Activating Social Empathy: Findings from the 2021 School Evaluation

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December 2021

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Published by the UNESCO Child and Family Research Centre, National University of Ireland, Galway

Contents

1

Overview

Empathy — the ability to understand others' perspectives, resonate with their emotions and care for their well-being (Eisenberg, 2017) — is a key aspect of social-emotional competency (CASEL, 2021; Stern et al., 2021). Although a host of research has shown that empathy is important for positive youth development (Spinrad & Eisenberg, 2014), recent evidence suggests that empathy levels are declining among younger generations, and that levels of apathy and individualism are rising (Konrath et al., 2013; Zihang et al., 2018). Researchers and activists suggest that society is now at a crucial point where we need to focus on building and nurturing empathy in our communities (Ellison, 2020). Researchers contend that one of best ways to spark change and cultivate empathetic growth is through our youth (Ellison, 2020) and that schools are one of the most powerful contexts in which social and emotional skills can be promoted (Leon-Jimenez et al., 2020; Rossi et al., 2016).

The important role that schools play in nurturing youth's social and emotional development is now formally recognised in many schools and education centres internationally (Thapa et al., 2013). For example, Ireland recently introduced new policy which recognises social, emotional, and well-being education as an essential part of the education curricula (Department of Education & Skills, 2019). Similarly, in the United States, state and federal policies promote social and emotional learning (SEL) as an integral part of student education (CASEL, 2021). However, despite a growing recognition of the importance of social and emotional learning in education, a recent review of the policy and educational curricula in Ireland found that SEL programmes in Ireland tend to focus more on the promotion of 'self-oriented' personal skills (e.g., resilience, emotional regulation) rather than teaching 'other-oriented' skills and values (e.g., empathy, social responsibility, care) (Boylan et al., 2019). Moreover, other researchers argue that programmes which aim to promote 'other-oriented' skills, such as empathy, appear to be more readily implemented with younger children as opposed to older children or adolescents (Ellison, 2020; Morizio et al., 2021). This is an important oversight as adolescence has been identified as an especially important time for the development of empathy (Eisenberg et al., 2018; Spinrad & Gal, 2018). In response to the growing need to help nurture empathy among adolescents, researchers at the UNESCO Child & Family Research Centre developed the *Activating Social Empathy* (ASE) programme, in partnership with Foróige and Pennsylvania State University.

The purpose of this research was to evaluate the effectiveness of the ASE programme in promoting empathy and prosocial behaviours among secondary school students in Ireland. Overall, 1689 students from 25 post-primary schools took part in this research. Students were randomly allocated to either an intervention condition (i.e. students took part in the ASE programme) or a control condition (i.e. students did not take part in the ASE programme). Results indicated that, in comparison to students in the control group, students in the intervention condition showed significantly higher levels of empathy after taking part in the ASE programme. Greater empathy was in turn associated with greater engagement in prosocial behaviour. As this research was conducted during the height of the COVID-19 pandemic it should be noted that both control and intervention schools experienced severe disruptions to teaching (e.g. forced school closures; move to online teaching) throughout the research process which may have impacted programme fidelity and/or weakened the strength of effects reported here. Nonetheless, despite this upheaval, the ASE programme was found to be a versatile programme and appeared to show promising effects in promoting greater empathy and prosocial responding among young people in Ireland.

2

Introduction

In lay terms, empathy refers to the ability to understand another person's feelings and emotions. From a scientific perspective, empathy is conceptualised as two distinct psychological processes – cognitive empathy and affective empathy (Jolliffe & Farrington, 2006; Maxwell et al., 2010). Cognitive empathy is defined as the ability to consciously understand how and why another person thinks or feels the way they do; and is often referred to as 'perspective taking' (Carey et al., 2017; Gini et al., 2007; Joliffe & Farrington, 2006). On the other hand, affective empathy is conceptualised as the ability to vicariously share another person's emotions; and is sometimes referred to as an embodied emotional reaction (Carey et al., 2017; Joliffe & Farrington, 2006). Evidence indicates that although empathy may be regarded as an innate skill, in that people are born with different baseline aptitudes (Carey et al., 2017; Davis, 2018; Kaplan & Iacoboni, 2006; Knafo et al., 2008), empathy is also a skill that can be trained and strengthened with practice (Batson et al., 2003; Gerdes & Segal, 2011).

Importance of Empathy

Decades of research show that empathy helps promote positive personal and social development (Eisenberg, 2017). For example, evidence suggests that empathy plays a key role in cultivating healthy physical and psychological functioning (Konrath, 2014; Shaffer & Kipp, 2010). A large body of research shows that empathy is associated with greater emotional resilience (Anderson et al., 2014; Kim & Morgul, 2017; Kimber et al., 2008), improved coping and self-esteem (Fry et al., 2012; Taylor et al, 2006; Zuffiano et al., 2014), better physical health (Aknin et al., 2013; Schreier et al., 2013) and increased life satisfaction (Morelli et al., 2015; Nezlek et al., 2001). Similarly, research shows that empathy is significantly associated with improved cognitive performance (Malti et al., 2016; Zins et al. 2007), with findings from numerous empirical studies suggesting that empathy is connected with greater academic learning and higher grade scores (Caprara et al., 2000; Krahé and Möller 2010; Spinrad & Eisenberg, 2014). Research also shows that empathy plays a key role in helping young people build and maintain healthy social relationships (Fredrick, Jenkins & Ray, 2020; Morizio et al., 2021).

In addition to the personal advantages associated with greater empathy, empathy is also thought to provide the foundation for broader social attitudes and behaviours and appears to play a key role in societal functioning (Cuff et al., 2016; Davis, 2018; Eisenberg et al., 2001; Hylton, 2018; Wang et al., 2017). Notably, several research studies have found a significant connection between empathy and improved social functioning, including enhanced social competence skills (Riggio et al., 1989; Sallquist et al., 2009) and reduced antisocial/delinquent behaviour (Joliffe & Farrington, 2004; Padilla-Walker et al., 2015). Other evidence indicates that empathy is a key driver of prosocial action and altruistic behaviour (Alderman & Paxson, 2016; Carlo et al., 2010; Eisenberg et al., 2009), and is also essential for fostering feelings of social connectedness and social cohesion among individuals in society (Burns et al., 2018; Headley & Sangganjanavanich, 2014). Similarly, research suggests that higher levels of

empathy are associated with more positive intergroup attitudes, lower prejudice and reduced social isolation (Batson & Ahmed, 2009; Beadle et al., 2012; Dovidio et al., 2010; Miklikowska, 2018; Mondak & Gearing, 1998; Nesdale et al., 2005).

Hence, a strong research base attests to the crucial role that empathy plays in promoting personal development, strengthening interpersonal relationships, and enhancing societal well-being (Hylton, 2018; Wagaman, 2011). Given the wealth of social and personal benefits associated with empathy, researchers and activists contend that it is important to cultivate empathy and empathy-related skills in society. Crucially, however, certain interpersonal and societal trends have emerged which suggest that empathy-related responding may be declining, particularly among younger generations (Hylton, 2018; Gudjonsen, 2016; Kidd, 2013; Levine & Liu, 2015; Putnam, 2016; Sloam, 2016; Turcotte, 2015). For example, a meta-analysis in the U.S. found that there has been a 48% decrease in affective empathy and 34% decrease in perspective taking among college students (N = 13,737) since 1979 (Konrath, O'Brien, & Hsing, 2011). Other research has also found evidence of a generational shift in values, with adolescents appearing to have moved away from intrinsic values (e.g. community; affiliation) and moved more toward extrinsic concerns (e.g. money, fame, and image) (Twenge & Campbell, 2012). Thus, researchers contend that nurturing the developmental roots of empathy ought to be a priority concern (Greenberg & Turksma, 2015; Stern et al., 2021).

Rationale for Empathy Education

Crucially, research has shown that social-emotional competencies, like empathy, can be taught, and that schools play an important role in nurturing these social-emotional skills (Durlak et al., 2011; Weissberg, 2019). Researchers and educationists contend that schools are important socialisation contexts in which social-emotional skills should be promoted as they are one of the only institutions with the capacity to reach almost every child (Carnegie Corporation of New York, 2003; Rossi et al., 2016; Yates & Youniss, 1996). Social activists argue that schools need to do more than simply teach children how to read, write and do maths - they need to help young people become critical thinkers, who can work effectively with others, contribute to democratic society, and deal with everyday challenges (Greenberg et al., 2017). Crucially, a variety of evidence shows that youth's ability to understand social problems, form innovative solutions, and actively address social issues does not stem from their cognitive/academic capabilities alone, but are also stimulated by their socio-affective skills, such as their empathy (Ampuero et al., 2015). Indeed, of all the skills cited as being needed for an individual to thrive within the current social context, one's ability to empathise and think critically are frequently listed as some of the most important (Ampuero et al., 2015; Malti et al., 2016). For these reasons, it is argued that schools have a responsibility to attend to youth's socio-emotional development within the education system, not only for the benefit of their students, but also for the benefit of wider society (Malti et al., 2016; Stiff et al., 2019; Zins et al., 2007).

Over the last number of decades, researchers have gathered an accumulation of scientific evidence regarding the benefits of including social and emotional learning (SEL) programmes[1] (such as empathy education) in school curricula. In particular, numerous empirical studies have demonstrated the effectiveness of these programmes in helping lower youth's risk of various social and emotional problems, increase their academic and job-related performance, and strengthen young people's ability to deal with life's challenges (Davis, 2018; Domitrovich et al. 2017; Mahoney, Durlak & Weissberg, 2018; Malti et al., 2016; Osher et al., 2018). A recent meta-analysis, which included analyses from 18,292 youth participants, found that young people who took part in SEL programmes, showed significant improvements in social competence, emotional competence, self-regulation, and emotional and behavioural problems, compared with control participants (Blewitt et al., 2018). Other meta-analytic evidence indicates that school based SEL initiatives, which focus on empathy as part of their educational curricula, show large effects on students' academic performance and prosocial behaviours (Durlak et al., 2011). Hence, due to the substantial evidence illuminating the positive impact SEL can have on students' behaviour, researchers contend that social-emotional learning programmes, which help youth enhance their social-emotional skills, such as empathy, need to be given further consideration and attention within the education system (Stiff et al., 2019).

In recent years, schools and education centres have begun to formally recognise the importance of social and emotional learning at a policy level (CASEL, 2021). In Ireland, new government policy recognises social, emotional, and well-being education as an essential part of the education curricula (Department of Education & Skills, 2019). Notably, the National Council for Curriculum and Assessment (NCCA) wellbeing guidelines (2017) stipulated that by September 2022 all post-primary schools in Ireland must dedicate 400 hours of student learning in Junior Cycle (lower second level education) to the promotion of wellbeing. Similarly, in the United States federal and state policies promote SEL as an integral part of student education (CASEL, 2021). However, despite the growing recognition of the importance of social and emotional learning in education, a recent review of the policy and educational curricula in Ireland found that SEL programmes tend to focus more on the promotion of 'self-oriented' personal skills (e.g., resilience, emotional regulation) rather than teaching 'other-oriented' skills and values (e.g., empathy, social responsibility, care) (Boylan et al., 2019). Moreover, other researchers argue that although the importance of SEL appears to be becoming more readily accepted, these programmes tend to be more widely implemented with younger children (Ellison, 2020; Morizio et al., 2021). For instance, in the US although all 50 states have incorporated SEL into their preschool standards, only 18 states have ratified SEL standards for Kindergarten to Grade 12 (CASEL, 2021). This is an important oversight as adolescence has been identified as an especially important time in the development of empathy and social-emotional skills (Eisenberg et al., 2018; Spinrad & Gal, 2018).

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[1]   The main competencies targeted by the majority of SEL programmes are self-awareness, self-management, social awareness (including empathy), relationship skills, and responsible decision making (CASEL, 2013).

The Activating Social Empathy (ASE) Programme

In response to the growing need to help nurture empathy among adolescents, researchers at the UNESCO Child & Family Research Centre, in partnership with Pennsylvania State University and Foróige, developed the *Activating Social Empathy* (ASE) programme. The ASE programme is an innovative, interactive youth programme, which aims to promote personal and social development in young people by teaching core empathy skills and helping youth foster a connection between empathy, social responsibility, and civic action. The programme builds on theory and practice in the area of Social and Emotional Learning and is underpinned by a research programme exploring the development and expression of empathy, social responsibility and civic behaviour among adolescents.

The specific aims of the Activating Social Empathy programme are to:

- Increase Cognitive and Affective Empathy
- Improve Interpersonal Relationships
- Promote Social Responsibility
- Encourage Prosocial Behaviour

Specifically, ASE is a 12-week empathy training programme, which aims to support student learning at lower second level. The programme follows the framework for SEL outlined by the Collaborative for Social and Emotional Learning (CASEL). The ASE programme consists of 12 sessions, which are intended to be delivered once a week for 12 consecutive weeks. Each session is comprised of two interactive activities/discussion points which are facilitated by the classroom teacher. Each activity is designed to help young people develop, hone and reflect on their empathy skills in a fun and interactive manner. The ASE programme is structured around four key learning principles (*Understanding Empathy; Practicing Empathy; Overcoming Barriers to Empathy; Putting Empathy in Action*). First, the students learn about what empathy is and why it is important; young people then spend a number of weeks practicing and strengthening their empathy skills; next the young people spend time discussing the barriers to empathy and brainstorming how they can overcomes these barriers; and finally the programme culminates with youth 'putting empathy into action' and taking part in a social action project of their own choosing.

Teachers facilitating the ASE programme are provided with a Teacher's Manual, which provides detailed instructions on how to facilitate each activity. All materials/resources required to facilitate the ASE programme are provided in the Teacher's Manual. However, teachers are encouraged to adapt each session to suit the individual needs of their class group and are encouraged to draw on additional resources if necessary. Each young person participating in the ASE programme is also provided with an accompanying student workbook. These workbooks are intended to aid youths' learning and help them to complete each activity. The workbooks also act as a reflection tool, where the young people are encouraged to privately reflect on, and document, their own personal learning from each session.

In response to the COVID-19 pandemic and the move to online learning in schools in Ireland, an online alternative to the Activating Social Empathy programme was created. This online version is an adaptation of the ASE programme which enables the programme to be delivered to small groups in an online context. The ASE online programme is designed to be delivered through any video conferencing platform/app where online group video chat is enabled, such as Zoom or Google Hangouts. The online programme avails of a variety of online teaching tools to deliver the programme content and create an interactive environment in an online context. For example, facilitators are encouraged to avail of the use of 'break-out rooms', online whiteboard or annotate options, 'Share Screen' functions, and shared Google/Word documents and other interactive techniques. All necessary instructions and resources are provided in a separate ASE online Teacher's Manual.

The Current Study

Evidence shows that empathy is an important social-emotional skill that enables individuals to relate to each other in a way that promotes cooperation and unity and reduces conflict and isolation (Konrath et al., 2011). A plethora of evidence also shows that youth benefit from participating in programmes that cultivate their social and emotional skills (Domitrovich et al. 2017; Osher et al., 2018). Although schools and education centres have begun to acknowledge the important role they play in nurturing youth social and emotional development, more school-based SEL programmes that focus on the promotion of other-oriented skills (such as empathy) among older children and adolescent cohorts are needed (Boylan et al., 2019). Hence, the ASE programme, a 12-week, empathy training programme, which was designed to specifically target secondary-school age youth. The current study aims to evaluate the effectiveness of the ASE programme in promoting empathy and prosocial responding among young people in Ireland. Specifically, the current study investigates whether young people who are randomly enrolled in the ASE programme show significant improvements in their empathy, social responsibility, peer relations, and prosocial behaviours in comparison to an age-matched control group who do not take part in the ASE programme. Additionally, this research aims to investigate whether the link between participation in the ASE programme and changes in youth's social outcomes (e.g. prosocial behaviours, peer relations, social responsibility) is mediated by increases in empathy.

3
Method

Procedure

September–December 2019

In September 2019, post-primary schools located in the Republic of Ireland were contacted and invited to participate in the ASE evaluation project. Schools were identified using the national Department of Education and Skills database, which is a publicly available list of all registered post-primary (i.e. second level) schools in Ireland. Approximately 30% of schools registered on the Department of Education and Skills database were selected using random sampling. In total, 216 schools were contacted and invited to participate in this study. Schools were informed that participation in the study was entirely voluntary. All schools were also informed that if they participated in the research, students in their school would be randomly allocated to either an intervention or a wait-list control group[2]. It was made clear to all schools at the outset that no school would be able to self-select into either condition; all schools were asked to consent to the research on this basis. Overall, out of the 216 schools invited to participate in the research, 25 post-primary schools (10= Girls Only; 11=Mixed Gender; 4=Boys Only) agreed to take part in this study, which represents a 12% school participation rate.

Figure 1 Showing regional location of all participating schools

- Leinster
- Munster
- Connacht
- Ulster

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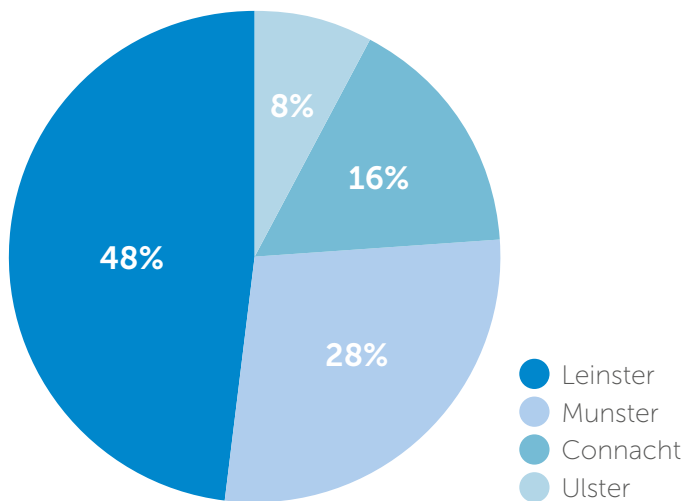
[2] Schools in the wait-list control group were provided the ASE programme upon the completion of the evaluation process.

January–February 2020

The ASE evaluation commenced in January 2020. Participating schools were randomly allocated to either an 'Intervention' condition (n=12) or a 'Control' (n=13) condition. Intervention schools were asked to deliver the 12-week ASE programme to junior cycle students in their school. Control schools did not deliver the programme but were asked to continue their teaching as normal. Students in both intervention and control schools were asked to complete a pen-and-paper questionnaire assessing their empathy, social values, peer relationships, and prosocial behaviours[3]. Students were informed that they would be asked to take part in a second, similar questionnaire in approximately 12 weeks-time for comparison purposes. Only those students who provided written personal assent and parent consent were asked to complete the surveys. Surveys took approximately 20 minutes for students to complete and were administered by their classroom teacher. By the end of February 2020, 1689 students (629=male; 1043=female; 17=Other) from across 15 counties in Ireland had completed the first empathy survey. All students were aged between 12-16 years. Of those who completed the first empathy survey, approximately 1040 students were from Intervention schools and 649 were from Control schools.

March–April 2020

In early March 2020, in response to the growing COVID-19 pandemic, the Irish government called for the closure of all schools and education centres in Ireland, with teaching set to continue online, where possible. All facilitating teachers in the intervention schools were contacted at this stage to discuss the ASE evaluation and their continued involvement with the programme. The teachers noted that they were in the early stages of programme delivery[4], and although response to the programme was generally positive, they were of the opinion that it would not be feasible to continue delivering the ASE programme to students online at this time. Upon consideration of the feedback provided by the Intervention schools, a decision was made to postpone the evaluation until September 2020, when schools would be able to reopen and resume with in-person teaching activities. All intervention and control schools were then notified of this decision.

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[3] Measures were selected upon careful consideration by the research team in relation to the validity, reliability, and age-appropriateness of each scale.
[4] One school had reached week 6 of the 12-week ASE programme. All other schools had completed 2-4 weeks of the empathy programme at the time of the school closures.

May–August 2020

The interim period from May–August 2020 was used to adapt the ASE programme for online teaching. An online version of the ASE programme was created to ensure that the ASE programme could continue to be delivered by the Intervention schools in the event of future school closures or a return to online teaching. A full online programme and teacher's facilitation manual were developed, where each ASE activity was adapted to make it suitable for online facilitation and detailed facilitation instructions were provided. Accompanying PowerPoint slides and Word Documents were also created, as additional resources for teachers which could be used as teaching aids or as a template promoting interaction in an online setting. It was decided that this online version of the programme would be made available to the second-level school community in Ireland in the future, on the assumption that it would increase the inclusivity and accessibility of the programme.

September–December 2020

Upon the reopening of schools in September 2020, all intervention and control schools were contacted about the ASE evaluation and asked whether they would like to continue with their involvement in the evaluation. Due to the new social distancing measures implemented in schools, and the additional constraints placed on students/teachers, several schools felt that it was no longer feasible to continue with the evaluation. In total, 8 (4 intervention, 4 control) schools were removed from the evaluation at this time. Of the 17 (8 intervention, 9 control) schools that agreed to continue with the evaluation, 7 schools requested deferring their participation in the evaluation until January 2021. These schools appeared to believe that they would be better positioned to engage with the evaluation in the next school term as they felt they would be more accustomed to the social distancing regulations by that stage. In order to make the process as easy and as flexible for schools as possible, given the extenuating circumstances, this request was granted. With the 10 schools that agreed to resume the evaluation immediately, some issues were encountered when resuming the evaluation. Namely, as September marked a new academic year, several students who had previously taken part in the evaluation were no longer in the same class/involved with the same teachers and it was therefore not possible for them to continue with the evaluation. Additionally, due to the social distancing measures, many schools were operating reduced class sizes, and this resulted in a loss in student participation numbers, as teachers felt it was no longer appropriate to include all classes/students in the evaluation. Due to the length of time that had elapsed, a decision was made to restart the evaluation in its entirety, with both control and intervention schools completing new Pre-Test surveys with their students. By the end of December 2020, 429 students had completed the first survey. All surveys were completed online using surveymonkey. One intervention school had completed the full ASE programme, 3 other intervention schools had begun the ASE programme, and 4 intervention schools were due to commence the ASE programme in January 2021.

January—May 2021

In January 2021 it was announced that all schools would remain closed, due to the escalating COVID-19 case numbers, and that there would be a return to remote teaching, which would remain in place until April 2021. Intervention and Control schools were contacted and asked whether they would be willing to continue with the evaluation in this online context. Of the 7 schools due to commence the evaluation in January 2021, 6 withdrew from the evaluation upon the return to online teaching. One Intervention school indicated that they wanted to continue with the evaluation but did not believe it would be appropriate to engage with the ASE programme in an online capacity. This school stated their intention was to complete the ASE programme in April 2021, when schools re-opened; once the programme could be facilitated in an in-person context. However, upon the reopening of schools, the school encountered competing priorities and were no longer able to continue with the evaluation and terminated their involvement with the research. All remaining schools agreed to continue with the evaluation. Teachers in the Intervention schools were provided with the Online ASE manual and resources and resumed the programme in an online capacity. Although the ASE programme is intended to be delivered over the course of 12 weeks[5], all the intervention schools took more than 12 weeks to deliver the programme[5]. By the end of May 2021, all Intervention schools had completed the ASE programme and 357 students (from both intervention and control schools) had completed the final empathy survey.

Figure 2 Overview of School Recruitment and Attrition
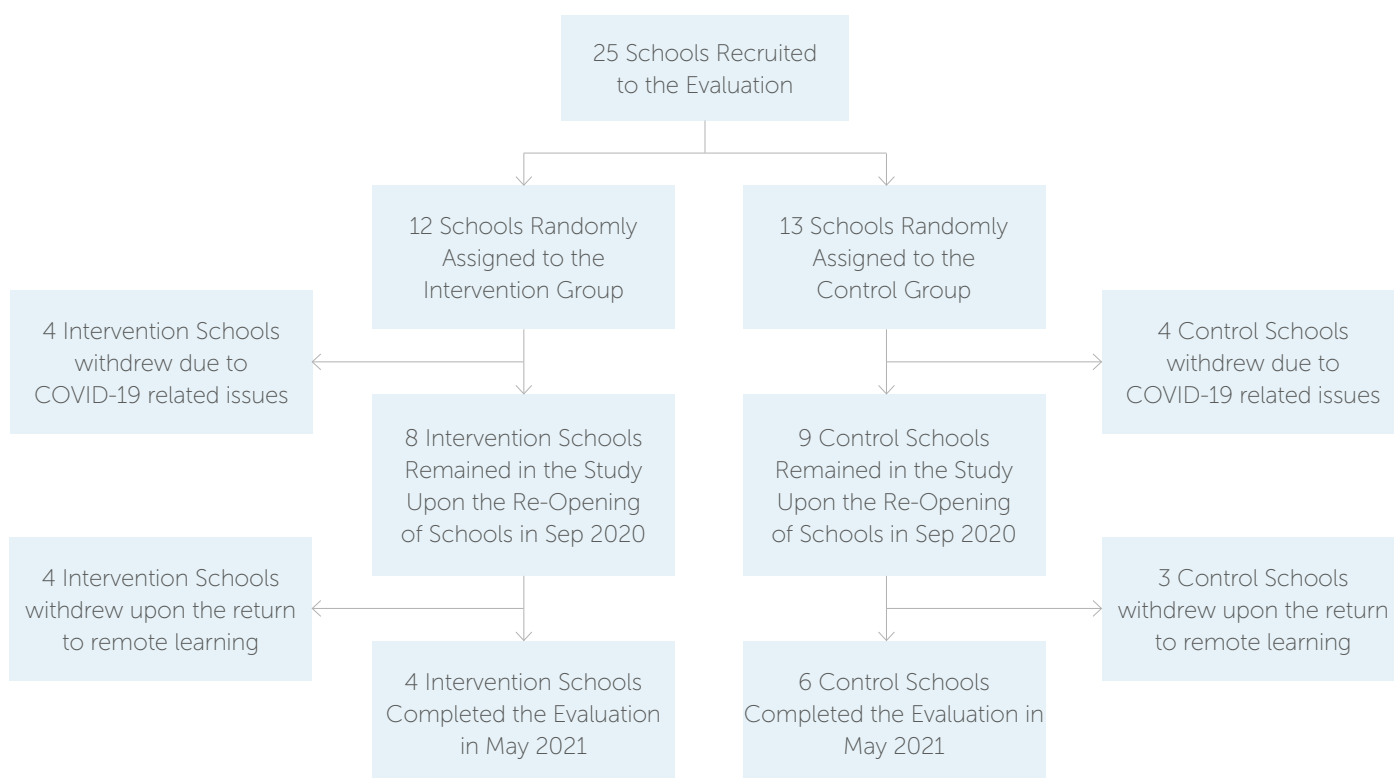
Measures

Student Measures

At the start and end of the ASE evaluation, all participating students were asked to complete a series of measures assessing their empathy, relationship quality, and prosocial values and behaviours. Participants in both the control and intervention groups completed the same set of measures. Participants completed the same measures at each of the different time points. All outcomes were assessed using validated scales that had been previously used in similar research.

Table 1 List of Outcomes Assessed in the Student Questionnaire

Outcome	Scale Name — *Authors*	Description/Scoring
Empathy	Basic Empathy Scale — *Joliffe & Farrington (2006)*	The BES is a 20-item scale which is designed to measure both cognitive (e.g. *I can understand how people are feeling before they tell me*) and affective empathy (e.g. *After being with a friend who is sad, I usually feel sad*) in adolescents. Whole scale scores can range from 1–100. Scores on the Cognitive Empathy scale can range from 1–45 and scores on the Affective Empathy scale can range from 1–55. Higher scores represent higher levels of empathy.
Emotional Self-Efficacy	Dealing with Emotions in Others — *Qualter et al. (2015)*	Emotional self-efficacy is assessed using an 8-item scale, which measures youths' confidence in their ability to understand the emotions of others (e.g. *I can figure out what made someone feel the way they feel*). Scores can range from 1–40. Higher scores represent greater emotional self-efficacy.
Social Responsibility	Youth Social Conscience Scale — *Bebiroglu et al. (2013)*	The Youth Social Conscience scale is a 6-item scale that assesses youths' sense of responsibility regarding problems in society (e.g. *Helping other people is important to me*). Scores can range from 1–30. Higher scores are indicative of greater social responsibility values.
Peer Relations	Hemingway Measure of Adolescent Connectedness — *Karcher et al. (2001)*	The Connectedness to Peers subscale is a 6-item scale which measures the extent to which adolescents feel drawn to and cooperative with their classmates (e.g. *I get along well with the other students in my classes*). Scores can range from 1–30. Higher scores are indicative of more positive peer relations.
Active Peer Defending	Active Defending — *Pozzoli & Gini (2010)*	The Active Defending subscale is a 3-item scale which was used to measure the extent to which youth actively help others who are victimised/excluded (e.g. *I help or comfort classmates who are excluded from the group or isolated*). Scores can range from 1–15, with higher scores representing a greater engagement in active defending/helping.
Passive Bystanding	Passive Bystander — *Pozzoli & Gini (2010)*	The Passive bystander subscale is a 3-item scale which measures the extent to which youth passively watch or act as a bystander when others are victimised/excluded (e.g. *If I know that someone is excluded or isolated from the group I act as if nothing has happened*).Scores can range from 1–15, with higher scores representing a greater bystander behaviour.

Outcome	Scale Name — *Authors*	Description/Scoring
Aggression	Peer Conflict Scale — *Marsee et al. (2004)*	Two subscales of the Peer Conflict scale were used to measures Overt (i.e. physical) and Relational (i.e. non-physical/psychological) Aggression. Both subscales contain 10-items and measure the extent to which youth engage in overt (e.g. *If others make me mad, I hurt them*) and relational (e.g. *When someone upsets me, I tell my friends to stop liking that person*) aggressive acts. Scores on the Overt Aggression scale can range from 1–40. Scores on the Relation Aggression scale can also range from 1–40. Higher scores represent higher levels of aggression.
Prosocial Behaviour	Strengths and Difficulties Questionnaire (SDQ) — *Goodman (1999)*	The Prosocial subscale of the SDQ is a 5-item scale which measures the extent to which young people engage in prosocial responding, such as volunteering or being nice to others (e.g. *I am helpful if someone is hurt, feeling ill or upset*). Scores can range from 0–10, where higher scores represent greater prosocial engagement.
Prosocial Helping	Prosocial Behaviour Scale — *Nielson et al. (2017)*	The Prosocial Behaviour is a 20-item scale which measures 5 types of prosocial helping behaviours: Defending (e.g. *If I see someone being given a hard time, I stand up for that person*); Emotional Helping (e.g. *If someone is upset, I listen to that person*); Physical Helping (e.g. *If I see someone hurt themselves, I help that person*); Inclusion (e.g. *I accept others for who they are, even if they are different*) and Sharing (e.g. *I share my personal belongings with people*). Whole scale scores can range from 1–100. Individual sub-scale scores can also be calculated for the Defending, Emotional Helping, Physical Helping, Inclusion and Sharing sub-scales and can range from 1–20. Higher scores represent higher levels of prosocial helping.

In addition to the quantitative, scale measures listed in Table 1, in the final empathy survey, students in the intervention condition were asked to provide feedback on the ASE programme. Specifically, students in the intervention group were asked to respond to open-ended questions exploring their opinion of the ASE programme (e.g. *What did you like about the ASE programme?; What did you not like about the ASE programme?; Did you benefit from taking part in the ASE programme? Do you have any suggestions for how the ASE programme could be improved?*). Students in the intervention group were also asked to rate their enjoyment of the ASE programme and their perceptions of the programme's helpfulness, on a scale of 1 to 10. Finally, students in the intervention group were asked to respond to a forced choice question (Yes or No) *'Would you recommend this programme to a friend?'*.

Teacher Measures

All facilitating teachers were asked to complete an accompanying ASE fidelity checklist. The purpose of fidelity checklist was to gather information from teachers about the implementation of the ASE programme throughout the evaluation process. For each session, teachers were asked to complete a brief survey, assessing how long they spent on each activity and to indicate whether they drew on any additional materials/resources that had not been listed in the Teacher's manual. On these fidelity checklists, teachers were also asked to respond to three Likert-items where they rated how difficult the session was to facilitate; how engaged they perceived the students to be in the session; and how valuable they believed the session to be on a scale of 1 (Not at All) to 5 (Extremely). An open-ended comments box was also included on the fidelity checklist forms to allow teachers to provide additional feedback on each session/activity if desired. All facilitating teachers were asked to complete separate checklists for each class or group taking part in the ASE programme. The fidelity checklists were based on those used in other intervention-based research studies.

4

Results

Participants

Prior to the first set of COVID-19 related school closures in Ireland, 1689 junior cycle secondary school students (629=male; 1043=female; 17=Other), aged between 12–16 years, had agreed to participate in this research. However, following the long study hiatus and new social distancing restrictions which accompanied the return to in-school teaching, only 539 (91 male, 392 female, 6 other, 50 unknown) students were willing to take part in the evaluation upon its recommencement (M age = 14.29; SD = .83). Approximately 47% (n=255) of these students belonged to the intervention group and 53% (n=284) were allocated to the control group. Approximately 76% of the sample identified as Irish and no more than 18% of the sample were recruited for any one school. However, of the 539 students who participated in this research, only 267 provided responses on both the Pre (Time 1) and Post (Time 2) student surveys. A further 172 students provided responses to the Time 1 surveys but did not respond to the Time 2 surveys. An additional 100 students provided responses on the Time 2 surveys but did not complete the Time 1 survey. All analyses are based on the participants that completed both the pre and post surveys.

Missing Data

In order to examine whether missing values were Missing Completely at Random (MCAR), Little's (1988) MCAR test was applied to the Time 1 and Time 2 responses. For Time 1 measures, Little's test was found to be non-significant (x^2 [123] = 133.73, p =.24). Additionally, Little's MCAR test was also found to be non-significant (x^2 [123] = 145.81, p =.08) for the Time 2 measures, indicating that the data was missing completely at random at both Time 1 and Time 2. Hence, the data was deemed suitable for EM and the EM algorithm for imputing missing values was employed on the dataset.

Implementation of the ASE programme

The ASE programme was delivered to 15 individual classes/groups across the 4 intervention schools. In all schools the ASE programme was implemented over a 14–26-week period. One school (6 classes) did not complete the full 12 sessions of the ASE programme, with students in this school participating in sessions 1–9 only. However, an independent samples t-test revealed no difference in Time 2 outcome scores between this school and the other three intervention schools that completed the full ASE programme (all p_s >.05), therefore this school was retained and included in subsequent analyses. In one school all sessions of the ASE programme were facilitated online[6] (9 sessions); two schools completed the ASE programme using a combination of online (8 sessions) and in-classroom (4 sessions) contexts; and one school completed the ASE programme entirely on an in-person basis.

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[6] This school only completed 9 sessions of the ASE programme, all of which were facilitated online.

Student ASE Ratings

On the Time 2 survey, students in intervention schools were asked to rate the extent to which they enjoyed the ASE programme on a scale of 1 to 10. On average, students rated their enjoyment of the programme as a 6 out of a possible 10 (M=6.23, SD=2.17). Students in intervention schools were asked to rate the extent to which they found the ASE programme to be helpful. Students rated the helpfulness of the programme on a scale from 1 to 10. On average, students rated the helpfulness of the programme as a 6.5 out of a possible 10 (M=6.55, SD=2.26). Students were also asked to indicate whether they would recommend the ASE programme for other young people. Approximately, 87% of students indicated that they would recommend the ASE programme to their friends.

Figure 3 Percentage students willing to recommend the ASE programme to others

Would You Recommend This Programme to a Friend?

No 13%

Yes 87%

Teacher Feedback

Of the 15 classes/groups involved in the intervention group, fidelity checklists were returned for 4 of these groups. On average, across the 12 sessions, teachers appeared to believe that the ASE programme was valuable for students (M=48.07, SD=.66, Possible Range 1–60). Teachers reported observing a moderate-high level of student engagement in the programme (M=46.85, SD=1.00, Possible Range 1–60), viewed the programme as having a relatively low level of implementation difficulty (M=22.24, SD=1.09, Possible Range 1–60).

Group Differences on Pre-Test Measures

In order to investigate whether randomisation was successful, or whether there were significant pre-existing differences between the intervention and control group students, a series of preliminary analyses were conducted. First, a chi-square test was conducted to examine whether the intervention or control groups differed in terms of gender. Results revealed that there were no significant differences in gender composition between the intervention and control groups (x^2[2]=3.12, p=.21). An independent samples t-test was conducted to examine whether there were age differences between the two groups and results indicated that there were no significant age differences between the intervention and control groups (t[247]=1.03, p =.30). A series of independent samples t-tests were also conducted to examine whether there were differences between the control and intervention schools on the pre-test (i.e. Time 1) survey outcome measures.

Results revealed that there were *no significant differences* between students in the intervention and control schools on any of the pre-test measures (e.g. *p >.05 for all analyses*). These results indicated that the two groups were equivalent at the outset of the study, prior to their control/intervention group assignment. Descriptive statistics for all Time 1 variables are displayed in Table 2 below.

Table 2 Descriptive Statistics, including means (M) and standard deviations (SD), for Intervention and Control Groups on All Pre-Test (Time 1) Survey Outcomes

Outcome	Control Schools		Intervention Schools		Scale Range	a	s	k
	M	SD	M	SD				
Affective Empathy	39.10	6.26	40.15	7.09	1-55	.79	-0.40	-0.26
Cognitive Empathy	35.93	4.48	36.78	4.65	1-45	.73	-0.40	0.20
Emotional Self-Efficacy	28.95	5.09	29.75	4.94	1-40	.85	-0.60	1.43
Social Responsibility	27.16	3.94	26.94	3.82	1-30	.92	-2.37	7.28
Peer Relations	21.14	3.77	21.92	2.76	1-30	.56	-1.18	2.92
Active Peer Defending	10.35	2.39	10.42	2.35	1-15	.71	-0.28	0.20
Passive Bystanding	6.12	2.05	6.28	2.09	1-15	.57	0.42	-0.19
Overt Aggression	13.44	3.85	13.91	3.85	1-40	.82	2.28	8.61
Relational Aggression	12.59	2.87	12.41	2.82	1-40	.76	2.59	10.93
Prosocial Behaviour	8.05	1.60	8.02	1.69	0-10	.64	-1.47	3.51
Total Prosocial Helping	77.03	11.60	77.00	11.53	1-100	.92	-0.92	2.08
PH – Defending	13.61	3.01	14.06	3.15	1-20	.76	-0.49	0.29
PH – Emotional Helping	16.74	2.75	16.47	2.60	1-20	.83	-1.01	1.64
PH – Inclusion	16.38	2.80	16.47	2.34	1-20	.74	-0.92	1.75
PH – Physical Helping	15.82	2.76	16.11	2.70	1-20	.72	-0.95	1.52
PH - Sharing	14.48	2.99	13.89	3.31	1-20	.76	-0.52	0.32

Note: PH = Prosocial Helping

Post-Test Group Comparisons

A series of Analysis of Covariances (ANCOVAs) were conducted to examine whether there were significant differences in the post-test survey outcomes, between students in the control and intervention groups, after controlling for their pre-test outcome scores. Separate analyses were conducted for each of the outcome variables. For each analysis, the pre-test outcome score was entered as a covariate[7]. For all analyses Levene's test for Homogeneity of variance was non-significant. Results indicated that there were *no significant differences* between students in the intervention and control schools on most of the post-test outcome measures, after controlling for pre-test scores (see Table 3 below). However, students who took part in the ASE programme were found to show significantly greater levels of both affective (F(1, 264) = 4.10, p =.04, n^2 = .02) and cognitive (F(1, 264) = 4.72, p =.03, n^2 = .02) empathy at post-test, compared to control school students (see Figures 4 and 5).

Table 3 Group Differences Between Control and Intervention Schools on all Post-Test Outcome Measures

Outcome	Control Schools			Intervention Schools		Scale Range	a	s	k
	M	SD	F	M	SD				
Affective Empathy	38.94	6.76	4.10*	40.90	6.74	1-55	.79	-0.87	1.18
Cognitive Empathy	36.07	4.08	4.72*	37.35	3.73	1-45	.73	-0.31	-0.11
Emotional Self-Efficacy	29.78	4.49	0.21	30.36	4.43	1-40	.85	-0.15	-0.28
Social Responsibility	27.54	3.18	1.49	26.99	3.92	1-30	.92	-1.86	3.30
Peer Relations	21.40	3.15	0.01	21.69	3.12	1-30	.56	-0.78	1.66
Active Peer Defending	10.40	2.29	0.82	10.22	2.08	1-15	.71	-0.16	-0.08
Passive Bystanding	6.29	2.19	0.54	6.54	2.24	1-15	.57	0.53	0.43
Overt Aggression	14.07	4.46	0.06	14.52	4.35	1-40	.82	1.53	2.32
Relational Aggression	13.11	3.23	0.36	12.81	3.00	1-40	.76	2.18	7.07
Prosocial Behaviour	8.17	1.60	1.56	7.94	1.70	0-10	.64	-1.24	2.22
Total Prosocial Helping	77.98	10.82	0.16	77.53	11.04	1-100	.92	-0.60	0.78
PH – Defending	13.75	2.90	0.15	13.85	3.01	1-20	.76	-0.17	0.08
PH – Emotional Helping	16.59	2.76	0.10	16.36	2.52	1-20	.83	-0.98	1.47
PH – Inclusion	16.63	2.50	0.98	16.45	2.42	1-20	.74	-0.91	1.54
PH – Physical Helping	16.13	2.52	0.15	16.18	2.32	1-20	.72	-0.58	0.31
PH - Sharing	14.88	2.94	0.18	14.69	3.08	1-20	.76	-0.48	0.40

Note: * p<.05; ** p <.001 (PH = Prosocial Helping)

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[7] Gender was also originally entered as a covariate, but was observed to exert a non-significant effect on the majority of outcomes and was therefore removed from the analyses.

Figure 4 Differences in Affective Empathy between Control and Intervention groups at Time 1 and Time 2
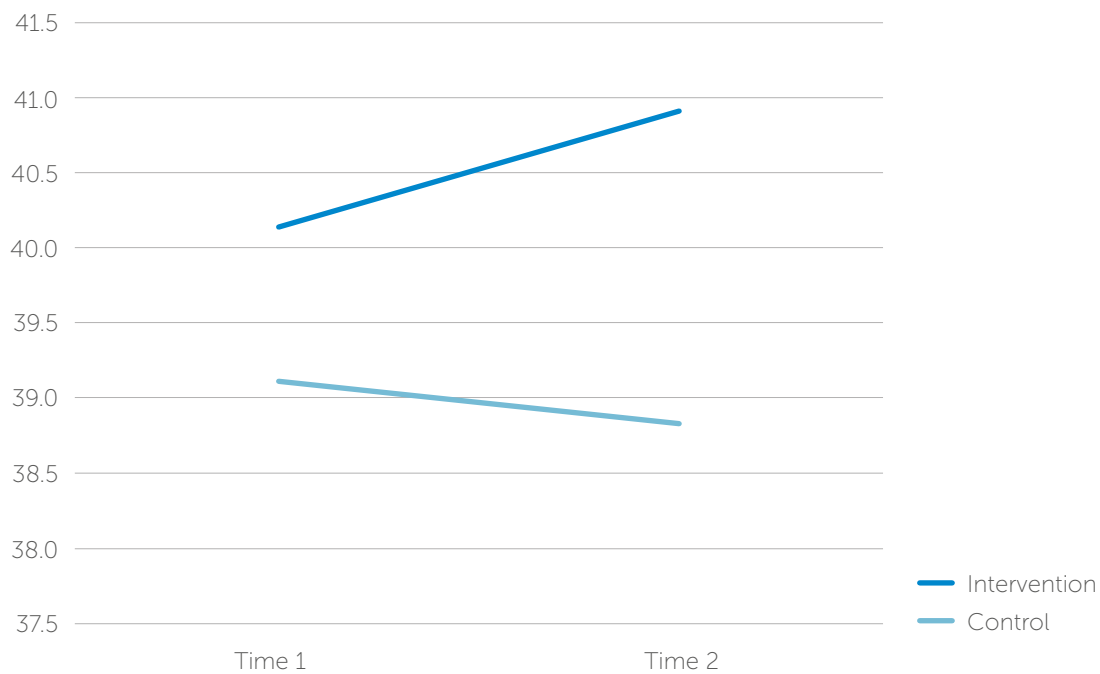
Figure 5 Differences in Cognitive Empathy between Control and Intervention groups at Time 1 and Time 2
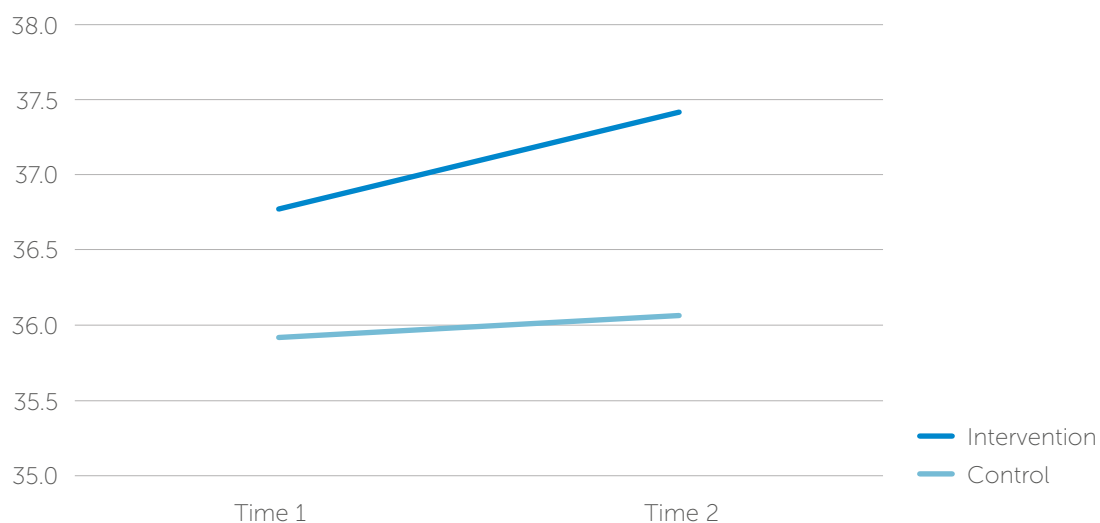
Mediation Analyses

In order to assess the underlying theoretical framework, a series of mediation analyses were conducted to examine whether (cognitive and affective) empathy mediated the relationship between Condition and the outcome measures (e.g. prosocial behaviour; prosocial helping; overt aggression; relational aggression; peer relations; social responsibility; emotional efficacy, defending and bystanding). Multiple mediator models were specified using a set of ordinary least-squares regression analyses following the specifications set out by Hayes (2013). All analyses were carried out using the PROCESS v3.5 macro add-on for SPSS (version 25; Hayes, 2013). The mediation models were specified using Model 4, where each Time 2 outcome measure was entered as a separate dependent variable (Y). The independent variable (X) in each model was Condition, which was a dichotomous variable with two levels; Intervention and Control. Time 2 empathy scores[8] (e.g. sum of cognitive & affective empathy) were entered as the mediator (M) in each model. Each mediator model also contained two covariates (U1, U2), in which the effects of the Time 1 measures (mediator & outcome) were controlled for (see Figure 6 for a sample mediator model).

Figure 6 Diagram Showing a Sample Mediation Model with Covariates

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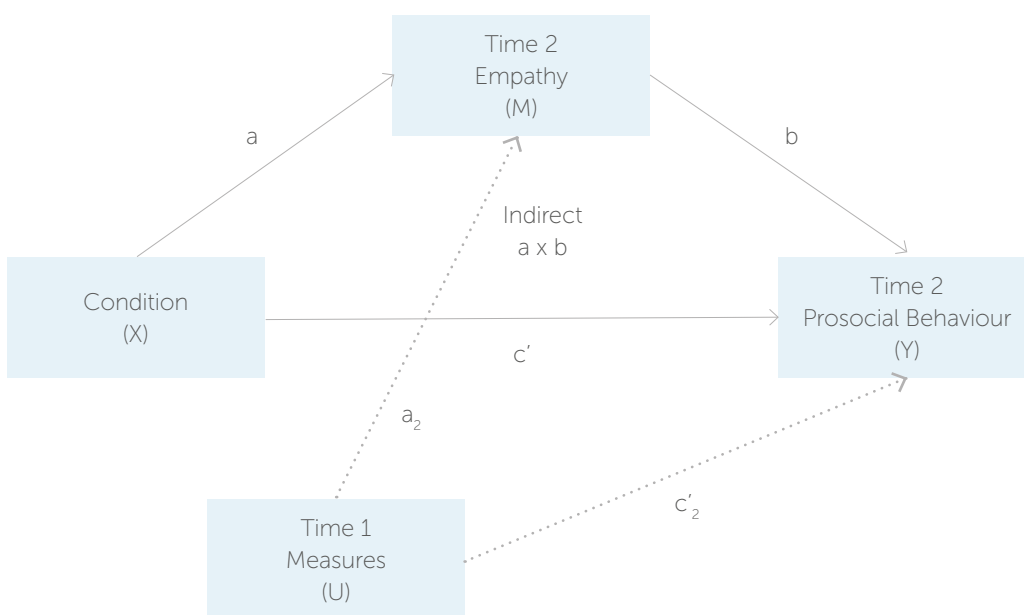
[8] For the purposes of this analyses, total empathy scores were entered as the mediator variables. Cognitive and affective empathy were not assessed as independent mediators.

As can be seen in Figure 6, mediation effects are represented by the indirect path (a x b) and path c' represents the direct effect of X on Y, while controlling for M. All paths are estimated by holding the specified covariates (U) constant. For the purposes of these analyses, both indirect and direct effects were evaluated for significance, with 95% confidence intervals (CIs) established via bootstrapping techniques, implemented using 10,000 bootstrap samples (as recommended by Hayes, 2013). Significant mediation is considered present when zero is not contained within the CI for the indirect (a x b) path (Preacher, Rucker & Hayes, 2007). In contrast to traditional approaches (e.g. Baron & Kenny, 1986), the current statistical approach does not necessitate a significant direct pathway from X to Y prior to testing for mediation (Hayes, 2013). Mediation results, including standardized and unstandardized regression coefficient estimates, significance values and confidence intervals are displayed in Table 4. As can be seen in this table, the path from Condition (X) to Time 2 Empathy (M) was significant for all mediation model (all ps < .05), indicating that youth who participated in the ASE programme showed higher levels of empathy post-intervention than youth who did not take part in the ASE programme. Similarly, the b path, which assesses the relationship between the mediator (i.e. Time 2 empathy) and the outcome measure was also found to be significant for all mediation models (all ps < .05), indicating that higher levels of Time 2 empathy were associated with higher levels of prosocial behaviour (B= .05, p<.001), prosocial helping (B= .47, p<.001), emotional efficacy (B= .25, p<.001), active defending (B= .08, p<.001), peer relations (B= .05, p=.04) and social responsibility (B= .18, p<.001), as well as lower levels of passive bystanding (B= -.08, p<.001), relational aggression (B= -.03, p<.001) and overt aggression (B= -.06, p<.001). Both covariates (U) (i.e. Time 1 empathy and Time 1 outcome measures), were also found to be associated with the outcome measures (Y). Specifically, a significant, positive effect was observed between all Time 1 and Time 2 outcome measures (all ps<.001). Time 1 empathy was found to have a significant (but inverse) association with all outcomes except peer relations (B=-.01, p=.56), relational aggression (B= .02, p=.25), overt aggression (B= .05, p=.07) and prosocial behaviour (B=-.02, p=.28). For the direct path assessing the relationship between Condition (X) and the outcome variables (Y), only two significant associations were found for prosocial behaviour (B= -.33, p = .04) and social responsibility (B= -.88, p = .01). These results indicated that youth in the intervention group showed lower levels of prosocial behaviour and social responsibility at Time 2, than youth in the control groups. However, as can be seen in Table 4, significant indirect relationships were observed for all outcomes apart from relational aggression, overt aggression and peer relations.

A review of the confidence intervals (CIs) for the indirect effects (a x b path) indicates that Time 2 empathy significantly mediated the relationship between Condition and prosocial behaviour (95% CI = .03; .24), prosocial helping (95% CI = .33; 2.05), emotional efficacy (95% CI = .13; 1.02), active defending (95% CI = .04; .36), passive bystanding (95% CI = -.33; -.05), and social responsibility (95% CI = .11; .76), even after controlling for Time 1 responses. An examination of the B values indicated that participants in the Intervention group showed higher levels of empathy post-intervention, which in turn promoted higher levels of prosocial behaviour, prosocial helping, emotional efficacy, active defending and social responsibility and lower levels of passive bystanding. A full summary of direct and indirect effects for each mediation model can be found in Table 4.

Table 4 Direct and Indirect Relationship between Condition, Empathy and Time 2 Outcomes

Outcome	Effect of X on M		Effect of M on Y		Effect of U1 on Y		Effect of U2 on Y		Direct Effect		Total Effect		Indirect Effect		Indirect Effects CI 95%	
	B	p	B	p	B	p	B	p	B	p	B	p	B	SE	Lower	Upper
Prosocial Behaviour	2.30	.006	.05	<.001	.55	<.001	-.02	.28	-.33	.04	-.21	.19	.11	.05	.03	.24
Prosocial Helping	2.39	.004	.47	<.001	.53	<.001	-.23	.001	-1.42	.16	-.30	.78	1.13	.44	.33	2.05
Emotional Efficacy	2.18	.009	.25	<.001	.43	<.001	-.11	.001	-.34	.42	.20	.67	.55	.23	.13	1.02
Active Defending	2.19	.009	.08	<.001	.38	<.001	-.03	.06	-.40	.10	-.21	.39	.19	.08	.04	.36
Passive Bystanding	2.25	.008	-.08	<.001	.40	<.001	.05	.005	.33	.18	.16	.53	-.17	.07	-.33	-.05
Relational Aggression	2.15	.01	-.03	.20	.53	<.001	.02	.25	-.17	.61	-.24	.47	-.07	.08	-.24	.06
Overt Aggression	2.29	.007	-.06	.04	.76	<.001	.05	.07	.20	.63	.06	.89	-.14	.11	-.39	.02
Peer Relations	2.20	.009	.05	.04	.39	<.001	-.01	.56	-.19	.59	-.07	.83	.12	.08	-.01	.30
Social Responsibility	2.28	.006	.18	<.001	.42	<.001	-.07	.003	-.88	.01	-.47	.20	.41	.17	.11	.76

Note: U1 = Time 1 Outcome; U2 = Time 1 Empathy; M = Time 2 Empathy; X = Condition; Y = Time 2 Outcome

Moderation Analyses

In order to test whether baseline empathy (e.g. Time 1 empathy) moderated the effectiveness of the ASE programme, a series of moderated regression analyses were conducted. Baseline empathy was tested as a potential moderator as previous research indicates that individuals with high levels of trait empathy may be more responsive to certain intervention programmes. All analyses were carried out using the PROCESS macro add-on for SPSS (version 25; Hayes, 2013), with Model 1 being specified to test the hypotheses following the recommendations of Hayes (2013). A separate model was specified in order to examine the effects of each proposed moderator on each Time 2 outcome measure, which acted as the dependent variables (DVs). All moderator variables were measured at Time 1. The Independent Variable (IV) in each model was Condition, where the control group was coded as 1 and the Intervention group was coded as 2. Each model contained one covariate, controlling for the effect of the Time 1 outcome measure. All products were mean-centred. The Johnson-Neyman (J-N) regions of significance analysis were used to probe conditional effects of the IV (Condition) on the DV (Outcome Measure) at specific values of the moderator. See Figure 7 for a sample conceptual diagram of a simple moderation model with one covariate, as it applies to the current study. However, no significant interaction effects were observed (all *ps* > .05) for any outcomes, indicating that Time 1 empathy did not moderate the effectiveness of the ASE programme.

Figure 7 Diagram Showing a Sample Simple Moderation Model with one Covariate
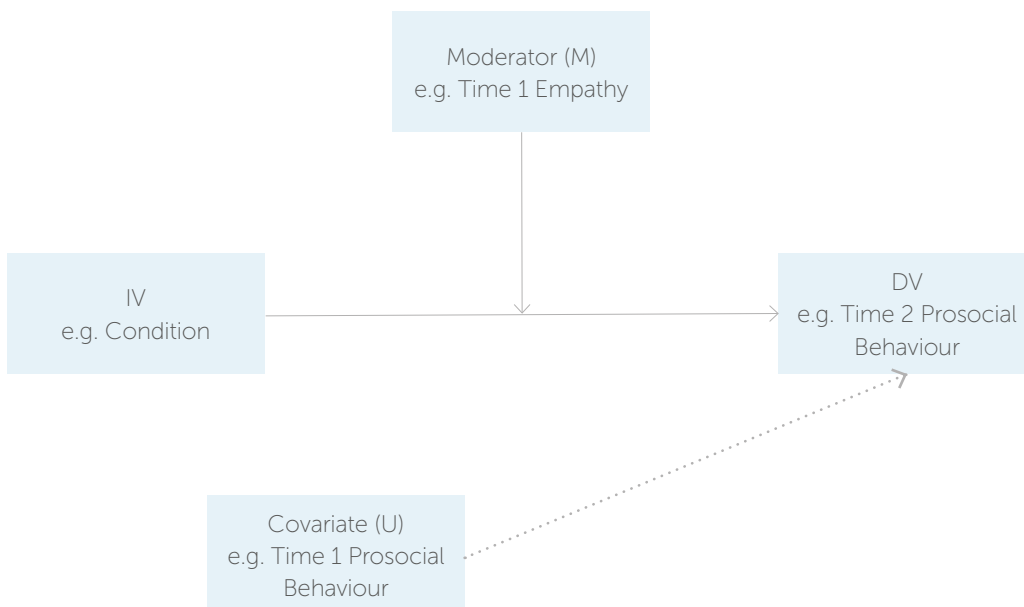
Programme Implementation Effects

Additional analyses were conducted to investigate whether the manner in which the programme was delivered impacted on any of the outcomes reported by students in the intervention group at Time 2[9]. First, a one-way ANOVA was conducted to examine whether students' enjoyment of the programme was related to the method of delivery (e.g. delivered online only; in-person only; or a combination of online and in-person facilitation). Results indicated that students' enjoyment of the programme was significantly associated with the mode of delivery (e.g. online, in-person or both) ($F(2, 104)=6.62$, $p=.002$). Notably, LSD post-hoc analyses indicated that students who participated in the ASE programme through a combination of online and in-person facilitation methods ($M=5.51$, $SD=1.82$) reported enjoying the programme less that students who participated in the programme through online ($M=6.54$, $SD=201$, $p=.02$) or in-person ($M=7.25$, $SD=1.88$, $p=.001$) methods only (see Figure 8). However, there was no difference in enjoyment levels between students who took part in the programme exclusively online and those that took part in the programme in the classroom context only ($p=.14$). A separate one-way ANOVA was conducted to examine the relationship between the method of delivery and students' perceptions of the perceived helpfulness of the programme, however results indicated that there was no significant relationship ($F(2,104)= .92$, $p>.05$).

Figure 8 Chart showing differences in students' level of programme across each method of delivery

Student Enjoyment Levels

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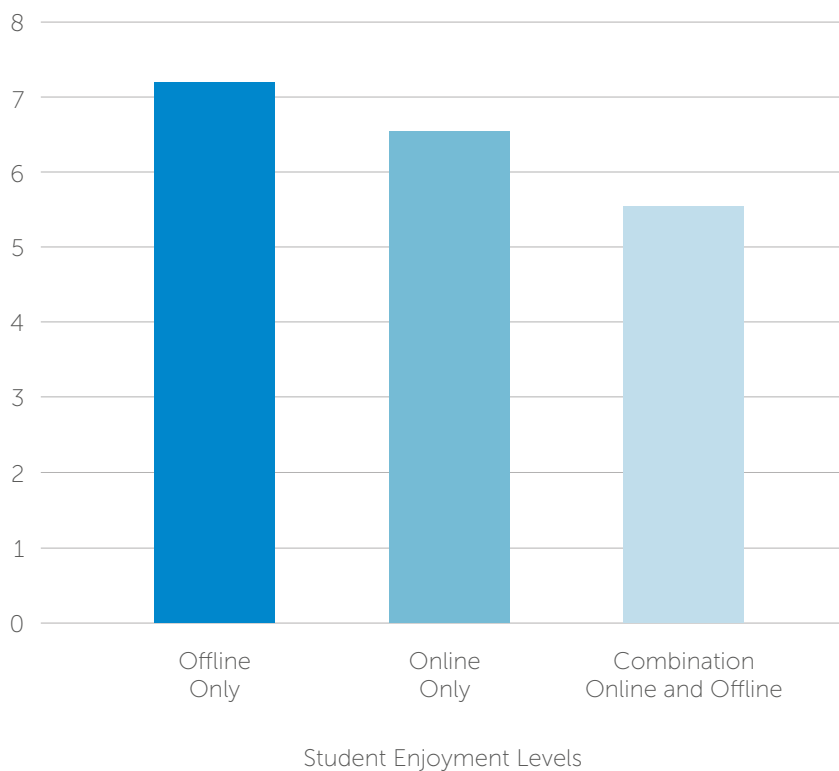
9   These assessments were recorded at Time 2 for the intervention group only. Therefore, it was not possible to conduct moderation analyses with these measures, as no measurements with the control group were obtained.

A series of hierarchical multiple regression analyses were then conducted to examine how student enjoyment levels and programme duration (e.g. number of weeks students spent engaging in the ASE programme) impacted youth's time 2 outcome scores (e.g. empathy; prosocial behaviour; prosocial helping; overt aggression; relational aggression; peer relations; social responsibility; emotional efficacy; defending; and bystanding). Separate regression analyses were carried out for each Time 2 outcome. For each model, the effects of the Time 1 outcome measure were controlled for in the first step. Results revealed that for each outcome specified, the overall model was found to be significant (all ps<.05). See Table 5 for a full overview of model results. As can be seen in Table 5, for each regression model, results indicated that baseline (time 1) measures had a significant positive relationship with the time 2 outcome specified (all ps < 0.001). After controlling for baseline scores, results from the hierarchical regression analyses indicated that students' enjoyment of the ASE programme had a significant, positive effect on all outcome measures apart from emotional efficacy (B = 0.18, ß=0.14) and passive bystanding (B = -0.18, ß= -0.21). In particular, findings suggest that students' enjoyment of the programme was associated with higher levels of empathy (B = 0.64, ß=0.15), prosocial behaviour (B = 0.22, ß=0.25), prosocial helping (B = 1.42, ß=0.24), active defending (B = 0.21, ß=0.19), peer relations (B = 0.37, ß=0.23) and social responsibility (B = 0.49, ß=0.24), as well as lower levels of relational (B = -0.29, ß= -0.18) and overt (B = -0.41, ß= -0.18) aggression. In contrast, after controlling for baseline scores, programme duration was found to have a significant relationship with just three outcome measures. Namely, engaging in the programme for longer periods of time was found to be associated with higher levels of prosocial behaviour (B = 0.06, ß= 0.16), more positive peer relations (B = 0.15, ß= 0.20), and lower overt aggression (B = -0.18, ß= -0.17).

Table 5 Model Results, Standardised & Unstandardised Estimates and Standard Errors for all Time 2 outcome measures

Outcome	Predictor	B	SE	ß	P	F	R²	ΔR²	R² Change
T2 Empathy	T1 Empathy	.62	.07	.68	< .001	31.60**	.48	.37	.02
	Programme Duration	.06	.15	.03	.68				
	Student Enjoyment	.64	.32	.15	.048				
T2 Prosocial Behaviour	T1 Prosocial Behaviour	.55	.07	.59	< .001	33.45**	.59	.48	.07
	Programme Duration	.06	.03	.16	.03				
	Student Enjoyment	.20	.06	.25	.001				
T2 Prosocial Helping	T1 Prosocial Helping	.71	.07	.67	< .001	43.25**	.56	.55	.06
	Programme Duration	.03	.19	.01	.17				
	Student Enjoyment	1.42	.41	.24	.001				
T2 Emotional Efficacy	T1 Emotional Efficacy	.68	.08	.65	< .001	32.73**	.49	.48	.02
	Programme Duration	-.03	.05	-.04	.57				
	Student Enjoyment	.18	.10	.14	.07				
T2 Active Defending	T1 Defending	.43	.09	.44	< .001	12.99**	.28	.26	.03
	Programme Duration	.01	.05	.01	.91				
	Student Enjoyment	.21	.10	.19	.04				
T2 Passive Bystanding	T1 Passive Bystanding	.42	.05	.37	< .001	8.35**	.20	.18	.03
	Programme Duration	-.002	.05	-.003	.97				
	Student Enjoyment	-.21	.11	-.18	.06				
T2 Relational Aggression	T1 Relational Aggression	.49	.10	.46	< .001	9.67**	.22	.20	.03
	Programme Duration	-.05	.07	-.06	.50				
	Student Enjoyment	-.29	.14	-.18	.04				
T2 Overt Aggression	T1 Overt Aggression	.77	.08	.67	< .001	33.55**	.50	.48	.05
	Programme Duration	-.18	.08	-.17	.02				
	Student Enjoyment	-.41	.17	-.18	.02				
T2 Peer Relations	T1 Peer Relations	.40	.10	.35	<.001	7.83**	.19	.17	.07
	Programme Duration	.15	.07	.20	.04				
	Student Enjoyment	.37	.15	.23	.02				
T2 Social Responsibility	T1 Peer Relations	.61	.08	.57	< .001	21.77**	.39	.38	.06
	Programme Duration	.09	.08	.09	.28				
	Student Enjoyment	.49	.17	.24	.004				

Student Feedback on the Activating Social Empathy Programme

What did students like about the ASE Programme?

Students in the Intervention group were asked to respond to an open-ended question exploring what they liked about the ASE programme. In response to this question, several students commented on the structural features of the programme. For example, students identified the fun, relaxed atmosphere and interactive nature of the programme as relevant highlights.

"I liked getting to have discussions in class and everyone gets a chance to take part"

"It allowed us to have open discussions about how to react in different situations and see how different people have different views. We learned how to respect each other's opinions"

"It gave everyone a space to discuss situations and topics that wouldn't come up in normal conversations. E.g. LGBT rights, homelessness, emigration etc"

"I like how diverse the programme is covering many issues related with empathy"

Students also identified several activities/discussion points within the programme which they enjoyed. In particular, students specifically mentioned enjoying the sessions/activities relating to the group project; the difference between empathy and sympathy, reading body language/facial expressions and stereotyping.

"I liked talking about stereotypes as it opened my eyes more to stereotypes I make about people in day to day life"

"Learning about body language"

"I liked learning more about the difference between empathy and sympathy and seeing how it effects people"

Students also mentioned that they liked the inclusion of real-life scenarios and videos within the programme.

"I liked the fact that it was given with examples, situations and proper definitions"

"Reading/watching videos about other people's stories"

"I liked doing the project at the end and watching the videos"

"I liked the real-life examples we were shown of empathy in action as it made it easier to understand how empathy works"

Finally, students discussed how they enjoyed learning about empathy and understanding why empathy is important.

"I liked learning to see points from other people's perspective"

"I liked the fact that I got to understand what it's like for other people to know how there [sic] feeling"

"I liked that we got to understand the need for empathy"

Students also highlighted how the programme had helped them to become more aware of others and more aware of the impact of their actions on others.

"It made me more conscious of other people's feelings"

"I like how it made me reflect on my daily actions"

"I learned more about me and others and how to act towards someone when she or he is down"

"I liked how we got to understand why people act certain ways and how to show empathy to a person that you know very little about but always keep in mind everyone has their own problems, I also liked how we got to learn about different people's life"

"It was hard at first to try and understand peoples feeling but after the full programme I understand how to help others better"

"It helped me try to understand how other people feel and how to relate to them and help them and I also liked how it helped me understand what to do in situations if I'm not sure"

What did students not like about the ASE Programme?

Students in the Intervention group were asked to respond to an open-ended question exploring what they disliked about the ASE programme. In response to this question, several students commented that they found the programme to be "boring" and "repetitive" at times.

"Sometimes can become very uninteresting"

"Sometimes it got a bit boring and stuff was repeated"

"Each section was really similar to the one before and it was repetitive"

"Everything was somewhat the same"

Students highlighted the lack of interaction and discussion between students as a major let-down of the programme. Students appeared to feel that the programme was teacher driven and felt that there needed to be more opportunity for students to interact with each other.

"I thought it was kind of boring at times only listening to the teacher talk. I wish there were more activities in class like talking to the person next to you and stuff"

"There's not much I didn't like about it, just that we couldn't do teamwork because of Covid"

"The classes were very structured and there wasn't any discussion"

"The majority of the time there was just a lot of reading and not a lot of interaction"

Students also appeared to dislike some specific features of the programme. For example, a small number of students noted that they did not like being given "homework" for this course and appeared to dislike the "reflection" process. Some other students noted that they did not like some of the videos used or felt that some of the questions were repetitive/not suitable for their age group.

"I disliked writing reflections after every class"

"A lot of the questions were repeated so it felt a bit dull at points"

"I disliked that some of the videos shown were unrelatable"

"Some of the booklet was a bit pointless"

"Some videos were a bit boring"

Many students commented that they felt that the programme went on for too long, and that the extended nature of the programme may have contributed to the programme becoming "dull" and "dragged out".

"I'm not sure but it was super long and drowning"

"I disliked that the course took so long to complete"

"How long it went on for over COVID"

Some students appeared to feel that the time dedicated to the ASE programme should have been used to learn more "important topics". Others felt that the ASE programme was not beneficial, noting that the programme taught things that are "just common sense".

"The constant repetition of things that everyone already knows like spend more time teaching about important topics in the world today instead of things that are just common sense"

"I thought we could have spent our time doing something better, like drug education or sex Ed. All we did this year was the empathy programme"

"It does not really help people become more empathetic, sure it educates them somewhat but as soon as the project is done, they will not look at it again"

"It was rather dull, we've learned a lot about this in primary school already"

"I felt that I already knew everything being thought"

What did students learn from the ASE Programme?

Students in the Intervention group were asked to respond to an open-ended question exploring how they benefitted (if at all) by taking part in the ASE programme. In response to this question, students predominantly noted that the programme helped them to learn more about empathy and enhance their empathy skills.

"I developed a unique understanding of the term empathy and how critical it is to our daily lives"

"I can now put myself in others shoes and show empathy"

"I learned to take other people's feelings into account"

"I benefited as I now know how to empathise and understand people better which I feel will help me greatly in life"

Students noted that they felt that the ASE programme had helped them to become more aware of others and develop greater insight into what other people may be feeling/experiencing.

"I became more conscious of others' feelings"

"Gives you an insight into what could be going on in other's lives"

"I learned to put yourself in other people's shoes before you judge them"

"I felt like it helped me change a bit and be more aware of people's feelings"

"It made me more aware of other issues in the world and that others aren't always empathetic towards people"

Students also noted that taking part in the ASE programme had helped them become more knowledgeable about how to help others.

"I learned techniques to interact and respond positively to others, e.g. empathetic listening"

"I benefited from taking part in the program by understanding how to help people more"

"I now know how to help and communicate with others"

"I learnt lots of useful information and social skills to help people on tricky situations"

Other students commented that the ASE programme helped them to reflect on their own behaviour/relationships with others. Some students noted that they believed that the programme had made a positive impact on them by helping them to become a "better person"

"I was more conscious of my own behaviour"

"I think more about what I do before acting"

"It was fun and now I think I might think and stop before I talk"

"I was able to be more patient and not being so rushed with having people trust me and open up to me"

"It helped my relationships and it helped when trying to empathise with others"

However, some students noted that they did not feel that they benefitted from taking part in the ASE programme or could not identify a way the programme had impacted them.

"I didn't learn anything except that for some reason, my generation are being stereotyped as un-empathetic enough that we all require a course to deal with it, even though the majority of people my age that I know already know how to be a good person in today's world"

What recommendations/suggestions do students have for improving the ASE programme?

Students in the Intervention group were asked to respond to an open-ended question exploring their recommendations for the ASE programme. Overall, students suggested that making the ASE programme "more interesting" and "less repetitive" would enhance the programme. Students suggested incorporating more discussions, activities and "relatable questions" or scenarios into the sessions.

"Make it more involving with the students because the teacher was doing all the talking"

Do more physical activities, its' all just power points really"

"Allow space for more students to speak about topics in groups rather than working into the booklet"

"Make it more interactive and have more discussions rather than watching videos"

"Don't do the same stories and reflections all the time"

Some students also suggested making changes to the student workbook and including more detail on different topics within the ASE programme.

"Adding pictures .There was lots of writing in it could be nice to separate the booklet by adding pictures could make it easier to read situations with pictures"

"Talk about more worldwide issues happening now"

"Maybe include more in-depth information because sometimes it seemed vague"

"Make it more relevant to sports and school for teenagers"

"More focus on minor detail (shaking stuttering etc)"

Finally, students suggested removing the repetitive material and shortening the length of the programme.

"Cut down on material possibly the bits that are repeated"

"The length can be decreased"

"Make it shorter"

5

Discussion

Summary

The aim of this research was to examine whether participation in an empathy education programme (e.g. The ASE programme) was significantly associated with improvements in young people's empathy, social responsibility, peer relations, and prosocial behaviours. Overall, results from this evaluation found significant support for the ASE programme. In particular, results revealed that participation in the ASE programme was directly associated with higher levels of empathy, and indirectly associated with higher levels of prosocial behaviour, prosocial helping, active defending, social responsibility, and emotional efficacy, as well as lower rates of participation in passive bystanding. In their feedback, both facilitating teachers and participating students appeared to perceive the ASE programme as beneficial and identified several highlights of the programme. Nonetheless, teachers and students also outlined several limitations with the programme content and/or the delivery of the programme, which ought to be addressed. These findings have important implications for research and practice, which are discussed in detail below.

One major finding from the current research is that, in comparison to youth who did not participate in the programme, young people who took part in the ASE programme showed higher levels of both affective and cognitive empathy over time. Additionally, although participation in the ASE programme did not appear to be directly linked to changes in any other outcomes, the ASE programme was found to indirectly promote positive developmental and social changes through increases in empathy. Specifically, youth who participated in the ASE programme demonstrated heightened levels of (affective & cognitive) empathy, which in turn promoted increases in prosocial behaviour, prosocial helping, social responsibility, emotional efficacy and active defending, as well as decreases in passive bystanding behaviour. These findings are in line with findings from other research, which suggest that empathy is an important mechanism of change that helps promote greater prosocial responding among young people (Eisenberg, 2000; Laguna et al., 2020; Malti et al., 2016). These findings are important as they not only provide support for the hypothesis that the ASE programme is an effective empathy education programme that can help promote perspective taking and enhance emotional concern among young people, but also suggest that empathy is key to promoting other prosocial skills and behaviours. Thus, these findings add to a growing body of evidence which indicate that social-emotional learning (SEL) programmes, are linked to positive developmental outcomes among young people and provides further support for the inclusion of empathy-focused education within SEL (Blewitt et al., 2018; Laguna et al., 2020; Durlak et al., 2011). Given the identified lack of focus on other-oriented responding within current SEL curricula in Ireland (Boylan et al., 2019), this research may have particularly important implications for SEL education in Ireland.

It is important to note, however, that despite the significant direct and indirect effects noted above, participation in the ASE programme was not found to be associated with any direct or indirect changes in youths' (relational or overt) aggression or peer relationships. This finding contrasts with that reported by previous research, which suggested that empathy and empathy-based

interventions are associated with reduced delinquent and/or aggressive behaviours and enhanced group relations (Bjorkqvist et al., 2000; Eisenberg et al., 2010; Kilmecki, 2019; Malti et al., 2009; 2016). Although this non-significant trend was unexpected, evidence emerging from other intervention-based research has indicated that programmes which aim to reduce aggressive behaviour appear to produce stronger effects when implemented with younger children, as opposed to older children or adolescents (Van Ryzin & Roseth, 2019; Yeager et al., 2015). Nonetheless, it should be noted that youth in both the control and intervention groups reported low baseline levels of relational and overt aggression, which may also account for the lack of significant group differences observed at Time 2. Another possible explanation for the lack of observed effects noted here, may be due to a lack of statistical power. As the observed effect sizes were small, it is possible that the sample size used in the current research was not sufficient to detect a significant relationship between condition and peer relations/aggression. Further evaluation research in this area, that utilises a larger sample size and a more heterogenous age group, would be advantageous and help provide a clearer understanding of the nature of these relationships among different age cohorts.

Another notable finding which emerged from the current research pertains to the lack of moderation effects observed for baseline levels of empathy. Specifically, this research found no difference in programme effects for individuals who showed high or low levels of empathy at Time 1, which suggests that the ASE programme may produce equal effects among youth with varying socio-emotional competencies. A recent review of school-based empathy interventions indicated that traditional empathy interventions often fail to account for the impact that socio-cognitive or developmental differences between individuals may have on programme effects (Malti et al., 2016). Malti et al. (2016) argue that this is an important oversight as intervention programmes ought to be sensitive to potential developmental differences between youth in the same class and should be capable of promoting empathy among youth with different capacities. Thus, the addition of these moderation analyses in the current research is a relevant highlight that helps advance our understanding of the applicability of the ASE programme and provides initial support for the versatility of the ASE programme. Nonetheless, while the current research represents a positive step forward, this research is limited in that it only explored the moderating effects of one socio-emotional skills/competency (i.e. baseline empathy). More research in this area is needed in order to explore whether other social competencies (e.g. emotional regulation skills; self-efficacy) may play a more substantial role in moderating the effectiveness of the ASE programme.

Programme Implementation and Fidelity

Although it was not possible to fully examine the potential effects that programme fidelity and implementation method exerted on youth outcomes, some interesting trends were observed in the current research. Most notably, tracking data from the intervention schools revealed that the ASE programme was not implemented as intended in any of the four intervention schools. Namely, programme sessions were not always implemented on a weekly

consecutive basis; all schools took longer than the proposed 12 weeks to deliver the ASE programme; several schools reported being unable to facilitate group or pair work within the sessions; and a large amount of school/participant attrition was observed over time. It is important to highlight this lack of strict fidelity, as it is widely contended that schools must show fidelity to the programme for SEL instruction to be effective (Durlak et al., 2011; Li et al., 2021; Ringwalt et al., 2009). While results from the current research indicated that programme duration did not appear to adversely affect programme outcomes, it was unfortunately not possible to quantitatively explore how the lack of programme fidelity in other aspects may have impacted programme outcomes. Thus, it should be acknowledged that although significant findings were observed in the current research, it is possible that the lack of fidelity impacted programme effectiveness, which may account for the small effect sizes and lack of direct effects observed.

Crucially, qualitative feedback from students on the open-ended survey items appeared to indicate that the lack of fidelity to the programme did negatively impact students' enjoyment of the ASE programme. In particular, students commented on the lack of group work/peer discussion present throughout the programme and appeared to view this as a major limitation of the ASE programme. Students also voiced their dissatisfaction with the length of the ASE programme, suggesting that the programme ran for too long and became boring/repetitive. This is an important observation, as results from the regression analyses revealed that students' enjoyment of the programme was significantly and positively associated with their post-intervention prosocial and empathic responses. This finding is in line with those reported by other school-based intervention research which has indicated that student enjoyment can play a significant role in mediating intervention effects (Dishman et al., 2005; Steinemann et al., 2020). However, further research is needed to explore the role that enjoyment may play in mediating the effects of SEL programmes.

Furthermore, it is important to note that while school-based interventions are generally considered advantageous, because of their capacity and reach (Carnegie Corporation of New York and CIRCLE, 2003; Rossi et al., 2016), researchers have acknowledged that school-based SEL interventions also have disadvantages, particularly in that it can be difficult for teachers to maintain fidelity to the programme when they are already juggling a demanding academic schedule and competing with other time constraints (Argon et al., 2010; Kaufman, 2015; Laguna et al., 2020). Research also suggests that the COVID-19 pandemic may have exacerbated the difficulties associated with implementing SEL approaches within the school context (Li et al., 2020). Within the current research, informal feedback from the participating schools and qualitative feedback from teachers and students on the fidelity checklists and time 2 surveys (respectively), appeared to indicate that programme fidelity was adversely impacted (at least in part) by organisational difficulties associated with the COVID-19 pandemic (e.g. social distancing guidelines, school closures, remote learning etc.). However, due to design limitations associated with the current research it was not possible to empirically examine the impact that the COVID-19 pandemic exerted on programme fidelity. Further research is needed to more fully understand how programme fidelity was affected by the COVID-19 pandemic.

In addition to the lack of programme fidelity highlighted above, it should also be noted that within the current study the ASE programme was delivered through a variety of different methods (e.g. online only, in-person only, or a combination of in-person and online methods). Hence, it is important to acknowledge that the method of programme delivery utilised by each intervention school may also have impacted programme outcomes. Future research would benefit from investigating whether differences in the mode of programme delivery (e.g. online/in-person/both) has implications for the effectiveness of SEL programmes, such as the ASE programme[10]. Nonetheless, as this research was conducted during the context of the COVID-19 pandemic, the inclusion of an online delivery option, as well as the flexibility of choice provided to schools, is viewed as a relevant highlight of the current research. First, it is widely contended that the COVID-19 pandemic has had an adverse effect on the health and well-being of young people worldwide. For example, recent research has found that youth report feeling more disconnected from their schools, communities and peers (Margolious et al., 2020), and show lower levels of well-being and coping (Courtney et al., 2020; Cusinato et al., 2020; Gonzalez et al., 2020; Wiguna et al., 2020). Researchers and educators argue that due to the stressors associated with the COVID-19 pandemic there is now an increased need for effective SEL programmes more than ever before (Li et al., 2021). In particular, the COVID-19 related school closures have highlighted the importance of designing SEL programmes that can be easily, and flexibly, implemented through remote learning strategies, when in-person, classroom alternatives are not possible (Li et al., 2021). However, despite the need for more online/digital SEL programmes, there appears to be a lack of effective online SEL programmes available (Li et al., 2021). Thus, the availability of a remote learning package is not only a major advantage of the ASE programme, but was crucial for ensuring the viability of continuing with this evaluation during the pandemic period.

Consideration of the Applied Implications of the ASE Programme

The findings from this research have important implications for both research and policy/practice. Notably, this research is among the first to examine the effectiveness of a school based SEL programme in promoting empathy and prosocial responding among Irish adolescents. The research provides preliminary support for the ASE programme, providing educators and practitioners with access to an evidenced-based empathy education programme, that can be easily incorporated into the Junior Cycle wellbeing module or other existing SEL curricula. Importantly, findings from this research also suggest that empathy is a key mediator of programme effectiveness in that participation in the ASE programme was associated with higher levels of prosocial responding, social responsibility, and defending *only* when participants also experienced increases in their empathic responding. This finding has important implications for SEL policy and practice in Ireland, as it adds to a body of research which suggests

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[10] The current data was not suitable for these comparisons due to the small number of schools/students involved in the intervention group. Additionally, only one school completed the ASE programme using an online delivery method, and this school did not complete the full programme - this school only completed sessions 1-9 of the programme. Therefore, any comparisons between different modes of delivery are limited due to these confounding variables.

that empathy can enhance the effectiveness of youth SEL programmes (Durlak et al., 2011), and practitioners should be made aware of the important role that empathy plays in SEL. Nonetheless, further research is needed in order to examine the effectiveness of the ASE programme with youth of other age groups or cultural backgrounds.

Crucially, although the current research provided support for the effectiveness of the ASE programme in promoting empathy and prosocial responding among adolescents, it should be noted that all significant direct and indirect relationships observed in the current research were found to produce small effect sizes. This finding has important implications for research and practice as it suggests that while the ASE programme can produce significant improvements in youths' empathy, social values and prosocial behaviours (in comparison to a control group), it may not produce *substantial* differences. Hence, caution needs to be exerted when considering the applied utility of the ASE programme. Some researchers contend that stand-alone SEL programmes may not be sufficient to promote long-term changes in youth's attitudes and behaviours (Barry et al., 2017; Frydenberg & Muller, 2017). This may suggest that empathy education programmes, like the ASE, may be better implemented as part of a whole-school or whole-community approach. However, it should also be acknowledged that the current research was conducted during the context of a global pandemic (e.g. COVID-19), which may not only have impacted on the rigour and fidelity of this research, but also had adverse effects on youth's wellbeing and opportunities for social interaction (Cusinato et al., 2020; Li et al., 2021; Margolious et al., 2020); Thus, the associated small sample size, large attrition rate, lack of programme fidelity; and social distancing guidelines may also have reduced the effectiveness of the ASE programme and could explain why larger effects were not observed. It is important for researchers and practitioners to be aware of the unprecedented context in which this research was conducted, and an important objective for future research should be to examine the utility of the ASE programme during more conventional circumstances.

Limitations and Recommendations for Future Research

While this study has several strengths, it is important to acknowledge that there are also limitations associated with this research. First, it should be noted that the predominance of reports from female adolescents is a limitation of this research and future research should strive to obtain a more balanced gender representation. Additionally, while the measurement of youth outcomes across multiple time points is a major strength of this research design, the lack of a follow-up assessment is a notable limitation. Although youth who participated in the ASE programme showed significantly higher empathic/prosocial responses than youth in the control group, these comparisons were made immediately (e.g. up to 1 week) after youth completed the ASE programme and thus, it is not possible to comment on the durability of these group differences. Future evaluations should include follow-up assessments in order to track any long-term effects that participation in the ASE programme exerts on youth's social and developmental outcomes over time. Similarly, the reliance on youth self-report assessments is another limitation of this research. While teacher reports relating to programme

engagement/fidelity had been included on the fidelity checklists, due to the small number of checklists returned it was not possible to include teacher reports in the analyses. Thus, all quantitative assessments included in these analyses are based on youth self-reports. Researchers have noted that the validity of self-report measures can be limited as they may be susceptible to measurement bias, such as social desirability responding and common method variance (Caputo, 2017; Kline et al., 2000). Thus, any future research which aims to assess the utility of the ASE programme (or other SEL programmes) should strive to include a combination of self and third person (e.g. parents; teachers) measurements.

It is also important to highlight that this research suffered from a large attrition rate, as well as problems with programme fidelity, which limited the type of analyses which could be conducted on the observed data. In particular, it should be noted that although this research employed a cluster-randomised control design (e.g. youth were randomly assigned to the intervention or control condition at a school level), all statistical analyses were conducted at the individual level as opposed to a cluster/school level. Given the large school/ participant attrition rates observed, the final sample size was too small to conduct cluster analyses, as these analyses would be underpowered. In contrast, power calculations employed on the current data suggested that the traditional analytic approaches (e.g. regression; ANOVA) would have sufficient power to detect effects, after accounting for the intra class correlation (ICC). Therefore, these analyses were chosen as a more suitable approach based on the observed sample size. Nonetheless, we acknowledge that these analyses are not the recommended approach for cluster research designs and advise that caution is exerted when interpreting the findings reported here.

Finally, the context in which this evaluation was conducted (e.g. during the ongoing global COVID-19 pandemic) should not be ignored. Evidence from other research suggests that the COVID-19 pandemic has had a profound impact on the coping and well-being of young people and is expected to cast a long shadow on youths' social, emotional, physical and educational functioning for years to come (Courtney et al., 2020; Cusinato et al., 2020; Al Omari et al., 2020; Margolius et al., 2020). Informal feedback from school personnel suggests that stressors arising from the COVID-19 pandemic (e.g. school closures, social distancing guidelines) not only adversely affected school/student engagement in the evaluation, but also made fidelity to the ASE programme difficult for participating intervention schools. Although evidence from other research also suggests that the pandemic has had a negative impact on engagement in and fidelity to school-based interventions (Li et al., 2021), assumptions drawn about the impact of the COVID-19 pandemic on the current research findings are largely based on anecdotal evidence. Further research is needed in order to more accurately determine the impact of the pandemic on the uptake, fidelity and effectiveness of the ASE programme. Nonetheless, the difficulties of conducting school-based intervention work during a pandemic should not be belittled, and the experiences of the authors throughout this research suggest that there is a need for a flexible, integrative approach to SEL to ensure that students have access to SEL learning when face-to-face delivery is not possible.

Conclusions

Overall, findings from this research provide initial support to suggest that young people benefit from taking part in the Activating Social Empathy programme. Not only did these young people report enjoying the programme experience but, in comparison to aged-matched peers who did not take part in the ASE programme, these youth showed higher levels of empathy, which in turn led to higher prosocial responding and greater social responsibility. Notably, however, although the programme was found to produce significant differences between these two groups of students, the differences were small. Nonetheless, as this programme was delivered during the context of the COVID-19 pandemic and issues with programme fidelity were noted, the presence of significant (albeit) small effects is a substantial achievement. This research highlights the potential of the ASE programme to promote positive developmental outcomes among young people, but it is clear that further research examining the effectiveness of this programme in the long-term is still needed.

6

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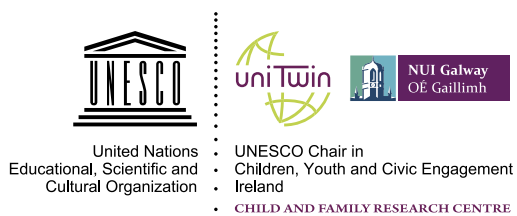
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