Impact Evaluation Report

Attachment Aware Schools Pilot Project

Stoke Virtual School

Introduction

This report provides an impact evaluation of the Attachment Aware Schools project commissioned by Stoke Virtual School in 2014-2015.   Stoke Virtual School commissioned Kate Cairns Associates to undertake training for 4 Stoke schools. This training was commissioned in order to improve the educational outcomes and wellbeing of Looked After Children and other vulnerable children in need or at risk. Looked After Children are one of the lowest performing groups in terms of educational outcomes, internationally (Sebba et al., 2015). The project also addresses key government policy which seeks to raise the attainment gap for disadvantaged pupils (DfE, 2014) and improve provision for children with SEN (DfE, 2013). It also reflects key findings from research reviews which highlight the most effective intervention systems for children with additional needs. For example, the project's actions correlate with many of the key messages within the recent report 'Narrowing the Gap' from the Centre for Excellence and Outcomes in Children and Young People's Services (C4EO, 2010). The project also resonates with the new SEN/D reforms (DfE, 2013) in addressing children with social, emotional and mental health difficulties (SEMH) and addresses Ofsted's new Common Inspection Framework in relation to pupils' personal development, behaviour and welfare. The Department of Health (DoH) Report 'Future in mind' also identified, as a key issue, 'significant gaps in data, information and system levers' and the need to promote positive mental health and wellbeing for children and young people, including the mental health needs of children and young people from vulnerable backgrounds (DoH, 2015).

The Attachment Aware Schools project is premised on the basis that 'an attachment-informed approach for all professionals working with children, including those within the universal services, offers the best prospect for effective early intervention for children, whatever their age or family situation' (Furnivall et al., 2012). It provides a coherent and integrated theoretical framework, discourse and practice for all professionals who work with children and young people. Whole school practice and targeted interventions, informed by research on attachment needs and trauma, are

increasingly being recognised as significant in helping to support children with SEMH difficulties (Parker et al., 2015; Furnivall et al., 2012; NICE, 2015). NICE (2015) has recently reported that:

> Behaviours associated with attachment difficulties such as disruptive behaviour in the classroom and difficulties forming relationships with teachers or positive peers are commonly seen in schools. Some children may display clinginess to teachers, older children may have difficulties with boundaries. For teachers it is really important to be able to 'read' these behaviours and respond appropriately. It is a concern that the majority of teachers will not have covered such issues in their training.

A recent review has reported that teachers and school staff were identified by Looked After Children as the main determinants of educational progress (Sebba et al., 2015). Attachment issues and trauma affect children's relationships with peers, teachers and support staff (Pianta, 1992; Cozolino, 2013). Securely attached children are more likely to attain higher academic grades, have greater emotional regulation, social competence, willingness to take on challenges and have lower levels of ADHD and delinquency (Bergin & Bergin, 2009). It has been suggested that 'schools may be the optimum sites for buffering the impact of stress, building resilience and enhancing individual capacities for learning' (Nagel, 2009).

There has been increasing recognition of the need to address such issues on a national level from a range of major national organisations, such as the Department for Education, and the National Institute for Health and Care Excellence (NICE, 2015), has called for education professionals to be trained in understanding attachment difficulties; how they can present, how these difficulties can affect learning and behaviour and how they can support children and young people with attachment difficulties.

The project team considered that Attachment Aware Practitioners are needed because (Rose et al., 2012):

- the nature of a child's primary attachments (caregivers) lay the foundations for socio-emotional well-being and a child's capacity to learn
- educators, themselves, can facilitate 'attachment-like' relationships with pupils (i.e., nurturing and responsive) and adopt attachment-based support strategies, particularly with challenging and vulnerable pupils, in order to enhance learning opportunities
- secure attachment relationships correlate strongly with higher academic attainment, better self-regulation, well-being and social competence

Executive Summary

1. In terms of the impact on the children, regarding academic attainment, there was a significant improvement between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in reading, English, and maths achievement.
2. In terms of the impact on the children regarding the behavioural indices, there was a significant decrease between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in exclusions (inside and outside of classroom).

3. In terms of the impact on the children regarding other behavioural indices, there was a significant decrease between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in sanctions (lessons and incidents).

4. The Strengths and Difficulties Questionnaire (SDQ) which was used to assess strengths and difficulties experienced by a child, in particular, hyperactivity and overall difficulties, revealed a statistically significant reduction in symptoms.

5. Overall, 97% of professionals agreed that the Attachment Aware Schools training impacted positively on their professional practice, 98% agreed that training impacted positively on self-regulation, 99% agreed that training impacted positively on child behaviour.

6. 92% of professionals used Emotion Coaching, reporting an increase in confidence in discussing pupils' emotional wellbeing, self-control of their own emotions, and improved emotion coaching performance.

7. The most frequent type of incident which prompted the use of Emotion Coaching was non-compliance, followed by aggressive behaviour, learning disruption and crying and to a lesser extent withdrawn behaviour, physical abuse to pupils or staff and bullying. The vast majority of incidents took place in the classroom.

8. In relation to professional practice, Emotion Coaching: helped teachers increase the use of positive vocabulary; improved relationships with children and Young People and enabled staff and students to work together more effectively; enabled pupils to think and calm down; gave staff greater understanding to the needs of the child 'in the moment' and improved the long term monitoring/checking of vulnerable pupils.

9. In relation to adults' ability to self-regulate, Emotion Coaching: helped adults to maintain calm in the face of challenging situations; reduced adult stress and helped adults to accept pupils' emotional experiences without judgement, or negative emotions.

10. In relation to the behavioural impact on the child, Emotion Coaching: was identified as making a significant improvement in behaviour; helped to promote empathy and enabled children to lead problem solving and take responsibility for their behaviour.

Aims of the Attachment Aware Schools Project

The project's keys aims were to:
- Ensure children and young people who have experienced damaged attachment and trauma, feel welcomed, safe and valued
- Have staff who are 'attachment aware' – who understand their needs and can support them
- Facilitate the support children and young people need to achieve good outcomes
- Help to build the evidence base of how understanding of attachment theory and trauma can help to inform educational practice
- Utilise attachment-based strategies to support children's wellbeing, behaviour and academic attainment

Key principles underlying the project:
- To be child-centred and acknowledge children's different attachment styles
- To create nurturing relationships to promote children's learning and behaviour and satisfy children's innate need to have a secure 'sense of belonging' and feel safe

- To acknowledge adults' roles as a potential secondary attachment figure that can help to reshape insecure attachment behaviours and support the development of more secure ones
- To create appropriate nurturing infrastructures for children with emotional and behavioural impairments (as we do for physical and learning impairments)
- To reduce permanent and fixed-term school exclusion, as far as possible, for children and young people with attachment difficulties
- To utilise, in the first instance, whole school strategies that would avoid the dangers of stigmatising or problematising individuals, such as Looked After Children
- The belief that every child has the right to an appropriate education and to maximise his, or her, educational and life opportunities

As the former Children's Commissioner for England, Dr Maggie Atkinson, has declared, 'Every teacher, and every school, should be so aware and so practising, because it is the duty of the public body to adapt to the child, not the other way round' (Rose et al., 2014).

Theoretical and Research Context of the Attachment Aware Schools Project

The National Institute of Excellence (NICE, 2015) has recently reiterated the extensive, cross-cultural research which demonstrates how attachment is an important influence on 'school students' academic success and wellbeing at school'. Attachment theory is derived from the work of Bowlby (1988). At its core, it refers to the instinctive need for humans to feel protected and safe which, in turn, allows them to explore their world more confidently. Bowlby's work and subsequent research shows how children develop either secure or insecure attachments with their main caregiver, as a result of the quality of their early experiences. Secure attachments develop from nurturing relationships and support mental processes that enable a child to regulate emotions, reduce fear, attune to others and have self-understanding and insight, empathy for others and appropriate moral reasoning (Sroufe & Siegel, 2011). Insecure attachments can develop if early interactions are more negative, insensitive, unresponsive, inappropriate and/or unpredictable and can have long-term deleterious consequences. If a child cannot rely on an adult to respond to their needs in times of stress, they are unable to learn how to self-soothe, manage their emotions or engage in reciprocal relationships, later on (Sroufe & Siegel, 2011). They do not necessarily develop a view of themselves and others as trustworthy, safe, dependable and deserving of care (Bowlby, 1988).

A child's natural, initial dependence on others provides the experiences and skills to learn how to cope with frustrations, develop self-confidence and pro-social relationships with others and eventually, to act independently (self-regulate). External experience is absorbed and transformed into an internal mental state known as 'symbolic representation' which informs behavioural responses and has a recursive action. According to Bowlby (1988), early experiences are symbolically represented in the form of an internal working model. This internal working model appears to be primarily regulated by the brain and body's stress response system and the social engagement system, laying foundations for the executive function skills needed for learning (Porges, 2011; NSCDC, 2012).

Attachment theory has important implications for teachers, as it highlights how children's receptivity to learning is affected by their early relationships and how close, positive relationships in school can foster more effective learning (Kennedy & Kennedy, 2004). Since Pianta's (1992) pioneering work

linking attachment theory to teacher-child relationships, research has inextricably linked attachment to school readiness and school success (Bergin & Bergin, 2009; Commodari, 2013; Geddes, 2006). Indeed, Riley (2009) considers that the application of attachment principles to the dyadic teacher-pupil relationship 'offers teachers new ways to inform and improve their practice', going on to advocate that 'the adult attachment model of reciprocal care-giving and care-seeking is a more appropriate lens through which to view the teacher-student relationship'. Riley (2009) and Kennedy & Kennedy (2004) all cite the evidence which shows how children will form 'bonds' with significant adults outside the family, such as teachers, who can become 'attachment figures' to pupils. Close and supportive relationships with teachers have demonstrated the potential to mitigate the risk of negative outcomes for children who may, otherwise, have difficulty succeeding in school (Driscoll & Pianta, 2010).

Indeed, Davis (2003) highlights various studies which have shown how the quality of teacher-child relationships shape classroom experiences and influence children's social and cognitive development and the literature on attachment is able to offer new insights into the nature of such relationships and their consequences on learning and behaviour (Verschueren & Koomen, 2012). For example, Bergin and Bergin (2009) point to the evidence of how pupils' attachment styles to caregivers can parallel the attachment relationship between teacher and child and how 'secure teacher-student relationships predict greater knowledge, higher test scores, greater academic motivation and fewer retentions or special education referrals than insecure teacher-student relationships'. They suggest a need to acknowledge and forge 'attachment-like' relationships between pupil and educator, within the realms of professional boundaries.

Kennedy (2008) offers an interdisciplinary theoretical model for the role that teachers can play in helping to 'rehabilitate' a pupil's internal working model with a subsequent impact on academic progress. She writes that teacher-pupil relationships may offer a context for an insecurely attached child to 'repair' or ameliorate their internal working model through more positive relational experiences and highlights how internal working models can shift (despite operating as a prototype from early experiences) throughout the life span. Although more research is needed to ascertain the positive effect secure attachments between pupil and teacher might have, the evidence implies that schools might play a role in effecting constructive changes in attachment representation, with a subsequent impact on academic progress (Bergin & Bergin, 2009; Kennedy, 2008; Kennedy & Kennedy, 2004; Riley, 2009; Verschueren & Koomen, 2012).

Attachment theory has recently received support from neuroscientific research, particularly from the field of neurobiology. Several authors have linked the findings emerging from neuroscience (Balbernie, 2001; Cozolino, 2013; Kennedy, 2008; Schore, 2001; Siegel, 2012 ; Trevarthen, 2011). For example, Siegel (2012) demonstrates how warm, responsive relationships and interactions (attunement) help to create the cognitive-affective neural structures of the internal working model, creating the prototype for future relationships. Schore's (2001) work has shown how the early, emotionally laden attachment communications that occur between infant and caregiver help to wire the maturing brain in areas essential for affect regulation.

Kennedy and Kennedy (2004) also draw attention to the evidence which suggests how teachers may misinterpret insecurely attached children's behaviour as uncooperative, aggressive, demanding, impulsive, withdrawn, reactive and/or unpredictable. These judgments of behavioural manifestations of underlying inner experiences and relationship history, affect teachers' attitudes

and responses to behaviour. It is suggested that teachers need to understand the meaning behind such behavioural displays and the needs that are being expressed in such defensive behaviour (Kennedy, 2008). This is a necessity, given that it is estimated that at least one third of children have an insecure attachment with at least one caregiver, which in turn will affect their school performance and behaviour (Bergin & Bergin, 2009). O'Connor and Russell (2004) indicate that 98% of children they surveyed had experienced one or more trauma events and for one in four, this trauma resulted in behavioural and/or emotional disturbance. Clarke et al. (2002) and Moss and St-Laurent (2001) also indicate that as many as 80% of children diagnosed with ADHD may have attachment issues.

Mindful of the debates that currently contribute to educational neuroscience (Ansari et al., 2011; Howard Jones, 2014; Hruby, 2012), a key message about the neuroscience of attachment for education is how the brain's attachment system takes priority over the brain's exploratory system. Thus, feeling safe and secure is more important than learning (Sroufe & Siegel, 2011). By recognising the critical role of neuroplasticity (the process by which the brain's neuronal connections are continually shaped by experience), positive, attachment-like relationships such as those that can exist in school contexts, can also contribute to the reparation of impaired internal working models (Schore, 2003). Verscheuren and Koomen (2012) add to the claim that relational-based teaching might play a moderating role in supporting 'at risk' children. Therefore, teachers can function as both a safe haven and a secure base from which a child can explore and learn. This suggests that, at the very least, 'attachment-like' or 'ad hoc' attachment relationships with pupils and the utilisation of attachment-based systems and strategies to foster such relationships, may be beneficial for all children, but particularly for those who may have insecure working models. Both Bergin and Bergin (2009) and Verschueren and Koomen (2012) do, however, offer a cautionary note that such secondary attachment relationships are not necessarily of the same ilk or as bonded, as those with primary caregivers. Hart's (2010) consideration of psychodynamic strategies based on attachment theory for supporting children's behaviour draws attention to the importance of the relational model and relational actions that address the meaning of behaviour rather than merely the behaviour itself. There is a range of literature that now attests to the importance of stable, caring and trusting relationships which promote success at school and beyond (Kennedy, 2008). Such approaches are rooted in humanist ideology and notions of unconditional positive regard, and the encouragement of critical thinking.

In England, there are a number of influential practice-based guides, such as Cairns and Stanway (2004) and Bomber (2007), which offer an effective model, rooted in attachment practice. However, they tend to be evidence 'informed' rather than evidence based. This pilot project is an attempt to help to contribute to the evidence base for an Attachment Aware Schools model in the way that, for example, Geddes (2006) has done. This work has been endorsed by a recent report on the educational attainment of Looked After Children which suggests:

> Initiatives to support pupils with social, emotional and mental health difficulties need to become more widely known and studied to address the educational problems we have highlighted including school exclusions (both external and internal in which young people may not be accessing high quality teaching) and school transfer. These initiatives include […] 'attachment aware' schools and 'emotion coaching' for pupils (Rose et al., 2015). Young people attributed their educational progress to the characteristics, skills and commitment of individual teachers and carers (Sebba et al., 2015).

Outline of Training Programme

Attachment Aware Schools is a whole school programme that supports the emotional and social development of all children, in addition to targeted support for the most vulnerable learners. It offers practical, effective tools and techniques, underpinned by a programme of training and online training support. The core training incorporates an understanding and insight into attachment theory, the neuroscentific evidence which appears to support the research on the attachment process and an outline of the impact of trauma on the developing brain.

A key aspect of the Attachment Aware Schools model is the utilisation of Emotion Coaching as a useful tool, or approach, in supporting children's behaviour and well-being. This is based on the work of John Gottman and colleagues in the USA. It emphasises the importance of considering the emotions which underlie particular behaviours 'in the moment', before dealing with limit setting and problem solving (Gottman et al., 1997). Emotion Coaching views all behaviour as a *form of communication* and makes an important distinction between children's behaviour and the feelings that *underlie* that behaviour. A key belief is that all emotions are acceptable, but not all behaviour. It is about helping children to understand their different emotions as they experience them; why they occur and how to handle them, leading to happier, more resilient and well-adjusted children.

Emotion Coaching resonates strongly with attachment-based strategies and has been correlated to secure attachment (Chen et al., 2011). The main research evidence base for Emotion Coaching comes from America and Australia. Randomised Control Trials in America have demonstrated that Emotion Coaching enables children to have fewer behavioural problems, achieve more academically in school, be more emotionally stable and resilient, be more popular and have fewer infectious illnesses (Gottman et al., 1997). Although research has not specifically focused on looked after or adopted children, Emotion Coaching has been used to support children with conduct behavioural difficulties (Havighurst et al. 2013; Katz & Windecker-Nelson, 2004), depression (Katz & Hunter, 2007) and those exposed to violent environments, including interparental violence, maltreatment and community violence (Katz et al., 2008; Cunningham et al., 2009). Emotion Coaching has also been used effectively to improve the psychological functioning of children who have experienced complex trauma (Murphy et al., forthcoming), as well as reduce the externalising behaviours of children with ASD (Wilson et al., 2013). It has also recently been identified as a protective factor for children with ODD (Dunsmore et al., 2012) and for children at risk (Ellis et al., 2014). Emotion Coaching instils the tools that will aid children's ability to self-regulate their emotions and behaviour (Shortt et al., 2010). Our findings from this work have been reported elsewhere (Gilbert et al., 2014; Rose et al., 2015; Rose et al., 2016; Gus et al., 2015) and our evidence appears to complement the work being undertaken in the USA (Gottman et al., 1997; Katz et al., 2012; Shortt et al., 2010) and Australia (Havighurst et al., 2012; Havighurst et al., 2010), which points to the efficacy of Emotion Coaching in supporting behaviour management across the age range.

Havighurst et al. (2009) have highlighted how Emotion Coaching can contribute to children's 'internal working models'. Internal working models are created in the first few years of life via social interactions with caregivers and they guide children's thoughts, feelings and behaviour.   Attachment research has shown how 'emotion-focused talk' by the adult can teach children to use appropriate strategies to cope with stress, literally helping to build the architecture of their brains (Bowlby, 1998;

Schore, 1994). This links to the idea of reflective functioning as well as to the work of Vygotsky (1986) and his notion of an 'internal dialogue'. Emotion Coaching assists children to develop an internal dialogue about social and emotional experiences and aids them in regulating their emotions and social behaviour. It is, essentially, an empathic and dialogic process which enables children to feel appreciated; to explore their feelings and relationships; to reflect with others and to confront their anger, fear and anxiety, rather than projecting them through challenging behaviour (Matthews, 2006). The narrative provided by Emotion Coaching creates a communicative context for a child's emotional experiences to be explicitly and meaningfully processed within a relational dyad, and resonates with Siegel's work on interpersonal neurobiology (Siegel, 2012). It can operate as a stabilising factor to enable children to focus their energies on learning and to help them moderate the challenges of school (see also, Annex C).

Findings of Impact Evaluation

Findings are drawn from the following data sources: Tracking Records of behaviour, academic progress, attendance, social and emotional progress, communication, Strengths and Difficulties Questionnaires, Staff Questionnaires, online records of Emotion Coaching.

The report of findings is in the following parts:

Part A – Children & Young People (C&YP) Progress Data
Part B – Impact on professionals and practice – quantitative data
Part C – Impact on professionals and practice – qualitative data
Part D – Emotion Coaching Data

In addition, an illustrative case study of a particular child from a related Attachment Aware Schools project can be found in Annex A and one of a Stoke pupil, where Emotion Coaching was utilised to reduce behavioural difficulties, can be found in Annex B. These case studies demonstrates how being an Attachment Aware School and using strategies like Emotion Coaching can significantly improve individual children's wellbeing, behaviour and attainment in school.

Part A: C&YP Progress Data

Among schools that participated in the programme from the Stoke area, significant improvements in academic achievement (including reading, maths and English), decreases in sanctions (lessons and incidents), decreases in exclusions (inside and outside of classroom) and improvements in SDQ (decrease in hyperactivity and overall difficulties) were observed between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015), as detailed below. All other variables (attendance, and other sub-items within the SDQ) failed to reach statistical significance.

Academic achievement

Academic achievements including reading, writing, maths and English were tracked at both Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) to explore for differences. Improvements in reading, maths and English were observed and are detailed below.

Improvement in reading achievement

There was a significant <u>decrease</u> in the number of students <u>not meeting</u> expectations between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in reading achievement, where X^2 = 4.84 (df = 1), p < 0.05. The number of students not meeting expectations in reading achievement at Time 1 was 25 and at Time 2 was 14, (Fig. 1).

Figure 1. **Decrease** in pupils **not meeting** reading expectations in Time 1 and Time 2.
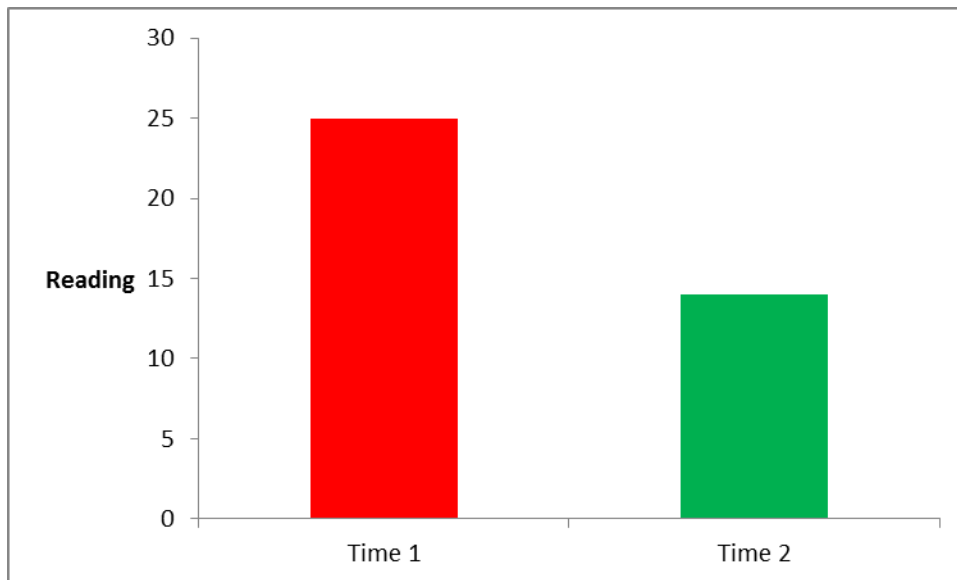
 N = 45

There was a significant <u>increase</u> in the number of students <u>achieving</u> (meeting, exceeding, strongly exceeding) expectations in English from Time 1 to Time 2, where X^2 = 4.84 (df = 1), p < 0.05. At Time 1 there were 13 students meeting expectations and 23 students at Time 2. At Time 1 there were 5 students exceeding expectations and 5 students at Time 2. At Time 1 there were 2 students strongly exceeding expectations and 3 students at Time 2 (Fig. 2).

Figure 2. Pupils **achieving** expectations (meeting, exceeding, strongly exceeding) from Time 1 to Time 2.
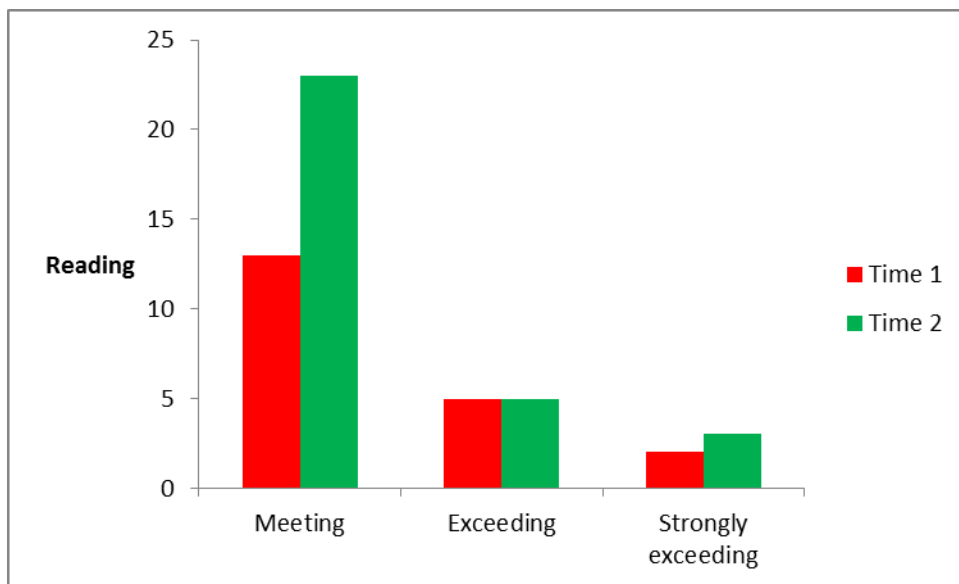

N = 45.

Improvement in writing achievement

There was decrease in the number of students <u>not meeting</u> expected writing achievements between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015), however this failed to reach statistical significance. The number of pupils not meeting writing expectations at Time 1 was 25 and the number of pupils not meeting expectations at Time 2 was 18 (Fig. 3).

Figure 3. **Decrease** in number of students **not meeting** writing expectations from Time 1 to Time 2.
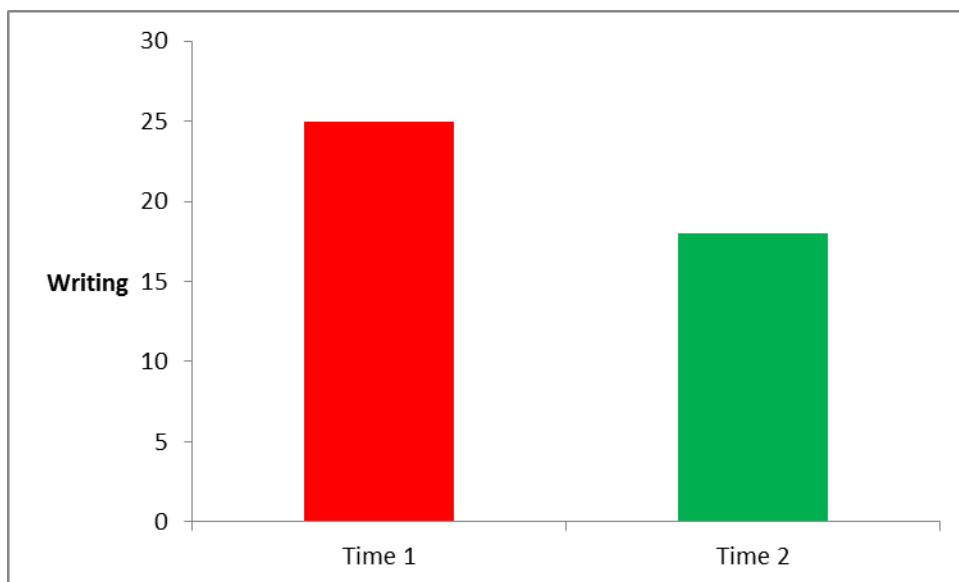
N = 46.

Overall, there was an <u>increase</u> in the number of students <u>achieving</u> writing expectations, however this failed to reach statistical significance. There was an increase in the number of pupils meeting expectations from Time 1 (n = 16) to Time 2 (n = 21) and an increase in the number of pupils strongly

exceeding expectations from Time 1 (n = 0) to Time 2 (n = 3) and a drop in the number of students exceeding expectations from Time 1 (n = 4) to Time 2 (n = 3) (Fig. 4).

Figure 4. Pupils **achieving** writing expectations (meeting, exceeding, strongly exceeding) from Time 1 to Time 2.
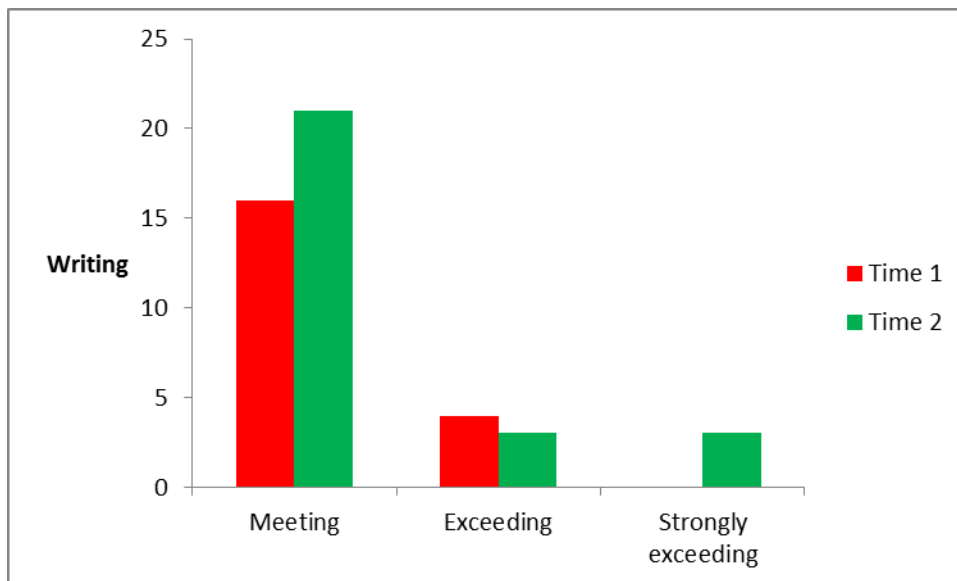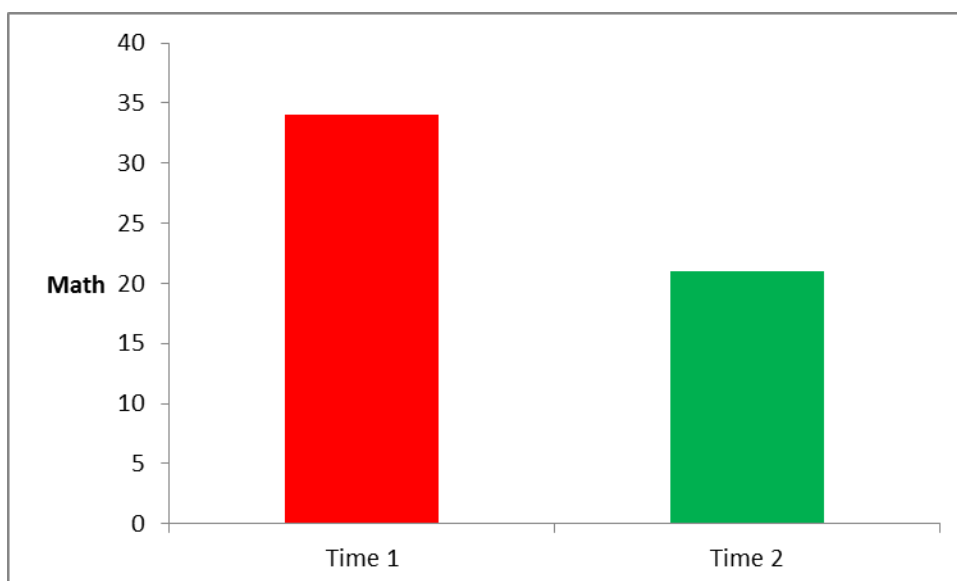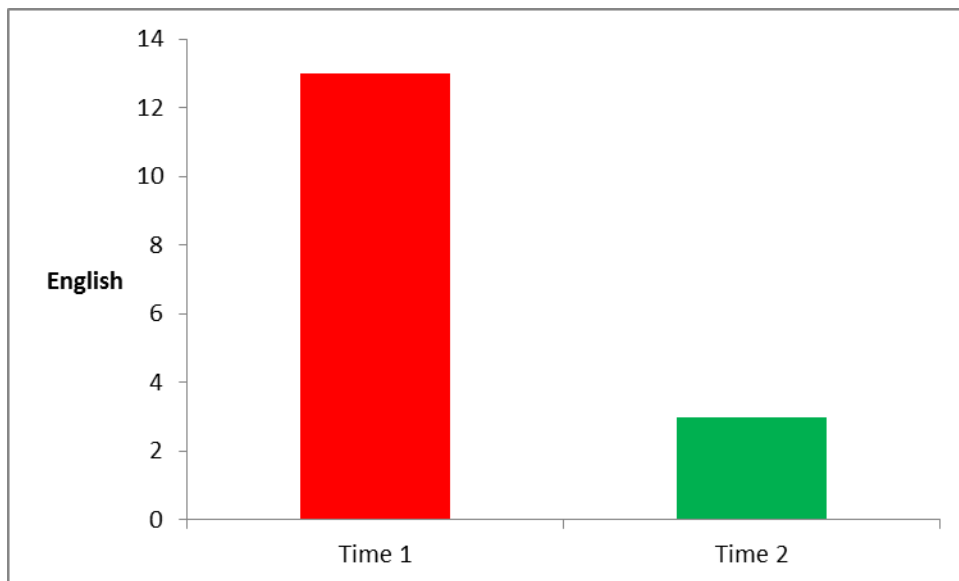

N = 46

Improvement in maths achievement

There was a significant <u>decrease</u> in the number of pupils <u>not meeting</u> maths expectations between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) where X^2 = 4.97 (df = 1), p < 0.05. At Time 1 there were 34 pupils not meeting expectations in maths and 21 pupils at Time 2 (Fig. 5).

Figure 5. **Decrease** in number of pupils **not meeting** expectations in maths from Time 1 to Time 2.

N = 52.

There was a significant increase in the number of pupils achieving maths expectations (meeting, exceeding, strongly exceeding) between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015), where X^2 = 9.39 (df = 1), p < 0.05. At Time 1 there were 12 pupils meeting expectations in maths and 24 pupils at Time 2. At Time 1 there were 3 pupils exceeding expectations and 4 pupils at Time 2. At Time 1 there were 3 pupils strongly exceeding expectations and 3 pupils at Time 2 (Fig. 6).

Figure 6. Number of pupils **meeting, exceeding and strongly exceeding** expectations in maths from Time 1 to Time 2.
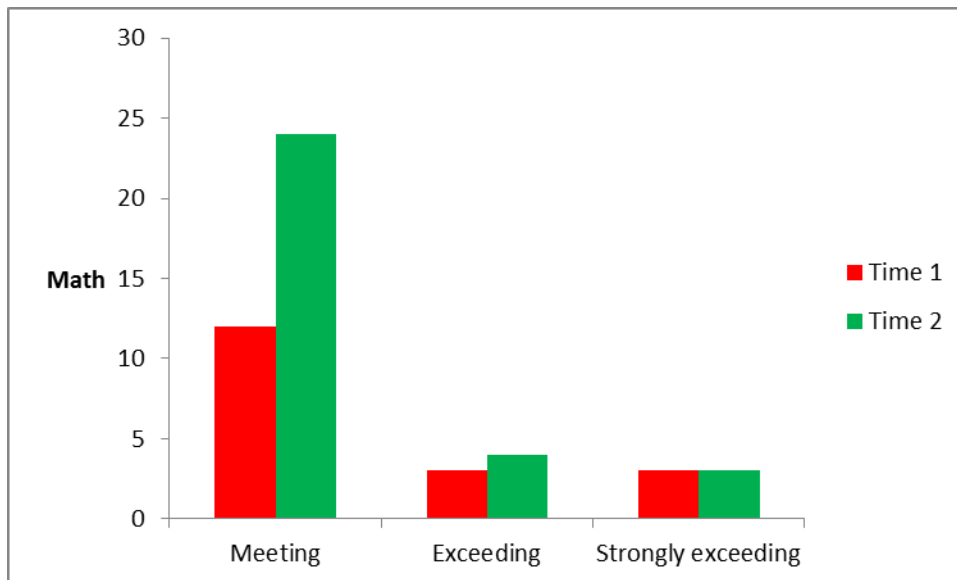
N = 52.

Improvement in English

There was a significant decrease in the number of pupils not meeting English expectations between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015), where X^2 = 7.69 (df = 1), p < 0.05. At Time 1 there were 13 pupils not meeting expectations in English and 3 pupils at Time 2 (Fig. 7).

Figure 7. **Decrease** in number of pupils **not meeting** expectations in English from Time 1 to Time 2.

N = 16.

There was a significant increase in the number of pupils achieving English expectations (meeting, exceeding, strongly exceeding) between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) where X^2 = 31.98 (df = 1), p < 0.05. At Time 1 there were 3 pupils meeting expectations in English and 12 pupils at Time 2. At Time 1 there were 0 pupils exceeding expectations and 1 pupil at Time 2. There were no pupils strongly exceeding expectations and at Time 1 or Time 2 (Fig. 8.)

Figure 8. Number of pupils **meeting, exceeding and strongly exceeding** expectations in English from Time 1 to Time 2.
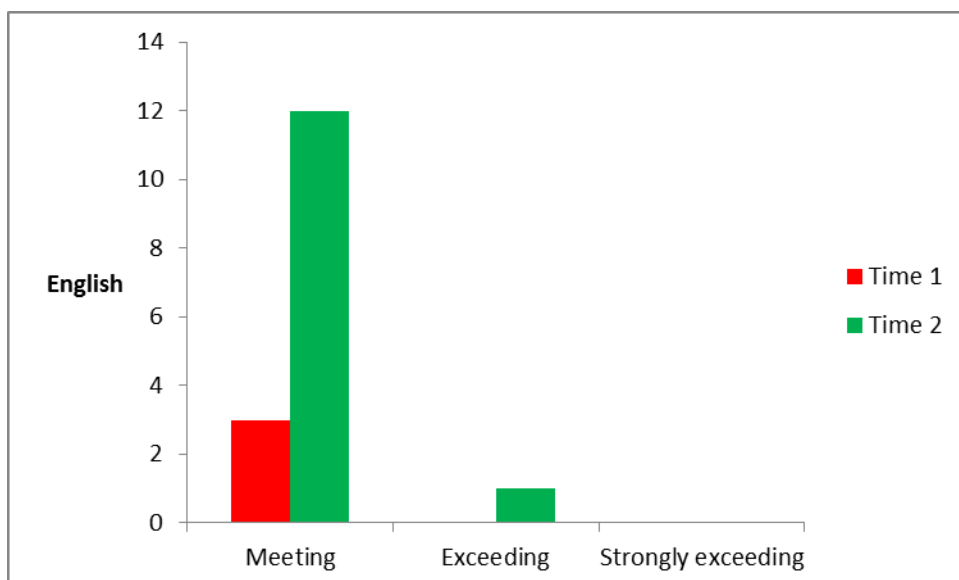
Improvement in Behaviour

Decrease in sanctions (lesson and incidents)

Sanctions (lesson and incidents) were tracked at both Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) to explore for differences. There was a significant <u>decrease</u> between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in sanctions (lessons and incidents), where t = 5.66 (df = 39), p < 0.001. The number of sanctions at Time 1 was 5.66 (SD = 0.64) and at Time 2 was 2.9 (SD = 0.45) (Fig. 9).

Figure 9. Mean change in sanctions from Time 1 to Time 2.
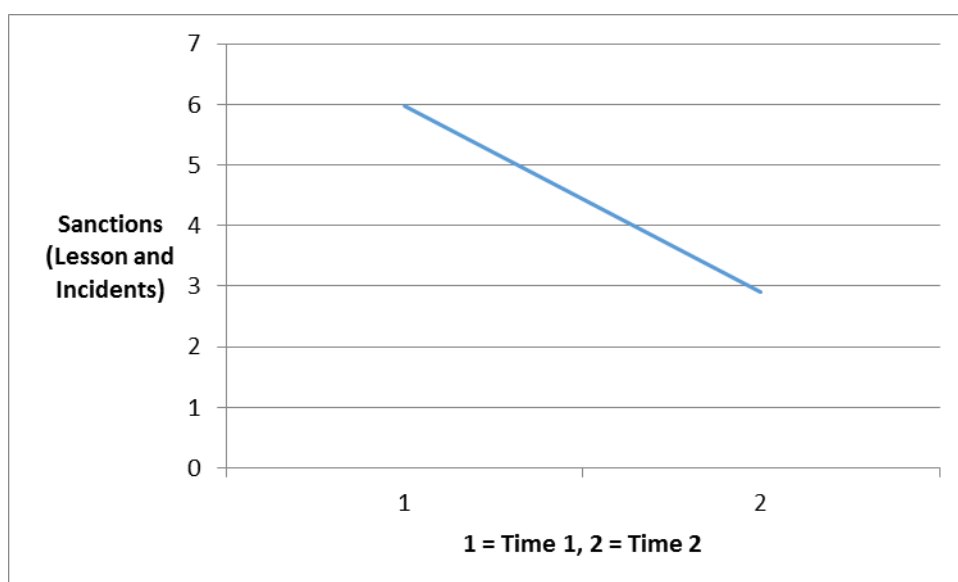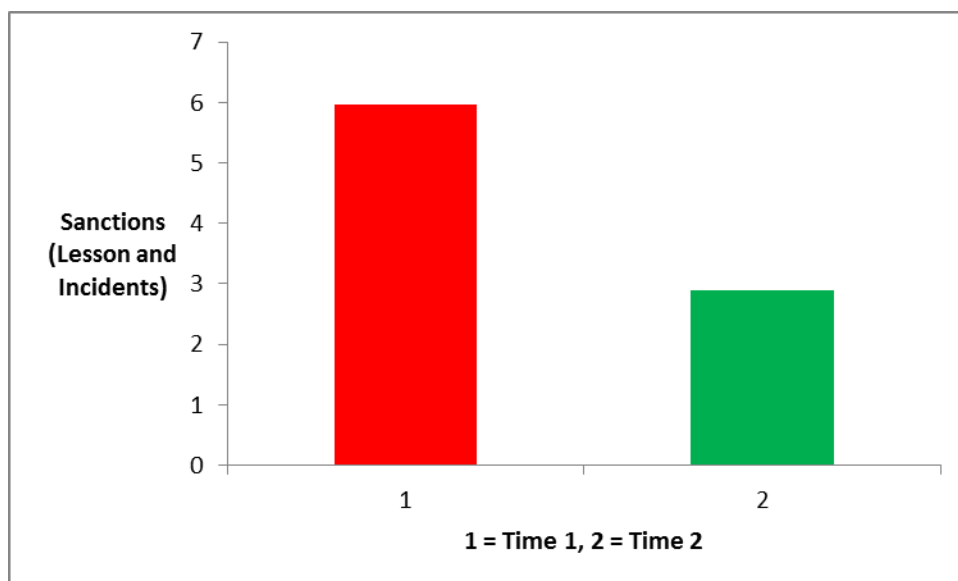
Note: N = 40

Decrease in exclusions (inside and outside of lessons)

Exclusions (inside and outside of lessons) were tracked at both Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) to explore for differences. There was a significant <u>decrease</u> in exclusions (inside and outside of lessons) between Time 1 (end of terms 1-2, 2014) and Time 2 (end

of terms 3-5, 2015), where t = 2.33 (df = 39), p < 0.05. The mean number of exclusions at Time 1 was 0.2 (SD = 1.20) and at Time 2 was 0.3 (SD = 0.68) (Fig. 10).

Figure 10. Mean change in exclusions from Time 1 to Time 2.
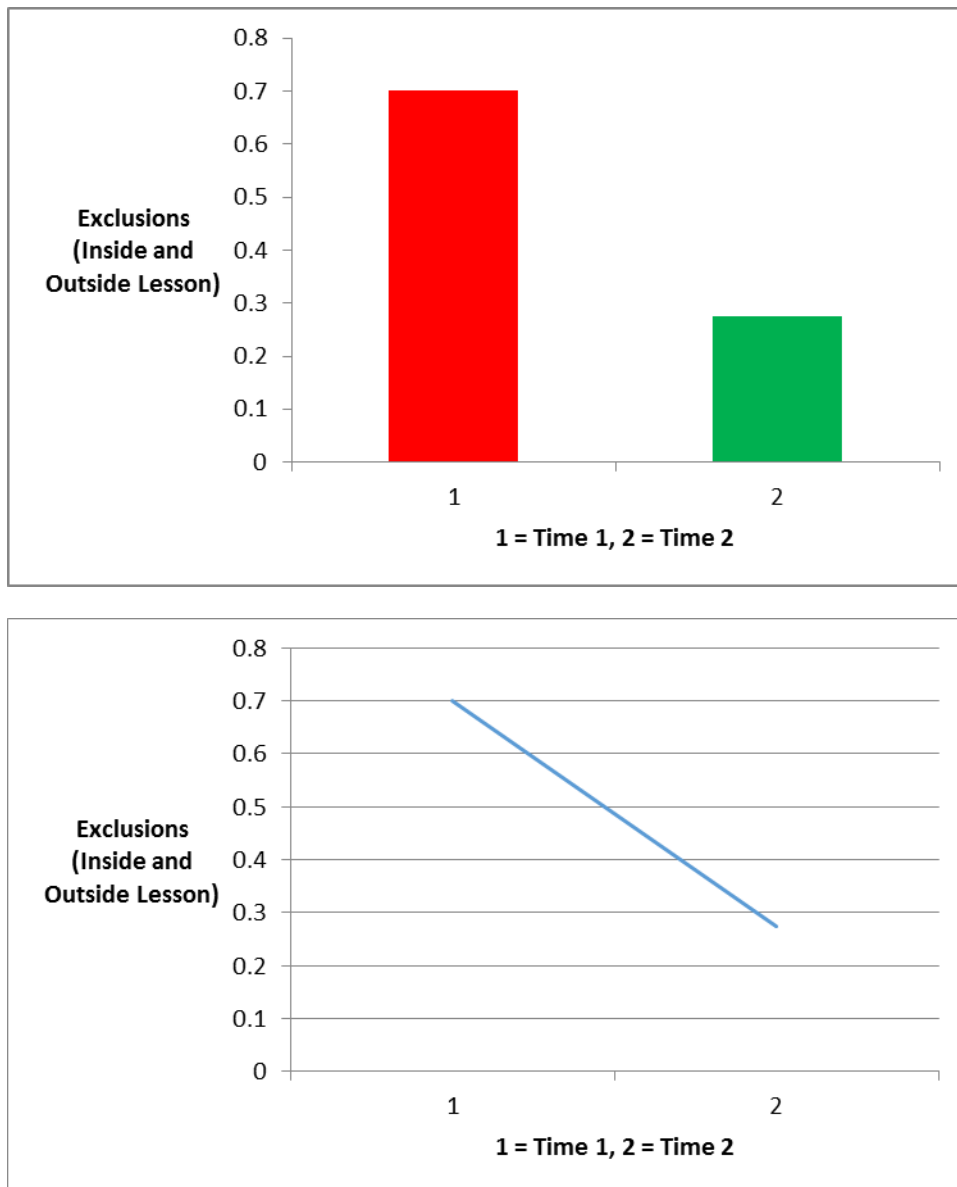
Note: N = 40

SDQ improvements

The Strengths and Difficulties Questionnaire (SDQ) was used to assess strengths and difficulties experienced by a child (Goodman, 1997). Norms from a teacher-rated British sample (N = 10298) ages 4-15 collected by the Office of National Statistics reveal a mean score of 8.4 with a standard deviation of 5.8 (with a possible minimum score of 0 and possible maximum score of 40) (Meltzer et al., 2000). Psychometric properties of the scale were explored by Goodman (2001) revealing generally satisfactory reliability with respect to internal consistency (mean Cronbach a = 0.73), cross-informant correlation (mean = 0.34), and retest stability after 4 to 6 months (mean= 0.62). Predicted probability of independently diagnosed psychiatric disorder is raised in SDQ scores above the 90th percentile (mean odds ratio = 15.2 for teacher scales) (Goodman, 2001).

Strengths and difficulties (including conduct, hyperactivity, peer problems, prosocial behaviour, conduct behaviour and overall difficulties) as assessed by the Strengths and Difficulties Questionnaire (SDQ) were tracked at both Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) to explore for differences. Improvements in hyperactivity and overall difficulties were observed and are detailed below. Other differences failed to reach statistical significance.

Decrease in hyperactivity *(SDQ)*

There was a significant <u>decrease</u> between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in hyperactivity, as assessed by the SDQ, where $t = 2.38$ (df = 13), $p < 0.05$. The mean hyperactivity score was 7.57 (SD = 0.62) at Time 1 and 6.57 (SD = 0.7) at Time 2 (Fig. 11).

Figure 11. Mean change in hyperactivity (SDQ) from Time 1 to Time 2.
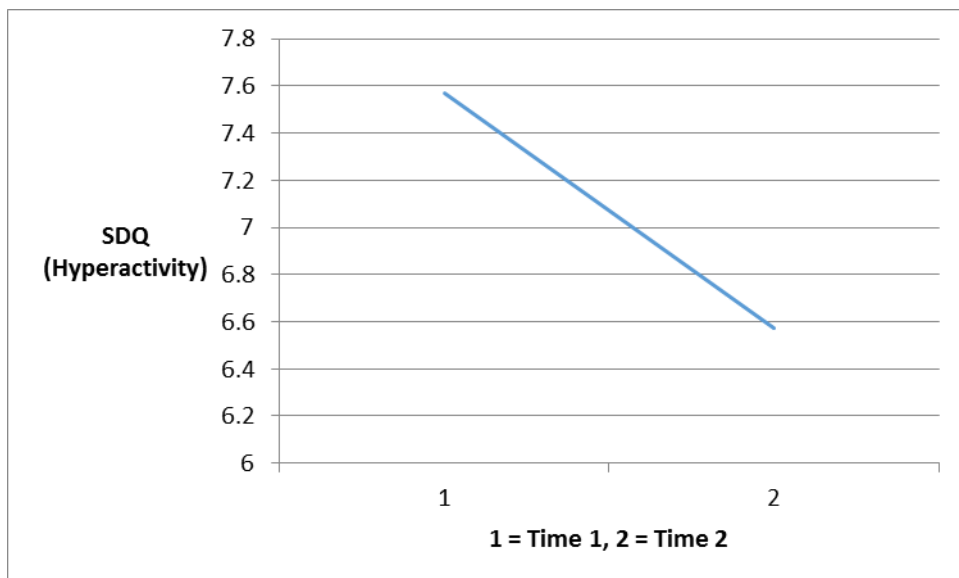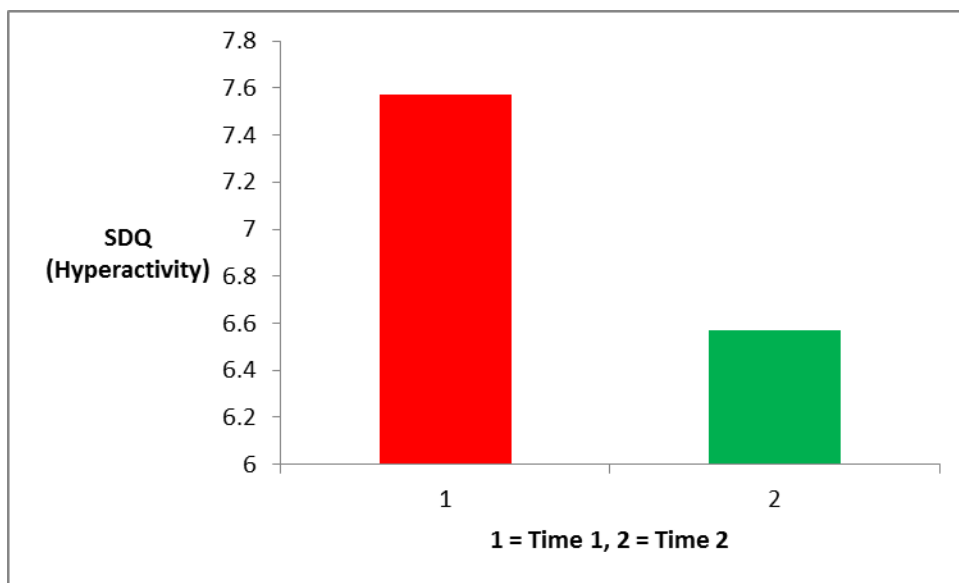
Note: N = 14

Decrease in overall difficulties (SDQ)

There was a significant <u>decrease</u> between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015) in overall difficulties, as assessed by the SDQ, where t = 3.95 (df = 51), p < 0.001. The mean overall difficulty score was 23.92 (SD = 8.88) at Time 1 and 20.85 (SD = 7.98) at Time 2 (Fig. 12).

Figure 12. Mean change in overall difficulties (SDQ) from Time 1 to Time 2.
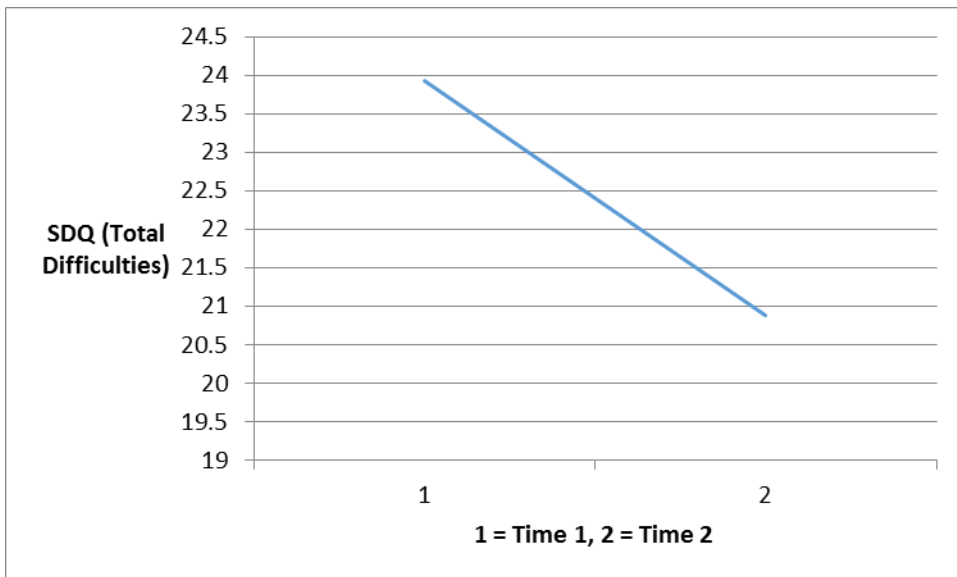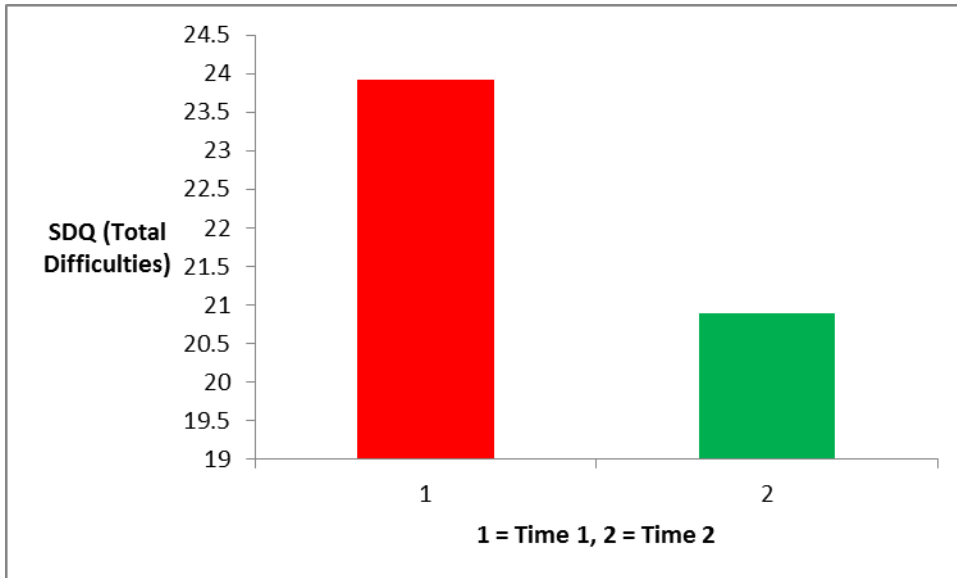
Note: N = 52

Part B: Impact on professionals and practice – quantitative data

Professionals self-reported impact via Exit Questionnaires (post-training only) and ratings of professionals on Emotion Coaching performance (both pre- and post-training) were collected via the online Emotion Coaching data. Overall, significant improvements in Emotion Coaching performance were observed between Time 1 (end of terms 1-2, 2014) and Time 2 (end of terms 3-5, 2015), as detailed below.

Exit Questionnaires

1. *Impact on Professional practice*

At the end of the programme participants were asked to indicate whether they agreed ('yes'), disagreed ('no') or somewhat agreed ('sometimes') with statements regarding the impact of their training with respect to professional practice, adult self-regulation and behavioural impact on the children they are supporting. Overall, 62 participants responded to this questionnaire from Stoke.

In total, 72% indicated agreement ('yes'), 25% agreed somewhat ('maybe') and 2% disagreed ('no') with statements regarding training impact on professional practice (Fig. 13).

Figure 13. Percentage of responses 'yes', 'maybe' and 'no' to items on impact of training on professional practice.
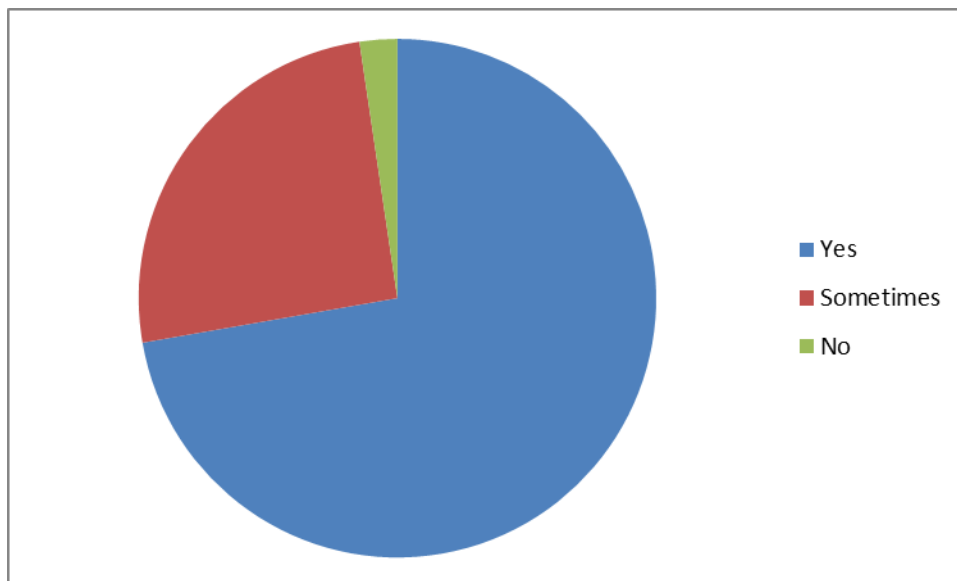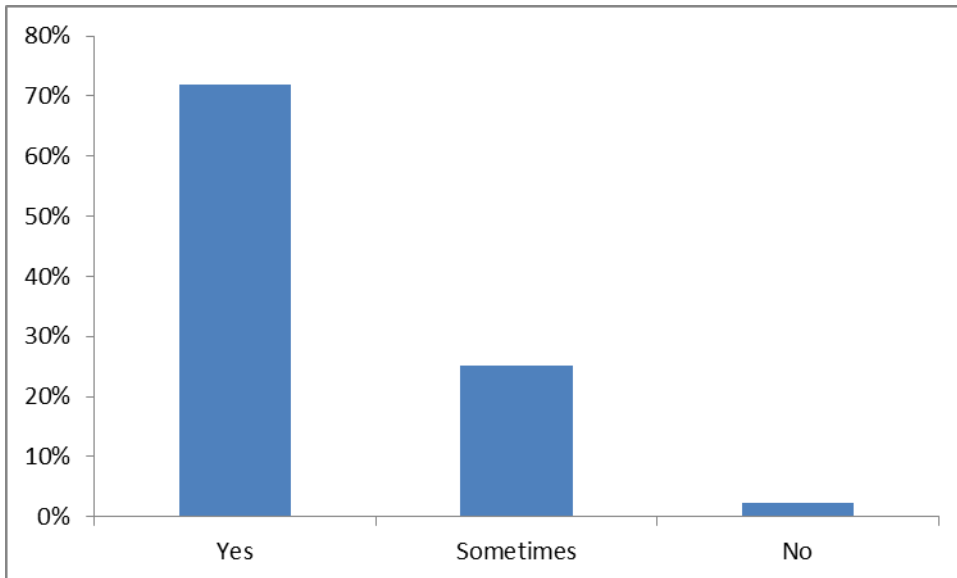
Note. N = 62

2. *Impact on Adult self-regulation*

In total, 77% indicated agreement ('yes'), 21% agreed somewhat ('maybe') and 2% disagreed ('no') with statements regarding training impact on adult self-regulation (Fig. 14).

Figure 14. Percentage of responses 'yes', 'maybe' and 'no' to items on impact of training on adult self-regulation.
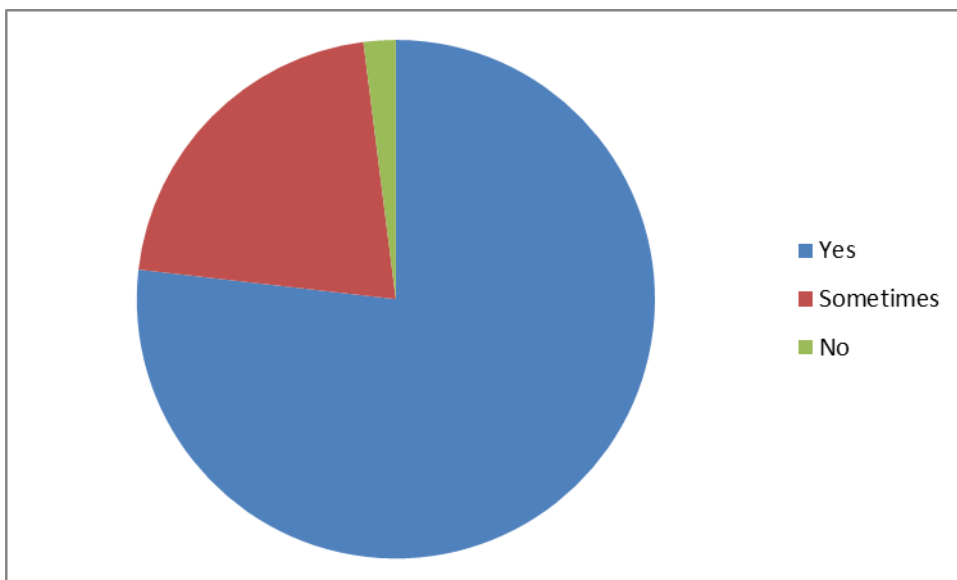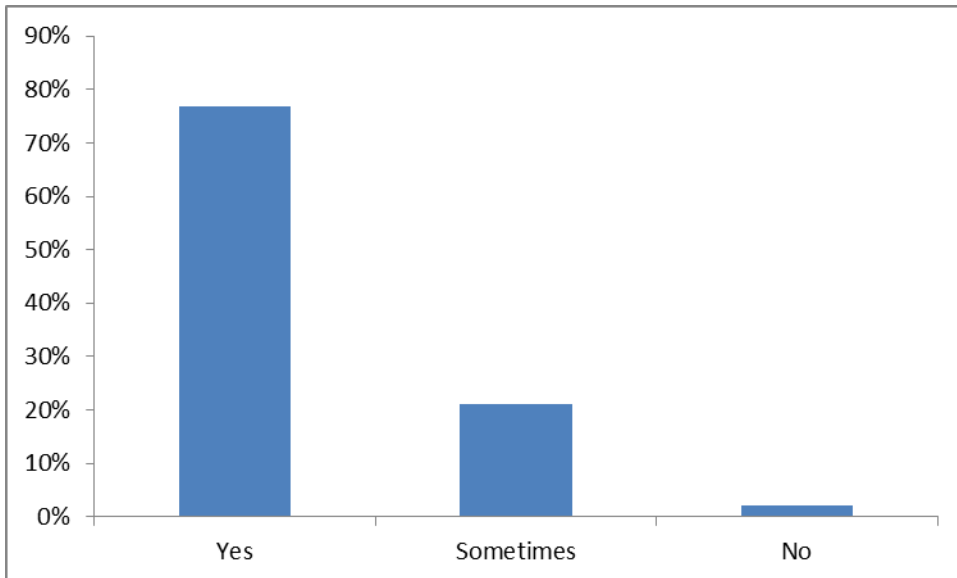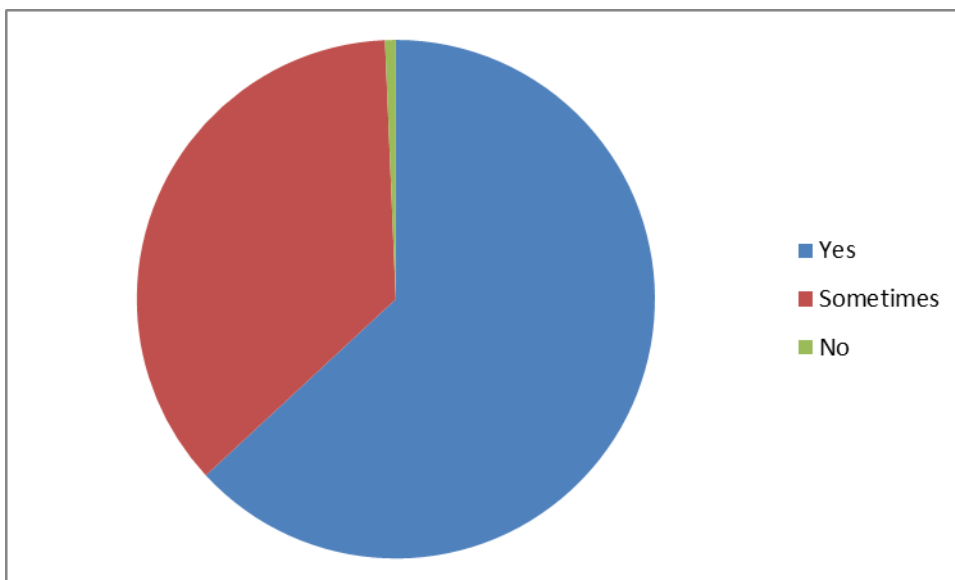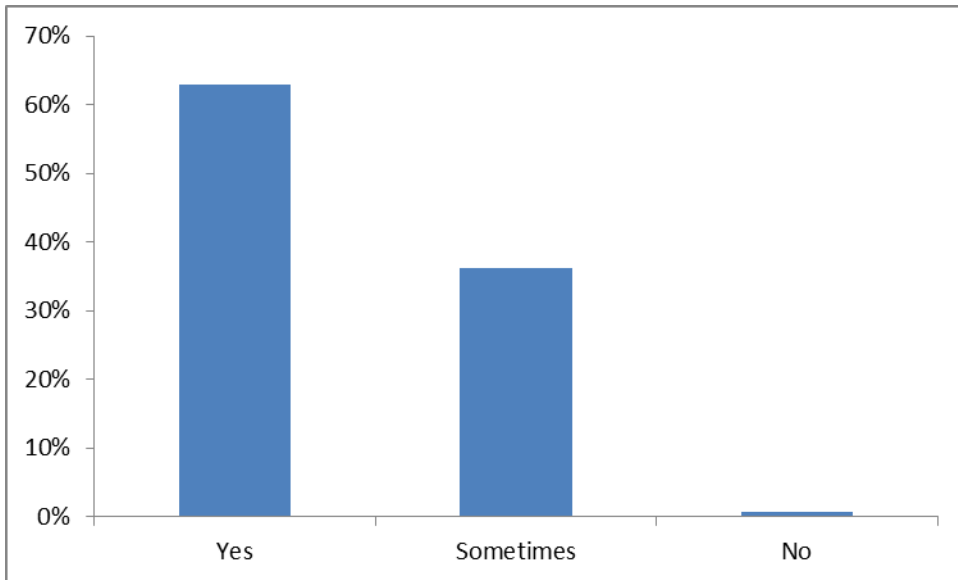
Note. N = 62

3. *Impact on pupil behaviour*

In total, 63% indicated agreement ('yes'), 36% agreed somewhat ('maybe') and 1% disagreed ('no') with statements regarding training impact on child behaviour (Fig. 15).

Figure 15. Percentage of responses 'yes', 'maybe' and 'no' to items on impact of training on child behaviour.

Note. N = 62

Part C: Impact on professionals and practice – qualitative data

A process of open coding identified numerous initial themes from free text responses in the Exit Questionnaire. The questionnaire asked staff to consider the following:

1. Please explain why you think being an AAS School may be beneficial for pupils.
2. Please explain how your practice has changed since doing the training.
3. Please explain why you think EC is a beneficial tool to use.
4. Comment on any challenges faced in applying the training.

The open coding analysis from all responses to the different questions was further ordered into the three interrelated areas of: Adult Skills, Confidence and Understanding; Consistency of Approach; and Effect on Pupils. In turn, these were further coded to correlate with previous pilot research on the impact of Emotion Coaching, in terms of the Impact on Professional Practice, the Adults' Capacity to Self-regulate and the Impact on Pupil Behaviour. The feedback focused on the use of Emotion Coaching which was the main attachment-based strategy adopted by the participating schools. Illustrative quotes are provided at times, which reflect a particular finding.

The three core themes identified (Adult Skills and Understanding, Consistency of approach and Effect on pupils) are interdependent: the increase in Adult Skills, Confidence and Understanding creates improved abilities in pupils to reflect on their behaviour and increase their understanding of their emotions. Consistency in Approach is key to maximising the potential for both pupils and professionals' own learning and subsequent outcomes. It is significant to note that most feedback centred on the change of practice for the adult – this seems to be the pivotal requirement for success in implementation of Emotion Coaching and AAS strategies within schools. It was also apparent that Emotion Coaching engenders positive changes in individual behaviours for both staff and pupils and in the interactions between the two groups.

Findings from the final question, relating to challenges, largely centred on the practical challenges of using it with pupils who seems less receptive. For example, one commented that it was more difficult with older children, such as children who sometimes found it patronising and a few expressed that '*It does not work with all children all the time.*' The other key challenges centred on issues related to staff, such as lack of consistency across the school and some difficulty in managing their own emotions and stress. Indeed, consistency is a key issue for the successful implementation of Emotion Coaching. There are also implications in these findings in respect of the necessity for staff to remain calm and apply stress management strategies, or learn more about the meta-emotion aspect of Emotion Coaching. The participants considered that without staff consistency and effective implementation of the strategies, pupil disengagement and negative pupil reactions will be more frequent in their occurrence, leading to greater stress for staff.

The findings of the free text responses from the Exit Questionnaires are detailed below. These responses were overwhelmingly positive.

Benefits of AAS

1. *Improved Adult Skills, Confidence and Understanding*

- **Adults felt they had developed better skills regarding understanding the needs of individual pupils, through their behaviour**

  'Staff have a better understanding of the children's needs.'
  'It enabled everyone to look for signs and feel prepared to support children in a variety of situations.'

- **It improved adult skills in meeting the needs of children with emotional and social difficulties**

  'I think we are meeting the needs of the children with their emotional and social difficulties.'
  'Through being in touch with a child's underlying needs, behaviour can be reduced.'
  'Meeting individual student needs allows students to progress both academically and socially.'
  'It gives the tools to enable a swift disengagement of a situation without the response of a more heightened one.'

- **It created better understanding of what to do in emotional situations and when faced with emotionally driven behaviour, plus skills to 'deal with' tricky situations**

  'I am able to diffuse an emotional situation using the skills I have learned from EC before it escalates and ask the correct questions to get to the root cause.'
  'I have recognised that use of empathy at the beginning of a conversation about an incident really helps the child calm.'
  'During heightened or low key levels of distress I am able to help students to calm.'

- **There was increased overall awareness of the attachment and the emotional needs of pupils**

  'By being more aware of the children's emotional needs and status and building on their understanding, it helps them engage, learn, develop socially, behaviourally, academically.'
  'I have become more aware of pupils feelings and sensitivities.'
  'I feel as though after the EC I am now a lot more sensitive to the children's feelings/needs.'

- **There was increased understanding of pupils' behaviour and increased awareness of how actions or triggers can have implications for behaviours**

  'We are able to manage [behaviour] better without physical interventions.'
  'It allows me to see what's driving the behaviour.'
  'More aware of how certain actions may affect pupils.'
  'I have been much more reflective, often thinking more now about how a child's understanding of their emotions has affected their behaviour.'

- **It helped develop better relationships with students**

  'This results in these pupils developing better relationships with teachers and staff generally in school.'
  'It helps to build trusting and strong relationships between pupils and adults.'

- **There was more reflection on the needs of the child**

  'As a teacher I think about the emotional needs of the pupils before intervening in a crisis or with an upset pupil.'
  'Instead of just assuming the child is disruptive you talk to them and tap into their feelings.'
  'It can help us and the children and parents to explain their emotions which may result in a better understanding.'

- **There was an increase in staff empathy**

  'More empathic towards students' needs.'
  'Less dismissive to what the students say with regards to their emotions in situations.'
  'I am also more empathic towards children rather than dismissive of their behaviour.'
  'I think the children can see that we understand about their feelings and circumstances.'
  'It shows the pupils that we understand they are unhappy and it shows we have empathy towards them. '

- **Adults were calmer and more able to recognise their own emotions**

  'Allows staff to recognise their own emotions – better able to deal with situations.'
  'When dealing with tricky situations that are quite frustrating it has helped me to step back and think from a different perspective. This has meant I have stayed more calm than normal.'
  'Stopping to recognise my own emotions before trying to deal with a situation.'
  'My practice has changed by being more patient and calm in certain situations.'
  'Staff feel more in control of their own emotions.'

- **There was increased staff confidence and stress in dealing with poor behaviour and in their overall role**

  'Easy to use, adaptive, adapt it for any age and location. Able to put boundaries and consequences in place for the children. It has made staff more confident to do this and follow what they say through.'
  'I feel more confident in dealing with challenging behaviour.'
  'I feel like I now look at behaviour differently and can respond in a different and better way.'
  'I have found that EC has not only allowed me to feel confident in my job but also helped to build relationships with the children.'
  'It have felt much more in control – as an NQT it has given me a huge amount of support.'

2. *Consistency of Approach*

- **AAS enabled consistency of approach from all staff which was seen as desirable**

    'I think that pupils benefit from knowing that all adults in school can help them if they are struggling with their emotions.'
    'It enables staff to adopt a consistent approach which suits all children.'
    'It provides a step by step approach that all staff can turn to when dealing with the behaviours in the moment.'
    'Gives staff a consistent approach to behaviour management, allowing interchangeable adults to a situation. Helps de-escalate situations before a crisis occurs.'

- **It ensures that all children know they are listened to**

    'The child feels listened to and understood.'
    'They feel listened to and respected.'
    'It has helped [to know] how to talk to the pupil instead of shouting and listen to them and sort the situation out.'

- **Partnerships between staff members improved**

    'The all staff approach has been good, doing and saying similar things to the children'

- **Commonly used scripts and formats were said to be very useful**

    'All staff are aware of what is required and use the same terminology when assisting.'
    'It comes easier to me when dealing with behavioural issues'
    'By labelling emotions more explicitly to support pupils with understanding their feelings.'

3. *Effect on Pupils*

- **It helped pupils understand their own feelings, recognise, label and reflect on their emotions**

    'It does help pupils to recognise their emotions.'
    'Children are beginning to label their emotions more effectively.'
    'Overt changes in children's ability to reflect on their emotions.'
    'It enables pupils to become emotionally aware of their behaviour.'

- **It helps pupils manage their own emotions and behaviour more effectively**

    'Children are able to calm down more efficiently.'
    'It will help them take more control of their own emotions and behaviour.'

'Helps students plan ways to stop these emotions taking control of their behaviours and feelings.'
'Allows students to understand their emotions, manage them, self regulate and learn.'
'It allows the children to be reprimanded in a manner that is non-aggressive or threatening resulting in the child being and feeling safe.'

- **It gives pupils language and strategies to manage their emotional behaviour**

'They move past how they are feeling and are able to deal with these feelings independently.'
'It allows pupils to reflect on their actions. Through understanding that they are ok emotions to have and showing empathy to them, students are more willing to 'back down' via stating how we can restore the situation. Is a better, a more sensible approach - pupils are more willing to re-engage.'
'It gives children the language and strategies to sort themselves out.'

- **Pupils were calmer when experiencing Emotion Coaching**

'It makes children calm and listen'.
'It particularly helps to calm down children who are angry and they reflect your calm approach.'
'It very often quickly changes a situation to the positive and quickly calms/soothes a YP/child'
'It can help to calm a situation down and to better understand why a person is reacting in a certain way.'
'It calms children down quicker and helps me to understand that it could be something other than disruptiveness.'

- **It enables pupils to develop empathy**

'It enables pupils to be emotionally aware of others. It encourages them to display empathy.'

A final analysis was undertaken of the qualitative findings in order to ascertain their correlation to prior research on the impact of EC in practice (Rose & Gilbert, 2015). Three key themes were identified in the original research in England. The themes identified through the content analysis of the Stoke Exit Questionnaires can be co-ordinated under them. This also eases the process in relating the quantitative data to the qualitative data, since the quantitative data in Part B is categorised into the 3 key themes of Impact on Professional Practice, Impact on Adult Self-regulation and Behavioural Impact on Child/YP.

1. *Professional Practice*

- Increased use of positive vocabulary towards children/YP when in emotional moments was seen as a benefit to the strategy.
- Teachers identified the importance of using new strategies, such as giving pupils time to think and calm down in a quiet environment.

- EC was seen as a change from the 'normal' approach to behavioural management.
- EC initiated improved relationships with children and YP and enabled staff and students to work together more effectively.
- It enabled staff to have greater understanding regarding the needs of the child in that moment.
- Improved long term monitoring/checking on vulnerable pupils.

2. *Adult Self-Regulation*

- Maintaining calm in the face of challenging situations was identified as a key part of successful EC strategy. Those who did this experienced much less stress.
- Good EC outcomes were seen from those who accepted a child's emotional experience without judgement or negative emotions.
- Enabling adults to give clear limits on behaviour in a calm manner appeared to result in a reduction of professionals' stress levels.

3. *Behavioural Impact on Child/YP*

- Staff identified that children and YP were encouraged to develop empathy through the use of EC.
- Children/YP were encouraged to lead problem solving.
- Improved behaviours were highlighted as a significant outcome.
- Children and YP demonstrated appreciation of the staff involved.
- Children and YP were encouraged to take on responsibility for their behaviour.
- Improved relationships with staff were noted.

Part D: Emotion Coaching Data

Professionals in Stoke were asked to log Emotion Coaching activity, confidence in discussing pupils' emotional well-being and self-control in dealing with challenging behaviour. They were asked to provide further detail on the context where emotion coaching was used, incident type, emotion coaching performance (how well they thought they performed as an emotion coach on a scale from 1-10) and the total number of resolved incidences.

Emotion coaching activity

Professionals were asked to indicate whether or not they had made use of Emotion Coaching since their last log in. Of the 75 participants that responded, 69 (92%) said 'yes' they did make use of emotion coaching, whereas 6 indicated 'no' they did not make use of Emotion Coaching (Fig. 16).

Figure 16. Number of professionals in Stoke that made use of Emotion Coaching

N = 75

## *Professional confidence in discussing pupils' emotional wellbeing*

Professionals in Stoke were asked to indicate their confidence in discussing pupils' emotional wellbeing with them, at three time points. There was evidence of an increase in confidence on a scale from 1-10 across the three time points, where the mean at Time 1 was 7.74, the mean at Time 2 was 8.09 and the mean at Time 3 was 8.24 (Fig. 17).

Figure 17. Confidence in discussing pupils' emotional wellbeing
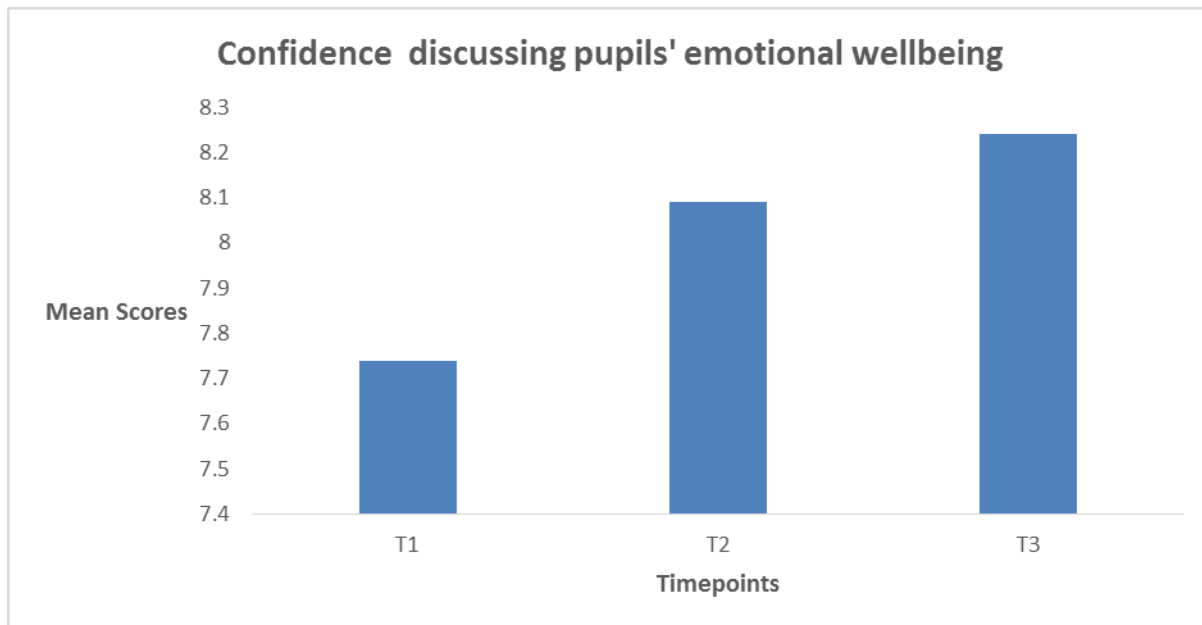
N = 75

## _Professional self-control_

Professionals in Stoke were asked to indicate on a scale from 1-10 how much self-control they felt in respect of their own emotions when dealing with challenging behaviour across three timepoints. There was evidence of an increase in self-control over time, where the mean at Time 1 was 7.78, the mean at Time 2 was 7.82 and the mean at Time 3 was 8.18 (Fig. 18).

Figure 18. Professional Self-Control

Self-control of own emotions
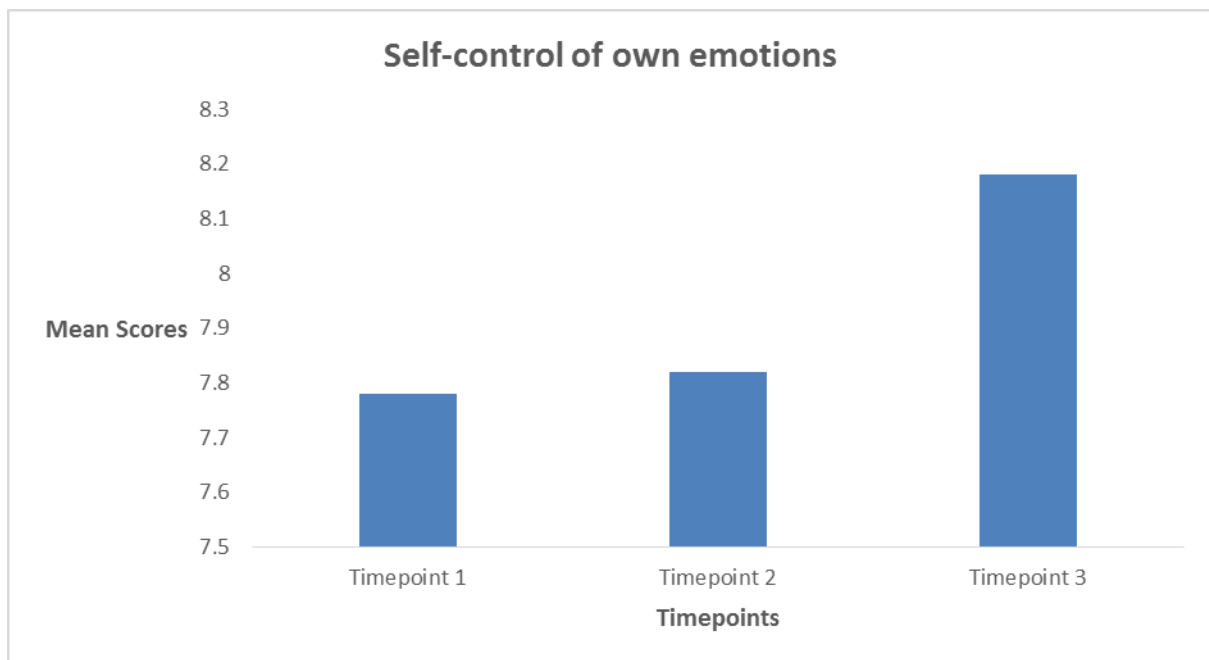
N = 75

Event setting

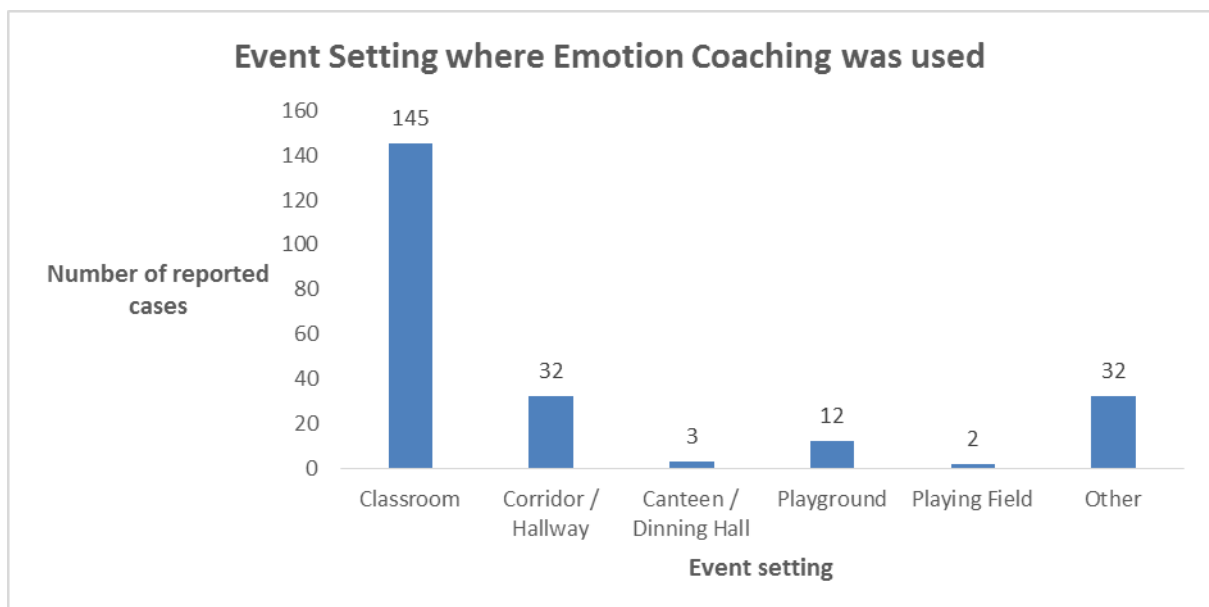Professionals were asked to indicate the context where Emotion Coaching was used. 145 incidents were managed with Emotion Coaching in the classroom, 32 in the corridor/ hallway, 3 in the canteen/dining hall, 12 in the playground, 2 in the playing field and 32 in other settings (Fig. 19).

Figure 19. Event setting where emotion coaching was used

Event Setting where Emotion Coaching was used

N = 75

Incident type

Professionals in Stoke were asked to indicate the number of different types of incidences that prompted their use of emotion coaching. The most frequent type of incident that prompted use of emotion coaching was non-compliance (54), followed by aggressive behaviour (35) and learning disruption (35), crying (34), other (22), withdrawn behaviour (16), physical abuse to pupils (11), physical abuse to staff (9), bullying of pupils (4), dangerous behaviour (2), destructive behaviour (2), bullying from pupils (1) and racial abuse (1) (Fig. 20).

Figure 20. Incident type where Emotion Coaching was used
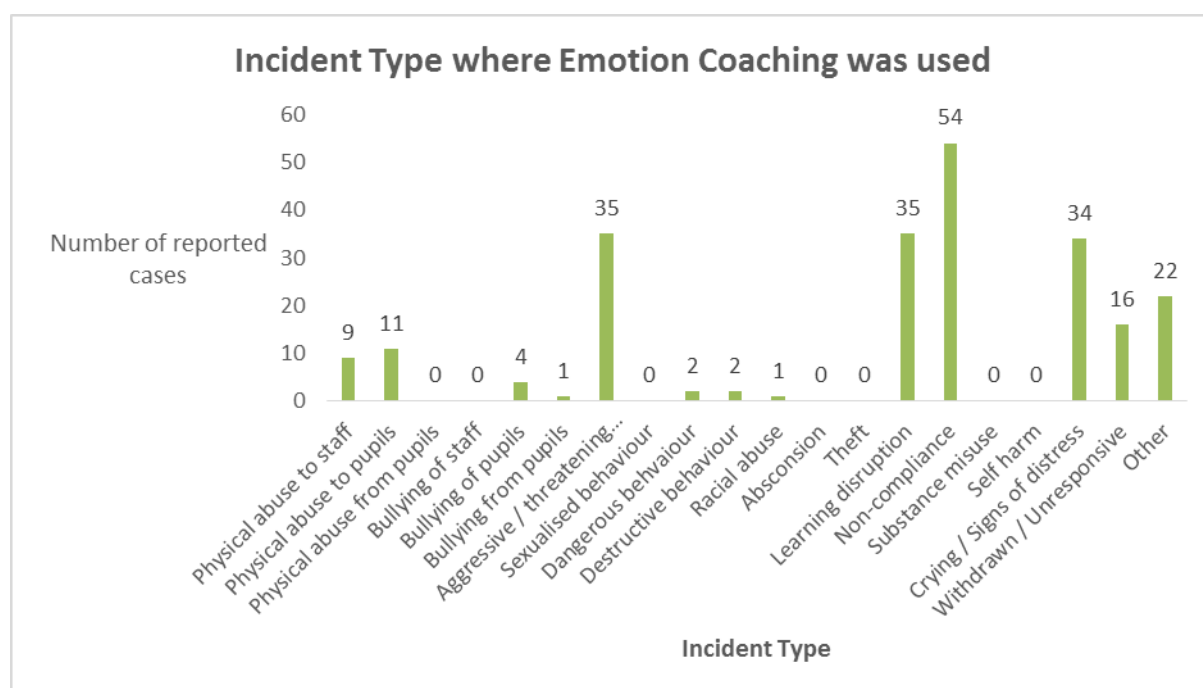
Emotion coaching performance

Professionals were rated on a scale from 1-10 on their performance in Emotion Coaching both pre- and post-training to explore for differences between these two time points. Of the 28 professionals who participated overall, there was an increase in mean Emotion Coaching performance from 6.87 (SD = 0.25) to 7.46 (SD = 0.29) post-training. A repeated measures t-test revealed that this difference was statistically significant, where t = 1.89 (df = 37), $p < 0.05$ (Fig. 21).

Figure 21. Mean difference in pre- and post-training performance in Emotion Coaching
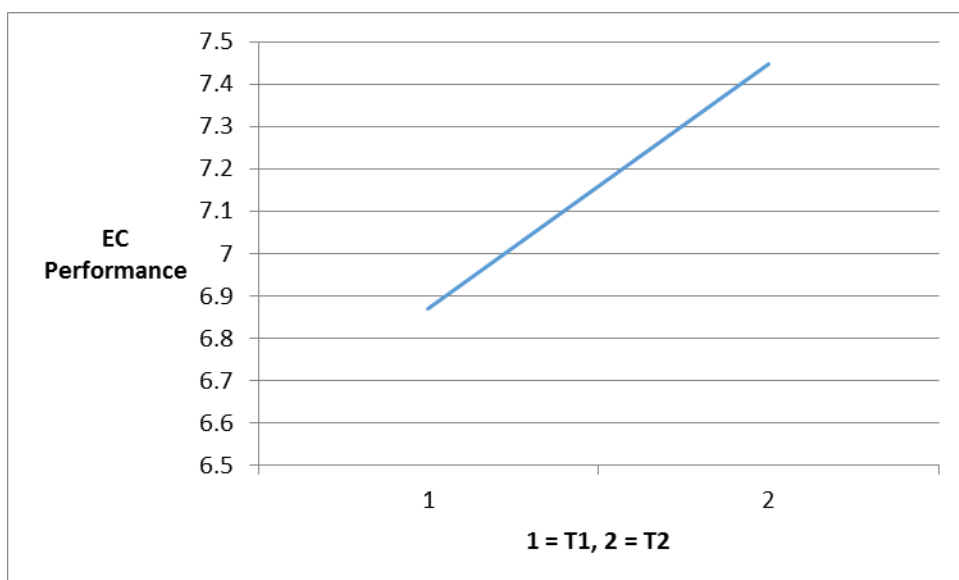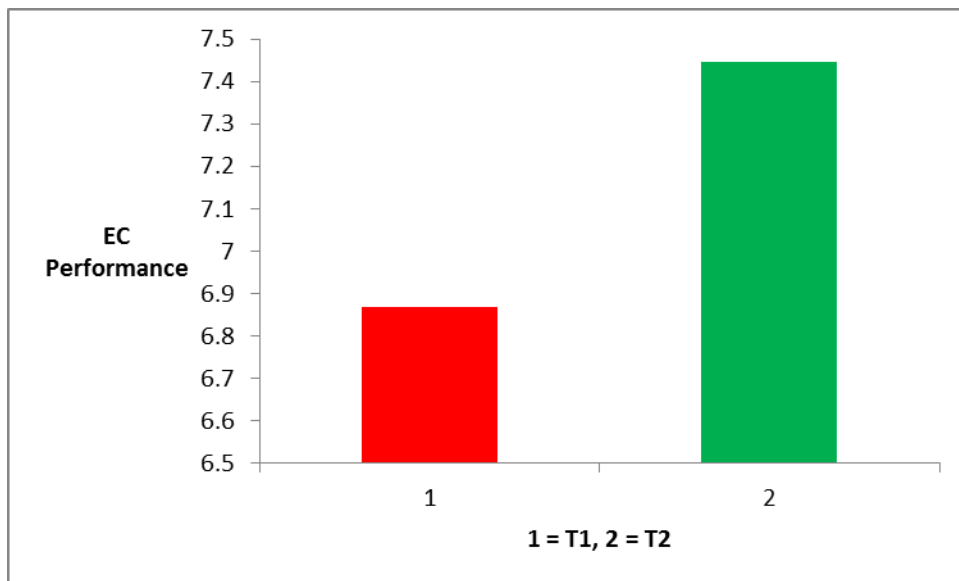
N = 38

Methodology

The methodology comprised a mixed method approach (Mertens, 2010), yielding both soft and hard data. Progress data on pupil academic achievement (including reading, writing, maths and English), exclusions (inside and outside of classroom) and improvements in SDQ were explored before the intervention at the end of terms 1-2 (Time 1) and after the intervention at the end of terms 3-5 (Time 2), with the aim to explore pre- and post-intervention differences. Purposive sampling was undertaken for pupils considered 'at risk' but no demographic data was collected. For categorical data (expected academic achievement levels), chi square was used to explore pre- and post-differences according to observed and expected frequencies (Ferguson & Takane, 1989), using Excel. For interval data (exclusions, sanctions, SDQ scores), t-tests were used to explore mean differences (Coolican, 2009), using Excel. All summary statistics and data visualisations were produced by Excel.

Both sets of qualitative data were analysed using a content analysis based on the sociological tradition (Tesch, 1990), where the researcher interpreted the participants' perceptions, feelings, behaviour and knowledge of Emotion Coaching, as represented by their written feedback. Constructivist grounded theory and data reduction method (Charmaz, 2006; Strauss and Corbin, 1990) was used and all codes identified reflected the requirement that they reflect what is being researched (they are valid), that there was no overlap (they are mutually exclusive) and that all data fitted into a category (codes were exhaustive) (Miles et al., 2014). In the 1st phase, open coding, all responses were read and assigned a colour-coded category. All statements were then organized under each category. In the 2nd phase, or axial coding, statements were reread to identify any further necessary statement allocation. During the 3rd phase, patterns and explanations were explored within the categories and codes were reordered under similar headings. This phase served as second order coding. Potential causal relationships between the codes were then identified and during phase 4, potential contradictory data and examples that illustrated the thematic coding were sought, through further scrutiny of the data. A final analysis was undertaken in order to ascertain correlation with themes identified in prior Attachment Aware School pilot studies in B&NES and pilot studies in Emotion Coaching (Rose et al., 2015).

Although some of the authors of this report were involved in part of the training programme for the project, all data was analysed by independent analysts, none of whom played any role in the training programme and interventions. Full limitations of the methodology are discussed in a forthcoming academic publication (Rose et al., forthcoming).

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References

Ansari, D.,Coch, D. and De Smedt, B. (2011) Connecting education and cognitive neuroscience: Where will the journey take us? *Educational Philosophy and Theory*, *43*(1), 37-42.

Balbernie, R. (2001) Circuits and circumstances: The neurobiological consequences of early relationship experiences and how they shape later behaviour, *Journal of Child Psychotherapy, 27*, 237-255.

Bergin, C. and Bergin, D. (2009) Attachment in the Classroom. *Educational Psychology Review*, 21, 141-170.

Bomber, L. (2007) *Inside I'm Hurting: Practical Strategies for Supporting Children with Attachment Difficulties in Schools.* London: Worth.

C4EO (2010) *Narrowing the gap in educational achievement and improving emotional resilience for children and young people with additional needs*. London: Centre for Excellence and Outcomes in Children and Young People's Services.

Cairns K. and Stanway C. (2004*) Learn the Child: helping looked after children to learn.* London: British Association for Adoption and Fostering.

Clarke, L., Ungerer, J., Chahoud, K., Johnson, S. and Stiefel, I. (2002) Attention deficit hyperactivity disorder is associated with attachment insecurity. *Clinical Child Psychology and Psychiatry, 7*.2, 1359-1045.

Coe, R. (2013) *Improving education: A triumph of hope over experience.* Durham University: Centre for Evaluation and Monitoring.

Commodari, E. (2013) Preschool teacher attachment, school readiness and risk of learning difficulties *Early Childhood Research Quarterly* , 28, 123– 133.

Cozolino, L. (2013). *The social neuroscience of education: Optimizing attachment and learning in the classroom*. London: Norton & Co.

Cunningham, J. N., Kliewer, W. and Garnder, P. W. (2009). Emotion socialization, child emotion understanding and regulation, and adjustment in urban African American families: Differential associations across child gender. *Development and Psychopathology*, 21, 261-283.

CYP (2015) Assaults drive big rise in primary school exclusions. *Children and Young People Now*, 30 July 2015.

DfE (2013) *Increasing options and improving provision for children with special educational needs (SEN)*.

DfE (2014) *Pupil Premium: funding for schools and alternative provision*.

DoH (2015) *Future in mind. Promoting, protecting and improving our children and young people's mental health and wellbeing*.

Davis, H. (2003) Conceptualizing the role and influence of student–teacher relationships on children's social and cognitive development. *Educational Psychologist, 38*, 207–234.

Driscoll, K. and Pianta, R.C. (2010) Banking Time in Head Start: Early efficacy of an intervention designed to promote supportive teacher-child relationships. *Early Education and Development*, 21.1, 38–27.

Charmaz, K. (2014) *Constructing grounded theory*, *2nd ed*. London: Sage.

Chen, F.M., Hsiao, S.L. and Chun, H.L. (2011) The Role of Emotion in Parent-Child Relationships: Children's Emotionality, Maternal Meta-Emotion, and Children's Attachment Security. *Journal of Child and Family Studies,* 21, 403-410.

Coolican, H. (2009). *Research Methods and Statistics in Psychology*. London: Hodder.

Dunsmore, J. C., Booker, J. A., & Ollendick, T. H. (2012). Parental emotion coaching and child emotion regulation as protective factors for children with oppositional defiant disorder. *Social Development*, 22, 444–466.

Ellis, B.H., Alisic, E., Reiss, A., Dishion, T. and Fisher, P.A. (2014) Emotion Regulation Among Preschoolers on a Continuum of Risk: The Role of Maternal Emotion Coaching. *Journal of Child and Family Studies*, 23, 965–974.

Ferguson, G. and Takane, Y. (1989) *Statistical Analysis in Psychology and Education*. New York: McGraw-Hill.

Furnivall, J., McKenna, M., McFarlane, S. and Grant, E. (2012) *Attachment Matters for All – An Attachment Mapping Exercise for Children's Services in Scotland*. Centre for Excellence in Looked After Children in Scotland.

Geddes, H. (2006) *Attachment in the Classroom. The links between children's early emotional wellbeing and performance in school*. London: Worth.

Gilbert, L., Rose, J. and McGuire-Sniekus, R. (2014) Promoting children's well-being and sustainable citizenship through emotion coaching. In Thomas, M. (Ed), *A Child's World: Working together for a better future.* Aberystwyth: Aberystwyth Press.

Goodman, R. (2001) Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Childhood and Adolescent Psychiatry*, 40 (11), 1337-1345.

Gottman, J.M. et al. (1997) *Meta-emotion: how families communicate emotionally*. Mahwah, NJ: Lawrence Erlbaum Associates.

Gus, L., Rose, J. and Gilbert, L. (2015) Emotion Coaching: a universal strategy for supporting and promoting sustainable emotional and behavioural well-being. *Journal of Educational and Child Psychology*, 32.1, 31-41.

Hart, R. (2010) Classroom behaviour management: Educational psychologists' views on effective practice. *Emotional and Behavioural Difficulties, 15*, 353–371.

Havighurst, S. S., Wilson, K. R., Harley, A. E., and Prior, M. R. (2009) Tuning in to Kids: An emotion-focused parenting program – initial findings from a community trial. *Journal of Community Psychology*, 37, 1008-1023.

Havighurst, S. S., Wilson, K. R., Harley, A. E., Kehoe, C., Efron, D. and Prior, M. R. (2012) Tuning into kids: Reducing young children's behavior problems using an emotion coaching parenting program. *Journal of Child Psychiatry and Human Development*, *43*, 247-264.

Havighurst, S. S., Wilson, K. R., Harley, A. E., Prior, M. R. and Kehoe, C. (2010) Tuning in to kids: Improving emotion socialization practices in parents of preschool children – findings from a community trial. *Journal of Child Psychology and Psychiatry, 51*, 1342-1350.

Howard-Jones, P. (2014) Evolutionary perspectives on mind, brain and education. *Mind, Brain and Education, 8,* 21-32.

Hruby, G. (2012) Three requirements for justifying an educational neuroscience. *British Journal of Educational Psychology*, 82, 1-23.

Katz, L.F., Maliken, A. C. and Stettler, N. M. (2012) Parental Meta-Emotion Philosophy: A Review of Research and Theoretical Framework. *Child Development Perspectives*, 6.4, 417-422.

Katz, L.F., Hunter, E. and Klowden, A. (2008) Intimate partner violence and children's reaction to peer provocation; The moderating role of emotion coaching. *Journal of Family Psychology*, 22.4, 614-21.

Katz, L.F. and Windecker-Nelson, B. (2004) Parental meta-emotion philosophy in families with conduct-problem children: Links with peer relations. *Journal of Abnormal Child Psychology*, 32.4, 385-98.

Katz, L.F. and Hunter, E.C. (2007). Maternal meta-emotion philosophy and adolescent depressive symptomatology. *Social Development*, 16, 343–360.

Kennedy, B.L. (2008) Educating students with insecure attachment histories: toward an interdisciplinary theoretical framework. *Pastoral Care in Education*, 26(4), 211-230.

Kennedy, J.H. and Kennedy, C.E. (2004) Attachment Theory: Implications for school psychology. *Psychology in the Schools*, 41(2), 247-259.

Meltzer, H., Gatward, R., Goodman, R. and Ford, F. (2000) *Mental health of children and adolescents in Great Britain*. London: The Stationery Office.

Mertens, D. M. (2010) *Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative and Mixed Methods, 3rd Edition.* Thousand Oaks, CA: Sage.

Miles, M. B. and Huberman, A. M. (1994) *Qualitative Data Analysis* (2nd Ed) Thousand Oaks, CA: Sage Publications.

Murphy, J., Havighurst, S. and Kehoe, C. (forthcoming) 'Trauma-focused Tuning in to Kids', *Journal of Traumatic Stress*.

Nagel, M. (2009) Mind the Mind: Understanding the links between stress, emotional well-being and learning in educational contexts. *International Journal of Learning*, 16(2), 33-42.

NICE (2015) *Children's attachment: attachment in children and young people who are adopted from care, in care or at high risk of going into care*. NICE Guidelines (NG26).

NSCDC (2012) The Science of neglect: The persistent absence of responsive care disrupts the developing brain: working paper 12. [Online]. Available at: http://www.developingchild.harvard.edu

Matthews, B. (2006) *Engaging Education: Developing Emotional Literacy, Equity and Co-education*. Berkshire: Open UP.

O'Connor, M. and Russell, A. (2004) *Identifying the incidence of psychological trauma and post-trauma symptoms in children*. Clackmannanshire: Clackmannanshire Council Psychological Service.

Moss, E., and St-Laurent, D. (2001) Attachment at school age and academic performance. *Developmental Psychology*, 37, 863-874.

Parker, R., Rose, J. and Gilbert, L. (2016) Attachment Aware Schools – an alternative to the behaviourist paradigm. In Noddings, N. and Lees, H. (Eds) *The International Handbook of Alternative Education*. London: Palgrave.

Pianta, R. C. (Ed.) (1992) *Beyond the parent: The role of other adults in children's lives.* San Francisco: Jossey Bass.

Porges, S. W. (2011) *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-regulation (Norton Series on Interpersonal Neurobiology).* New York: Norton & Company.

Riley, P. (2009) An adult attachment perspective on the student-teacher relationship and classroom management difficulties. *Teaching and Teacher Education*, 25, 626-635.

Rose, J. (2015) Attachment Aware Schools – preliminary pilot findings. *Institute for Recovery from Child Trauma, Best Practice Forum*. House of Lords, May 2014.

Rose, J. and McGuire-Snieckus, R. (2014*) Independent Impact Evaluation Report Brighter Futures and Bath Primary Partnership: an early intervention project to improve outcomes for vulnerable children*. Bath: Institute for Education, Bath Spa University.

Rose, J., McGuire-Snieckus, R. and Wood, F. (2015a) *Independent Impact Evaluation Report of Brighter Futures Nurture Outreach Service*. Bath: Institute for Education, Bath Spa University.

Rose, J. McGuire-Sniekus, R. and Gilbert, L., (2015b) Emotion coaching – A strategy for promoting behavioural self-regulation in children/young people in schools: A pilot study. *European Journal of Social and Behavioural Sciences, 13,* 1766-1790.

Rose, J Gilbert, L., McGuire-Snieckus, R. and Wood, F. (forthcoming) Attachment Aware Schools: A pilot study.

Rose, J., McGuire-Snieckus, R. and Gilbert, L. (2016) *Attachment Aware Schools: A pilot study*. Paper presented at the American Education Research Association Conference, Washington DC, April 2016.

Rose, J., Gilbert, L. and Smith, H. (2012) Affective teaching and the affective dimensions of learning. In Ward, S. (Ed.), *A pupil's guide to education studies.* London: Routledge.

Sebba, J., Berridge, D., Luke, N., Fletcher, J., Bell, K., Strand, S., Thomas, S., Sinclair, I. and O'Higgins, A. (2015) *The Educational Progress of Looked After Children in England: Linking Care and Educational Data*. Oxford: Rees Centre.

Shore, A. (1994) *Affect Regulation and the Origin of the Self*: *the neurobiology of emotional development*. New Jersey: Lawrence Erlbaum.

Schore, A. (2001) The effects of early relational trauma on right brain development, affect regulation and infant mental health. *Infant Mental Health Journal,* 22 (1-2), 201–269.

Schore, A. (2003) *Affect regulation and the repair of the self*. New York: W.W. Norton and Co.

Siegel, D. (2012) *The Developing Mind: How relationships and the brain interact to shape who we are*. New York: The Guildford Press.

Shortt, J.W., Stoolmiller, M., Smith-Shine, J. N., Eddy, J. M. and Sheeber, L. (2010) Maternal emotion coaching, adolescent anger regulation, and siblings' externalizing symptons. *Journal of Child Psychology and Psychiatry*, 51.7, 799-808.

Tesch, R. (1990) *Qualitative research: Analysis types and software tools.* New York: Falmer Press.

Trevarthen, C. (2011) What young children give to their learning, making education work to sustain a community and its culture. *European Early Childhood Education Research Journal*, 19.2, 173-193.

Verschueren, K. and Koomen, H. M. Y. (2012) Teacher-child relationships from an attachment perspective. *Attachment and Human Development*, *14*, 205-211.

Vygotsky, L. (1986) *Thought and Language*. Cambridge, MA: MIT Press.

Wilson, B.J., Berg, J.L., Surawski, M.E. and King, K.K. (2013) Autism and externalizing behaviours: Buffering effects of parental emotion coaching. *Research in Austism Spectrum Disorders*, 7, 767-776.

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ANNEX A

CASE STUDY OF A PUPIL WITH SEN USING ATTACHMENT AWARE AND ATTACHMENT BASED PRACTICES

This case study has been written by a practitioner who participated in the project and has not been subject to any analytical process. It is presented in its original form.

Pupil	Year 5, Boy 'E'
Date of placement on SEN record	Reception Year

Pen Portrait including area(s) of need / barriers to learning

- E was identified when he started school as having significant emotional/behavioural needs
- He was diagnosed as having ADHD in June 2014 and a Statement of SEN was agreed in July 2014
- He has a history of being significantly overweight
- Parent received support from Connecting Families in 2014 and a PSA prior to that
- An EP assessment in February 2014 identified many skills in the very low range of the Beck's Cognitive Profile with a likelihood of dyslexia
- Speech & Language Assessment in March 2014 identified significant difficulties with attention and listening, working memory and phonological awareness
- All assessments identified extremely low self-esteem, a significant reluctance to take risks and put himself in a position where he thought he might 'fail', showing no persistence or independence
- On transition to KS2 (September 2013) he struggled to cope with the academic demands of Year 3 Class. He refused to follow adult requests all of the time and would run out of class and around the school. He frequently had verbally aggressive outbursts with all staff and hurt children as he moved around school
- In Term 1 of Year 4 he could not manage to stay in class other than for registration and avoided even supported learning tasks by running out of the room. There were 8 Serious Incidents in Term 1.
- In receipt of Pupil Premium

External agencies who have been involved

- **Speech & Language**
- **Education Psychologist**
- **Specialist Behaviour Support**
- **Connecting Families**
- **PSA**
- **Paediatrician**
- **Occupational Therapist**
- **Sports Mentors x 2 weekly**

PROVISION OVER TIME / ARRANGEMENTS OVER TIME

Year 3

- Small group learning support with HLTA daily, every morning

Year 4 from Term 2

- Full time Key Adult using attachment based strategies and activities (Louise Bomber) plus Now/Next, visual timetable
- Weekly Speech and Language support - 'Attention Grabbers' programme from trained teaching assistant, individually then in a small group
- Very high levels of emotion coaching from Key Adult and Assistant Head, especially when dealing with dysregulated behaviour to help E by co regulation then help him to regulate his emotions
- Development of a low stimulus 'safe space' for learning with E so that all his resources were accessible
- Very high level of positive feedback on progress, recorded visually and shared with parent daily and 'heard' by E between adults as positive praise would cause him to dysregulate
- High level of communication and relationship building with parent by Key Adult and Assistant Head Inclusion so that school had immediate support for Serious Incidents

How the skills of staff have been developed to address needs

Key Adult

- observed and then provided interventions based on attachment strategies to stabilise anxiety and then enable him to feel safe, secure and able to engage and take risks in learning tasks
- consistently used strategies for supporting children on the Autism Spectrum to enable E to engage in adult led activities and follow routines
- consistently used emotion coaching to scaffold emotional regulation when dealing with events that raise his anxiety levels
- consistently used strategies given by S & L Therapist to scaffold learning tasks e.g. using visual cues and frameworks
- worked with Class Teacher to differentiate learning tasks to meet his learning and emotional needs
- worked with Brighter Futures to gradually provide more challenging expectations and tasks

QUANTATIVE OUTCOMES FOR PUPIL

Progress Summary

- **Reading age increased from 4 years 8 months in December 2014 to 7years 8 months in November 2015 – a 3 year increase in a single year**
- Now in class most days for teacher input and lessons in afternoon
- Able to work independently on many tasks in daily small group learning support with HLTA
- Serious Incidents reduced from 9 in Term 1 2014 to none in Term 1 2015, parent not called to school at all
- E can hear a positive comment shared between adults and smile
- E has been able to take part in all out of school events safely including the residential trip

QUALITATIVE OUTCOMES FOR PUPIL / SCHOOL

- Parent and E are positive about progress made and can hear what he is good at
- E is part of the class and engaged in group and individual learning activities with sensitive support
- E takes part in all social activities alongside his peers within the school with sensitive support
- He has made significant progress since January 2015 particularly in reading
- We are beginning to challenge him to increase his independence in learning tasks and social activities
- Staff have gained skills and experience and observed how a child with significant needs can be supported to be included alongside his peers and make good progress
- Staff can acknowledge how some children need low stimulus environments and highly differentiated tasks to engage in learning and meet learning objectives
- School has evidence of how responding effectively to the emotional and behavioural needs of a child needs to happen, in order to enable the child to feel safe and secure and ready to engage and learn

CASE STUDY OF USE OF EMOTION COACHING

Details of Emotion Coaching Champion	
Organisation Type	Specialist provision SEBD / SEMH
Role in Organisation	Asst. Headteacher
Details of child or Young person	
Identifying mark (e.g. pseudonym)	A
Age	14
Gender	M
Background	
Why you selected this child or young person to be your focus. You might include quantitative data which illustrates your area(s) of concern.	A has, historically, been very difficult to manage in school and behavioural responses have been extreme, frequent and bizarre (A would often lie on a corridor and push himself up and down as if he were a worm, completely ignoring any instructions; if challenged further, A would attempt to climb high after damaging property and would physically fight; wildly, if attempts were made to stop him). There seemed to be some understanding from staff that A was highly anxious when exhibiting such behaviours, but usual 'carrot and stick' behavioural management techniques have had no positive impact, and at times have exacerbated situations. A's Mum has diagnosed mental health issues. A can be violent at home towards Mum and siblings. A does not feel he fits in, in his own family.

SDQ Data (pre)	TOTAL	32	ES	8	CP	5	H	10	PP	9	Prosocial	0

Outcome	
What was the outcome of the project for this case? i.e. How was anyone better off as a result?*	A initially responded in a curious but suspicious manner to Emotion Coaching, but almost immediately seemed to respond more calmly to the empathic validation of his emotions. Acknowledging and labelling A's emotions seem to have an immediate calming effect and allowed dangerous and damaging behaviours to be questioned more safely and then modified. A finds it much easier to calm and to rectify situations when Emotion Coaching is used. Previously, A has almost never been able to stop once a situation starts to unravel, but Emotion Coaching has had a different effect. It is now possible to limit set safely, come to an agreement about restoration and discuss different outcomes when Emotion Coaching is used with A. A has been more involved with whole class activities, seems less apart, and has accessed 50% more lessons without incident. A's SDQ showed a reduction in difficulties and an increase in prosocial behaviour.

SDQ Data (post)	TOTAL	22	ES	8	CP	3	H	6	PP	5	Prosocial	2

ANNEX C

WHAT IS EMOTION COACHING?

Emotion Coaching is based on the work of Gottman and Katz and colleagues (Gottman et al., 1996). It is, essentially, comprised of two key elements - *empathy and guidance*. These two elements underpin the adults' approach whenever 'emotional moments' occur. Emotional empathy involves recognizing, labelling and validating a child's emotions, regardless of the behaviour, in order to promote self-awareness of emotions. The circumstances might also require setting limits on appropriate behaviour (such as stating clearly what is acceptable behaviour) and possible consequential action (such as implementing behaviour management procedures) - key to this process is guidance: engagement with the child in problem-solving in order to support the child's ability to learn to self-regulate and to seek alternative courses of action preventing future transgressions.

Gottman has described Emotion Coaching as involving 5 steps:

1. Be aware of child's responses
2. Recognize emotional times as opportunities for intimacy and teaching
3. Listen empathetically and validate child's feelings
4. Help child to verbally label emotions – helps sooth the nervous system and recovery rate
5. Set limits while helping child to problem-solve

Research in England suggests that these 5 steps can be perceived, more simply, in 3 steps for the busy practitioner: recognising, empathising, validating and labelling feelings; limit setting; and problem solving (Rose et al., 2015; Gilbert et al., 2014).

The main research evidence base for emotion coaching comes from America and Australia. Randomised Control Trials in America have demonstrated that Emotion Coaching enables children to have better emotional regulation, more competent problem-solving, higher self-esteem, better academic success, more positive peer relations and fewer behavioural problems (Gottman et al., 1997). Emotion Coaching has been used to support children with conduct behavioural difficulties (Havighurst et al., 2013; Katz & Windecker-Nelson, 2004), depression (Katz & Hunter, 2007) and those exposed to violent environments, including inter-parental violence, maltreatment and community violence (Shipman et al., 2007, Katz et al., 2008; Cunningham et al., 2009). Emotion Coaching has also been positively correlated with secure attachments (Chen et al., 2011), and used effectively to reduce the externalising behaviours of children with ASD (Wilson et al., 2013). It has also recently been identified as a protective factor for children with ODD (Dunsmore et al., 2012) and for children at risk (Ellis et al., 2014).

The findings from this study correlate with other research in England. Two pilot studies (Rose et al., 2015; Gilbert et al., 2014) show that by using Emotion Coaching when children experience 'emotional moments' which may manifest as challenging behaviour, significant improvements can be made in:

- adults' attitudes to children's behaviour as adults become less 'dismissive' of children's emotions, generating a more relational model of behaviour management

- reducing the number of behavioural incidents by improving children's behaviour and ability to regulate their behaviour
- staff well-being and efficacy via the way adults manage children's behaviour and its contribution to adults' reduced stress levels

Emotion Coaching appears to promote the development of social and emotional competences within children/young people. The findings suggest Emotion Coaching can be a valuable tool for practitioners in their work with children and young people. The reported improvements in adult self-regulation during behavioural incidents and enhanced social relationships with children and young people have important implications for professional practice. The common participant claims of practitioners who have been trained in Emotion Coaching testify to how it can help to generate a more consistent response to behavioural incidents resonating with literature which highlights the importance of consistent responsiveness in promoting social and cognitive growth; Landry et al., (2001), for example. The frequent descriptions by participants of the way in which Emotion Coaching de-escalates incidents and helps both the children/young people and adults to 'calm down', suggests improvements in the stress response system and reflects how children/young people (and adults) felt more able to regulate their emotional responses (Rose et al., 2015).