers and teachers, introduces self to others) and participation in group activities (e.g. joins activities, interacts well with other children). SDQ peer relationship problems relates to interactions with peers and friendships. The class teacher who left the programme early stated that the lack of expressive verbal communication amongst her pupils contributed to her decision to terminate the programme early and these findings support this. The programme is built around group activities and peer-to-peer learning and therefore the lower levels of engagement and peer relationships may also have contributed.

**Change in Typical Behaviour from Baseline to End-point: Teacher Assessment**

Data were available for 43 of the 53 child participants at end-point. One teacher did not return the end-point questionnaires (n=8) and two children had left their class by the time of end-point data collection and so are not included in these analyses.

Figure 1 shows the mean scores at baseline and end-point on the SSIS for each of the subscales. Scores improved for all the subscales with Communication, Cooperation, Assertion, Responsibility, and Total social skills scores showing a statistically significant improvement (p≤.01). Asterisks on the graphs indicate significant effects.

Figure 2 shows the mean scores at baseline and end-point on the EL. Across the sample, scores improved for all the subscales apart from empathy, with self-awareness, social skills and total emotional literacy showing a significant improvement (indicated by asterisks). Empathy, as measured by the EL, remained largely stable over time.

Figure 3 shows the mean scores at baseline and end-point on the SDQ. None of the changes were statistically significant. Other studies have reported a lack of sensitivity in the SDQ to detect change over time (e.g. Clarke & Barry, 2010).
Figure 2: Mean scores on the Teacher EI: Before and after Zippy's Friends
Tests for interaction effects of demographic variables on change over time were performed. There were no interaction effects for gender, ethnicity or baseline PSHE level (lower versus higher ability). There was a statistically significant interaction between time and age (younger versus older) on the SSIS Empathy subscales: only younger children showed a significant improvement in empathy; the scores of older children remained stable over time. It may be that, as older children scored higher on the subscale at baseline, they have reached a ‘ceiling’ where empathy was unlikely to improve further. This ‘ceiling’ may also relate to the method of measurement whereby improvements in empathy were unlikely to be observed by others. Alternatively, younger children (aged 5-10 years) may enter a particular developmental phase during which empathy is acquired.

Baseline English speaking educational level (lower versus higher ability) interacted with change in SDQ Prosocial behaviour and SSIS Self-control. The higher ability children improved more in terms of prosocial behaviour and self-control than the lower ability children. It must be noted that the higher ability children had lower scores on self-control at baseline compared to their less able peers. It may be that children with more expressive communication demonstrated more lapses in self-control as measured by responses to inter-personal conflict whereas lower ability children had fewer peer-to-peer interactions and therefore less potential for inter-personal conflict.
Change in Typical Behaviour from Baseline to End-point: Parent Assessment

Eighteen parent questionnaires were received at baseline and 11 at end-point. Ten parents returned questionnaires at both baseline and end-point, representing around 20% of the sample. The demographic profile of the 10 child participants to which these relate is provided in Table 3. Questionnaires were received from parents of children from all of the schools at baseline. The ten paired assessments represent seven of the eight schools and include two questionnaires from parents of children in the class which terminated the programme early. The profile of the children for whom parent assessments were received was similar to the whole sample.

Table 3: Demographic profile of child participants for whom parent questionnaires were returned at baseline and end-point (N=10)

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at baseline</td>
<td>10.20 years (2.62)</td>
<td>5-14</td>
</tr>
<tr>
<td>Gender</td>
<td>60% male</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>60% White British</td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>100% Family home</td>
<td></td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>50% Present</td>
<td></td>
</tr>
<tr>
<td>Expressive verbal communication</td>
<td>30% Non-verbal, symbolic communication or single words</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40% Words and phrases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30% Full sentences</td>
<td></td>
</tr>
<tr>
<td>Behaviour problems</td>
<td>50% Present</td>
<td></td>
</tr>
<tr>
<td>P level for PSHE a</td>
<td>7.00 (.93)</td>
<td>6 to 8</td>
</tr>
<tr>
<td>P level for English Speaking b</td>
<td>7.44 (1.33)</td>
<td>6 to National Curriculum Level 1</td>
</tr>
</tbody>
</table>

aData were not available for 2 participants.
bData were not available for 1 participant.

Figures 4 and 5 show the mean scores for the parent measures at each time point. All problem scores on the SDQ reduced (improved) over time and prosocial behaviour remained stable. Four of the subscales on the SSiS increased over time (indicating improvement). However, statistical comparisons of baseline and end-point scores revealed no significant differences between any of the SSiS Social Skills or SDQ subscales. The small number of participants entered into the statistical analyses reduced the likelihood that significant changes would be identified. The trend towards improvements may only relate to maturation over period of the study (and not to the Zippy programme) and the lack of significant improvement (as compared to the significant results found for the teacher-informed measures) may suggest that changes in behaviour are specific to school environments. Owing to the small number of participants, analyses for interaction effects with demographics were not performed.
Figure 4: Mean scores on the parent SDQ: Before and after Zippy's Friends
All 27 child participants based in Birmingham participated in the emotion tasks. The tasks could not be completed with two participants at end-point: one participant had moved school before the assessment and a further participant had left the programme. Figure 6 shows the mean scores at baseline and end-point on each of the emotional recognition tasks. Performance improved on all tasks with a significant improvement in overall emotion recognition. There was no significant improvement on the control task. The improvement in emotion naming from symbols was particularly notable. This positive finding indicates that children could name emotions from symbols, suggesting an improvement in use of emotional vocabulary. However, whether this improved ability generalises to more ‘real-life’ scenarios requires further investigation.
Qualitative Feedback from Teachers

All the teachers interviewed were class teachers (not teaching assistants) and were female. The analytic template drew out information relating to the teachers’ response to the programme, the pupils’ response, programme-related feedback and appropriateness/suitability of the programme. An overview of the key themes are presented. Overall, the teacher feedback was positive. The teachers enjoyed teaching the programme and reported that their pupils enjoyed the programme and were engaged. All teachers identified areas of improvement across some or all of their pupils. None of the teachers identified significant issues with the programme or suggestions for major changes. However, most identified some challenges in delivering the programme and all modified the resources. Tailoring the programme to suit the needs of individual children was key and teachers were impressed with the adaptability and comprehensiveness of Zippy’s Friends. However, the teachers were concerned with the applicability of the programme across ability and communication levels and those with severe ASD. The teachers recommended that the programme was most suited to higher ability children with SEN with some verbal communication and without severe ASD. These children also tended to respond better to the programme. Some elements of the programme were not suitable for those with more severe LD, no expressive verbal communication and severe ASD.
Teachers’ Experiences

Enthusiastic, but sceptical preconceptions

At the outset, the teachers were enthusiastic about the programme, especially the content, but most were sceptical about whether it would be suitable for their pupils.

I was a bit nervous, because I didn’t know how they would respond to something new, but I think having Zippy as an item really helped. Because they understand Zippy. And they understand, ‘oh I know what’s going to happen now’. And they’ve really enjoyed it. They’ve enjoyed the stories a lot and the little activities. They’ve really enjoyed that.

The training day I think was quite interesting actually, and just trying understand it all, and I think at the time I was a bit whoa, this is a bit loads of things, I’m not quite sure whether it would be suitable for our children. But looking through the resources and going through the manual a bit more, and now actually teaching it, yes it is suitable for the children. But it’s done in different ways for different children.

Enjoyable, but at times challenging to teach

Five of the teachers explicitly reflected on having enjoyed teaching the programme. However, most also felt that the programme could be challenging at times and required commitment and perseverance. Four of the teachers said they would like to continue the programme in the following academic year, however, they were unsure how this would work due to changes to classes and school organisation. Three teachers would cautiously recommend the programme to other classes in their school and other schools, but felt that it may not be suitable for all. Another teacher was supportive of the goals of the programme, but would not recommend it for their school as they felt it was too complex for their pupils.

I have really enjoyed taking part. I’m really glad... I was coming into something I didn’t chose to do but I’ve always had a real interest in PHSE, because it’s so important. Things like making friends and talking about their feelings, I always like to teach, so it’s been very good.

Yeah. As I said before, I found some of the parts of the programme quite difficult to run. Especially with my less able children within my group. But as time’s gone on I’ve found I have had to adapt a lot less with the activities, because there are a lot of elements that are repeated and consolidated over the course of the programme. And that’s made it easier as you’ve gone along.

On the whole we are really, really impressed with it, and quite surprised with the results that we’re getting with the children... I think it’s a really good programme. I know that any PHSE programme would have results but this has some really good results. I’m only in class a few lessons a week. So it’s very easy for me. I have the plan for the whole year, and I’ve got all the resources. So I found that really helpful.

Pupils’ Experiences

An engaging and enjoyable programme
All the teachers could identify activities that the children especially enjoyed and engaged in. Seven teachers explicitly reflected that their pupils enjoyed the programme as a whole. Pupils especially liked activities, such as role play, that incorporate a practical element. Class teachers therefore adapted some sessions to include more of these features, for example, one teacher introduced additional role plays and found these were especially helpful for content that pupils found difficult to understand. Three teachers highlighted how their pupils enjoyed the stories. Some pupils especially responded to the ‘Friends’ module.

Erm... they like the games. And erm... they like the snakes and ladders and things like that in Module 1. And then they like things when they can come and stick things up. So we did like the dustbin, and there was one activity when they had to choose a good solution, a bad solution. So they liked that. Erm... and then they've kind of, act out different solutions, and acted out different scenarios. And they find that hysterical.

They quite liked games-based activities where it asked for kind of sharing activities. Erm... so where we've looked at how to ask for help, communicate, how to share, how to turn take. We've used lots of practical games. Even things like sensory toys. And the more practical it's been in terms of physical resources, tactile resources, the more they've been engaged and enjoyed it.

It’s having the Zippy. Erm... and Zippy has been watching all week, and passing Zippy around if you’re talking. And they’re talking back. And they are enjoying the role play as well. Which they wouldn’t have done in September.

Improved engagement and understanding over time

Some teachers highlighted that their pupils took some time to adjust to the programme, others emphasised how pupils were interested from the beginning of the programme. Engagement with and understanding of the programme improved over time. Pupils became familiar with the content and structure of the programme and demonstrated increased understanding. Pupils became more settled over time and could anticipate the aims of the programme and the structure of sessions.

[I] think because you’ve got the physical Zippy bit [knitted Zippy’s toy], that’s why we waited until we got it to start, they took on that it was something new and that each lesson we were going to be taking about things, erm... so they responded, and all were very interested from the beginning.

Oh and it’s a Zippy’s Friends lesson, and erm... in the other class there’s like a toy and they really like to like hold that and pass it round. And in my class they’ve got like a picture but they always know when it’s time for Zippy’s, and they’ll tell you all, we’re going to learn about feelings, and that kind of stuff. And they know all the rules, my class do. And they always recite the rules and stuff. So on the whole they seem to like it and respond quite well to it. There’s one child in my class who has a big behaviour issue and he doesn’t like it at all and won’t join in at all. But apart from that in both classes they both seem to respond quite well.

Erm... we’ve had to kind of adapt slightly those little bits, but in general it’s working quite well really and they’ve got used to the kind of structure of the session, and they seem to, kind of when we do the feedback session at the end, where they’re kind of talking about did they like the session, how did they feel during the session, they’ve seemed to have really got to grips with that erm... and I’m, finding the longer we go on,
the more sessions we cover, the more engagement I have in the session, and the better I see they’re beginning to understand it. I mean the first session of module three we did looking at friends and how to treat our friends they seemed to really understand, even the low level children seemed to have really grasped that quite well.

Some teachers identified specific pupils (who were not involved in the study) who did not engage well with the programme; these pupils tended to have additional behavioural problems. One teacher described how having ASD limited the potential for impact amongst her pupils, especially due to limited peer-to-peer interactions and limited communication. However, this teacher recognised that her pupils had demonstrated improved understanding.

I have a couple of children who will initiate interaction with the children, but it’s not sort of a prolonged interaction, I only have one child that is sort of fully verbal and even his communication is a lot of mimicked communication, so it is a lot of contact with meaning behind what he’s saying, so they’re always going to find it difficult to interact and sort of communicate, that’s part of their Autism, so I don’t think it’s going to have a huge impact, but in terms of their understanding in what we are talking about during the session I’ve seen definitely an increase in that.

Improved communication and expression of emotions

Key areas of improvement included improved communication and expression of emotions. All teachers identified improved communication among some or all of their pupils and were encouraged by these results. One teacher implicated the Zippy’s Friends stories in these changes. Some pupils became more likely to volunteer information. Pupils were more likely to talk about how they felt, tell others when they were upset and explain what had happened. Seven teachers described improved use of emotional vocabulary for all or some of their pupils. More specifically, four teachers reflected on the use of a broader range of emotional language, especially around jealousy and nervousness which children did not previously use. However, some teachers explained how the use of emotional language was not always appropriate to the situations, suggesting that some pupils had not developed a firm understanding of the emotional content.

Erm... I would say, they'll talk. I think it's more talking about how they feel. If they are outside, and we ask 'how are they feeling?' They'll think before they say happy or sad. They'll think of their feelings. It's not always in the right context, but I think that they are using them is quite good.

Erm... there's been a definite improvement since we have been doing, starting it. With the way the children are communicating and saying how they're feeling. So it's not just happy and sad any more, it's cross, angry, erm... and we've sort of said to them when they are upset 'use your words, explain what's happened'. And they are better now at doing that.

I think they've got a much better grounding on talking and discussing about things, and they will now say, I am sad... they will come out with it before being asked.

And I have seen an improvement in my most able child. In their ability to sort of name, erm..., and identify emotions.

It’s certainly getting them all talking about feelings now, far more than, and I think far more than if I had chosen another PSHE type lesson plan.
Use of coping strategies

Three teachers described how their pupils were using appropriate coping strategies and demonstrated improved ability to identify and regulate emotions. One teacher reflected on how their pupils were spontaneously using the ‘Zippy relax’ technique to help each other to keep calm. Another teacher explained how their pupils were more readily asking for help to resolve difficult situations rather than lashing out. One teacher described how one of her pupils had become empowered and developed a sense of self-efficacy to be able to change situations that they were not happy about.

It’s in one of the examples in the special needs bit about feeling angry, well we did that as part of one of the angry sessions and then as I say ...they taught that to somebody else in the class and now when the people come in and they go ‘oh I’m feeling really angry about this, shall we do our Zippy relax?’ And then everybody joins in with the person doing it, so they’re sort of already seeing that that’s quite a way out of getting angry and it’s a good way of coping with it and perhaps not feeling so angry.

And the fact that they’re coming to ask for help. Rather than doing it themselves by hitting or kicking somebody.... They’re erm... they’re asking for help now.

One pupil erm... [child’s name] on your list, she’s a very much low ability pupil, low P-scales, and some of the lessons she’s really taken to and she’s really developed and she was the one whose mum no longer does what makes her feel sad at home [because she told her mum how she feels by drawing a picture] so it’s had this real importance... So I think she’s really understood the idea of feelings and how you can change them so you don’t always feel sad... [I] think before that she thought that things happened and you had no control over change so by telling us [and] by drawing a picture, and that’s all she did was draw a picture of her mum, who happened to see, then changed, and made things better for her.

Improved peer relationships

There were some examples of improved peer relationships identified by teachers. Some teachers reflected on how children interacted better with peers within the sessions, others discussed changes to friendships over the course of the programme. One teacher described in detail how two children developed friendships throughout the ‘Friends’ module.

One of the best examples... He is very, very autistic, and at the beginning he wouldn’t even come into the classroom when we were doing it [Zippy’s Friends]. And he would sit - he’s been sitting with his back towards us whilst we’d be doing it. And then eventually I’d start sort of going around the table saying [pupil’s name] - he showed he had been totally listening by his responses. We started to get bits of work out of him and things. And when we started the Friends [module], and I gave out the template, person template for them to colour in, he said of course the [name of car] won’t sit on there, and his only friend is a car called [name of car]. And that’s all he could think of as a friend. And in the end we managed to get him to pick one of the TA’s who works with him quite a lot. And he agreed that she might be friends with him. So he coloured her in as that. And then we said ‘why is she your friend?’ He had no idea. So that’s how we started the friendship one. We did so much practice of the script of how to go up and make friends. We did that in English lessons as well, not just in Zippy. We did lots of you
know going over the role-play bit. And one of the children went up and did the making of friends with him, and they’ve become friends. And he’ll say, she’s my girlfriend, I want to be with [pupil’s name] ....So, I mean for us, for all the staff, we’re absolutely amazed... And whether it was just because we were doing friends in class, whether he was suddenly at the right moment to understand friendship. I suppose you could look at it both ways. But I think it was because we had been doing so much practice on how to make friends...

Cautiously attributing causality

All teachers identified ways in which the programme may have impacted on their pupils, however, six were cautious when deciding whether this could be directly attributed to the programme. These teachers described a range of external factors that may have impacted on the pupils, including changes within the school and at home. Teachers also referred to fluctuating behaviours of children.

Erm... it’s hard to say because we’ve had that many changes... And things like that and students, and all the, the class has been quite disrupted so it’s hard to really know how things have changed... but whether that would’ve happened anyway, I just don’t know.

Erm... other children I wouldn’t say such a huge difference in. We’ve had a few examples of regulating emotions better. But I couldn’t positively say that’s because of the programme, or is it other factors that’s helped them to do that? I mean we’ve also had in the class two staff changes, which I wouldn’t say helped them with their regulation and ability to cope with change.

Feedback on the Programme: Materials, Content, Delivery and Support

A comprehensive and supportive programme

All the teachers felt that Zippy’s Friends represented a comprehensive programme with good supporting materials and detailed session plans. Three teachers especially liked how the materials were presented and structured, making the programme straightforward to teach. The teachers were especially impressed by the resources and appreciated that they could be reproduced and adapted. Some teachers remarked that this flexibility in adapting the resources set the programme apart from others they had used in the past. The teachers appreciated the wide choice of activities that were presented in the Special Needs Supplement; however, two felt that there were not enough options suitable for non-verbal children or those with ASD. Some teachers reflected on how the comprehensive Zippy’s Friends session plans have saved them a lot of time and all liked the flexibility of the programme. Four teachers especially liked that the programme was story-based as it gave more meaning to the topics. However, one teacher reflected how their pupils did not respond to the stories.

There’s enough different activities and they are all different, none of them are really similar which helps. Hmm and I think the fact that the resources are provided and all you’ve got to do is photocopy them, that really helps. You don’t have to go and look for anything.

Interviewer: Yeah, have you found Zippy’s to be any more helpful or less helpful than other schemes that you’ve done?
Erm... more helpful, in the fact that the resources are already there and you can just enlarge bits or cut bits off, whereas you know with other schemes it’s a bit more rigid following.

I’ve really enjoyed it, I think the resources are really good, really straightforward. And everything’s kind of there. I haven’t had to do a lesson plan, which saves so much time. That’s helped. And it’s the way it’s written, it’s just easy to read.

I like the fact that its story based. It’s something the children can relate to. Although it has been hard. So the more able ones have understood the story and have been able to relate some of the things and the words we’ve talked about back to it. But I do like that the fact it’s around the story - makes it more real... There are a lot of ideas for things you can do which is brilliant. And there’s obviously a lot of extra ideas of ways you can approach it.

Erm... I like the way it’s so organised. I like the fact I can pick up the book on Monday, because I do mine on Monday, this is what my objective is for this week, so I’ll start finding the resources and see if I need to change anything, and having the real structure and knowing what to teach them next has been really helpful.

**The Importance of a Flexible and Tailored Approach**

Whilst the teachers felt the programme was comprehensive, all described further adaptations to the programme to tailor it to the needs of their pupils, especially adapting the activities. Seven emphasised how these adaptations represented small changes such as developing extra resources for pupils with sensory deficits, adapting activities to non-verbal pupils, adding in more role plays, simplifying the story, adding extra pictures, and printing bigger resources. One teacher (who terminated the programme early) felt that they had to make significant changes to the programme as the activities were too complex for her pupils.

All the teachers took a flexible approach to the programme and emphasised the importance of tailoring the delivery to meet the needs of individual children. They recognised the diversity in strengths, abilities and difficulties amongst the pupils. Some teachers indicated that this was ‘standard practice’ when working with children with SEN. Some teachers highlighted the importance of planning and preparing for sessions and indicated that this could be quite resource intensive.

Because of doing it in the two classes, in the afternoon, because I have to plan it differently, it does take a while to plan and sort what’s going to suit each person. Because the children are so individual as well, so it takes me a while to get my head around which resources to actually use and get it all photocopied and stuff like that. So it takes a bit of time on a Tuesday, but apart from that it’s all there really.

I do think with some of the resources, like I said before, it’s not a one size fits all. So I’ve had to adapt resources, or look at things and chop bits off that aren’t relevant, and add bits on. But it’s just what you do normally, it’s like with any scheme of work, you have to change bits and adapt them.

They [the resources] are very useful and obviously you can’t produce something that’s going to cover everything I don’t think, because you’ve got to adapt it to certain children that are in your class, so there are bits that I have sort of changed, erm... extra pictures of people showing the emotions that we’ve been talking about I just ran off the internet
and added to it erm... so there is more that we could add to it, but I think that will always be the case with any sort of bought in resource.

One teacher felt that the programme should be adapted further to suit the needs of children with ASD. They suggested making the programme more literal and highlighted the challenge of the communication module with children with ASD. Another teacher changed the wording of rules to match the approach they used in their school. This school avoided the use of negatively phrased rules so that children had a clear indication of what they should, rather than should not do.

Erm... I mean I have used some of the activities in the session’s plans that are given. But there are some activities that I’ve had to completely address in a different way. When we talked about communication, I adapted it to the way our children communicate in our class and our school to make it suit them. So that’s the biggest change really.

The only thing I think should be adapted, especially in the manual and CD, is changing the negatives. So they don’t. Put what they should be doing. You find if you say don’t kick, they kick. They hear kick. We say ‘use kind hands and feet’.

Simplicity is key

The majority of modifications to the programme related to simplifying materials or activities. Simplifications typically involved breaking tasks down into smaller chunks. Some teachers would simplify activities relating to emotions by reducing the number of emotions from four to two. Some teachers simplified the rules by breaking them into separate steps. This process was facilitated by the teachers having the resources on a CD which allowed them to adapt them on a computer.

I think it’s the worksheets really. Some of them, I think it almost depends on the activities because some of the activities I find wouldn’t suit the children because some of them find it hard. So I have to go to the worksheets to break down myself. They’ve been good, but I’ve just broken them down myself just to help the children.

It’s just yesterday they did a looking at four different questions about how they’re feeling and then there was four different emotions so we just removed some emotions based on the ability of the children. Because I think having four symbols, I had two for some of the children three for some of the children. So just little things like that that I’ve just done.

I really like.... the two things: Does it make me feel better? Will it hurt anybody else? And we’ve broken that right down into 2 steps. ‘Does it make me feel better?’ Yes, well then maybe those are a good one. No, then bin it. And we have literally been binning the strategies and then the next one ‘will it hurt me or anyone else?’, so it’s the two step process.

The challenge of complex emotions

A particular challenge in the delivery of the first module was delivering sessions on nervousness and jealousy. Five teachers mentioned difficulties in teaching these emotions which were considered to be complex; the pupils readily understood content relating to simpler emotions such as happiness, sadness and anger. The challenges in teaching these sessions on nervousness and jealousy left some teachers feeling inadequate and disappointed. Teachers allocated additional sessions to these emotions and used repetition, modelling and role-play to help their pupils to understand. Some
teachers felt that their pupils gradually understood these emotions, however, others felt that their pupils would never understand them. Some teachers were pleased with their pupils’ awareness of these emotions and their use of vocabulary, but felt that they had not fully understood these terms. One teacher reflected on how her more able pupils, who were not included in the study as they were not P Level 8 or below, more readily understood these emotions and her other pupils were slower to pick them up. One teacher wondered whether jealousy was more appropriate for older pupils and another questioned the necessity of teaching jealousy to children with SEN. A further teacher recognised that the inclusion of these emotions set the Zippy’s Friends programme apart from other programmes.

Erm... I’m trying to think now, the nervous. They didn’t really enjoy that because they couldn’t quite understand it. No matter how we tried to explain it or do it through drama, they just couldn’t understand it. And it’s the same with jealous as well, they just hadn’t got the understanding of it.

But jealous, I just thought I was banging my head against a brick wall and kind of felt really despondent about it... They can recognise that somebody’s cross with them or that someone is cross with somebody else, then actually do they need to know that that person is jealous?

......Uh and it’s made us look at jealousy which we wouldn’t have done otherwise on any of the other schemes or any of the other programmes... Yeah, and as I said to you I went through all the other resources for it online and everything else and just jealousy is hardly ever mentioned. I think there was only one that I found a picture of jealous on so I think it isn’t something that is commonly taught alongside happy and sad and nervous... Well they were, really couldn’t understand, we did all the role play, we acted out all these things and they could see sad and they could see angry, but they found it very hard to get the idea of jealousy, so we had to work on it throughout the whole week. Every time somebody came into the room, and fortunately two of them were going out on a special outing so we could all be very jealous about that, but we had to put a lot of extra work in.

They really enjoyed that one. And when they were looking, I think it was when they were looking, they were getting the feelings and matching the feelings. Or they had something, a picture, and then from four, they had to choose how that picture was feeling. And I was so, I had loads of different pictures for them and talking about jealous and nervous. They weren’t always right, but they used the language which is good.

Relating to Zippy (having a Zippy toy)

The children varied in how much they related to Zippy. Four teachers felt it was important to have a Zippy toy and that this helped their pupils to engage with the programme, providing a physical representation of the programme and something to hold and manipulate. Two teachers did not acquire a Zippy toy and did not think that their children would relate to one. Their children did not relate to Zippy in the stories either and some children could not identify what animal Zippy was. These teachers had classes who all had ASD or who left the programme early.

So I think that’s helped because they know every time I get Zippy out they know what’s going to happen.... Yeah, for me I found it’s good because it’s how I will initially start it, and as soon as I put the Zippy on my lap, they know exactly what’s to come, and they’ll
recap and they’ll include Tig and Leila so I’ll always recap it, so they’ll include that which helps.

Interviewer: Okay, so with erm... Zippy, have you got your own stick insect version of Zippy?
No we haven’t... We haven’t used it at this point, I wanted to see how the sessions went first before we introduced anything like that, and again because they wouldn’t see it as a character, they would see it purely as a literal stick insect, it’s an animal of sorts, of such, so it wouldn’t hold a lot of meaning for them, we’ve kind of used it as though more of an adult represents Zippy as such.
Interviewer: So you don’t think it’s of particular important to have one?
Erm..., I wouldn’t say so no, I think that if I had a mainstream class of children, yes I would because it would hold meaning for them, but I don’t think for my children it potentially does.

Training and supervision as valued components

The teachers felt supported by the training and supervision provided as part of the programme. All the teachers reflected positively on the training course. They valued the induction and the opportunity to familiarise themselves with the programme. The teachers felt that training was an important component, but it was not essential to delivering the programme as all the details were included in the resource packs.

I thought the training was good, I thought it was very clear, the objectives were met, whatever [trainer] discussed with us I thought it was really clear and it helped.

It [the training] was really good and its nice because [representative from Partnership for Children] is always in touch... I’m quite aware I have a support network there should I have any issues, and they’re always really quick to reply erm... you know if I happen to have a query, and I have a meeting with [representative from Partnership for Children] next week, so erm... you know it’s, I’ve always felt supported, and the training was fantastic, we had a huge range of resources to get started, erm... and the training day was really informative, it sort of, I felt it covered everything I needed to know, and make a good start with the session.

Yeah [the training] was interesting, it was good, it was nice to have that input, I can’t say that it necessarily helped me deliver the programme but it was nice to have the forms and background, I think I would have been very worried to do the programme without having that, but I can’t say it has been particularly helpful to have had that if that makes sense.

One teacher reflected on the group supervision and felt it was helpful to share experiences, especially in relation to challenges. The teachers also appreciated receiving reassurance and feedback from Partnership for Children. They were encouraged by this, especially in light of challenges and making adaptations to the programme. Two teachers appreciated ‘having a support network’. Four teachers reported seeking support outside of the supervision and observation sessions. These teachers valued the prompt and helpful response.

It [the group supervision session] was fine, we went through where we were and how we were feeling and I think it was nice getting the teachers’ points of view because we all got stuck when it came to ‘nervous’ so I thought that was nice. Only because I thought
‘is it just me?’, but they thought the same... Yeah so you’re not on your own. And I think we’re all kind of on similar on a similar wavelength to where we are, so that’s helped, so that’s really helped.

... because I was quite sceptical at the start about the programme and how it would work with my children. And [representative from Partnership for Children] coming in and reassuring me. My worry was that I was having to differentiate so much from the original intended activities. Obviously [representative from Partnership for Children] coming into observe and think about it and talk about it and go through things, really helped me to feel more comfortable and more confident in delivering the sessions.

One teacher did not feel adequately supported in running the programme. This was the teacher who terminated the programme early. This teacher reported her challenges and was advised to persevere with the programme. This teacher was disappointed that solutions could not be found.

** Appropriateness and Suitability of the Programme **

The content is key for SENs

The teachers felt that the aims of the programme were aligned to specific needs of children with SEN. The content was felt to be appropriate and to address key areas of difficulty, especially communication, relationships and emotional skills. However, as outlined previously, some further simplification of the content is required to facilitate participation of children with a wider range of abilities. The teacher who terminated the programme early supported the aims of the programme, but felt that the delivery was inappropriate for her pupils.

So, sort of those things, and the fact that you had such an emphasis on feelings, and then the friendship is just what this class has needed, so those two modules have really meant a lot to the class.

All the areas, kind of, communication, erm... relationships and emotions are all of the things that our children struggle with, erm... so it you know, in terms of the objectives it wants to promote and teach I think they’re perfect for Autism.

Delivery is appropriate for a range of abilities, but not all

The teachers were impressed with the adaptability and comprehensiveness of the programme. They felt that, on the whole, the methods for delivery (including the resources and activities) were suitable for the children involved in the study. However, further development of the programme is required to broaden its applicability. Seven teachers felt that the programme was only suitable for more able children and five stated that it was not suitable for all children with SEN. The teachers highlighted that some of their pupils responded better than others to the programme; these children tended to be more able pupils with higher levels of expressive verbal communication and without severe ASD. There was some agreement that the programme was most suitable for children at P Level 7-8 and that children at P Level 5-6 may struggle.

... I would possibly recommend it. We looked before at the P Level range that the programme was recommended it for. I would say children of P 5/6 are going to struggle, especially children P 5-6 with autism. It is quite abstract and uses abstract concepts; the story itself being quite abstract. But I do think children of higher ability, P 7/8 even [National Curriculum] Level 1, I do think it would be better for them. I would recommend
it for children who are more socially aware with a higher level of understanding. I would
also recommend it for children who are verbal over nonverbal children.

... especially, if we are doing the session they know its Zippy's Friends. We get the Zippy
out, they know that's what's going to happen. They all say hello to Zippy... But that's
more for my more able children. Yes they'll say hello to Zippy and know its Zippy's time,
but not actually relate. It's been a struggle for some of them.

Yes, well I've got 2 non-writers, completely non-writers in my group. I have managed to
find things that work from that pack, the activities.

Language use was identified as a potential barrier to participation. Four teachers felt that the
programme was unsuitable for non-verbal children. However, one suggested that it only needed
limited adaptations to include additional worksheets to make it suitable for non-verbal pupils.

Because so many of the children are nonverbal and stuff, and don't respond as well as
my class. I mean my class would be more mainstream. You know, I can ask them a
question and they'll answer. But that doesn't happen in the other class. So it might be a
bit more difficult this one. I've only done the first session so we'll see.

Interviewer: Okay is there anything that you don't like about the way that it's run or the
resources or anything?
Erm... (long pause) no. I just think sometimes when it's more discussion, it'll be more
difficult in special needs schools especially.

I think it's how much they understand what's going on. And how much they understand
those feelings and stories and what I am asking them, it's linked to the language. 'Cause
some of them won't, they find it hard to express. Whereas some of them you can.

The programme was felt to be largely age appropriate for the age range involved in the study (5-14
years). However, one teacher reflected on a colleague’s mixed ability class and suggested that the
stories were not appropriate for more able secondary-age pupils. Teaching a very mixed ability class
was identified as especially challenging.

Well it's appropriate for all the ones in my class. [Another teacher in the school has] been doing it with an older class, which has got a strange mixture of children. So some
are very, very low ability, and some bordering on should be in mainstream secondary. So
she's found it really hard. She really likes it, she's carrying on, but she's having to adapt a
lot of it. And she's not doing so much of going through the story and using the story
because the older, those more able ones, you know, it's not appealing to them. Whereas
it could've appealed to the other half of her class a lot. So she's found it harder to
balance teaching it to a wide range.

Presence of ASD impacted on the ability of children to engage with the programme. Teachers felt
that the programme was more suited to those with higher levels of social awareness and ability to
abstract reason and may not be suitable for those with severe ASD. Teachers felt that the
programme was too abstract for some children with ASD, especially as it relied on imaginary
scenarios, and that use of more concrete examples was necessary. The limited ability to imagine
situations or relate to past experiences amongst children with ASD made some of the activities
difficult as children were not able to provide their own suggestions. The programme aims to
facilitate children to generate their own ideas for solutions. However, some teachers of pupils with
ASD had to be more directive and provide options for responses which left some concerned that they were not following the programme. Despite these concerns, one teacher felt that the structure of the programme was suited to her pupils with ASD.

Interviewer: Would you say that erm... so the child that’s doing, that’s finding it a bit easier, would you say that it’s to do with the language factor or...?
Quite possibly yeah, he can communicate his ideas better, he can’t kind of produce ideas without prompt or without an option, he is still having to use options of scenarios and options of situations and feelings, and he is able to pick the right kind of theme in situations relating to him. But I do think his higher social awareness helps him, because he will ask somebody to play football with him in playground, he will talk about someone he has been on a trip with, he understands that he went somewhere the other day at home with his mum, but today he is at school doing something with his teacher, and he’s more kind of aware of past and present whereas the other children really aren’t, for him it kind of works, it’s been a bit better.

... the only thing that’s hard for my children to do is to think about things, or think about scenarios of what might make me sad or happy. They just don’t have the past, present, future level of thinking. They just have the here and now. They don’t empathise or have the TOM [theory of mind] to see it from others’ point of view. So thinking of situations and thinking about how they make other people feel is quite hard for them. We’ve given those visual options and something to choose from, rather that it coming from them. It has become quite prescribed, which I have spoken in detail to [representative from Partnership for Children] about. She said ‘you know your children well, you know the situations in which they are sad or happy, or excited. So it’s not a bad thing that you are using examples, you know what they’ll feel.’ But it still felt prescribed.

I like the fact that it’s got stuff for our Autistic children. It’s got routine, structure. You come in, do the rules, the story. Sit in a circle. And then go off and do an activity.

Some teachers provided feedback on specific elements of the programme that were not suitable for their pupils. For example, one teacher described how the rules for the sessions needed to be adapted, owing to her pupils’ reluctance to use expressive communication, unless prompted. Other teachers felt that the focus on discussion, especially in the ‘Communication’ module limited the applicability of the programme to those with expressive verbal communication deficits. One teacher specifically commented on the challenges of involving children who use communicators (electronic communication aids) in discussion.

It took, erm... a little while for them to kind of understand, kind of the setup of it, and the idea of having rules in the session, which we’ve kind of had to adapt to suit our children, we work on the same principles, same themes but we’ve had to adapt small parts, because the first rule being if you don’t want to talk you don’t have to in the session. Erm... none of our children will volunteer themselves so they have to be requested, so we kind of work on the rule that if we ask once and we receive no response, then we don’t push for an answer, we sort of leave it sort of free choice, but it’s prompted free choice if that makes any sense.

I’m having to do an awful lot of work to make that programme work. I can see, like in mainstream children or even children with less severe difficulties, I can see it working really well, but for the cohort that I happen to have, who some of whom are non-verbal
that use communicators that obviously have to have the vocabulary on the communicators to start with and understand what it means to be able to talk about it.

Cultural and gender appropriateness

The teachers had no complaints about the cultural or gender appropriateness of the programme. They felt that the stories and pictures were appropriate across culture and genders.

Qualitative Feedback from Parents and Child Participants

Four parent and child dyads were interviewed at end-point; their demographic characteristics are presented in Table 4.

Table 4 Demographic characteristics of child participants in end-point interviews

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Level of LD</th>
<th>Communication</th>
<th>ASD</th>
<th>Parent interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>11</td>
<td>White British</td>
<td>Severe</td>
<td>Verbal</td>
<td>Present</td>
<td>Mother</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>11</td>
<td>White British</td>
<td>Moderate</td>
<td>Verbal</td>
<td>Present</td>
<td>Mother</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>7</td>
<td>Pakistani</td>
<td>Moderate</td>
<td>Verbal</td>
<td>Absent</td>
<td>Mother</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>8</td>
<td>Pakistani</td>
<td>Severe</td>
<td>Non-verbal</td>
<td>Absent</td>
<td>Mother</td>
</tr>
</tbody>
</table>

Parents

The interviews with parents were concerned with four key themes, namely ‘a comprehensive and appropriate programme’, ‘engaging and interesting resources’, ‘the importance of teaching communication skills’ and ‘the positive impact on communication skills and mood’. The parents interviewed had little prior knowledge of the programme, therefore some time was spent reviewing a selection of the resources. Feedback from parents was very positive and none identified any recommendations for changes or potential problems with the programme.

A comprehensive and appropriate programme

All parents recognised the importance of teaching social, emotional and coping skills to children with SEN and had a very positive perception of the programme. The parents were pleased that their children had taken part in the programme. As part of the interview, parents were asked to provide feedback and reflections on the content of the programme. They felt that the six modules cover “all the main aspects” and are “really comprehensive”. They also thought that the programme and resources, such as the activities and the pictures, were appropriate for children with SEN and could not identify any potential barriers to implementation or any recommended changes. Issues of ability, age, gender, and cultural appropriateness were explored and all the feedback was positive. One parent felt that the neutrality of the programme helped ensure its relevance: “There is no culture in there at all I think, it could be relevant to anyone. I think it’s not gender-oriented either”. Another explicitly reflected on the pictures which they felt were appropriate.

I think that’s a good idea [...] anything that helps him understand how he is or tell other people how he is doing, it’s got to be a benefit.
This is very good for special children [...] opens their brain to catch up new things, new skills, I am happy.

I am quite happy about it, I think it covers everything [...] I think all of them [the topics] are really important, all of them.

No, I think that’s really comprehensive, they [the topics] are all the main aspects, certainly for autism, that they struggle with. So I think it’s something I am glad it’s been around for that long, I hadn’t realised.

I think it’s appropriate content to teach something and I think sometimes you have to make it quite engaging for the child to be interested.

Engaging and interesting resources

Parents were presented with the SEN supplement and were asked to provide their feedback on a selection of resources and pictures from the first three modules. They thought that all the materials were very engaging, interesting and understandable. One parent particularly like the simplicity of the programme and felt this was especially appropriate for children with SEN. The parents particularly liked the visual aids and emphasised how pictures facilitate learning. Two parents thought that the activities using pictures and facial expressions to teach children how to recognize their feelings are especially useful, one liked the ‘Friendship Scenarios’ and one the activity about ‘How to make new friends’. Parents were also asked to reflect on the rules that children were taught about how to choose a good solution to problems. They said that the rules are useful and appropriate, but they had not observed their children using them. One parent reflected on the generic nature of the rules and how they could be used in different situations: “Yes, they are probably more interactive with a lot of situations, rather than anything specific”.

I think this is put in a very simplistic way and I think that any child will be fine. It puts it in the right perspective to get the point across.

Yes all the facial, cause he knows then how he feels, doesn’t he? And then he can tell you.

Sad or calm? You see that is an interesting question because autism would be ‘oh, I am not so sure what she is doing’. So having the idea of calm being taught is a good thing.

I think that making it as visual as it is for someone like [child participant] would definitely be good because it reinforces what the words are.

Having pictures and faces it’s got to be good.

Put something in a pictorial way and make it simple.

Learn easily, it’s a diagram and pictures help. More work for brain. When he listens the teachers and sees the pictures easily he will pick it up.

The importance of teaching communication skills

Parents thought that all the modules were helpful, but they particularly liked the ‘Communication’ module and emphasised the importance of teaching children how to identify and express their
feelings, and interact with other people. They parents felt that children with SEN would particularly benefit from learning how to communicate with others as this was a particular area of difficulty.

Yes, communication, I would put this as top one [...] Interacting with others I suppose, yeah. It’s the communication again, isn’t it?

It is important because they don’t understand how to express their feelings and having any technique that allows them to 1) understand it, and 2) express it, it’s got to improve their communication with people around them and to deal with real life.

Anything that allows them to communicate, it’s got to be good because they suffer with that particular issue more than anyone else.

This is a very helpful section, some rules is good.

The positive impact on communication skills and mood

Parents were asked whether the programme has had any impact on family relationships and on children’s communication and coping skills. A range of improvements were reported. Three parents felt that there was an increase in their child’s ability to understand and express feelings, and communicate with others. Parents reported that the children were more able and willing to express their needs and one highlighted that her son listened more. One parent reflected on how her son’s ability to show ‘sympathy and empathy’ and relationships with peers had improved over the last year. Three parents reported that their children had fewer outbursts, had more stable moods, and appeared calmer.

Yes, he says how he feels now [child participant], and he will tell you. He was not happy about something, want to go somewhere and he will tell you.

Yes, ’cause he just tells you how he feels and what he wants, he will let you know.

There is more sympathy and empathy towards me, less outbreaks, so I think he is understanding his feelings better, and he’s been a lot better around other children, you know both with his sister and at play scheme.

And helping the other children at play scheme, that did surprise me. They said compared to last year almost a different child. [...] So I think if he interacting with the other children, that could well be why.

Yeah, since you are doing he was better [...] Before he only talked to mum, dad, sister and that’s all. And now he can talk, he wanted to say something and he talk, so it does help. He uses single words, but he can tell you.

And I think –is it coincidental I don’t know– but I think he’s remained pretty level-headed. I’ve got less outbursts from him, we get far fewer tantrums, and I am thinking ok if has what he is being taught has been enough that he is not quite stressed.

I personally think with [child participant] definitely. Given what I’ve now seen you’ve been teaching him I would say it has had a big impact. He’s remained and got better. He has lot less outbursts.
His behaviour is good. You know two months before he is angry or he never listens, now would be all right […] Two months before angry and miserable face, now he is a bit good.

Children

The interviews with child participants focussed on their recognition and recollection of the programme, these features are grouped under the headings ‘That’s Zippy, I like Zippy’ and ‘What Zippy taught me’.

That’s Zippy, I like Zippy!

The interviews with children were conducted one to two months after the programme and all four participants still recognised Zippy. When presented with a picture of Zippy, they all responded positively, smiling and saying “it’s Zippy, Zippy’s Friends”. The non-verbal participant demonstrated that he recognised Zippy and was looking at his picture during the interview. All the participants looked carefully at the picture of Zippy’s friends and enthusiastically read aloud the names of his friends “It’s Tig, Sue, Leela, Sandy, Sandy was Tig’s friend”. Two of the participants also remembered some of the stories they had been taught. All the children provided positive verbal and non-verbal feedback about the programme: they liked Zippy and enjoyed learning about Zippy and Zippy’s friends.

Zippy […] Yeah, we do work at Zippy’s.

That’s Zippy!

I kind of like him. I like his face by the way […] It’s Tig, Sue, Leela, Sandy, Sandy was Tig’s friend.

Zippy, Zippy’s Friends […] Yeah, Sandy, Ali, Sue, Tig, Leels […] They like playing football, Tig likes playing with Zippy.

These children and nice friends, his friends and this girl Sue. I liked about Zippy these boys, children and I liked Zippy […] I like Zippy because it’s clever.

What Zippy taught me

The child participants were asked to reflect on what the programme had taught them about feeling sad, feeling happy and about friends. The children reflected most on learning about friends and two participants explicitly referred to the importance of having friends. When the children were presented with the ‘Rules for Choosing a Good Solution’, they recognised them and read them loud. They provided positive feedback and said that they use these rules. One child demonstrated an understanding of the rules “You can’t bully them back, it would be a bad idea” and felt that “these rules make everything much better”. The children also offered some coping strategies such as “If you get sad, you tell an adult”. They also described appropriate interactions between friends and the importance of being nice to others.

I am gonna be nice and make friends […] Oh he teach me lots of things, making friends, you can also make one […] Be nice to them […] It’s nice making your own friends.
He is teaching me about the lesson about his friends and he was very good Zippy and I like his friends. I like Tig and Sue! Cause they are the best!

Oh yeah I remember these rules! [...] Yeah I will, I use them, I remember yeah I can use them [...] These rules make everything much better [...] You can’t bully them back, it would be a bad idea.

### Key Findings and Recommendations

**Key findings**

- The Zippy’s Friends for SEN programme is both feasible and acceptable to and for children with SEN.
- Comparisons of scores pre- and post- Zippy’s Friends indicated that the children’s social skills, emotional literacy, and emotional recognition improved. Significant improvements were observed in communication, cooperation, assertion, responsibility and self-awareness.
- The children demonstrated improvements in key areas of emotional literacy (three of the five domains identified by Salovey and Mayer, 1990: self-awareness, ability to manage emotions, and relationship skills).
- Self-motivation and empathy did not improve and this may relate to the challenges in measuring these contracts using informant report; both are subjective sensations and may not be amenable to direct observation by others. Problem behaviour also did not change which may in part be due to the lack of focus of the programme on problem behaviour or the lack of sensitivity of the measure used.
- Few of the child characteristics were related to change from baseline to end-point. Younger children demonstrated a significant improvement in empathy whereas empathy remained stable in older children. Those with higher abilities in English speaking demonstrated improved prosocial behaviour and self-control whereas these remained stable in lower ability children.
- The children and young people demonstrated improved emotion recognition skills. More specifically, they demonstrated improved emotion naming when presented with symbols. It is not clear whether these improved skills would generalise to more ‘real-life’ scenarios and further work within the programme may be required to help children to transfer these skills.
- Teachers provided positive feedback about the programme and the support and training they had received. Teachers were especially impressed with the flexibility and comprehensiveness of the programme, including the range of activities and resources. They especially valued the opportunity to adapt resources. They felt that the programme covered topics that were important for children with SEN.
- Teachers noted that the programme had to be tailored to individual needs and for some pupils elements of the programme had to be further simplified. They found that the programme was most suited to more able children with SEN, with expressive verbal communication and without severe ASD. These children responded better to the programme. Teachers found the programme unsuitable for some SEN pupils (children with severe communication and cognitive deficits and those with severe autistic features and peer relationship and engagement problems).
- Teachers reported that the children struggled to understand the concepts of jealousy and nervousness and those with limited expressive communication struggled with the communication module.
• Teachers reported anecdotally improvements in the children’s use of verbal language, ability to identify and communicate emotions, self-expression, asking for help and trying out alternative coping strategies. However, the teachers were cautious about attributing all these positive effects to Zippy.

• The parent-informed measures of emotional literacy did not demonstrate any changes over time. This may indicate that the positive effects of Zippy did not generalise to the home or it may take longer for improvements to be noticed at home and for those changes to be picked up by outcome measures.

• The parents interviewed provided positive feedback. They recognised the importance of teaching emotional literacy to children with SEN and they felt that the programme was engaging and appropriate. The parents provided anecdotes of a number of behavioural improvements in their children, including improved communication skills and mood.

• The children interviewed were positive and enthusiastic about the programme. They could recall features of the programme (including some of the ‘rules’ they were taught) and had enjoyed learning about Zippy and Zippy’s friends.

Practice recommendations
The findings of this study suggest that the adapted version of the Zippy’s Friends mental health promotion programme can have beneficial effects for children with SEN particularly in the areas of self awareness, ability to regulate emotions and relationship skills. Teachers, parents and children who were interviewed all spoke in positive terms about the purpose, content and delivery of the programme. The evaluation also identified a number of further modifications to be considered in order to improve efficacy and make the programme suitable for a wider range of children attending SEN schools.

• The SEN classes took longer to complete the three modules than would be anticipated for mainstream schools (average of 16 sessions instead of 12). Schools should factor this in when scheduling the programme to allow sessions to be split over multiple lessons and to allocate additional time to more complex topics.

• One class terminated the programme early as the teacher felt it was unsuitable for her pupils. This class included a larger proportion of non-verbal children and the class teacher cited this as the primary reason for her decision to cease the programme. The programme may therefore require some further development to improve its suitability for children with limited expressive verbal communication. Levels of engagement were lower and peer relationship problems were higher in the class and this may have also impacted on the implementation of the programme.

• There is also a need to develop specific adaptations for pupils on the autistic spectrum and use materials that are less reliant on abstract concepts. Further developments should also include additional alternatives to discussion exercises.

• As it stands, the programme appears to be most suited to those with P Levels 6 and above.

• The teaching on jealousy and nervousness and how to cope with these emotions were least successful and require further modification.

• It should be clarified in the SEN supplement package that learning components need to be practised and consolidated before the children may fully understand and retain some of the concepts. Teachers should be reassured that the programme revisits the materials and provides opportunities for repetition and practice.

• Positive changes in behaviour were not identified from the parent measures (although parents did provide some anecdotal evidence for this). Furthermore, the parents interviewed reported little or no knowledge of the programme. Schools may consider active involvement of parents in the programme to improve consistency and generalisation from school to home environments.
Recommendations for future research

• Further research involving larger samples and with a longer duration is required to establish efficacy of the whole programme (this study evaluated the first half of the programme only). The latter part of the programme focusses on improving problem solving skills which could be assessed using tests of maximal behaviour and direct observation to gather evidence of problem solving.
• The current study included children and young people who had attained a Performance level of at least 5 for PSHE and 4 for English Speaking (to indicate presence of expressive communication through at least single words, signing or symbolic communication). Children with significant hearing or visual impairments were excluded. The programme was suitable for the children included in the study, but teachers cautioned against the applicability of the programme across all ability levels in SEN schools. Further research should explore whether the programme is suitable less able children, those without expressive communication and those with sensory impairments.
• Further research should include a post-intervention follow-up period to investigate whether positive outcomes are maintained after the programme.
• Future research should involve parents more actively to improve response rate for the parent measures and interviews. Researchers may consider holding parents’ evenings at schools, however, they also should consider the resource implications.
• There is currently a lack of literature to assist with the selection of outcome measures for use with children with SEN. Future research may consider using the Social Skills Improvement Rating Scale (SSiS) as a primary outcome measure as the SSiS demonstrated face validity and was sensitive to change over time in this study.
• The Strengths and Difficulties Questionnaire (SDQ) did not demonstrate any significant changes over time. Other researchers have also commented on the apparent lack of sensitivity of this measure and we do not recommend the SDQ for future research.
• The programme aims to support children in developing their own coping strategies rather than prescribing specific coping strategies. Further research should investigate how teachers implement this element of the programme, establish whether it is effective and whether, according to behavioural outcome measures, such an approach is superior to a prescriptive ‘rulebook’ approach for children with SEN.
References


Appendix 1: Information on the Measures

Emotional Literacy: Assessment and Intervention (EL)

Emotional Literacy: Assessment and Intervention (EL; Southampton Psychology Service, 2003) measures strengths and weaknesses in emotional literacy and facilitates the identification of areas for intervention. It was designed to be used in school settings and there are two versions: a Primary version for children aged 7-11 years and a Secondary version for children aged 11-16 years. The measure was specifically designed to screen pupils with problems with emotional literacy and is therefore more sensitive to differences between low scorers than high scorers. Standardised pupil, teacher and parent questionnaires are provided to assess individual children and young people, which can be used for re-assessment to monitor progress. Only the teacher assessment questionnaires were used in the present study to minimise burden on parents. The pupil assessment was not used as it was felt that the child participants in this study would be unable to respond to the questions. The version corresponding with each child participant’s age was used.

The teacher assessment includes 20 items across five subscales aligned to the SEAL curriculum, namely, self-awareness, self-regulation, motivation, empathy and social skills. Each item is rated on a 4-point scale (scored 1-4) from ‘very true’ to ‘not at all true’ to provide subscale scores of 5-20. Some items are reverse scored, and the subscales can be totalled to provide an overall emotional literacy score (range: 20-80). Normative scores, based on a UK-based representative sample are provided with cut-offs to assign emotional literacy levels for each subscale (‘well below average’, ‘below average’, ‘average’, ‘above average’, and ‘well above average’). Pupils at the ‘well below average’ level have scores at the bottom 10% of pupils in the national sample. The handbook suggests that those in this band have potential problems with emotional literacy and may be in need of intervention.

Strengths and Difficulties Questionnaire (SDQ)

The Strength and Difficulties Questionnaire (SDQ; Goodman, 1997) can be used with children aged 3-16 years and has different versions to be completed by teachers, parents/guardians/care givers or the young person themselves. The teacher and parent versions comprise 25 items relating to both negative and positive attributes, divided between five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour. An additional impact supplement measures overall distress and social impairment. Follow-up questionnaires are provided to rate the impact of interventions. The teacher-completed and parent-completed pre-intervention and follow-up questionnaires, including impact supplement, were used in this study. Two questions referring to ‘the clinic’ were removed from the impact supplement of the follow-up questionnaires to ensure relevance to the educational setting.

Each item is rated on a 3-point scale from ‘not true’ to ‘certainly true’ (scored 0-2) to provide a score of 0-10 for each subscale, with some items reverse scored. A total difficulties score can be obtained by summing the responses for the four difficulties subscales (range 0-40). The impact section provides scores for overall distress and impairment of 0-10 for the parent-completed version and 0-6 for the teacher-completed version. Cut-off scores, based on a population-based UK sample are provided for clinical caseness to code subscale scores as ‘close to average’, ‘slightly raised’, ‘high’ and ‘very high’ (except prosocial which is coded as ‘close to average’, slightly lowered’, ‘low’ and ‘very low’). The two categories for the highest levels of difficulties and lowest levels of prosocial behaviour each contain around 5% of the population.
Social Skills Improvement Rating Scale (SSiS)

The Social Skills Improvement Rating Scale (SSiS; Gresham & Elliott, 2008) evaluates social skills functioning across seven domains: communication, co-operation, assertion, responsibility, empathy, engagement and self-control) and competing problem behaviours across five domains: externalising, bullying, hyperactivity/inattention, internalising, and autism spectrum. Teacher, parent and student versions are available with the teacher version also assessing academic competence: reading achievement, maths achievement and motivation to learn. The SSiRS can be used to assess children aged three to 18 years.

In the teacher and parent versions, 46 behaviours are rated for on a 4-point scale (never, seldom, often, and almost always, scored 0-3) and perceived level of importance of social skills on a 3-point scale (not important, important, and critical). The scale can be used to monitor progress and assess the effects of interventions. This study used the social skills functioning domains from the teacher-completed and parent-completed versions (problem behaviours and academic competence were not assessed using this scale), rated only for frequency, to provide a score in the range of 0-138. The subscale scores can be converted to behaviour levels ('below average', 'average', and 'above average') using the score ranges provided in the manual which are based on a US population-based sample and refer to ages 5 to 12 years or 13 to 14 years. General and gender-specific levels are provided; the general scores were used in this study.

Emotion Recognition in Symbols Task

The emotion recognition in symbols task measured the participants’ ability to identify facial expressions of emotions, without the need for expressive verbal communication. It was based on a task reported by Dagnan and Proudlove (1997) in which five pictorial facial expressions are presented, arranged in a pentagon on a sheet of A4 paper, each measuring 4 cm in length. Dagnan and Proudlove (1997) used Makaton symbols in their task, however, WIDGIT symbols were used in this study as they are used throughout the Zippy’s Friends programme. Furthermore, larger images were used to allow for visual impairments. The symbols used by Dagnan and Proudlove (1997) represent the emotions of happy, sad, frightened (scared), anxious (worried) and angry. As frightened and anxious are not covered in the Zippy’s Friends programme and ‘nervous’ is used instead, these four emotions were used in the task. During the task, the researcher read out an emotion word (for example, happy) and asked the participant to indicate which symbol represented the emotion that was read out. One point was given for each correct response to provide a score of 0-4.

Emotion Recognition in Photographed Faces Task

The emotion recognition in symbols task was adapted to assess whether learning to recognise facial expressions generalised beyond symbols. The same procedure was used, but with photograph of faces (portraits of head and shoulders) in place of the symbols. The photographs were selected by the research team to represent a range of ages, ethnicities and genders. One point was given for each correct response to provide a score of 0-4.

Emotion Naming in Symbols Task

The emotion naming in symbols task was designed to assess ability to use of emotional vocabulary. A similar procedure to the emotion recognition in symbols task was used: the researcher pointed to one of the WIDGIT symbols and asked the child participant to name the emotion. This task was always performed last so that all participants had the same level of exposure to the emotion words,
provided as part of the instructions for the other tasks. One point was given for each correct response to provide a score of 0-4.

**Linking Activating Events and Emotions Task**

This task measured the ability of participants to make associations between activating events and subsequent emotions. Reed and Clements (1989) first designed this task in which participants are presented with six different scenarios and asked whether the protagonist of each scenario feels happy or sad and why. Participants can respond verbally or point to a face that best represents the emotion of the protagonist. This study used the same procedure, but included gender-specific pictorial prompts to illustrate the scenario. Four scenarios were presented, such as ‘John takes his dog for a walk, the dog breaks the lead. He has lost his dog’. Participants were asked to justify their answer. The justification was taken into account when scoring so that atypical responses, but with appropriate justification, were scored as correct. One point was given for each correct response to provide a score of 0-4.

**Non-emotion Control Task**

A non-emotion control task was included to determine whether the performance on the emotion task was a function of cognitive demands or its affective content. The procedure for the emotion recognition in photographs task was followed, but participants were asked to identify a non-emotional element of the photographs, for example, participants were asked to ‘point to someone wearing a hat’. One point was given for each correct response to provide a score of 0-4.

**Appendix 2: Details on quantitative data analysis**

All quantitative data were entered into and analysed using IBM SPSS Version 22. The data were double checked to ensure accuracy of entry. Missing values for items on the teacher and parent questionnaires were replaced with the mean score for the subscale, based on available ratings for that participant. The distributions of the data (total scores and subscale scores) were explored using Shapiro-Wilk tests (as recommended by Ghasemi & Zahediasl, 2012) and plots. Parametric and non-parametric tests were used depending on whether the data conformed to the assumptions of a parametric test.

Analyses were performed using subscale and total scores to examine the profile of typical behaviour at baseline; the relationships between typical and maximal behaviour and demographic variables at baseline (age, gender, ethnicity, expressive verbal communication, PSHE level, and English speaking level); changes in typical and maximal behaviour from baseline to end-point; and the effect of demographic variables on change in typical behaviour over time. The categories of some demographic variables were collapsed for some analyses to provide more power to these analyses: age was dichotomised into younger and older based on a mean split; ethnicity was dichotomised into White British and Minority ethnic; expressive verbal communication was reduced to three levels (non-verbal/symbolic communication/single words, single words and phrases, and full sentences); and PSHE and English speaking levels were dichotomised into higher and lower ability based on mean splits. Baseline to end-point analyses were performed including child participant from the class which dropped out. This is in the spirit of intention to treat analysis, used in clinical trials in which participants are included in analyses regardless of whether they dropped out or fully adhered to the intervention. Intention to treat analyses are used to assess effectiveness because they more
closely reflect actual practice. Analyses were also performed to investigate whether results were maintained when this class was omitted from analyses.

Descriptive statistics were generated to examine the profile of typical behaviour at baseline. Independent t-Tests, One-way Independent ANOVAs, Mann-Whitney Tests, Kruskal-Wallis Tests, Pearson’s and Spearman’s correlations were used to examine the relationships between profile of typical behaviour and demographic variables. The tests used to detect changes in typical and maximal behaviour over time were dependent t-Tests and Wilcoxon Signed-Rank Tests. The interactions between change in typical behaviour and demographic variables were examined using Two-way mixed ANOVAs.