Social-Emotional Learning Championing Freedom, Education and Development: A Vehicle for At-risk Students to Succeed

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Abstract

The paper examines the potential of a social-emotional learning (SEL) programme, Promoting Alternative Thinking Strategies (PATHS)in Northern Ireland (NI), to prepare at-risk students to succeed in education and later life. At-risk students are defined as students living in communities traditionally divided and fractured by social, religious, cultural intolerance, and sectarianism. The risk is not developing the social-emotional competencies necessary for good emotional health and positive relationships that are often necessary for personal and academic achievement. Themes of freedom, education and development are explored in reference to findings from a matched randomised control evaluation of PATHS implemented in six primary schools in Northern Ireland between 2008 and 2011. Results of data obtained through individual student assessments of social-emotional skills and findings from interviews with school principals, teachers and students are reported, and the potential of SEL as a vehicle for at-risk students to succeed are discussed. Findings from the evaluation clearly demonstrate how SEL provides a potential vehicle for breaking down the constraints and barriers to personal development and success for at-risk students. Recommendations are made for the further development and implementation of SEL programmes in Europe to advance the opportunities for at-risk students in divided communities to succeed.

Key words: social-emotional learning, at risk students, freedom, Europe

**Introduction**

Social-emotional learning (SEL) is an area where educational research is particularly well placed to champion freedom, education, and development for at-risk students. SEL is the process through which children and adolescents acquire the attitudes and skills to recognise and manage emotions; set and achieve positive goals; demonstrate care and concern for others; establish and maintain positive relationships; make responsible decisions; and handle interpersonal relationships effectively (Durlak and Weissburg, 2010).

From both theoretical and practical perspectives, SEL can be viewed as an agent for freeing individuals from the inability to manage emotions effectively and from the constraints of negative emotional states. SEL may also be a precursor and cause of improved academic achievement and a desired educational outcome in itself in developing personal dispositions and competencies for life effectiveness (Cohen, 2006; Greenberg, Kusche, Cook, & Quamma, 1995).

In this paper, at-risk students are defined as students living in communities traditionally divided and fractured by social, religious, cultural intolerance, and sectarianism. Students experiencing life in such circumstances are at risk of not developing the social-emotional competencies necessary for good emotional health, positive relationships, personal and academic achievement, the ability to solve problems non-violently and to participate in democracy(Cohen, 2006, 228). Moreover, NICE (2008) acknowledges the social dimension that children and adolescents who are exposed to difficult situations such as bullying or racism, or who are coping with socially disadvantaged circumstances, are at higher risk of mental health problems that can adversely affect students’ opportunities to succeed.

**SEL, Freedom, Education and Development: A Theoretical Framework**

The overall purpose of this paper is to show how SEL may support at-risk students by championing freedom from an inability to recognise and manage emotions, empowering students with strategies to deal with fear and conflict, and to break with traditional/historical cultural prejudices and intolerance that often lead to negative social mind sets and confrontation. Seen from this socio-cultural perspective, SEL may offer a vehicle for cultural change and social action. Central to this argument is the idea that because communities organise themselves through conflict, individuals are often prevented from seeing the world as others do, and may even be led to believe that there is only one ‘best’ way of seeing or doing or being (Lemke, 2009). This has been an issue historically and still persists in several communities across Europe and wider where there is traditionally little social mobility and where differences between peoples are creating a cycle of misunderstanding, violence, and despair. SEL promises the liberating potential for children to understand diversity and community and to acquire the strategies to manage fear and resolve conflict. For example, longitudinal research has revealed that social and emotional competencies are predictive of children’s ability to learn and solve problems non-violently (Elias et al., 1999; Zins et al., 2004).

Findings of a study into the relationship between emotional intelligence and educational achievement (Qualter, 2008) show that emotional intelligence predicts exam success. Students in divided communities who are at risk of not developing social-emotional competencies are therefore possibly disadvantaged in terms of achieving their academic potential. Consequently, SEL may champion educational achievement for at-risk students.

Closely related to emotional literacy and academic achievement, students’ personal development may be enhanced through the opportunities SEL presents for positive social engagement at a variety of levels from peer group interactions to participation in community and civic activities and democracy in action.

*Theoretical/Conceptual Framework*

In focussing on children’s interactions with other people, objects, and events in the environment and activities that require cognitive and communicative participation, the PATHS (NI) programme represents a socio-cultural theory of learning (Cohen, 2006). Based on cultural knowledge, the programme is designed to change beliefs and value systems based on mistrust, intolerance, and separation. From this socio-cultural perspective, teachers, parents, and other significant adults are more experienced social partners from whom children learn the social practices and cultural conventions of social interactions. An intervention programme such as PATHS (NI) with a new cultural emphasis on social-emotional language and visual representations, emotional intelligence, behaviour regulation, social problem-solving, and mutual respect and understanding may be viewed as a potential agent of cultural change and social action.

*The European Context*

A recent synthesis of SEL research (Durlak et al., 2011) showed characteristics of effective SEL school intervention programmes to include: a sequential and integrated skills curriculum; active forms of teaching to promote skills; focused attention on skill development; established learning goals; and high-fidelity implementation of programme strategies.It is important to consider how SEL features in educational developments in Europe and how well it is placed to champion freedom, education and development for at-risk students. A main aim of the [strategic framework for European co-operation in education and training ("ET 2020")](http://ec.europa.eu/education/lifelong-learning-policy/policy-framework_en.htm) is to promote equity, social cohesion and active citizenship. While promoting cross-sectoral and integrated approaches to care and education services in order to meet all children’s needs (cognitive, social, emotional, psychological and physical) in a holistic way, as well ensuring close collaboration between the home and school in these areas, there are few specific references in the European strategy to social-emotional learning as a discrete priority. SEL is implicit, however, in the framework’s key competences for lifelong learning, which are a combination of knowledge, skills and attitudes necessary for personal fulfilment and development, social inclusion, active citizenship, and employment. Social competence refers to personal, interpersonal and intercultural competence, and all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life. It is linked to personal and social well-being. By helping to close the achievement gap and supporting cognitive, linguistic, social and emotional development, the European strategy hopes to break the cycle of disadvantage and disengagement that often lead to early school leaving and to the transmission of poverty from one generation to the next.

Recent and current research projects on SEL initiatives in European countries highlight the role of SEL in achieving the aims of the strategic framework. The projects include a cluster-randomised controlled trial of Promoting Alternative Thinking Strategies (PATHS) (Humphrey et al, date?) and a longitudinal study on social, emotional and behavioural difficulties of Maltese children (Cefai & Camilleri, 2011). The study by Cefai and Camilleri (2011) identified risk factors as bullying at school, poor communication skills, poor teacher-student relationships, lack of support from close friends and poor parental academic expectations. The study found that risk factors tended to be cumulative: students exposed to several risk factors had a much greater chance of developing social-emotional and behavioural difficulties in the early primary years; and the poor were at risk of becoming poorer unless the risk chain is broken.

Findings from the DataPrev Project (Weare & Nind, 2011), suggest that while some demonstrably effective programmes have a presence in Europe, there is a need to further clarify what is happening across Europe in terms of evidence-based practice on the ground. In early reporting of the Data Prev work package on school-based programmes for promoting mental health, Nind & Weare (2009) pointed out that little robust work on evaluation of school SEL/mental health programmes had been carried out in Europe compared to the United States. Moreover, European programmes were often small-scale and without the capacity to produce the kind of evidence-based principles that are derived from the larger-scale US programmes.

Data Prev Project reports conclude that there is a need, therefore, to clarify the principles that support effective programmes in order to help those in Europe who want to develop their own programmes. The reports suggest that evidence-based principles for programme development or programme selections included the following:

* The best programmes are supported by extensive and in-depth professional development for the staff involved in transmitting the programme.
* Staff modelling the programme’s core principles is a powerful determinant of whether or not students acquire the skills.
* One-off interventions are never effective. In some cases short interventions (e.g., twice weekly for 8 to 10 weeks) have been shown to be effective for mild problems, but on the whole, programmes need to be allowed time to work if they are to impact on deep-seated issues such as anxiety and behaviour problems.
* Programmes need to start early – the most effective programmes are those that target the youngest children.
* Programmes need take a long-term developmental approach through a spiral approach in which key learning is constantly re-visited.

In the following section, we report findings from a longitudinal randomised control trial that evaluated the effects of an SEL programme in Northern Ireland (PATHS (NI)), based on the US PATHS programme. PATHS (NI) met the criteria in the recommendations above and ultimately aimed to prepare students at risk to succeed in education and beyond.

**PATHS (NI): A SEL Programme for At-risk Students to Succeed**

The PATHS (NI) programme was designed to foster pro-social behaviours and mutual respect and understanding among children of different religions and cultural backgrounds in Northern Ireland. The programme was developed in response to the findings of an epidemiology study which identified above average incidents of domestic violence and aggression and above average levels of child anger and conduct disorder. Based on the PATHS model, the programme seemingly offered the best fit of several SEL progamming options with students’ needs, and had strong evidence supporting its effectiveness. PATHS (NI) is a specific school intervention programme with a prescribed curriculum, which has been adapted to the culture of Northern Ireland by translating written material to UK English and using culturally appropriate children’s literature and themes.

Teacher-delivered age-appropriate lessons deal with recognising emotions, expressing feelings, coping with negative feelings such as anger, and reacting to social problem-solving situations. The programme emphasises the use of strategies to actively engage students, enabling them to express their opinions, have their voice heard, and identify and resolve social problems by using suggestion boxes, discussions, written comments, and school councils.

In responding to a requirement by the Northern Ireland Department of Education based on the “troubles” between Catholics and Protestants, an additional core element was added. This component included learning units focusing on “mutual respect and understanding” (MRU), which deal with accepting people who are different and becoming part of a local and global community. The MRU units of work in the programme focus on encouraging children to speak and behave respectfully toward each other and managing conflict using positive coping strategies. Central to these aims is the ability and willingness to recognise how other people feel when they are happy, sad, angry, and lonely.

*Training and Support* Initial and on-going training and support by expert coaches for key staff in schools were central elements of the implementation programme. Two days of teacher training to introduce the programme were reinforced by regular classroom-based support visits during which coaches provided strategic advice to teachers for effective programme implementation. The model of coaching support was continually reviewed and an optimal model of coaching was introduced in the third year of programme implementation. The model changed from being heavily focused on lesson observations and feedback to a 3-phase model that included lessons modelled by the coach, team teaching by the coach and teacher, and peer support where the coach and teacher reviewed and planned lessons together. Implementation of the programme was supported by a comprehensive teacher manual and detailed lesson plans and associated resources, which were continuously reviewed and consequently underwent some revisions.

*Home-School Liaison*

Parental involvement in education is traditionally difficult to achieve in schools serving fairly substantive at-risk populations. In line with findings from previous studies on the importance of creating long-term educator-parent partnerships to support effective SEL outcomes and a climate for student success (Cohen, 2001; Zins, 2004), the programme strived to encourage parental engagement through a variety strategies including in-school assemblies and activities, parents’ resource lending library, parent packs and practical activities, and extending the scope of home school liaison activities to address SEL strategies for older students.

***The Evaluation of PATHS (NI)***

*Evaluation Design and Process*

A randomised control evaluation of the programme was conducted between November 2008 and June 2011, which randomly assigned six primary schools to implement the programme, and six to act as controls. The control group did not implement the programme until the third year of the evaluation when they then adopted the programme as a second cohort of implementation schools.

A longitudinal design was employed in which all students in Primary 1 (four- to five-years-old), Primary 2 (five- to six-years-old), and Primary 5 (eight- to nine-years-old) would be followed on a variety of SEL measures for three years. Students in the 12 schools initiated their participation in the autumn, 2008, in four grade levels: Primary 1, Primary 2, Primary 5, and Primary 6. By data collection phase five, the students had advanced two years, to Primary 3, Primary 4, and Primary 7[[1]](#footnote-1), respectively. The Primary 6 (nine- to 10-years-old) students participated in the evaluation for two years until the end of their primary school education. Site researchers received training in conducting the student assessments and interviews with stakeholders prior to each data collection phase.

*Research Questions*

The main evaluation questions were:

* What are the impacts of the PATHS (NI) Programme on the social-emotional development of primary school children?
* What are the trends for the well-being of children over time (where well-being refers to feeling good and functioning effectively)?
* “What is the implementation fidelity of the PATHS (NI) programme for schools?

For the present purpose, we focus on the experiences and perceptions of PATHS (NI) of principals, teachers, students, and parents; effects of the programme on students’ ability to recognise, express, and deal constructively with feelings; and effects on students’ pro-social behaviours and mutual respect and understanding.

*Participating Schools*

The context was 12 primary schools in the Craigavon area of Northern Ireland. The schools served populations of mostly working class students. The study employed a randomised experimental design in which six schools were selected to implement the programme and six to serve as comparisons. Because all Northern Ireland primary schools were required by the Department of Education to address social-emotional learning (SEL), the comparison schools implemented the statutory Personal Development and Mutual Understanding (PDMU) programme, a less structured and intensive programme than PATHS (NI), which focused on accepting others and getting along.

The median percentage of students at individual schools who are classified as eligible for free school meals (FSM) is approximately 29%, with a range from 9.5% to 53.9%. The median total special educational needs SEN percentage is about 19%, with a range from 7.5% to 31.5%. Based on these figures, the majority of schools serve fairly substantive at-risk populations (over one-fourth of enrolees). The English as an Additional Language (EAL) percentages were 8.33% in the intervention schools and 3.37% in comparison schools. None of the demographic variables was found to differ statistically significantly across treatment groups.

In total, 1,430 students participated in the evaluation. There was very little sample attrition from pre-test to final post-test. Of the original P1 and P2 samples, 89% and 93%, respectively, participated in the final data collection phase as P3 and P4 students. Of the original P5 sample, 93% participated as P7 students.

***Methodology***

Multiple data sources for the overall evaluation consists of individually administered assessments of children’s skills at recognising emotions and dealing with social conflict, observations of teachers’ classroom behaviour and of children’s classroom and play activity behaviour, teachers’ ratings of children’s social behaviours, and interviews with different participant and stakeholder groups. This article will report on findings from individually administered assessments and interviews.

*Assessments*

*Student skills in recognising emotions and social problem solving (four- to six-year-olds).* Students were individually assessed in Phases 1, 4, and 5 using (a) the Assessment of Children’s Emotions Scales (ACES; Domitrovich et al., 2007; Shultz et al., 2001) and an emotion-naming task, to assess receptive and expressive knowledge of emotions; (b) the problem-solving portion of the Challenging Situations Task (CST, Denham, Bouril, & Belouad, 1994) to assess behavioural responses to common social problems; and (c) Mutual Respect and Understanding Survey (Sheard, Ross, Slavin, Elliott, Cheung & Tracey, 2010), to assess reactions to diversity characteristics and problem-solving situations.

*Student skills in social problem solving and recognising emotions (7- to 11-year-olds).* Students were individually assessed in Phases 1, 4, and 5 using (a) the Fast Track Interview to assess managing emotions; and an emotion-naming task to assess the range of a student’s knowledge of emotions; a scenario-based coping strategy assessment; and (c) Mutual Respect and Understanding Survey (Sheard, Ross, Slavin, Elliott, Cheung & Tracey, 2010), to assess reactions to diversity characteristics and problem-solving situations.

*Interviews*

Structured 25-45 minute interviews with principals, teachers, PATHS (NI) school co-ordinators, parents, and students were conducted. The interview questions were adapted to the perceived knowledge and experiences of the respondent group regarding the PATHS (NI) programme in particular, and SEL learning and behaviour in general. Teachers were asked specifically about the adequacy of training for the programme and on-going coaching support, reactions to the PATHS (NI) curriculum and associated teaching experiences, and perceptions of students’ attitudes toward the programme, demonstration of particular programme strategies (e.g., children using a calming-down procedure to reduce anger or frustration), and outcomes regarding pro-social behaviour and MRU. Principals were asked parallel questions regarding school-wide programme impacts. Parents were asked what they knew about the programme, whether they had observed changes in their child on specific behaviours (e.g., controlling anger, being kind to others, etc.), and their opinion about the value of the programme. Students were asked their reactions to the programme and whether they felt it was useful to them and the classmates. In-school PATHS (NI) programme co-ordinators were asked questions specific to teachers’ use of the programme (attitudes, preparation, delivery) and observed effects on students.

This article will report on findings from interviews with 6 school principals, 26 teachers and 60 students in the schools where PATHS (NI) was implemented, and will primarily draw on the interviews conducted in the Phase 4 data collection period at the end of the second year of programme implementation.

***Results***

*Analytical Framework*

*Quantitative analyses*. Several types of statistical tests were conducted to analyse the data: chi-square tests of independence, independent-samples t-test, and analysis of covariance (ANCOVA)[[2]](#footnote-2). For student assessments measures, ANCOVA was used to examine the differences between the treatment and control group with baseline scores as covariates. The adjusted means were used to calculate the overall effect sizes for each item.

To control the within-factor Type I error rates, the p-values used to determine significance were also adjusted based on the number of items in a factor and the inter-item correlations[[3]](#footnote-3). With regards to missing data, there was very little sample attrition from Sweep 1 to Sweep 5. Because the missing data were few and appeared to be randomly rather than systematically determined (eg absence, missing and invalid answer, etc), no imputed means were used for replacement purposes. Listwise deletion was used when conducting analyses within the same factor. For measures that had non-applicable (NA) category, NA data was excluded when calculating the means.

Because the cluster design carries the risk of inflating the Type I error rate by treating students rather than schools as the unit of analysis, we also conducted the much more conservative hierarchical analyses (only six schools per treatment) for comparison purposes. The inter-class correlations derived and a narrative description are provided in the results section.

*Interviews.* The interview data were analysed at three levels. At the first level of analysis, individual responses to the structured interview questions for each stakeholder group were coded, categorised, and analysed thematically. Second, using the thematic analysis, interview responses for each participating stakeholder group were collated at school level. Third, the school level data was combined and re-presented to provide the collective findings for each stakeholder group.

*Student Assessments (P1 to P3)*

Findings are presented from the analysis of data collected in Phase 4 after two years of programme implementation in the PATHS (NI) intervention school. A summary of findings for the individual student assessments is presented in Table 1.

Table 1: Summary of treatment differences on evaluation outcome measuresfor five- and six-year-olds and 10- and 11-year-olds

|  |  |  |
| --- | --- | --- |
| **Class level and measure** | **Type of assessment** | **Outcome** |
| **Student assessments** | | |
| ***P2-P3*** |  |  |
| *Emotion recognition* | Identify emotions in 12 pictures | ANOVA: No baseline difference.  ANCOVA: significant PATHS (NI) effect (ES = +0.31).  Chi-square: significantly higher correct response rate on four of eight emotions. |
|  | Incorrect identification of anger in 12 pictures | ANOVA: No baseline difference.  ANCOVA: significant intervention effect (ES = +0.19). |
|  | Identify emotions in 16 scenarios | No effects. |
|  | Incorrect identification of anger in 12 scenarios | No effects. |
| *Emotion naming* | Identify as many emotions as one can | t test: significant intervention effect on total emotions, ES = +0.95.  t test: significant intervention effect showing a higher percentage of positive emotions, ES = +0.53.  t test: significant intervention effect showing a lower percentage of negative emotions, ES = -0.39. |
| *Managing emotions* | Viable and incompetent/not viable responses to two questions on four scenarios | ANOVA: equivocal baseline differences  ANCOVA: five out of eight questions favour I over C (median ES = +0.245  Chi-square: comparable I advantages |
| *Coping strategies* | Viable vs. incompetent responses to three social relations questions on two scenarios | Chi-square: significant I advantage on one out of three questions. |
| *Mutual Respect and Understanding* | Degree of agreement to eight MRU statements | No effects. |
| ***P6-P7*** |  |  |
| *Fast Track Interview* | Two questions on each of eight social scenarios | ANOVA: equivocal baseline differences  ANCOVA: five of eight question 1 analyses significantly favour I over C (median ES = +0.27); three of eight significantly favour I over C (median ES = +0.18).  Chi-square: comparable I advantages. |
| *Coping strategies* | Viable vs. incompetent responses to three social relations questions on two scenarios | Chi-square: significant I advantage on one out of three questions. |
| *Emotion naming* | Identify as many emotions as one can | t test: significant intervention effect on total emotions, ES = +1.11.  t test: significant intervention effect showing a higher percentage of positive emotions, ES = +0.41.  t test: significant intervention effect showing a lower percentage of negative emotions, ES = -0.49. |
| *Mutual Respect and Understanding* | Degree of agreement to 11 MRU statements | ANCOVA: significant I advantage on two statements |

No PATHS (NI) effect

Partial or suggestive PATHS (NI) effect

Strong PATHS (NI) effect

Findings for the different student year groups are presented in more detail in the sections below.

*Emotion recognition***.** Using ANCOVA to compare PATHS (NI) and control mean correct responses, there was no baseline effect, but a strong Sweep 4 post-test effect favouring (p <.001) PATHS (NI) Madj = 6.18) over the control group (Madj = 5.72). A strong impact is indicated by the effect size of +0.31. Results show the following five significant effects:

* Picture 2 (Scared): PATHS (NI) students more frequently identified the correct emotion than did control students (83% vs. 68%, p < .001).
* Picture 5 (Sad): PATHS (NI) students more frequently identified the correct emotion than did control students (71% vs. 58%, p < .01).
* Picture 8 (Happy): PATHS (NI) students more frequently identified the emotion as being ambiguous than did control students (18% vs. 13%, p < .05).
* Picture 10 (Scared): PATHS (NI) students more frequently identified the correct emotion than did control students (64% vs. 56%, p < .05).
* Picture 12 (Sad): PATHS (NI) students more frequently identified the correct emotion than did control students (71% vs. 60%, p < .01).

On the second measure using ACES to identify anger-bias, there were no treatment differences at baseline, but PATHS (NI) significantly surpassed the control group on the Sweep 4 post-test (ES = +0.19, p = .02). *Emotion naming.*When asked to name all the emotions they could think of, PATHS (NI) students identified an average of 5.32 (n = 267, SD = 2.07) emotions compared to control students’ average of 4.08. (n = 375, SD = 1.31). This difference was found to be significant (t = 9.30, p < .001). A strong effect size of +.0.95 was indicated. Additional analyses further revealed significant differences favouring PATHS (NI) (M = 36.36%, SD = 14.25) over the control treatment (M = 29.73, SD = 12.44) in the percentage of *positive* emotions identified (t = 6.25, p < .001, ES = +0.53); but control treatment (M = 68.93, SD = 14.39) surpassed PATHS (NI) (M = 63.26, SD = 14.59) in the percentage of *negative* feelings identified, t = -4.88, p < .001, ES = -0.39.

*Challenging Situations Task*. The baseline results indicated significant differences on three out of the eight comparisons. Responses to both of the situation 1(involving a child knocking down the respondents tower of blocks) questions favoured the control group (ES = -0.22 and -0.21, respectively). However, PATHS (NI) was favoured (ES = +0.22) in responding to question B of situation 2 (“What else could you do? [if hit by another child]). Overall, baseline scores showed mixed results that were more similar than different across treatments.

Post-test results consistently reflected more positive responses by PATHS (NI). Significant advantages over the control group were evidenced on five of the eight questions, with the strongest (ES = +0.40, p < .001) difference occurring on the first question (“What would you do?”) on situation 2. The median effect size across all eight questions was ES = +0.25, reflecting an impact of moderate strength.

The eight chi-square analyses were parallel to the above ANCOVAs, but without an adjustment for baseline performance. Five of the eight analyses yielded significant outcomes. In all of these cases and also on the three non-significant questions, PATHS (NI) pupils gave a higher percentage of viable responses and a lower percentage of incompetent/not viable responses than did the control group. For example, the strongest difference occurred on question A of situation 1, with 54% of the control group but only 37.3% of the PATHS (NI) group responding incompetently. Similarly, on question B of situation 2, the respective percentages were 61.8% and 45.4%. Overall, these results and those of the preceding ANCOVAs provide strong support for PATHS (NI) in responding to challenging social conflicts.

*Coping strategies.* One significant difference was obtained: The PATHS (NI) group (91%) more frequently gave effective responses on the “calming down” question than did the control group (77%), p=0.00, ES=0.27. On the “problem-solving” questions, small non-significant advantages were found for the control group on question A (“What could you do to solve the problem?”) and PATHS (NI) on question B (“What would you say to the child?).

*Mutual Respect and Understanding.* Results showed no significant effects on any of the questions or on the total score, with all effect sizes close to zero.

*Student Assessments: P7*

*Managing emotions (Fast Track Interview).* Using ANCOVA results, at baseline, the PATHS (NI) and control group response means were fairly comparable, with only one contrast found to be statistically significant: On question 1 for scenario 3 (child is bumped by another child, resulting in muddied shoes), PATHS (NI) surpassed the control group (ES = +0.26, p < .05). The effect sizes on other questions were generally close to zero, with five negative in direction and ten positive in direction.

Sweep 4 post-test results, in contrast, indicated significant treatment differences, all favouring PATHS (NI) over the control group, on eight of the 16 questions. Five of the differences occurred on question 1 (benign responses) and three on question 2 (viable responses). The scenarios associated with these differences were #1 (hit in the back by a thrown ball), #2 (excluded from play), #3 (muddied shoes), #7 (greeting ignored by other children), and #8 (bumped and spills coke). The median effect sizes were +0.27 for the five significant question 1 comparisons and +0.18 for the three significant question 2 comparisons. These outcomes reflect moderate to strong PATHS (NI) impacts. Of the eight non-significant question analyses, seven were positive and one negative in direction.

It should be noted that because responses were coded as 1 = benign/viable and 0 = hostile/incompetent, the means reflect the proportion of students who gave socially desirable responses to the associated question.

Results of the chi-square analyses for question 1 (“Why do you think this happened?) showed significant effects on five of the eight scenarios. As reflected in the above ANCOVA outcomes, all contrasts favoured PATHS (NI) over the control group. For example, on scenario 1 (hit by ball), 87% of the PATHS (NI) group offered a benign response as compared to 70% of the control group. The latter group, however, gave hostile responses more frequently (21% vs. 9%). On none of the eight questions, were control group students more likely than PATHS (NI) students to respond in a benign manner. *Naming feelings.* When asked to name as many feelings as they could during the baseline assessment, the control group demonstrated a small significant advantage (ES = -0.14, p < .05) on the total identified. No differences were found in the analyses of the percentages of positive and negative feelings identified. In Sweep 4, however, all three analyses were significant, with PATHS (NI) intervention students having higher means on the total score (ES = +1.11, p < .001) and on percentage of positive feelings (ES = +0.41, p < .001), but a lower mean on percentage of negative feelings (ES = -0.49, p < .001).

*Coping strategies.*Identical to the P2-P3 outcome, results indicated a significant (p < .001) and moderate to strong (ES = +0.24) advantage for PATHS (NI) (M = 0.91) over the control group (M = 0.82) on the “calming down” question.

Chi-square tests (PATHS (NI) vs. control group) were conducted on the frequencies of the three response types (effective, incompetent, and indeterminate) on the three questions. Identical to P2-P3, one significant difference was obtained: the PATHS (NI) group (86%) more frequently gave effective responses on the “calming down” question than did the control group (72%). On both “problem-solving” questions, PATHS (NI) demonstrated small non-significant advantages. *Mutual Respect and Understanding.*Results reflected fairly comparable responses by PATHS (NI) and control group students on many of the items. However, two significant effects, both favouring PATHS (NI), were evidenced:

* Question 5 ("I sometimes name call or taunt people who are different from me"):

control group (M = 3.46) > PATHS (NI) (M = 3.31), ES = -0.16.

(Note: higher mean = more negative response).

* Question 7 (“I happily spend my time with others who are different from me”):

PATHS (NI) (M = 3.45) > control group (M = 3.32), ES = +0.17.

In general, the MRU results tend to favour the PATHS (N) group, which was significantly superior on the two items described above, and directionally superior on six out of the remaining nine items and on total score.

*Interviews*

Findings from interview responses of different participant groups to questions in reference to the PATHS (NI) programme for social-emotional learning championing freedom, education and development are reported in separate sections below.

*Principal interviews.*The principals reported that the PATHS (NI) programme was having a positive effect on school ethos and identified observed school-level benefits of the PATHS (NI) programme on children’s social-emotional learning and personal development. They believed that students were more able to solve issues arising at break and dinner time and control their anger through various control and calming-down strategies taught in the programme.

They also described evidence of increased levels of maturity displayed by students, such as voicing their opinions with greater confidence, articulating their feelings, making better choices in social situations, and more readily accepting newcomers and those from different cultural backgrounds. In addition, principals reported children’s increased confidence in working with adults and more positive relationships with all adults in school.

Reflecting on the implementation of PATHS (NI) the principals identified several strengths of the programme in preparing at-risk students for success as it became more embedded in the school ethos and practice. Strengths identified include the following:

* Quality input from expert coaches and in-school programme co-ordinators.
* Teachers developing the philosophy of PATHS (NI) throughout the whole curriculum.
* The ethos of PATHS (NI) permeating through school, not just in classrooms, but in dinner halls and playgrounds.
* Repetitive nature of the programme.
* Clear set of high quality SEL lessons to follow throughout the year, supported by a comprehensive resource file with appropriate, well-structured content.
* Positive learning outcomes for children.

As well as recognising the strengths of the programme, principals were aware of the challenges associated with sustaining its implementation and its effectiveness in supporting at-risk students. Suggestions for meeting the challenges included:

* Provide guidance on integrating the PATHS (NI) programme in other subject areas.
* Introduce a P1–P7 programme to be taught throughout the school in a progressive way.
* Include all teaching and non-teaching staff in the training and implementation of the programme.
* Ensure effective lines of communication at all levels. Ensure appropriate funded time for the development of the programme and particularly the role of in-school co-ordinator.
* Continue to ensure a high quality of resources.

*Teacher interviews.* Teachers provided reports of programme effects on children’s personal development, social/emotional learning, pro-social behaviour, and mutual respect and understanding at classroom level. Specifically, they identified the following positive effects on students’ social-emotional learning:

* Increased self-esteem.
* Being calmer and taking more time for self-control.
* All students, including vulnerable children, are better at talking about their feelings.
* Increased awareness of others’ feelings.
* More awareness of their own emotional responses to situations, both with others and as individuals.
* Increase in effective use of coping strategies, including the voluntary use of control signals in the classroom and playground.

On the effects of the programme on students’ achievement and attainment, teachers identified the following:

* Greater cognitive engagement and increased concentration.
* Attainment at a higher level than before, with more children at Level 5 (above national expectations).
* Improved problem solving skills.
* Improved listening, communication and co-operation skills.
* More extended vocabulary, description and emotional content in writing.
* More able to think and work independently.
* Taking more pride in their work.
* Greater determination to succeed and to tackle academic problems as they arise in their school work; previously they would not have attempted the work in the face of difficulties.
* Improvement in presentation and successful completion of work.
* Better able to respond to open-ended questions and participate in class discussions.
* More able to deal with the expectation of achievement and how to respond effectively to test situations. If children do not perform well in a test they are more willing and able to discuss and analyse their response.

Overall, teachers reported that the calmer atmosphere in PATHS (NI) classrooms is conducive to children achieving better learning outcomes.

*Student interviews.*Interviews with students focused on social-emotional learning and personal development; changes in behaviour and inter-personal relationship with peers; and impact on school work.The children were very positive about the benefits of the programme, as the following examples illustrate:

* One child reported that that the programme helps children to behave well in class “because the characters in the stories are all friends and never fight with each other.”
* Another child reported that the programme helped him to behave better: “When I started to do it I got better behaved.”
* On the effect of the programme on student engagement with school work, one child reported; “It helps you to work well in school because I get angry with lots of work and I can stop and calm down now.” Another linked positive behavior in class to success in learning; “It helps children behave well in class, then you learn the learning.”

Interviews with 10- and 11-year-olds revealed positive programme effects on students’ SEL and personal development.Students felt supported by the programme in a variety of ways, including:

* keeping calm when angry or upset
* respecting others even when disagreeing with their ideas or actions, working well with others on team activities, and knowing that you’re going to get through things.

Several students reported that PATHS (NI) had improved their academic work in the following ways:

* I take a deep breath to try my best. It helps to be brave and ask for help or when you’re talking in front of the class (P6).
* It helps me to listen more so I know what to do and I am not missing out on anything; I don’t let myself get distracted.
* If you only have five minutes to do some work, use [the programme strategies] to help calm down and get it down.

*Summary of Findings*

Individual child assessments showed advantages for PATHS (NI) over the control condition for:

* Identifying the correct emotions from pictures of children’s expressions (P2-P3).
* Not incorrectly identifying anger from pictures of children’s expressions (P2-P3).
* Providing viable (competent) responses to challenging social situations (P2-P3).
* Identifying emotions/feelings, with a higher percentage of positive emotions/feelings and a lower percentage of negative emotions/feelings (P2-P3, P6-P7).
* Providing competent coping responses to a social situation including the need for calming down, and articulating calming down strategies (P2-P3, P6-P7).
* Providing viable explanations of why a social conflict occurred and what one should do in response (P6-P7).
* Demonstrating MRU skills by describing oneself as (a) not inclined to taunt people who are different and (b) inclined to spend time with people who are different (P6-P7).

Interview responses by principals, teachers, and students indicated that the programme had resulted in improvements in students’ behaviour and self-esteem; interactions with adults and other children; awareness of feelings; ability to deal with anger, frustration, and social conflicts; and behaviours associated with academic success.

**Discussion**

The findings present a positive argument that the PATHS (NI) programme for SEL prepares at-risk students to succeed in the emotional, personal, social and academic aspects of their lives. This can be clearly demonstrated by the following discussion, mapping the findings onto the themes of freedom, education and development.

The programme champions freedom for at-risk students by reducing the emphasis on negative emotions and anger bias and by combating the difficulty at risk students often face in recognising and managing emotions. By empowering students with strategies for calming down and coping with potentially difficult social situations, the programme frees students from the inevitability of social conflict and negative or destructive social outcomes. By supporting positive behaviour strategies, mutual respect and valuing the opinions of others**,** the constraints of negative behaviour and peer pressure in the learning environment are minimised. The SEL programme appears to have the potential to liberate students from the inability to resolve social conflicts and to be more confident in their capacity to manage and resolve them. Importantly, the programme has the capacity to free at-risk children from the cultural norm of avoiding people who are different from themselves.

Focussing on education and promoting student’s academic success specifically, the teachers, principals and students who were interviewed expressed the belief that student attainment was higher because of the effects of PATHS (NI) in increasing engagement in learning, confidence, perseverance, problem-solving abilities, concentration, and listening skills. While a larger sample and standardised student-level data likely would be needed to meaningfully and validly ascertain attainment effects over time, the interview findings strongly suggest that the PATHS (NI) programme provides a very promising vehicle for promoting at-risk students’ academic achievement and attainment.

In reference to student development, the results of the PATHS (NI) evaluation are comparable to those reported by researchers of the original PATHS programme. It also shows effects on many of the same SEL and personal development measures, such as emotional knowledge skills, identifying feelings. and reduced anger bias (Domitrovich, Cortes & Greenberg (2007).

Seemingly, a positive foundation for programme success was facilitated by a number of factors, including extensive monitoring and support by the local programme administration; a multi-level coaching/support structure consisting of external professional development from PATHS experts; on-going guidance by local programme coaches; and embedded support from school-based programme co-ordinators. In addition, small but increasing levels of parental engagement with the programme, evidenced by documentation of feedback from awareness-raising sessions in school where information about the programme was shared with parents, supported the transfer of programme principles into children’s home environments. Comments from parents attending the sessions illustrate how the programme’s ethos could be transferrable to the home to support personal development and the quality of inter-personal relationships. These included using the programmes’ resources and strategies at home, discussing the programme in more detail with their child, and giving the child more responsibilities at home.

Arguably, the combination of facilitating factors in the school and in the home increases the potential of the PATHS (NI) SEL programme to prepare at-risk students for better levels of success in school and later life. Moreover, students’ internalisation of strategies for calming down and resolving challenging social situations, shown in their responses to assessment items and interview questions, provide further compelling evidence that the PATHS (NI) SEL programme promotes the personal development required to succeed in the learning environment, which for at-risk students can often present multiple challenges

*Recommendations*

Based on the findings of the PATHS (NI) evaluation, the following recommendations are made for the development and implementation of SEL programmes to advance the opportunities of at-risk students to succeed:

* Policy makers should promote social-emotional learning (SEL) as a central ingredient of primary and secondary education for students in at-risk communities. This will help to raise student achievement and will facilitate social mobility.
* SEL programmes like PATHS (NI) should be part of long-term national or regional co-ordinated risk-prevention and health promotion efforts that are well resourced, implemented, and evaluated. This will help to minimise programme fragmentation and short-term implementation.
* Develop culturally appropriate versions of PATHS (NI) for other countries and regions where communities are traditionally divided and where students are coping with socially disadvantaged circumstances.
* Evaluate the impact of the SEL programme on classroom practice and learning outcomes for at-risk students by conducting an ongoing audit and review of implementation fidelity. This would help to ensure that at-risk students receive the full benefits of the SEL programme as it was intended.
* More age, culture, and socially appropriate measures of SEL should be developed to support the on-going evaluation of SEL programme effectiveness.

Following recommendations from the DataPrev Project (2010) and based on findings from the PATHS (NI) evaluation, it is clear that the recommended future expansion of SEL programme implementation should directly and explicitly address goals of enhanced self-concept, self-esteem, and self-efficacy for students as core curriculum aims and not as adjuncts to other outcomes. Moreover, the focus of SEL should be on positive mental health, not just on (social-emotional) problems, using approaches which develop attitudes, values, skills and beliefs, as well as behaviour and knowledge. In this way SEL becomes a vehicle for liberating and empowering at-risk students to succeed at school and in later life.

**References**

Cefai, C. & Camilleri, L. (2011). *Building Resilience in School Children. Risk and promotive factors amongst Maltese primary school children.* Centre for Educational Resilience, University of Malta.

Cohen, J. (2001). Social emotional education: Core principles and practices. In J. Cohen (Ed). Caring classrooms/intelligent schools. The social emotional education of young children (3–29). New York: Teachers College Press.

Cohen, J. (2006). Social, Emotional, Ethical and Academic Education: Creating a Climate for Learning, Participation in Democracy, and Well-Being. Harvard Educational Review, 76(2), 201-237.

Curtis, C. & Norgate, R. (2007). An Evaluation of the Promoting Alternative Thinking Strategies Curriculum at Key Stage 1. *Educational Research In Practice*. 23(1),   
33–44.

DataPrev Project (2010) Identifying Evidence-Based Work on Mental Health Promotion in Schools in Europe: An Interim Report on the DataPrev Project. *Advances in School Mental Health Promotion,* [Volume 3](http://www.tandfonline.com/loi/rasm20?open=3#vol_3), [Issue 2](http://www.tandfonline.com/toc/rasm20/3/2).

Denham, S. A.,Bouril, B., & Belouad, F. (1994). Preschoolers' Affect and Cognition About

Challenging Peer Situations*, Child Study Journal, 24 (1). State University*

*of New York: Buffalo*

Domitrovich, C. E., Cortes, R., & Greenberg, M. T. (2007). Improving young children’s social and emotional competence: A randomised trial of the preschool PATHS curriculum. *Journal of Primary Prevention*, 28, 67–91.

Durlak, J. A., Weissburg, R. P. & Pachan, M. (2010) A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents. .*American Journal of Community Psychology*. 45 (3-4), 294–309.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students’ social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432.

Elias, M.J. & Bruene-Butler, L. (1999). Social decision making and problem solving: Essential skills for interpersonal and academic success. In J. Cohen (Ed.) *Educating minds and hearts: social emotional learning and the passage into adolescence*   
(74–94). New York: Teachers Press.

Greenberg, M. T., Kusche, C. A., Cook, E.T., & Quamma, J.P. (1995) Promoting emotional competence in school-aged children: The effects of the PATHS curriculum. *Development and Psychopathology.* 7(1), 117.

Hoffman, D. M. (2009). Reflecting on social-emotional learning: A critical perspective on trends in the United States. *Review of Educational Research*, 79(2), 533-556.

Humphrey, N. (2012-2017) *Cluster RCT of the Promoting Alternative Thinking Strategies Curriculum.* University of Manchester. In progress.

Lemke, J. L. (2009). *Articulating Communities: Sociocultural Perspectives on Science Education* <http://academic.brooklyn.cuny.edu/education/jlemke/papers/jrst-1.htm> Retrieved 18/12/2009.

NICE (2008). Promoting children’s social and emotional wellbeing in primary education. NICE public health guidance 12. <http://www.nice.org.uk/nicemedia/pdf/PHO12Guidance.pdf>

Official Journal of the European Union 15.6.2011 C 175/8 http://ec.europa.eu/education/lifelong-learning-policy/policy-school\_en.htm

Nind, M. & Weare, K. (2009). *Evidence and outcomes of school based programmes for promoting mental health in children and adolescents*. Paper presented at the European Conference of Educational Research, Vienna, 28-30 September 2009.

Patrikakou, E.N., Weissberg, R.P., Redding, S., & Walberg, H.J. (Eds). (2005*). School-family partnerships for children’s success.* New York: Teachers College Press.

Qualter, P. (2008). In the mood? Developing Emotional Intelligence in Excluded Students. *New Start,* 20–21. Journal for teachers.

Raudenbush, S. W. & Bryk, A. S. (2002) Hierarchical Linear Models Applications and Data Analysis Methods Second Edition. *Advanced Quantitative Techniques in the Social Sciences. 1.*

Sankoh, A. J., Huque, M. F. & Dubey, S. D. (1997). Some comments on frequently used multiple endpoint adjustment methods in clinical trials.*Statistics in Medicine, 16*, 2529–2542.

Sheard M., Ross, S. Slavin, R., Elliott L., Cheung, A. & Tracey, L. (2010). Evaluation of the Together 4 All Programme for Schools. Interim Summary Report. University of York.

Schultz, D., Izard, C. E., Ackerman, B. P., & Youngstrom, E. A. (2001). Emotion knowledge in economically disadvantaged children; Self-regulatory antecedents and relations to social difficulties and withdrawal. *Development & Psychopathology*, *13*, 53-67.

Strategic Framework for European Cooperation in Education and Training (ET 2020). European Commision, Education and training, Lifelong Learning Policy.

<http://ec.europa.eu/education/lifelong-learning-policy/framework_en.htm>

Weare, K. & Nind, M. (2011) Promoting Mental Health of Children and Adolescents Through Schools and School Based Interventions. Evidence Outcomes of School Based Interventions*. Report of Workpackage Three of the DATAPREV Project.* School of Education University of Southampton.

Zins, J., Weissberg, R., Wang, M., & Walberg, H. (2004). *Building academic success on social and emotional learning: What does the research say?:* Teachers College Press.

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1. The original Primary 6 students attended P8, in middle schools, in the 2010-2111 school year,and were no longer available for testing in data collection phase 5. [↑](#footnote-ref-1)
2. Attempts had been made to analyse the data by using a hierarchical linear model (Raudenbush & Bryk, 2002) due to the nested nature of the data. However, the power was extremely low due to small sample size at the school level. Thus, final analyses were performed at the student-level. [↑](#footnote-ref-2)
3. Sankoh, A. J., Huque, M. F. & Dubey, S. D. (1997). *Statistics in Medicine, 16*, 2529-2542. [↑](#footnote-ref-3)