The Alert Program in Irish Post-Primary Schools: A NBSS National Study of a Teacher Facilitated Self-Regulation Programme

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Overview

Introduction

The National Behaviour Support Service (NBSS) was established by the Department of Education and Skills in 2006 in response to the recommendations in *School Matters: The Report of the Task Force on Student Behaviour in Second Level School* (Martin, 2006). The role of the NBSS is to assist partner post-primary schools in addressing behavioural concerns on three levels:

- Level 1: School-wide Support
- Level 2: Targeted Support

The NBSS model of support draws extensively from Positive Behavioural Interventions and Supports - PBIS (Sugai & Horner, 2002), Response to Intervention - RtI (Fuchs & Fuchs, 2006) and the Comprehensive, Integrated, Three-Tiered Model of Prevention – CI3T (Lane, Kalberg, & Menzies, 2009) frameworks. The integration of these frameworks offers opportunities to address the behavioural needs as well as the social, emotional and academic needs of students effectively, with interventions at different levels of intensity and support.

It is important to emphasise that while the NBSS was established with the broad remit to work with partner schools in the area of “behaviour”, the complexity of this term, both in the sense of its breadth and variations of meaning(s) and the often close inter-relationship of causal factors that may lead to difficulties for students in their learning, was very much to the forefront in the planning of its model of support. The reciprocal relationship between academic and behavioural difficulties is well-established in the literature (Bulotsky-Shearer & Fantuzzo, 2011; Miles & Stipek, 2006; Trzeniewski, Moffitt, Casp, Taylor, & Maughan, 2006; Valiente, Lemery-Chalfont, & Swanson, 2010). Hence, the work of the NBSS is carried out by an inter-disciplinary team from the disciplines of teaching, occupational therapy and speech and language therapy.

All work undertaken by the NBSS aims to promote positive behaviour and learning throughout the school by focusing on developing: (a) Behaviour for Learning Skills (b) Social and Emotional Literacy
Skills (c) Academic Literacy, Learning and Study Skills (e) Positive Health and Wellbeing Skills. These four skill areas comprise the NBSS Positive Behaviour In-School Curricular Framework.

The Alert Program (Williams & Shellenberger, 1996) was adapted and piloted as a NBSS Level 2 intervention in 17 NBSS partner schools during the academic year 2012-2013. It was designed to be delivered by NBSS Behaviour for Learning teachers\(^1\) as part of a programme of support provided to students who require Level 2 targeted behavioural interventions. This group of students present with a range of behaviours that can interfere with their self-regulation and academic engagement including hyperactivity; social skills deficits; low self-esteem; difficult relationships with adults and peers and poor concentration and attention difficulties in some of their subject classes.

### The Alert Program National Pilot

The Alert Program is a systematic intervention designed to help children who have difficulty staying on task or who become upset due to sound, touch, vision and movement. The programme was originally developed by two occupational therapists, Mary Sue Williams and Sherry Shellenberger, based in the United States of America, for use with students aged 8-12 years. Williams and Shellenberger (1996) applied Ayres’ theories of sensory integration and sensory processing in developing the programme to help children to recognise their arousal states within the environment and to modify their reactions (Barnes et al., 2008). The programme also helps teachers to recognise the challenges in the physical and social environment for children and adolescents who are challenged by sensory processing difficulties. Through activities and discussions, the programme helps students to identify their own sensory needs and preferences and provides them with the tools to take responsibility for self-regulation (Cahill, 2006).

During the school year 2011-2012, as part of a wider NBSS occupational therapy agenda promoting an expanded understanding of students with challenging behaviours in post-primary schools, the NBSS adapted and trialled the Alert Program (Williams & Shellenberger, 1996) in four mainstream post-primary schools in areas of social disadvantage, with 85 First Year students in whole class groups and their four class teachers. Adapting the programme involved designing the session plans so that the learning activities were age appropriate, culturally relevant and appropriate for use within a classroom setting. The programme was initially developed and delivered by occupational therapists with teacher support; however the intent was that if the programme demonstrated relevance, it would then be further developed to be part of a teacher facilitated intervention, with occupational therapist support.

\(^1\) Up until the time of writing, NBSS behaviour teachers were designated as either Behaviour Support Classroom (BSC) teachers or Behaviour for Learning (BFL) teachers. Schools with a Behaviour Support Classroom are allocated two full time behaviour support teachers. Schools with a Behaviour for Learning Programme are allocated one full time behaviour support teacher. From September 2014, all behaviour support teachers in NBSS partner schools are titled Behaviour for Learning Programme teachers.
A review (MacCobb, Fitzgerald & Lanigan O’Keeffe, 2014) of this trial concluded that the Alert Program has relevance in the classroom in post-primary schools in areas of social disadvantage. The teachers involved considered that the programme’s content and language had helped their students develop self-awareness and reported that some students had shown improved self-regulation not only in the classroom but throughout the school environment. The teachers stated that their understanding of their students’ behaviours had deepened and that they had adopted methods from the programme to better support student participation in the classroom. It was recommended that for those students who have greater needs, interested teachers should be trained, equipped and supported to deliver the adapted version of the programme in small group settings (eight students). Based on these findings, a decision was made by NBSS to trial the Alert Program as a teacher led intervention.

The NBSS occupational therapists further adapted the original Alert Program relating it to the age and social profile of students requiring a targeted Level 2 support for delivery by teachers in small group settings. The programme was refined as an eight session teaching module for delivery in a typical class period of 40 minutes. Teaching plans and appropriate student resource materials were enhanced and provided to each teacher as part of a teacher resource pack. A two day teacher training course was held prior to delivery of the programme and ongoing support was provided by the NBSS occupational therapists.

During the 2012/13 school year, the adapted Alert Programme was introduced into 17 NBSS partner post-primary schools. Following participation in the two day training programme, teachers from each of the 17 schools (N=32) delivered the programme to 118 students who were considered to have greater social, emotional and behavioural needs than their peers. It is important to acknowledge that this study was made possible because of the ongoing involvement of school management and teachers working collaboratively with NBSS team members in the partner schools.

**Aim of the Study**

This study set out to capture the teacher and student perspectives on the adapted version of The Alert Program and its perceived relevance for students with social, emotional and behavioural difficulties (SEBD) requiring a Level 2 targeted intervention. Data was generated by the following specifically designed tools:

1. Teacher Training Evaluation Form
2. Teacher Fidelity Measure
3. Alert Program Teacher Questionnaire
4. Student Questionnaire
The aim of this study was to explore the following questions:

1. What are the teachers’ perspectives regarding (i) the structure and implementation of the Alert Program in the classroom context, and (ii) its contribution to their reflective practice and classroom management strategies?
2. What are the students’ and teachers’ perspectives on the relevance and value of the Alert Program for post-primary students in Ireland who need Level 2 targeted support?
3. What are the teachers’ perspectives on the relevance and quality of the teacher training programme, resources provided and support offered by the NBSS occupational therapists?

**Literature Review**

In order to succeed in school, it is essential that students not only develop their cognitive skills but also learn to regulate the motivational, emotional and social determinants of their intellectual functioning (Zimmerman, 1990). Self-regulation is defined as the ability to control one’s emotions, impulses, attention and other cognitive processes and to plan and control one’s behaviour (Willingham, 2011). In the school setting, self-regulation is the ability to pay attention and being ready to deal with the challenges of completing learning tasks (Barnes et al., 2008). However, children with social, emotional and behavioural difficulties often have problems following directions, dealing with frustration related to learning tasks, getting along with peers and regulating their behaviour in school (Prior, 2001).

Children often have difficulty regulating and responding to stimuli in their environment which can have detrimental social, personal and educational implications and can limit their ability to engage in normal life routines (Pfeiffer et al., 2011). Such difficulties are commonly seen in the classroom environment and present as a challenge for educational staff to identify the reasons for a student’s poor performance in school (Miller-Kuhanrek, Henry, Glennon, & Mu, 2007). Ayres theory of sensory integration (1979) is used by occupational therapists when trying to understand the complex behaviours of some students with social and emotional difficulties in the school setting. Those with sensory integration difficulties tend not to sustain themselves effectively for learning in the classroom for a full 40 or 50 minute class. They may also exhibit challenging behaviours such as being defensive if someone invades their personal space. These students may be over-active in a classroom setting. They can be easily distracted, fidgety and disorganised. In contrast, students with sensory integration difficulties may be slow to respond to requests and may be seen to “shut down” during class.

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2 The term, “self-management” is used interchangeably with “self-regulation” in delivering the Alert Program in practice with teachers and students as a more commonly used term.
The Alert Program is one method which was designed to help children with these types of difficulties. By using cognitive learning and sensory activities, the child becomes more aware of their levels of responsiveness to the demands of the school situation and can then learn personal strategies to manage their own behaviour. Through activities and discussions, the student identifies their sensory needs and preferences. The Alert Program provides students with the tools they need to develop their self-regulation skills (Cahill, 2006). The programme supports teachers in addressing the needs of students in a positive manner (Cahill, 2006).

**Self-Regulation in School**

Effective self-regulation is essential to succeed in school (Zimmerman, 1990). In the school setting, self-regulation is interpreted as the student being able to pay attention, being prepared to engage in classroom tasks and being able to deal with the challenges of completing learning activities (Barnes et al., 2008). Students with or at risk of developing SEBD, typically have limited capacity for self-regulation. This reduced capacity for self-regulation can make classroom tasks and educational achievement extremely challenging for a student and may place them at risk of experiencing an extensive range of personal and social difficulties (Eaves & Ho, 1997; Landrum et al., 2003; Riney & Bullock, 2012).

Scaffa (2014) states that emotional regulation occurs along a continuum, from fully automatic, effortless and sub-conscious to conscious, effortful and voluntary. Factors intrinsic to the person such as neurological and physiological functions can contribute to emotional regulation as can factors extrinsic to the person such as the social context, especially their interactions with caregivers, family members and experiences in social systems. Emotional regulation can focus on heightening positive emotions, or on reducing negative or painful emotions (Eisenberg & Spinard, 2004) so that the person can achieve personal goals. Emotional dysregulation refers to responses to emotional experiences that interfere with wished for relationships and success in goal-directed pursuits. Regulation of emotions may be influenced by five components: the situation; attention to the situation; appraisal of the situation; the emotional and behavioural responses to the situation based on the appraisal; and feedback on the effects of the response. Regulating emotions may take the form of refocusing one’s attention or cognitively evaluating the situation and its possible consequences. The individual may then alter his/her decision to manage the impact of the experience so as to avoid difficulty, or to better achieve the desired result (Eisenberg & Spinard, 2004).

Normal and pathological emotional behaviour is mediated by brain structures and interconnecting process in the sensory thalamus, amygdale, the hippocampus and the prefrontal cortex (Davidson, Fox & Kalin, 2007). The biological foundations for emotional regulation develop prenatally. Stress during pregnancy has been associated with problematic outcomes such as hyperactivity, attention deficits
and maladaptive social behaviour (Scaffa, 2014). In stressful situations, threat stimuli are registered in these pathways and the fight-flight-freeze response is triggered. Neurophysiological responses to trauma can inhibit the development of other pathways necessary for learning and memory. Thus those with early life experiences of trauma may develop patterns of behavioural responses to perceived threat and present with emotional dysregulation. In addition there may be associated learning and memory difficulties that further challenge the young child.

The ability to develop emotional self-regulation begins in infancy with the child’s early interactions with their primary caregiver at the core. For example, the act of soothing a distressed infant is an important precursor for their potential ability to share healthy emotional exchanges as well as to regulate their emotions. Alongside biological influences on temperament, babies and toddlers are dependent on their caregivers for learning effective regulation of emotions. Children learn, through co-regulation of positive and negative emotional experiences, how to soothe themselves when they are distressed or in pain as well as how to deal with frustrations. Equally, caregivers support the expression of positive emotions.

As children acquire and extend their language skills, they can begin to identify and articulate a range of emotions and developmentally can learn to manage themselves in relation to the emotional needs of others. Calkins and Hill (2007) note that failure to develop these early emotion self-regulation skills may inhibit the development of more complex emotional skills later in life and can also lead to poor adjustment in school.

Hughes (2004) states that children and adolescents who experience trauma, abuse and neglect including the witnessing of domestic violence and violent crime have an increased risk of emotional dysregulation and mental health difficulties. He also states that with competent adult support and with the development of effortful control, the adolescent can learn to develop effective emotional regulation. Gross and Thompson (2007) emphasise the role of expressive language skills and the observation of others in various contexts practising effortful control in helping the adolescent to learn healthy emotional regulation. They discuss how with guided experiential learning, neurophysiological processes can be altered to develop pathways less reliant on fight or flight responses. The young person can learn impulse control, awareness of others and self-control and respond more appropriately and adaptively to demands of the environment.

A literature search identified that there are few interventions specifically to enhance emotional regulation other than dialectical behaviour therapy (Linehan, 1993). The literature indicates that this is a cognitive behavioural approach to skills building for use with people with a variety of mental health difficulties.
Social emotional learning programmes (SEL) and sensory based teaching programmes (such as the Alert Program) have been identified as an approach that may assist in managing dysregulation (Scaffa, 2014). These programmes have been developed for teaching children and adolescents the skills needed for self-development and healthy relationships. The core competencies addressed in these SEL programmes include self-awareness; self-management; social awareness; relationship skills and responsible decision making. In addressing these core competencies, these programmes aim to improve resiliency, and to promote positive adjustment to life challenges. In a meta-analysis of most effective SEL programmes, Durlak, Weissberg, Dymnicki, Taylor and Schellinger (2011) concluded that programmes should be sequenced (S), active (A), focused (F) and explicit (E). This has become known as the SAFE approach to SEL.

**The Alert Program**

Sensory integration is the “organisation of sensation for use” (Ayres, 1979), and is an unconscious process of the brain, that organises information detected from external and internal sensors that give meaning to what is being experienced. It is the process that enables one to make sense of the world so as to engage and participate (Pollock, 2009) and this is the core perspective of the Alert Program. One of the assumptions made in Ayres theory (1979) is that learning is dependent on the ability to take and process sensation from the experience of the body and this is used to give us information about ourselves in relation to the environment outside ourselves and a schema from which to plan and organise an adaptive and appropriate behavioural response. The theory assumes that decreased ability to process sensation is also associated with inappropriate reactions, in that poor processing of input leads to poor adaptive responses, and these interfere with learning and behaviour.

In addition, the underlying principles of the Alert Program are in keeping with the occupational therapy philosophy of client-centeredness, activity focus, and the recognition of the importance of the physical and social environment in influencing participation. When using the Alert Program students are not labelled “bad” or “good”. They are empowered to be in control of their “engines” and therefore their behaviour. Awareness of self-efficacy in owning and regulating behavioural responses is a first step towards self-management of behaviour, and subsequently practical strategies relevant to the person are identified and practised in the classroom. The students have a framework to name self-management strategies, and with practical experiences they discover strategies to assist them to do this in the classroom setting.

**Stages of the Alert Program**

The Alert Program is intended to help the student to a) learn to recognise their levels of arousal within the environment as related to behavioural difficulties, such as their sensitivity and reactions to sensory input and (b) expand their use of self-regulation strategies throughout the school day so they are able
to change their level of alertness to meet situational demands (Barnes et al., 2008). When students learn how to monitor their levels of alertness they often experience concomitant improvements in self-esteem and self-confidence (Wilbarger & Wilbarger, 2002). Within this programme an engine analogy is used to describe one’s level of alertness or arousal and its appropriateness for the task in hand, e.g. learning in class:

- An engine “running low” is compared to a low arousal state, and in the classroom setting the student may appear switched off or uninterested.
- An engine “running high” is compared to a hyper arousal state, and the student may appear to fidget, be distracted or be unable to settle down to work.
- A “just-right” engine is compared to the optimal arousal state and is the appropriate level for the requirements of the specific learning task in that particular class.

Through a three stage process, students are taught to determine how their ‘engines’ are running and how to use personally appropriate strategies to successfully self-regulate and participate in the classroom and school environment.

**Stage 1: Identify Engine Speeds**

At this stage students learn the language of the “Alert Program” as in identifying the labels of high, low, just-right, within themselves. During this stage the facilitators encourage learning by modelling and demonstrating how to label their “engine” and then encouraging students to practise.

**Stage 2: Experimenting with methods to change engine speeds**

At this stage facilitators introduce different strategies to change engine levels. These strategies are based on five different sensory inputs, known as the “Five Senses” of the Alert Program that can be used by the student to organise, calm or adjust their level of responsiveness to the situation or task. They are:

1. **Put Something in Your Mouth**: oral motor input. For example, for some students chewing on a mouth fidget\(^3\) can help attention levels.
2. **Move**: vestibular and proprioceptive inputs. For example, the student can use a movement or deep pressure strategy to help deal with frustration and to refocus attention.

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\(^3\) Mouth fidgets such as chewable pencil tops and chewable jewellery, provide oral sensory stimulation to help students regulate their sensory systems throughout the day. This can lead to better focus, attention and listening.
3. **Touch**: tactile input. Items such as a wrist band or hand fidget can help keep the student at the right level of alertness for learning.

4. **Look**: visual input

5. **Listen**: auditory input

During this stage students experiment and explore different strategies. They identify their sensory-motor preferences and learn which strategies can help them achieve an arousal state appropriate for the task in hand, such as listening to the teacher.

**Stage 3: Regulating Engine Speed**

At this stage students are empowered to be aware of their fluctuations in arousal and in using appropriate strategies to regulate themselves independently during class. Another critical aspect of the programme is that through teachers’ involvement in the Alert Program, their awareness of the demands of both the classroom environments and of the learning tasks for students who struggle with self-regulation may be increased. It may be possible then for teachers to introduce preventative and behaviour maintenance strategies into classroom management routines.

**Evidence for the Alert Programme**

Studies of the Alert Program predominantly relate to its implementation with young children and students in middle school with complex learning needs who experience difficulties in behavioural and emotional self-regulation. Salls and Bucey (2003) report on the use of the Alert Program in middle school special education, as part of a collaborative classroom-based curriculum to help children to better self-regulate their behaviour and to improve their communication skills. Children in that study were reported as showing improved self-awareness, problem solving and self-regulation strategies. Additionally, teachers and school management found it to be cost effective and a model for best practice in that school setting. In their study of children with emotional and behavioural difficulties, Barnes et al. (2008) found that programmes that target self-regulation skills may be useful in helping students to improve self-regulation in a classroom setting. The authors reported that the students were better able to not only recognise their arousal states within the environment but also to modify their reactions.

May-Benson and Koomer (2010) report on the positive trends regarding the effectiveness of sensory integration interventions. The result of their systematic review noted its effectiveness in addressing sensorimotor skills, socialisation, attention and behavioural regulation, and the achievement of individualised goals. Barnes et al. (2003) report in their study on the perceptions of occupational therapists working in a school setting in the United States with children with emotional disturbances,
that 29% used group interventions. These group interventions were most commonly sensory modulation groups such as the Alert Program, sensory integration groups and task focused groups.

Willingham (2011) notes evidence of teachers’ positive role in supporting students with self-regulation difficulties to manage themselves better through the adoption of various strategies including specific teaching programmes and environmental adaptations to the classroom. There are no studies specifically reporting on the use of the programme with students in areas of social disadvantage.
Methodology

The Sample

Partner Schools
The 17 schools that participated in the adapted NBSS Alert Program National Pilot were geographically distributed across the country in urban and rural areas in areas of social disadvantage. They included both single sex and co-ed student populations. The school sample consisted of four male schools, three female schools and ten co-ed schools. All schools were already partnering the NBSS in whole school interventions supporting positive learning behaviours and had well established working relationships with the NBSS team.

Students
A cohort of 118 First Year students was involved in the study. Students were identified and selected by the teachers who would be facilitating the groups, on the basis of two criteria. The first was that the student was considered to be experiencing social, emotional and behavioural difficulties and the second was the expectation that the student would benefit from participating in a programme being delivered in small groups. With reference to the three tiered model of support provided by the NBSS, the students were deemed by teachers to require Level 2 support.

Teachers
Thirty two teachers from the 17 post-primary schools were invited to participate in the research study. The participating teachers were those with specific responsibility for offering NBSS Level 2 interventions in small class groups of 7 to 8 students.

Teacher Training and Support
To prepare for the delivery of the Alert Program, teachers participated in a two day training programme, offered at the beginning of Term 1 for those starting the programme in September, and in January for those starting the programme in the Term 2. This training was delivered by the occupational therapists from the NBSS.

Day one of the teacher training aimed to provide teachers with an overview of:

- The Alert Program
- The sensory integration theory and neurology which underpins the programme
The role of the occupational therapist and the occupational therapy perspective

Group work and group theory

Day two of the training involved:

- An overview of the ‘Whole School Staff Presentation’ to be delivered in each teachers’ respective school
- Introducing the teachers to the aims, objectives and activities of each session and providing them with the opportunity to experience and complete the activities involved in each session
- A presentation by a teacher who had participated in the initial pilot of the programme (2011/2012), on her experience of facilitating the Alert Program.

Thirty two teachers from the participating schools received the training and subsequently, delivered the programme within their respective schools. Formal teacher training and support was delivered before and during the intervention in a phased approach from September 2012 to April 2013.

**Ethical Permission: Parents and Students**

On entering First Year in their new school permission was obtained from parents by the NBSS for their child’s participation in any NBSS activities, of which the Alert Program was one. In addition, parents and guardians were contacted by the teacher facilitating the Alert Program via telephone or letter and provided with information regarding the programme in which their child would be invited to participate. Parents and guardians were invited to make contact with the teacher if they had any further questions or concerns. Students were invited to participate in the Alert group and also gave ongoing consent for their participation in each session.

**Data Collection Measures**

In order to evaluate the implementation of the Alert Program as a teacher facilitated intervention in Irish post-primary schools, gaining the views of the teachers who delivered the programme were essential. Teachers’ opinions on a range of issues were sought including the nature of their initial training, the relevance and suitability of the programme and resources as well as the adequacy of the continual support provided by the NBSS occupational therapists. The following tools were developed to capture the views of the participating teachers and students:

- **Teacher Training Evaluation Form**

The Teacher Training Evaluation Form aimed to gather information on the teachers’ perceptions of the helpfulness of all aspects of the two day training course delivered by the NBSS occupational therapists including offering them an opportunity to provide any recommendations or suggestions for future training sessions.
• **Alert Program Fidelity Measure**
The Alert Program Fidelity Measure was completed by teachers analysing and reflecting upon the implementation of each of the eight class session plans and the appropriateness of the resource materials for student learning in their school setting. The seventeen page Fidelity Measure consisted of eight sections, one section for each of the eight Alert Program sessions.

• **Alert Program Teacher Questionnaire**
The Alert Program Teacher Questionnaire was developed to gather teachers’ views of the programme; the appropriateness of the resource material for their student group in the classroom setting; the relevance of the content in helping students to learn self-regulation skills; the relevance of the self-regulation strategies for classroom use, and recommendations related to the programme.

• **Student Questionnaire**
The Student Questionnaire sought students’ opinions regarding the programme; the helpfulness of the programme, the ease of use of the programme content and their intention to implement “Take Five” strategies in the classroom. The use of a visual format took into account the reading ages and abilities of the target group and ensured that the questionnaire was accessible to all students.

**Data Analysis**
The four data sets were analysed using both quantitative and qualitative methods. With regards to the quantitative data, descriptive statistics were used to summarise and describe the important characteristics of the data set (Mendenhall, Beaver & Beaver, 2012). Data will be presented using graphical statistics, including tables, bar charts and pie charts, where appropriate.

Given the descriptive nature of this research study qualitative data analysis concentrated primarily on providing descriptive accounts. Content analysis is provided on the qualitative data with minimal interpretation and this is supported by the use of direct quotations. The process of qualitative data analysis involved assigning codes to the data and identifying any existing analytical connections among data gathering tools. The results generated by the quantitative and qualitative aspects of the different data gathering measures were triangulated in order to answer the three research questions of this study.
The Alert Program in Irish Post-Primary Schools: A NBSS National Study of a Teacher Facilitated Self-Regulation Programme
Findings

This chapter will present the results of the data gathered from the four data gathering tools used over the course of the NBSS National Pilot of the Alert Program:

1. Teacher Training Evaluation Form
2. Teacher Fidelity Measure
3. Alert Program Teacher Questionnaire
4. Student Questionnaire

Data Sets Returned for Review

- **Teacher Training Evaluation Form**
The 32 teachers were invited to complete one evaluation form at the end of day one and another form at the end of day two of the Teacher Training Course. A total of 49 completed Teacher Training Evaluation Forms out of a possible total of 64 were returned, giving a response rate of 76.6%.

- **Teacher Fidelity Measure**
The 32 teachers were invited to complete the Fidelity Measure. A total of 17 completed Fidelity Measures were returned. Of these 17 measures, 11 were completed by teachers in a pair with the teacher whom they had co-facilitated the Alert Program within their schools and six were completed individually.

- **Alert Program Teacher Questionnaire**
Of the 17 schools participating in the pilot of the Alert Program, only one school did not return an Alert Program Teacher Questionnaire. A total of 26 completed Teacher Questionnaires were returned. Of the 26 returned, three were completed by teachers in a pair with the teacher whom they had co-facilitated the Alert Program with in their schools and 23 were completed individually.

- **Student Questionnaire**
Of the 118 students who participated in the Alert Program, 82 completed Student Questionnaires, giving a response rate of 69.5%.

Table 1: Number of Completed Data Gathering Tools Returned

<table>
<thead>
<tr>
<th>Teacher Training Evaluation Forms</th>
<th>Fidelity Measuring Tools</th>
<th>AP Teacher Questionnaires Completed</th>
<th>Student Questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>17</td>
<td>26</td>
<td>82</td>
</tr>
</tbody>
</table>
The findings from each of the data collection tools are combined in order to answer the research questions of this study. The research questions were the following:

1. What are the teachers’ perspectives regarding (i) the structure and implementation of the Alert Program in the classroom context, and (ii) its contribution to their reflective practice and classroom management strategies?
2. What are the students’ and teachers’ perspectives on the relevance and value of the Alert Program for post-primary students in Ireland who need Level 2 targeted support?
3. What are the teachers’ perspectives on the relevance and quality of the teacher training programme, resources provided and support offered by the NBSS occupational therapists?

**Research Question One (Part One)**

Research question one is presented as two separate parts.

(i) What are the teachers’ perspectives regarding the structure and implementation of the Alert Program in the classroom context?

Data from the Fidelity Measure and the Alert Program Teacher Questionnaire was integrated when answering this question. Results are presented under the headings of Achievement of Session Objectives; Teachers’ impressions of the Alert Program and Timing and Duration of Program Sessions.

**Achievement of Session Objectives**

This Fidelity Measure asked teachers to identify on a 5 point Likert scale how well they considered they achieved each of the stated learning objectives, as set out in the Alert Program manual, for each teaching activity (See Appendix 1 for Sample Session Objectives). Of the eight sessions, four sessions had two learning objectives and four sessions had three learning objectives. For each session, the percentage of responses that reported achieving one or more of the session objectives “Extremely Well”, “Well” “Fairly Well”, “Not Very Well” or “Not at All” were calculated. Some teachers did not specify answers related to every objective. With regard to the structure and implementation of the programme, Figure 4.1 demonstrates the high teacher satisfaction rate with achievement of session objectives for all eight sessions.
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**Figure 1: Achievement of Session Objectives**

This figure presents data related to the percent of respondents who reported achievement of session objectives as “extremely well”, “fairly well”, “well”, “not very well” or “not at all”. For example 52.94% of responses indicated achievement of session one objectives at the “extremely well” level.

In session 1, 4 and 5, over half of the total number of measures returned (n=17) identified that one or more of the session objectives were achieved ‘Extremely Well’. In session 2, 3, 7 and 8, over 50% of measures revealed that one or more of the session objectives were achieved ‘Fairly Well’ or ‘Well’, with this percentage reaching over 60% in three of these four sessions. The percentage of measures that identified that one or more objective were achieved ‘Not Very Well’ or ‘Not at All’ was extremely low.

In session 1, 2 and 5, no teachers reported that they did ‘Not’ achieve one or more session objective ‘Very Well’ or ‘At All’. Session 3 was the session in which the highest percentage of measures, that is 5.9% (n=3), identified that teachers did ‘Not’ achieve one or more session objective ‘Very Well’ or ‘At All’. This is interesting as it is also the session in which the highest percentage of teachers reported achieving session objectives ‘Fairly Well’ or ‘Well’. This may be due to some teachers being more comfortable with movement and exercises than others and therefore being more confident and comfortable with the delivery of the movement session.

**Teachers’ Impressions of the Alert Program**

Question One (Part B) asked teachers to share their impressions of the Alert Program. Of the 26 returned Questionnaires, 9 (34.6%) recorded that the Alert Program was simple and easy for the
teacher to deliver within the classroom setting, identifying it as a very ‘user friendly’ programme. The clear simple structure in addition to the comprehensive resource pack provided, reportedly made the facilitation of the programme extremely enjoyable and rewarding. Comments from the Alert Program Teacher Questionnaire reinforced the findings from the Fidelity Measure in that the programme was easy to run, had a clear structure and was user friendly.

“Well thought out programme. Analogy very effective and easy to explain”

“The content was so well prepared and there was very little preparation involved beforehand”

“Felt happy and confident delivering Alert as the programme was so well organised planned and resourced”

“It’s clear and concise what’s to be done in each session”

“Very User Friendly for teachers”

“As a teacher I am really glad my school was selected to participate in the Alert Programme. I thoroughly enjoyed delivering the programme.”

“Enjoyable and rewarding to deliver”

Timing and Duration of the Alert Program Sessions

Timing was identified in both the Fidelity Measure and the Alert Program Teacher Questionnaire as an important factor in the success of the sessions.

Within the Fidelity Measure, an additional comments section provided teachers with an opportunity to expand on previous questions and to record any additional comments or observations made while working with the students in the session. Of the total number of additional comments or observation made (N=118), 27 (22.9%) focused on the timing of the Alert Program sessions. Some teachers reported they did not have enough time to complete all the learning activities of certain sessions. Others reported that there was too much time allocated for specific sessions. Some teachers identified a single class as sufficient for the Alert Program sessions whereas others required a double class for the same session, thus time requirements varied from group to group. Examples of the difference amongst teacher opinions regarding session timing are demonstrated below.

“I found that I didn’t have enough time to wind down the session” [Session 1]

“Just the right amount of activities for this session” [Session 1]

“This class was an awkward length-too long for one class and a good bit shorter than two classes” [Session 8]

“There was plenty of time to complete the exercise” [Session 8]
Session 4 “Put Something in Your Mouth” was identified as the most time consuming session with only 5 of the total 17 returned Fidelity Measures identifying that they considered there was sufficient time to complete all of the learning activities identified in the Alert Program manual for this session.

“We didn’t get to answering the questions as time ran out. There was a lot to get covered in this session so I constantly felt under pressure”

“A lot of activity is in this session and not enough time is given to the video and discussion of food”

Session 7, “Regulating Engine Speeds” was identified in 5 of the 17 returned measures as containing insufficient activities for the time allocated, with some reports identifying that the session “dragged out”.

“We put session 7 and 8 together as we felt there was not enough material to keep our students interested for 40 minutes”

“I felt there was not really enough material to last the 40 minute”

In Question One (Part B) of the Alert Program Teacher Questionnaires timing was an issue which arose with 5 (19.23%) of the 26 returned Alert Program Teacher Questionnaires commenting on this topic. A small number of teachers reported that the programme was time consuming and required preparation beforehand and on the other hand a number reported the opposite, stating that the timing of sessions was just right. Teachers’ comments demonstrate their awareness of the need to pay careful consideration to time when planning the session.

“It was quite time consuming. I needed to be free the class before it to set up the room and materials”

“The timing was very good and we were never under pressure or looking for more to do”

“Not enough time to complete session. Two class periods for next session”

“Some sessions were just too jam packed with stuff to get done”

Teachers’ comments revealed that time requirements varied from group to group. This demonstrates that the programme has flexibility in terms of time management and can be adapted by the teacher to the needs of the students.

**Research Question One (Part Two)**

i) **What are the teachers’ perspectives regarding the contribution of the Alert Program to their reflective practice and classroom management strategies?**

In order to answer this question data from the Alert Program Questionnaire and the Fidelity Measure is presented under four headings: Teacher strategies for Managing Behaviour in Class; Influence of the
Alert Program on Reflective Practice; Increased Awareness of Variables affecting Session Effectiveness; Teachers' Interest in Running the Alert Program in the Future.

**Teachers' Strategies for Managing Behaviour in Class**

One of the aims of this national pilot study in determining the relevance of this programme for teachers in post-primary schools was to gain a sense of whether the experience for the teachers was valuable to them as educators. Having completed the eight teaching sessions, the teachers were asked (Question Four) whether the Alert Program had added to their strategies for behaviour management in the classroom.

*Figure 2: Did the Alert Program add to the teachers' strategies for managing behaviour in class? (N=26)*

Of the total responses, 96.2% (n=25) answered ‘Yes’. The teachers identified several ways in which the Alert Program added to their strategies for managing behaviour in the classroom.

Of the total responses that answered ‘Yes’ (N=25), 14 (56%) identified that the Alert Program provided them with a set of appropriate, effective strategies which they could use in the classroom to assist other students in regulating their engines independently.

“I have used some of the strategies (e.g. running high/low, fidget box etc.) in other BSC [Behaviour Support Classroom] classes”

“It showed me a huge range of new movement strategies which I’ve been using with other BSC students as part of their SBP [Student Behaviour Plan]”

“The Alert Programme has introduced me to self-regulation strategies which are classroom friendly such as chair sit ups, compression, pencil fidgets. There are many students throughout the school who would benefit from these strategies”

“For sure, after lunch classes, and certain students could do with releasing some of their energy levels and some of the movement breaks and compressions work well in lowering their engine speeds”
Six of the ‘Yes’ responses (24%) identified that the Alert Program provided them with an increased understanding of some of the possible reasons why students presented with certain types of behaviours.

“Hugely, it gave me a greater understanding of the reasons behind their behaviour and some extremely useful tools for counteracting it”

“I’m much more aware now that some students just can’t help fidgeting/squirming. I was of the opinion they did it just to annoy me!!!!!!”

“I now am aware that various students need to move around, chew on something, flick or tap something or just generally not have to sit in what was believed to be the perfect student posture i.e. up straight in seat”

Three responses (12%) highlighted that the Alert Program equipped them with a non-judgemental, non-disciplinary language which was useful to use within the classroom environment.

“Given me a language to deal with poor behaviour in the classroom”

“The car engine analogy proves very useful and are constantly using it”

“The keywords or “lingo” became a quick and effective way of putting the responsibility of behaving back on the student”

One person (4%) who answered ‘Yes’ identified that having taught the programme, they had discovered new ideas to improve the ergonomics of the classroom environment.

“Very good ideas for the ergonomics of the classroom”

Only one teacher answered ‘No’ that the Alert Program did not add to their behaviour management strategies.

**Influence of the Alert Program on Reflective Practice**

Reflection, the ability to think about what one does and why - assessing past actions, current situations, and intended outcomes - is critical for intelligent practice, practice that is reflective rather than routine. Teachers were asked if they considered that the programme had influenced them as reflective practitioners.
Almost two thirds, 65% (n=17) of responses answered ‘Yes’ to the Alert Program influencing them as reflective practitioners. Teacher comments provided further detail regarding how they considered the Alert Program had impacted them with regards to reflective practice.

“It made me think about students’ individuality and the reasons they may be running high or low”

“It has added hugely to the way I approach student and what I would do in some instances”

“A lot of thought needs to go into setting up sessions. You always need to reflect on what went on in previous sessions in order to not repeat the same mistakes”

“Allowed me to think more about why some students act the way they do”

Of the total responses, 19% (n=5) reported that it did not influence them as reflective practitioners.

“The Alert Program has not influenced me as a reflective practitioner. However after each session I did take note on how I could improve or alter the way I handled the session”

“Not particularly. As with any new subject/programme you undertake you will always reflect on what went well or what didn’t work and make note of it for next time. In saying that I would be more reflective in terms of the type of students that I am delivering the programme to.”

Four responses (15.39%) did not specify whether they felt it did or did not.

In Question One (Part B) when asked to share their impressions of the Alert Program for teachers, a number of teachers identified their experience of delivering the Alert Program, as a positive educational one, with many of the teachers reporting that they had developed new skills, new knowledge and a positive attitude.

“I think the Alert Programme was very educational for the teachers as well as the students. It really opened my eyes in explaining why students are so fidgety and hyper in the school and gave us some good ideas for counter-acting it”

“It’s been a very positive addition to my repertoire of interventions”
“The content is very useful and I will be using it as a resource with other students.”

“Strategies very effective”

“I’m using some aspects from the Alert Programme with other classes”

**Increased Awareness of Variables Impacting Session Effectiveness**

In the additional comments section of the Fidelity Measure, comments demonstrate that teachers were becoming more conscious of additional classroom management strategies. From the analysis of these comments, it was clear that teachers were conscious of, and developing an increased awareness of the impact of the group dynamic and of environmental factors on the effectiveness and success of each session. Of the 118 additional comments, 11 (9.32%) made reference to the impact of the group dynamic or environmental factors on the session.

“Plan to change seating arrangements”

“The timing was also much better as it wasn’t the first class after lunch”

“Layout of room worked well, one main desk and two activity stations”

“The dynamics of the group were not very good. The fact that the students were sitting so close together led to them constantly interfering and disrupting each other”

“The seating arrangement of the group impacted very negatively on the group and they got very disruptive”

**Teacher Interest in Running the Alert Program in the Future**

Another indicator of teachers’ positive views regarding the structure and implementation of the Alert Program in the classroom context, and its contribution to practice is that, of the 26 Alert Program Questionnaires returned, 25 reported that they want to run the programme again in the future.

*Figure 4: Would teachers run the Alert Program with students in the future? (N=26)*

Teachers’ comments identified the ways in which they plan to run the Alert Program in the future, with the majority of teachers reporting that they have already selected a group of students who they plan to run the programme with.
“Definitely, we both found it to be a very useful, beneficial and rewarding programme”

“We’re already identifying student with sensory processing difficulties who would benefit from this programme”

Several teachers identified their plans to run the Alert Program with whole class groups. Of the total returned Alert Program Teacher Questionnaires that answered ‘Yes’ (N=25), six (24%) responses identified their plans to facilitate the Alert Program with all of the first year students.

“We are now doing this with all first years as a follow on to their induction programme”

“I requested it to be timetabled next year with all first years, my wish has been granted”

“With the incoming first years we will be using the high low just right car engine analogy on our transfer programme/booklet. We hope to have posters put up with speedometer in classrooms”

Research Question Two

What are the (i) students’ and (ii) teachers’ perspectives on the relevance and value of the Alert Program?

Data from the Student Questionnaire, Alert Program Questionnaire and Fidelity Measure can be compared and contrasted.

Students’ Perspectives

Results from the Student Questionnaire are overwhelmingly positive in their perspectives in regard to the relevance and value of the programme.

Student Enjoyment of the Alert Program

Question one in the Student Questionnaire asked students whether or not they enjoyed the Alert Program in order to determine if the students gained a positive or effective experience from participating in the programme.

Figure 4: Did the students enjoy the Alert Program? (N=82)
Of the total student responses (n=82), 78.05% (n=64) reported that they “Loved” or “Liked” the programme and 18.29% (n=15) reported that they considered that the programme was “OK”. Only 3.66% (n=3) reported that they “Disliked” or “Hated” the Alert Program.

**Alert Program Materials**

Question two asked students about the level of difficulty of the materials used in the Alert Program to determine if the materials were suitable and accessible for a student population with varying literacy levels in the Irish context.

Figure 5: How did the students find the Alert Program Materials? (N=82)

![Bar chart showing the level of difficulty of Alert Program materials.](chart.png)

Of the total responses (n=82) almost three quarters of students (n=60) reported that they found the material “Very easy” or “Quite easy” and 25.61% (n=21) reported that they found it “OK”. Only one student reported that they found the Alert Program material “Hard” and no students reported that they found it “Very hard”.

**Helpfulness of the Alert Program**

Students were asked in question three to report how helpful the Alert Program was for them.

Figure 6: How helpful did the students find the Alert Program? (N=82)

![Bar chart showing the level of helpfulness of Alert Program.](chart.png)

Of the total responses (n=82) 32.93% (n=27) reported that they found the programme extremely helpful, 25.61% (n=21) found it very helpful, 17.07% (n=14) found it helpful, 18.29% (n=15) found it a little helpful, and 6.10% (n=5) did not find it helpful at all.
Of the total responses (n=82) the Alert Program was identified as “Extremely helpful” or “Very helpful” by 58.54% (n=48) of students. Of the total responses 35.37% (n=29) reported that they found the Alert Program “Helpful” or “A little helpful” and 6.10% (n=5) reported they found the programme “Not helpful at all”.

**Students’ Plan to Use a Take Five Strategy**

The final question of the Student Questionnaire asked students if they will use a ‘Take Five’ strategy in the classroom. The purpose of this question was to determine if the students were interested in applying what they had learned in the Alert Program to their daily school lives.

Figure 7: Will students use a Take Five strategy in the classroom? (N=82)

The number of students that answered ‘Yes’ (they will use a “Take Five” strategy in the classroom) was 69 (84.15%), while 10 students (12.2%) answered ‘No’. Although students only had two answers to choose from (‘Yes’ and ‘No’) two students (2.44%) circled both and wrote “maybe” beside their answers. One student did not answer this question.

**Students’ Strategies Identified by the Tool Box (Q.17)**

Teachers were asked to record what their students had identified as their top three strategies in their Strategy Toolbox which was completed in the last teaching session of the Alert Program. Information on 99 students was received. The pencil fidget was the most popular strategy identified by the students with 49.49% (n=49) selecting it as one of their top 3 toolbox strategies. The chair push ups and pull downs were the second most popular strategy with 42.42% (n=42) selecting one or both of them as one of their top strategies. Seventeen students (17.17%) selected other movement strategies, including “walking”, “wall sit”, “wall plank”, “moving my head” and “sit ups”.

A number of students (n=21) identified their own unique strategies that were not taught within the Alert Program. These strategies included: “shower”, “touch soft material”, “monkey bars”, “jumping”, “pulse activity” “doodling”, “cold air”, “deep breaths”, “dark room” and “smell”. The fact that the students identified for themselves strategies that worked can be interpreted as evidence of the value
they place on the programme. This demonstrates that students have developed an increased understanding of self-regulation and awareness of self-regulation strategies.

Figure 8: Students Top Three Alert Program Strategies (N=99)

Teachers' Perspectives

With regard to the relevance and value of the programme, teacher data supports the positive perspective demonstrated in the student responses, in that it helps students to understand their behaviour and has taught them self-management strategies.

Helping Students Understand their Behaviour

Teachers were asked did they think the Alert Program helped students to understand why they behave positively or in a challenging manner in school.

Figure 9: Did the Alert Program help students understand why they behave positively or in a challenging manner in school? (N=26)

Of the total number of responses (n=26), 88.46% (n=23) answered ‘Yes’ and 7.69% (n=2) answered ‘No’. One respondent did not answer this question. In the open-ended section related to this question,
teachers made statements identifying specifically how they think the programme helped the students understand why they behave positively or in a challenging manner and the particular benefits this has had for the students.

“Helped to identify the times when they behave in a challenging manner and the reasons for it”

“Yes it helped them in the process of self-reflection and taking responsibility for their behaviour”

“I feel the simple explanation of the car analogy helped students understand why they can be tired/grumpy or agitated and overactive during different parts of the day. It helped them understand more the reasons they might get into trouble”

“Pupils understood if their bodies were running too high or too low then they would find it difficult to concentrate, focus or participate fully in the classroom”

“It gave them an awareness of their own behaviour not only in relation to others but how they themselves behave and how they CAN behave if they put into practice some measures to control their behaviour”

“It planted the seed for them to begin to understand why they behave in certain manners”

**Teaching Students Strategies of Self-Regulation**

The overall aim of the Alert Program is to teach the students to determine how their engines are running and how to use pre-determined sensorimotor strategies in order to successfully self-regulate and participate in the classroom environment. Thus teachers were asked, in their opinion, did the Alert Program effectively teach their students strategies for regulating their own behaviour.

**Figure 10:** Did the Alert Program teach students strategies to self-regulate their own behaviour? (N=26)

Of the 26 responses, 92.31% (n=24) answered ‘Yes’ the Alert Program effectively taught their students strategies for regulating their own behaviour (7.69% [n=2] did not answer the question). Teachers’ comments reflected the fact that students had developed an understanding of factors that impact their engines and of the strategies they can use to change their engine speed.
“They now know that external things (heat in the classroom, noise outside) affect how they behave. They’re also aware of what they eat/drink affects them, so they know what to do to regulate themselves”

“The students all learned concrete strategies to use for when their engines were running too high or low”

“I think the students did learn and realise they can regulate behaviour”

“They understood which strategies would suit them best if they became too high or too low. If you asked any of the students which strategies they would use to get just right they could tell you”

Some teachers discussed specific strategies which the students were implementing in the classroom environment to regulate their engine speeds.

“Yes, I found the touch strategies worked really well, when the students used their fidgets and stress balls in class it really helped them to regulate their own behaviour”

“By the end of the eight weeks, some students (the good attendees) had chosen a strategy or strategies that helped them. In particular one student identified that he needed quite a lot of feedback and compression exercises helped him”

“Most students use pull ups and push downs now in classes other than the actual Alert class to regulate their behaviour”

Two of the 24 (8.33%) responses that answered ‘Yes’ commented that the students themselves had reported using strategies to change their engine speed.

“Each of the students said they were using strategies to help them during the day”

“A lot of students have reported using the movement techniques in particular”

“A number of students said they used the strategies in the classroom and they worked for them”

“Students reported that by doing and using some of the strategies that they were able to behave better in class”

Three (12.5%) of the ‘Yes’ responses reported that students were observed using their sensorimotor strategies in class.

“Students used the exercises in classes and relied a lot on their fidgets and mouth chews”

“Some students could be seen using the Alert strategies in class”
Teacher comments recorded in the Additional Comments section of the Fidelity Measure also highlighted developments and improvements in student levels of knowledge and understanding regarding self-regulation.

“The students gained a good awareness of their engine speeds and could recognise when they might run high or run low”

“I think they began to realise the effect it can have on our bodies and our behaviour”

“The kids’ use of engine speeds vocabulary has really come on and they use it all the time”

Transfer of Alert Program Strategies
Teachers were questioned regarding whether they had observed or heard of the transfer of the Alert Program strategies and language to other classroom settings. Almost two thirds of teacher responses (n=16, 61.54%) answered “Yes”. Five (31.25%) of these reported that students were observed using the Alert Program strategies and language outside of the Alert Program class.

“The language of engine speeds is used regularly and unselfconsciously. Another teacher has commented to me about overhearing an alert student telling his pal “my engine is mad high”

“Some teachers have seen our students use the pen fidgets in class”

“I have observed three students during summer exams and they are still wearing their wristbands”

“The other teacher and I have brought the strategies and language into other classes. Some students use it in other classes and around corridors”

Half of these responses reported that other school staff were witnessed using the Alert Program language with students in other classrooms and encouraging them to implement their Alert Program strategies to maintain their engines in just right.

“One teacher described how a student used a piece of paper as a fidget and because of the programme she allowed it and it worked excellently”

“Some teachers are asking students how their engines are running”

“Teachers are aware and some apply movement breaks”

Whole School Approach
Teachers’ comments throughout a number of the questions identified the importance and need for a whole school approach to the programme. They indicated that the transfer of the skills and language learned within the Alert Program would be much more effective if all staff were aware of the programme. These findings demonstrate that teachers place value on the programme and its relevance to students and made recommendations for further effectiveness.
“When the programme and its strategies have been introduced to the staff it will definitely be easier to implement skills for students in the classroom”

“Make all teachers aware of the Alert Programme language and use it every day in the classroom”

Research Question Three

*What are the teachers’ perspectives on the relevance and quality of the (i) teacher training programme, (ii) of the resources provided and (iii) of the support offered by the occupational therapists?*

Data from the Fidelity Measure, the Alert Program Teacher Questionnaire and Teacher Training Evaluations was collated in order to capture the teachers’ views regarding the effectiveness of the training, resources and supports provided for the delivery of the programme.

Teacher Training Offered

Question 9 of the Alert Program Questionnaire asked teachers to identify whether the two day teacher training programme had enabled them to deliver the programme effectively to their student group.

Figure 11: Did the two day Teacher Training enable teachers to effectively teach the Alert Program to students? (N=26)

The teacher training was identified as being sufficient in enabling the effective delivery of the programme by 95.16% (n=25) of responses. One teacher (3.85%) did not specify an answer as she did not complete the full two days of training. Teachers provided positive comments in relation to the Alert Program Teacher Training.

“Very well structured training providing all resources needed”

“The training was extremely clear and concise”

“Two days explained exactly what needed to be done”

“I feel I was adequately prepared to deliver the programme and understand how it operates.”
Teachers gave additional comments identifying specific aspects of the training which they found beneficial. Six (24%) of the total responses that answered ‘Yes’ (N=25) reported that the training gave them a good grounding in the underlying theory of the programme, four responses (16%) identified the opportunity to actively engage in the learning activities of each Alert Program session as extremely useful and six (24%) considered the step-by-step Alert Program lesson plan, as an excellent resource to aid the effective delivery of the programme.

“Got a very good grounding in the theory behind it”

“The training programme was excellent; we were given the theory and background to the programme as well as the practicalities of running the programme”

“Doing the tasks gave us a head start with the students”

“Day 2 very effective when teachers asked to get involved in participating in activities easier to learn”

“Was very helpful to watch the programme in action”

“Instruction manual very clear”

“Book accompany pack very easy to follow”

These findings were supported from the data in the Teacher Training Evaluation forms as 98% (n=48) reported the training as ‘Very Helpful’.

Figure 12: Teachers’ Perception of the Helpfulness of the Teacher Training as reported in the Training Evaluation Forms

Teachers’ comments in both measures highlight how teachers considered the provision of the underlying theory of the programme and the opportunity to engage in the tasks involved in each Alert Program session, as useful and helpful for the implementation of the programme.

**Resources Provided**

Within the Fidelity Measure, 90.44% (n=123) of the total number of responses (n=136) identified the resources as sufficient/adequate for the implementation of the programme. Data from the Alert Program Questionnaire supported these findings. Question 10(A) aimed to capture the teachers’ views regarding the effectiveness of the materials and resources provided for the delivery of the
programme. Of the 26 responses, 25 (96.15%) commented positively on the materials and resources provided. They reported that the resource box was comprehensive, containing everything required to run the programme, and thus in their opinion, it saved a lot of stress and time regarding the preparation for each session.

“The box of materials provided at the in-service was excellent. It meant we never had to stress about gathering materials before each session and more than enough was provided”

“Materials and resources were very effective and allowed me to concentrate on the programme to a greater degree”

In support of this, within the Teacher Training Evaluation Form 16.33% (n=8) of the total responses (n=48) identified the provision of the resources required for the implementation of the programme as the most helpful aspect of the training.

**Occupational Therapy Support Provided**

In the Alert Program Questionnaire teachers were first asked if the support they received from the NBSS occupational therapist was sufficient to enable them to deliver the programme effectively. All of the responses (n=26) commented positively on the support received from the occupational therapists. The teachers reported that both the support visits from the occupational therapists to every second session, and the support received via email and telephone were extremely beneficial. Teachers identified that it was very helpful to have the occupational therapist answer any of their queries or questions and to provide them with additional advice regarding the running of the programme.

“(…..) is fantastic, always available for support and advice”

“Vital, really great support from (…..) put us at ease and answered any concerns we had”

“Superb- attended and supported many of the sessions, sent in additional resources, contact regularly regarding the programme”
Discussion & Conclusion

The results of this study will be discussed in light of the following topic headings: Inclusion of Students with SEBD in the Mainstream Classroom; The Teachers’ Opinion on the Feasibility and Effectiveness of Running the Alert Program in the Classroom; Teacher Training; Teachers’ Understanding of Student Behaviour; Self-Regulation in the Classroom Environment; Inclusion of the Alert Program as part of a Junior Cycle short course; Application of the Occupational Therapy Person-Environment - Occupation (PEO) Model to Education.

The Inclusion of Students with SEBD in the Mainstream Classroom

Some of the characteristics commonly associated with students with SEBD include inattentiveness, impulsiveness, depressed behaviours such as withdrawal, anxiety or mood swings. Some may also display aggression or anti-social behaviour (Signposts, 2009). Students with or at risk of SEBD typically struggle with the normal school routines. These behaviours may negatively influence the student’s ability to perform school tasks and may also impact on the learning of other students in the class (Landrum et al., 2003; Riney & Bullock, 2012; O’Leary, 2011). These challenging behaviours and limited social skills place students with SEBD at risk of limited participation or exclusion from school (Landrum et al., 2003).

As stated in the EPSEN Act (2004), a child with special educational needs shall be educated in an inclusive environment with students who do not have such needs unless the nature or degree of those needs is such that to do so would be inconsistent with— (a) the best interests of the child as determined in accordance with any assessment carried out under this Act, or (b) the effective provision of education for students with whom the child is to be educated. However, as identified in the literature, the multiple and complex needs of students with SEBD make them one of the most challenging SEN groups to accommodate for in mainstream schools (Shevin, Kenny, & Loxley, 2008; Atici, 2007).

As set out in the Special Education Circular SPED 0030/2014 “the responsibility for the overall progress of students with behavioural difficulties lies with the classroom teacher”. It highlights that the first step to addressing the challenging behaviour needs of students should be through support
provided by their class teachers, other school staff members, and by whole school policies on the management of behaviour in schools. Teachers are searching for support and professional development when it comes to working with this cohort of students (McCready & Soloway, 2010). The Talis Report (OCED 2009) reveals that behaviour management and teaching students with special learning needs are two of the top three areas in which mainstream teachers are seeking increased levels of professional development and support. Providing learning programmes, such as the Alert Program, for students so that they can better manage themselves in school is one approach to supporting teachers and schools in meeting the educational needs of students with SEBD. This is in keeping with the NBSS Model of Support. Rather than responding after young people present with chronic behaviours (‘a wait to fail’ intervention model), the NBSS promotes the implementation of preventive strategies and early intervention approaches for all students. The Alert Program is one such option.

Findings from this study demonstrated that most teachers thought the Alert Program added to their strategies for managing behaviour within the classroom. Teachers reported developing an increased repertoire of strategies which they could use in the classroom to help students to regulate their engine speeds. Some teachers highlighted that the Alert Program provided them with a useful, non-judgemental language to use with the students regarding their alertness levels within the classroom. It is interesting to note that such a large percentage of teachers reported on the impact on them as reflective practitioners thereby enriching the school environment and teaching culture. Williams and Shellenberger (1996) stated that having been involved in the delivery of the Alert Program, teachers’ awareness of the demands in the classroom environment and of the learning tasks for the student who struggles with self-management may be increased. This was demonstrated in this study as a number of teachers considered that the experience of facilitating the Alert Program had enabled them to develop a deeper understanding of how the environment may impact on student behaviour and thus provided them with alternative ideas for the establishment of a more productive, functional, appropriate learning space for the students. Teachers stated that by implementing this programme they have gained additional knowledge about self-regulation, students’ sensory needs and have developed new strategies, which enable them to more effectively manage behaviour in the classroom.

**Feasibility and Effectiveness of Running the Alert Program in the Classroom**

Evidence-based prevention and intervention programmes are increasingly being carried out in schools to support inclusion of students with complex needs. It is important to understand the complexities of programme implementation under every day, real life conditions. Teachers act as central agents of
change, as they incorporate teacher led programmes into mainstream classroom curricula and provide opportunities for students’ positive development and generalisation of skills (Han & Weiss, 2005). Hence, with regard to the Alert Program, it was important to explore teachers’ opinions about the feasibility and effectiveness of the programme within the classroom environment.

The feedback provided by the teachers and students regarding the Alert Program highlights its feasibility and effectiveness within the time and physical constraints of a classroom environment. The majority of the Teacher Questionnaires returned commented on the ease of the delivery of the Alert Program, identifying it as a very “user friendly” intervention. Within the Fidelity Measure, teachers reported positively on how well each session’s objectives were achieved with the majority of responses identifying they had achieved the objectives “Extremely Well”, “Fairly Well” or “Well”. The low percentage of teachers reporting they did not achieve one or more objectives “Not Very Well” or “Not at all” suggests that the objectives set out in the Alert Program are achievable and this is a feasible programme to implement within the classroom situation.

**Teacher Training**

The amount and quality of the training that teachers receive in respect to a programme has been identified as a principal determinant of the success of school programme implementation, and has a significant influence on the quality as well as quantity of programme implementation (Han & Weiss, 2005; McCormick et al., 1995). If teachers do not have the appropriate pedagogical content knowledge, they will be less likely to be able to use materials sensitively, to make adjustments when necessary, or support student learning (Shanahan, 2005). The majority of teachers commented positively on all aspects of the two day training and the resources provided. One of the major indicators of the feasibility of the programme was the overwhelming commitment from teachers to use it again and to continue to bring their enhanced understanding of student behaviour into their classroom management strategies.

**Teachers’ Understanding of Student Behaviour**

Having completed the two day training and facilitated the delivery of the eight week programme, teachers reported a deepened understanding of the challenging behaviour presented by many of their students. This is in keeping with Niehues et al. (1991) who proposed that collaborative practice can play an important role in reframing the views of teachers regarding inconsistencies between students’ performances in school and the expectations held for them. Teachers reported developing an increased knowledge of sensory processing factors affecting student engagement in classroom activities. One interesting aspect that emerged from the responses was that some teachers stated
The programme has changed their approach towards students with behavioural difficulties. The majority of teachers identified the facilitation of the programme as a professional learning experience which developed their understanding and awareness of the contributing factors to student behaviour such as sensory needs, the effects of the time of day, the effects of classroom organisation, etc. This reframing of the teachers’ perspective of challenging behaviour, which occurred through the collaborative experience of facilitating the Alert Program with the NBSS occupational therapists, allowed for a proactive view of these students’ challenges and encouraged the implementation of additional, adapted teaching strategies to meet these students’ needs (MacCobb, Fitzgerald & Lanigan-O’Keeffe, 2014).

**Self-Regulation in the Classroom Environment**

With experienced adult support and with the development of effortful control, students can learn to develop effective self-regulation (Gross & Thompson, 2007). In keeping with Willingham’s view (2011), that teachers play a constructive role in supporting students with self-regulation difficulties to manage themselves, findings from this research suggest that through the implementation of this programme the teachers supported students to develop their self-management abilities. In the findings of this study, 92.3% (n=24) of teacher responses considered that the Alert Program had effectively taught the students strategies for regulating their own behaviour. Several teachers stated that they had heard students discuss their use of strategies and observed them using the strategies within the school environment. For example one respondent reported “A lot of students have reported using the movement techniques in particular”.

The students themselves felt that they had learned self-regulation strategies, with 84.15% (n=69) reporting that they intend to implement these strategies in the future. When students were asked to record the “Top 3 Toolbox Strategies” in the final session of the Alert Program, a number of students developed and identified their own unique self-regulation strategies (e.g. “cold air”; “touch soft material” etc.). This demonstrates that students have developed an increased understanding of self-regulation and awareness of self-regulation strategies. Hence the conclusion which can be drawn is that students can be taught self-regulation and teachers can teach self-regulation.

The Alert Program is a learning programme that can be run specifically for those students with SEBD who are struggling to cope in the mainstream classroom. It can teach these students strategies to help them self-regulate so they can engage and participate more effectively in the classroom.
The new Junior Cycle programme provides further opportunities for students with Social, Emotional and Behaviour Difficulties to achieve success in mainstream classes. As both students and teachers reported positively on the learning achievement in the Alert Program, consideration could be given for the validation of this learning as part of mainstream certification. The Junior Cycle in post-primary education in Ireland is currently undergoing change and will feature newly developed subjects and short courses, with a focus on literacy, numeracy and key skills. From the findings of this National Pilot project it is evident that the Alert Program has the potential to be included as part of a new Junior Cycle short course. The programme links directly to the new Junior Cycle Statements of Learning identified and would enable students to develop some of the key skills which would support them in learning how to learn and to take responsibility for their own learning. The links between the Key Skills of the new Junior Cycle and the Alert Program are outlined below:

**Managing Myself:** The Alert Program supports the student to better understand self-management. The programme is planned to raise the students’ awareness of their self-agency in choosing to respond to internal and external factors that affect them. Students learn to identify new self-management strategies that work for them in regulating their attention and alertness in the classroom.

**Communicating:** Students are equipped with a new language to enable them discuss and communicate with their peers and teachers about their levels of alertness. Throughout the eight sessions of the programme, students have the opportunity to express themselves and to listen to others and on many occasions will have to present materials to their peers either individually or as a member of a group.

**Managing Information and Thinking:** Students are asked to think about themselves and to recognise their self-agency. They explore different methods to ‘change their engine speed’ and learn how to identify their sensorimotor preferences and then plan for better learning behaviours.

**Staying Well:** Students learn about the effects that food, drink, movement and exercise have on one’s arousal levels and the impact this may have on behaviour in school.

**Being Creative:** The Alert Program adopts a multi-sensory approach to learning. The eight sessions of the programme are packed with lots of stimulating, creative activities and tasks which enable students to learn self-management strategies for regulating their level of arousal through a number of media (videos, games, hand-outs, physical and written activities, etc.) Each student is invited to individualise their response to the learning materials. Through these learning activities the self as a creative agent in one’s own life is affirmed.
**Working with Others:** The learning activities are incrementally structured for increasing the participatory skills of students from working in a parallel situation to working co-operatively in pairs and then in small groups. Turn taking, sharing of materials, listening to others with a positive regard, recognising other’s opinions and differences are part of the learning programme. Students share enjoyable activities with each other and with the teacher and thus develop positive relationships and skills through working with others.

As both students and teachers reported positively on the learning achievements in the classroom adaptation of the Alert Program, consideration could be given for the validation of this learning as part of mainstream certification. The new Junior Cycle Profile of Achievement could provide such an opportunity.

**Application of the Occupational Therapy Person-Environment-Occupation Model (PEO) to Education**

When applying the occupational therapy perspective of the Person-Environment-Occupation (PEO) (Law et al., 1996) model, students in post-primary schools demonstrating challenging behaviour could be seen as lacking the necessary skills to manage themselves because they have not as yet learned those skills and/or that the demands of the school environment and learning tasks are too challenging for them. Thus the Person–Environment–Occupation fit for the student with challenging behaviour could be seen to be poor. The PEO model proposes that support in all three dimensions may be required for the acquisition of self-management skills by the challenged student. The teachers’ recommendations of whole school involvement are in keeping with this view. Teachers recommended embedding the terminology of the programme with visual displays on posters in the school and classroom, and that all teachers involved with the students should be active in supporting use of the strategies in managing regulation. Many teachers reported that it would be worthwhile to deliver the programme to all incoming first year students and reported that some have already planned to do so.

The teachers in this study made the following recommendations:

1. The integration of the Alert Program into the whole school experience for the student.
2. The provision of a Booster Session for students post-delivery of the programme, to refresh and remind students of the strategies and skills they have learned.
3. The availability of training and support for the adapted Alert Programme as part of Continuing Professional Development for post-primary school staff who teach in schools in areas of social disadvantage.
4. The inclusion of the adapted Alert Program as part of the new Junior Cycle programme.
Conclusion

It is clear from both the students and teachers who participated in this study that engagement in the Alert Program was a positive learning experience. It is also evident that the Alert Program contributed to the development and enhancement of classroom management strategies for supporting students’ self-regulation. From the data provided by the teachers, it was apparent that the programme materials were appropriate for use within the classroom setting within an Irish context, in schools serving areas of social disadvantage.

Teaching self-management of behaviour may be a necessary focus for teachers in all schools. The new Junior Cycle programme could provide an opportunity to validate teaching this programme and students’ learning achievements as part of a responsive and inclusive educational option for those with social, emotional and behavioural difficulties particularly in the transition period to post-primary education. A knowledge base has been established and with further collaboration this could be embedded in whole school approaches.

Acknowledgements

Thank you to the students, teachers and school management in the NBSS partnering schools for their contribution to this research. Thank you also to the parent(s)/guardian(s) of the students for giving their consent for the research.

Permission for the adaptation of the Alert Program was granted by the copy-write holders.
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APPENDIX

STAGE ONE: Identifying Engine Speeds

Session One
Each session in the Alert Program has stated objectives. These objectives are met through the completion of a number of activities. For the following activities in ‘Session Two’, please indicate how well you think the objectives were met.

1. Identifying and labelling engine speeds in self.

Objective: for the students to be able to recognise their own arousal states, developing the high, low, just right themes from others to self. (Speedometers)

<table>
<thead>
<tr>
<th>Extremely Well</th>
<th>Fairly Well</th>
<th>Well</th>
<th>Not Very Well</th>
<th>Not at all</th>
</tr>
</thead>
</table>

2. Labelling engine speeds themselves, outside the therapy/classroom setting.

Objective: to have students understand how their ‘engine speeds’ can fluctuate throughout the average day. Students should begin to link their engine speeds to the time of day and the activity being completed at that time. (How Does Your Engine Run? Daily Chart)

<table>
<thead>
<tr>
<th>Extremely Well</th>
<th>Fairly Well</th>
<th>Well</th>
<th>Not Very Well</th>
<th>Not at all</th>
</tr>
</thead>
</table>

Please complete the following:

1. Attendance for ‘Session One’

2. Did you feel that the equipment/resources recommended for use in Session One was adequate to meet the objectives of the session? Yes/No

3. If you would like to make additional comments or observations about working with your students on ‘Session One’, please do so in the space below:

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________________________________________________________________________
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