An evaluation of a positive psychology programme used to support potentially vulnerable secondary school students to enhance their well-being, self-efficacy, resilience and related behaviours

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Abstract

Traditional mental health support in schools focuses upon emotional difficulties rather than preventatively developing skills and enhancing resilience (McGrath, 2010). Positive psychology approaches support children to be mentally healthy through emphasising strengths (McGrath, 2010). There is however, a need to measure the impact and outcomes of positive psychology programmes in schools to build an evidence base (McGrath, 2010) and educational psychologists can contribute to this (Shute, 2012).

A single case experimental design explores the impact of 8 sessions from Positive Approaches to Life (Notter & Jose, 2010) on participants' subjective well-being, self-efficacy, resilience and behaviour. Five students, aged 12-13, participated, completing the Subjective Happiness Scale (Lyubmirsky & Lepper, 1999), Students Life Satisfaction Scale (Huebner, 1991b), the Positive and Negative Affect Scale for Children (Laurent et al., 1999), The Self-Efficacy Questionnaire for Children (Muris, 2001), The Resiliency Scales for Children and Adolescents (Prince-Embury, 2007) and the Strengths and Difficulties Questionnaire (Goodman, 1997), to explore their perceptions. Teachers completed Strengths and Difficulties Questionnaires and weekly on and off-task observations were carried out for four participants. Three participants were interviewed to explore how they felt the programme had impacted upon them.

Interviewed participants spoke of positive changes in terms of their emotions, thoughts and behaviour. There was evidence of positive changes in aspects of resilience, self-efficacy, subjective well-being and behaviour but no overall positive changes for any participant. Conclusions are limited due to the lack of stable baselines, the small number of participants in one school and the lack of a longitudinal follow-up. Therefore, more research is needed to further investigate the potential benefits of a preventative positive psychology programme.

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1.Chapter 1: Introduction

1.1 The current study

Enhancing the mental health and well-being of adolescents is a priority for the UK government and schools have an important role in providing support around mental health (Parkin, Long & Bate, 2017). Research regarding preventative interventions for well-being in schools is particularly important as there is currently limited evidence regarding these (Department of Health & Department for Education, 2017b).

The SEND Code of Practice (2015) highlights the importance of a graduated approach to supporting pupils, defined as the 'assess-plan-do-review' cycle. It is therefore important that needs are identified, strategies are put into place and the impact and effectiveness of these strategies are evaluated. Future In Mind (2015) found that there needed to be better links between schools and specialist services. EPs can therefore contribute to this, as psychologists linked to schools, by supporting schools to effectively evaluate approaches and interventions, to understand their true impact upon students. This is particularly important as although there is an emphasis on schools having a key role in supporting mental health, teachers are not typically mental health professionals and so require this level of additional support (Parkin, Long, Gheera & Bate, 2019).

The green paper regarding mental health (Department of Health & Department for Education, 2017b) has highlighted the need for Designated Senior Leads for Mental Health, within schools. Parkin, Long, Gheera & Bate (2019) state that schools decide on how they provide support regarding mental health. Therefore, EPs need to be able to provide advice regarding evidence based approaches which mental health leads can promote and use in school. The creation of this role, the emphasis on every child being taught about mental wellbeing and schools becoming 'mentally healthy' suggests the need for there to be a general awareness of mental health at a proactive, preventative level, rather than just a reactive level. The green paper (Department of Health & Department for Education 2017b) also emphasises the need for mental wellbeing to be part of health education, including talking about emotions, happiness, recognising early signs of mental wellbeing

problems and understanding the impact of different activities on mental health. This therefore fits well with the use of interventions such as those based in positive psychology which aim to build resilience and enhance wellbeing.

In addition to mental health being a governmental priority, the researcher became particularly interested in supporting adolescents regarding mental health through her work as an Assistant Psychologist. The researcher worked in an early intervention team, supporting students with mental health issues which did not meet the criteria for support from Child Adolescent Mental Health Services (CAMHS). Through her practitioner role, the researcher observed a lack of mental health support in schools coupled with a high demand for CAMHS. The researcher therefore realised the need for early intervention and prevention programmes aimed at enhancing mental health and well-being.

Positive psychology became of interest to the researcher during her time on placement, due to its focus on the positive and enhancing well-being, rather than the 'traditional deficit model'. The researcher was made aware of the Positive Approaches to Life programme (PAL – Notter & Jose, 2010), through a colleague who had previously delivered this programme in a secondary school to support the well-being of a group of adolescents. It was during this time on placement that the researcher also discovered the role of the local authority in supporting looked after children and how educational psychologists (EP's) can contribute.

This study therefore arose through the researcher's interests and professional experiences, whilst also being relevant to the UK government's priorities and the psychology service where the researcher was based.

The research focuses on the impact of 8 sessions taken from the PAL programme (Notter & Jose, 2010), on individual students' subjective well-being, resilience, self-efficacy and behaviour. Participants were students identified as being potentially at risk of future mental health difficulties, based on DfE (2016b) criteria, with a particular focus on including those looked after.

1.2 Summary of chapters

Chapter 2

The Literature review presents relevant research and theory.

Chapter 3

The Methodology section presents the study design and procedure, as well as issues of validity, reliability and ethics.

Chapter 4

The Results section contains visual analysis of the findings along with pre- and post- measures and outcomes of the post interviews.

Chapter 5

The Discussion presents key findings in relation the relevant literature. Limitations of the current study, future research opportunities and the relevance to educational psychology practice are highlighted.

2.Chapter 2: Literature review

2.1 Introduction

This chapter presents a review of literature relevant to this study. It begins by defining mental health and well-being and why this is an important area to focus on for young people. Risk factors for the development of mental health difficulties are discussed. The role of schools in supporting students with their mental health is highlighted, as well as the relevance to EPs.

Positive Psychology is introduced and its contribution to mental health and well-being discussed. Definitions of well-being are considered, followed by the factors which contribute to hedonic well-being; happiness, affect and life satisfaction. A link between well-being and behaviour is then presented, followed by research highlighting the importance of resilience and self-efficacy in well-being. Research around positive psychology in schools is then presented. This is followed by a systematic review of positive psychology interventions which have previously been used in schools. The rationale, research questions and hypotheses for the current study are then presented.

2.2 Mental health and well-being

Mental health is defined as: a state of well-being where a person is able to make a positive contribution, recognise their own abilities and cope with challenges (World Health Organization, 2001). It is therefore linked to psychological well-being, which is concerned with lives going well (Huppert, 2009). Huppert (2009, p1) states that well-being involves 'feeling good and functioning effectively'. High subjective well-being is argued to be an important component of good mental health. This is apparent in Keyes and Lopez's (2002) spectrum for mental health and well-being (The Complete State Model of Mental Health). Keyes (2003, as cited in Baumgardner & Crothers, 2009) argues that the absence of a mental health disorder does not necessarily mean a person has good mental health. Therefore, to fully understand a person's mental health and well-being, their positive functioning also needs to be considered and positive psychology can contribute to comprehending this (Baumgardner & Crothers, 2009). This supports the

Department of Health's (2012) emphasis on the need to enhance positive mental health, well-being and resilience, preventatively.

2.2.1 Mental health, well-being and young people

The current Prime Minister, Theresa May has described mental health as one of 'the greatest social challenges of our time' (Department for Education, 2017a). Thorley (2016) argues that there is a 'crisis' in terms of the mental health of children and young people in the United Kingdom. Statistics from various sources appear to show a rising number of children and young people have mental health difficulties, however there is a lack of recent prevalence data (Thorley, 2016). The most recent prevalence survey from the Office of National Statistics carried out in 2004 showed that around 510,000 young people aged 11-16 years had a mental disorder (Department of Health, 2012) but this number is felt to have increased in more recent years. In August 2017, it was estimated that one in ten children and young people had a diagnosable mental disorder, which the Department for Education stated was equivalent to three students per class (Department for Education, 2017a).

Korkodilos (2016) argues that changes need to be made to develop existing mental health services in England. Early intervention in particular is emphasised as important for young people to help prevent difficulties from progressing and to prevent the need for longer term interventions in adulthood (Korkodilos, 2016). This is also necessary because mental health difficulties in adolescence can lead to negative outcomes in adulthood (Thorley, 2016). Korkodilos (2016) states that there is a need for targeted, small group work to help children to develop their ability to problem-solve. In 2017, The Mental Health Foundation reported that 70% of children and young people who experienced difficulties with their mental health received insufficient interventions at an early age.

2.2.2 Risk factors

Children who are considered at risk of future mental health difficulties often have a reduced number of protective factors in place to support them (Public Health England, 2016). Early intervention is therefore required to build these protective factors in order to reduce crisis and the need for more intensive support later in life

(Public Health England, 2016). There are a variety of different factors which place children and young people at risk of developing mental health difficulties. These factors are within the child, the family, the school and/or the community (Korkodilos, 2016). The Department for Education (2016b) lists a range of criteria which places a child or young person at risk of developing mental health difficulties. One such criteria is being a Looked After Child. Looked After Children (LAC) are those children who are looked after by the local authority. In England, children are considered to be looked after as set out in the Children's Act (1989). Looked After Children are considered to have poorer mental health than their peers (Children, Schools and Families Committee, 2009). Statistics from Korkodilos (2016) state that 60% of children who are looked after also have 'some form of emotional or mental health illness'.

2.2.3 Mental health and well-being in schools

Thorley (2016) argues that schools are key to providing early intervention for students with mental health needs. In particular, Thorley (2016) argues that secondary schools have key roles to play in improving accessibility, addressing school related stressors, easing pressure on specialist services such as Children's Adolescent Mental Health Services (CAMHS) and developing in school cultures that value mental health and well-being. Thorley (2016) therefore argues that schools should be supported in developing their roles in providing support for the mental health needs of students. However, Thorley (2016) argues that in recent years, OFSTED have become more focused on academic outcomes, neglecting mental health and well-being. In a survey of Head teachers carried out by The Key (2015 - a support service for schools in the UK), the greatest health and safeguarding concern which arose, was that of mental health. Despite this, the government continues to produce guidelines for schools in terms of how they should be promoting mental health and well-being. For example, 'Mental health and behaviour in schools: Developmental advice for school staff' (DfE, 2016b).

Patalay, Gondek, Moltrecht, Giese, Curtin, Stankovic and Savka (2017) investigated the mental health provision in schools in 10 European countries, including the UK. Findings indicated that provision across these countries was

universal but there was more reactive support for those with identified difficulties, rather than preventative support to promote well-being.

Patton, Glover, Bond, Butler, Godfrey, Di Pietro and Bowes (1999) argue that schools are important places for mental health promotion because of the length of time young people spend at school. Patalay et al. (2017) supports this, arguing that providing mental health support for students in school, can also help to reduce the stigma that is associated with mental health difficulties. In addition, the Department for Education (2017a) argues that schools are an essential part of enhancing well-being and preventing the development of mental ill health. Weare and Nind (2011) also argue that schools can promote positive mental health, build students' resilience and enable them to thrive. It is important to promote well-being as good mental health helps children and young people to develop their resiliency to cope with life's events (Mental Health Foundation, 2017). However, many mental health and well-being programmes used in schools in England are reactive and not preventative in nature (Vostanis, Humphrey, Fitzgerald, Deighton & Wolpert, 2013).

Patalay et al. (2017) found that within the UK, the greatest focus appears to be on targeted/individual support, rather than universal approaches. Patalay et al's (2017) review showed that the greatest support available within UK schools for mental health was behaviour support, physical activity and creative activity. However, mindfulness, group therapy and mental health education were the types of support which were highlighted as least available within schools (Patalay et al., 2017). Research by Vostanis et al. (2013) indicates that more needs to be done to ensure that the approaches schools use are actually evidence based. Therefore, this indicates the important role of the psychologist in promoting suitable positive mental health and well-being programmes.

2.2.4 Role of the Educational Psychologist (EP)

EPs have a key role in supporting schools in terms of mental health and well-being (Andrews, 2017). EPs are able to support children, staff and parents, offering support in schools at an individual, group and whole school level (Andrews, 2017). Andrews (2017) interviewed a group of Special Educational Needs Co-ordinators

(SENCOs) and EPs and found that although EPs felt that promoting well-being was an underlying part of all of their work, the SENCOs were unaware of the contribution that the EP can make in this area. The SENCOs stated that they would value educational psychology support with therapeutic interventions. This therefore shows the need for EPs to be promoting this type of work in schools. Dowling (1994) states that mental health professionals are aware of the influence of two main systems – the family and the school, on the child, however EPs are uniquely positioned to consider the child within these various systems and therefore offer the most beneficial type of support. Additionally, EPs as scientist-practitioners have a role to play in measuring the impact and outcomes of preventative programmes (such as positive psychology programmes), in order to build an evidence base to be able to confidently recommend and promote the use of these approaches in schools (McGrath, 2010; Shute, 2012). The current study therefore fits within the role of the EP.

2.3 Positive psychology, well-being and mental health

2.3.1 An introduction to Positive psychology

Positive psychology focuses upon enhancing happiness and subjective well-being, and is therefore considered to be 'the science of what is needed for a good life' (Carr, 2004; Slade, 2010, p2). 'Positive Psychology' was originally developed by Seligman (1998; Moneta, 2014). Seligman and Csikzentmihalyi (2000) argued that there was a need to re-focus psychology on preventative approaches, such as building positive qualities and strengths. The emphasis is on moving away from reducing negative factors, towards enhancing human strengths, in order to help protect individuals against future difficulties in terms of mental health (Salami, 2010; Seligman & Csizentmihalyi, 2000).

Traditional psychological approaches are critiqued for being reactive and concerned with weakness, adversity and reparation (Seligman & Csizentmihalyi, 2000). However, in contrast, it has been argued that positive psychology does not oppose traditional psychology but rather it focuses on areas which were not previously studied, therefore expanding knowledge regarding human behaviour (Baumgardner & Crothers, 2009). Seligman and Csizentmihalyi (2000) argue that

positive psychology is a legitimate science which is rational and rigorous (McDonald & O'Callaghan 2008). However, critics of positive psychology argue that its claims that it has 'liberated' psychology are false as all it has provided is a prescriptive definition of what is positive (McDonald & Callaghan, 2008). Kristjansson (2013) also criticises positive psychology for failing to take into account the impact of social factors on individuals. Regardless of these arguments, there is a range of research which is continually expanding which shows that positive psychology is important in developing understanding of ways in which to improve life (Arthaud-Day, Rode, Mooney & Near, 2005; Singh & Jha, 2008).

2.3.2 Eudaimonia and psychological well-being

The eudaimonic view of psychological well-being argues that self-actualisation is the key to well-being (Moneta, 2014). This view states that well-being is not about pleasure and happiness, as this does not necessarily lead to enhanced wellbeing, but instead well-being is about seeking meaningful experiences and achieving one's own goals or true potential (Baumgardner & Crothers, 2009; Ryan & Deci, 2001; Waterman, 1993; Waterman, 2008). Eudaimonia arises when a person engages in activities which fit with their true values and sense of self (Baumgardner & Crothers, 2009; Ryan & Deci, 2001). Ryff and Keyes (1995) proposed 6 dimensions which contribute to psychological well-being, leading to the following eudaimonic definitional model of psychological well-being:

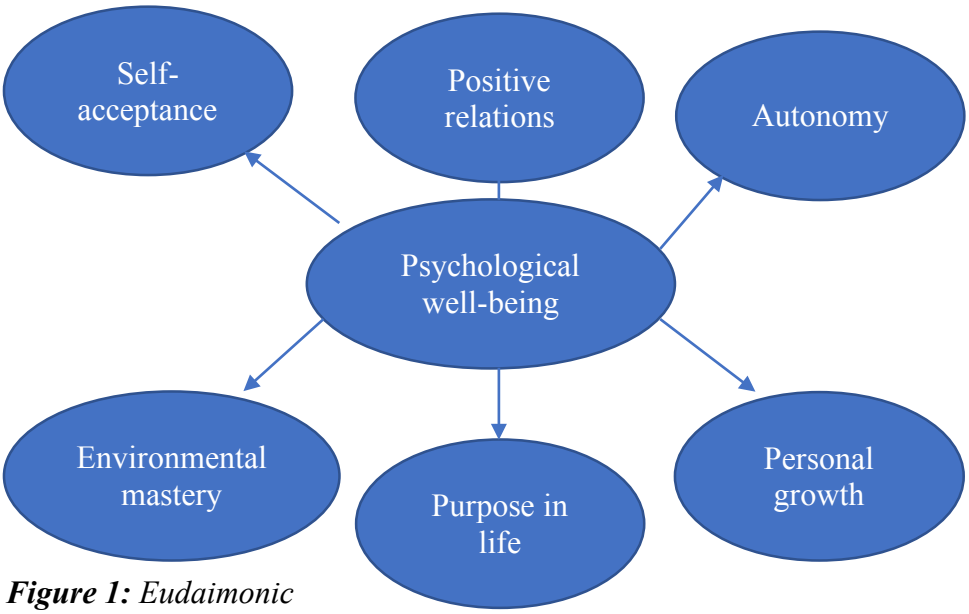


Figure 1: *Eudaimonic definition of psychological well-being (Ryff & Keyes, 1995).*

This model therefore argues that in order to develop one's psychological well-being, one or more of these six components needs to be enhanced (Moneta, 2014). This model is based in theory, particularly phenomenological and humanistic theories of personality (Moneta, 2014). It is however criticised for representing professional's views of well-being (Moneta, 2014).

2.3.3 Hedonia and subjective well-being

In contrast to the eudaimonic view of psychological well-being, subjective well-being refers to 'cognitive and affective evaluations' which a person makes about their own life (Diener, 2000). The focus is upon the individual's own thoughts and feelings about the worthwhileness of their life (Diener, 2000). This can be measured through 'the presence of positive affect and the absence of negative affect' (Deci & Ryan, 2008, p1). It is argued that hedonia arises through enjoyment of life and everyday satisfaction (Baumgardner & Crothers, 2009). Pleasure arises from a person's engagement in activities or events, which leads to a person getting what they want (Waterman, 2008).

Moneta (2014) presents a hedonic model of subjective well-being, as shown below:

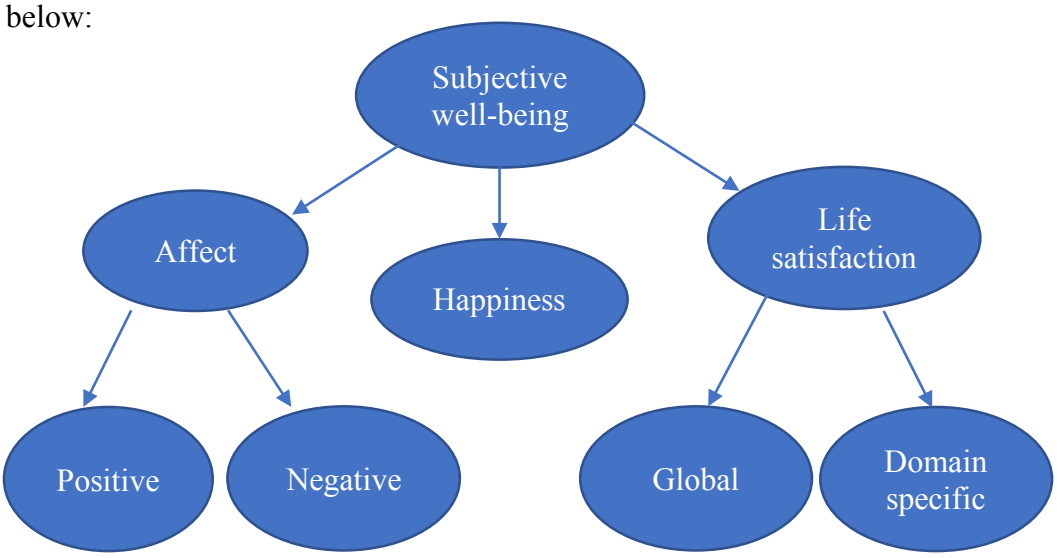


Figure 2: *Hedonic model of subjective well-being as presented by Moneta (2014)*

This model shows that subjective well-being is made up of three different aspects; affect, happiness and life satisfaction (Moneta, 2014). Singh and Jha (2008) provide support for these three aspects of well-being, stating that life satisfaction,

happiness and quality of life are all conceptually related. Moneta (2014) argues that changes for the better should therefore involve building upon these components of subjective well-being. Although this model has been critiqued for not being theory driven, like the eudaimonic approach, Diener, Sapyta and Sub (1998) argue that its representation of people's views of subjective well-being is actually a strength of the model (Moneta, 2014). Rijavec (2015) argues that studies such as that by Deci and Ryan (2008) have shown the importance of both perspectives of well-being, therefore suggesting that well-being is 'multidimensional', involving both views. Moneta (2014) argues that more research into both models of well-being needs to be conducted as these may not fully account for all aspects of well-being.

This study includes an investigation into the impact of a positive psychology programme on participant's hedonic well-being as the researcher considered the hedonic model to fit well with the positive psychology principles underpinning the programme. In addition, this builds upon Notter's (2013) research which found increases in students' happiness and satisfaction with life.

2.3.4 Happiness

Kristjansson (2013) states that happiness is at the core of positive psychology, whilst Seligman and Csikszentmihalyi (2000) argue that happiness is one trait that contributes to positive psychology. It is considered important to measure happiness as it promotes success and is associated with life benefits such as better health and work performance and positive relationships (Rijavec, 2015; Seligman & Csikszentmihalyi, 2000).

Research suggests that 50% of the variance in happiness is due to genetic factors, with individual differences arising through personality traits (Carr, 2004; Seligman, 2004;). Trait theories of personality argue that there are particular traits which are associated with happiness (extraversion, optimism, high self-esteem and internal locus of control) and therefore not everyone is able to achieve happiness (Carr, 2004). However, Myers (1992) argues that people should not be resigned to their current traits but rather should endeavour to stretch themselves. This is supported by Claxton (2008) who argues that happiness arises as a result of a

person striving to achieve something that is worthwhile and meaningful to them. Despite the link between happiness and genetic factors, research suggests that factors such as relationships, goal-directed activity and education can contribute towards the development of happiness (Carr, 2004).

Brickman and Campbell (1971, as cited in Diener, Lucas & Scollon, 2006) proposed the hedonic treadmill theory. This theory states that reactions to good and bad events are brief and quickly followed by a return to a state of neutrality (Diener, Lucas & Scollon, 2006). Therefore, suggesting that happiness and unhappiness are reactions linked to a person's circumstances. Brickman and Campbell (1971) propose that a person continues to pursue happiness but new goals are being continually created, therefore true happiness can never be met. This theory therefore suggests that attempts to increase happiness will never be successful (Diener, Lucas & Scollon, 2006). However, research has refuted the idea of people constantly being in a neutral state. Instead, evidence suggests that people do experience positive emotions and these are adaptive, (Diener, Lucas & Scollon, 2006). In addition, individuals will vary in how they react to events due to their previous expectations and values (Baumgardner & Crothers, 2009). It is important to therefore understand the individual variation in subjective happiness by gaining individual's points of views (Baumgardner & Crothers, 2009).

2.3.5 Affect

Positive affect refers to an individual's experience of positive emotions, negative affect refers to an individual's experience of negative emotions (Moneta, 2014; Singh & Jha, 2008). These are two distinct dimensions, as highlighted by Singh and Jha (2008), which are measured through individual's perceptions regarding their emotions (Moneta, 2014; Singh & Jha, 2008). Within positive psychology, it is argued that 'positive emotions promote subjective well-being' (Kristjansson, 2013, p181).

Measuring the impact of positive affect on well-being is important, as there continues to be more research around the impact of negative effects (Khramtsova, Sarrino, Gordeeva & Williams, 2007, as cited in Salami, 2010). Low positive affect has also been linked with many psychological disorders (Carr, 2004), whilst

negative affect has been linked with mental health disorders (Gill, Bos, Wit & Jonge, 2017). In contrast, Isen (2003, as cited in Salami, 2010) found a link between processes in college success and positive affect. However, those who experience greater early life difficulties such as those with insecure attachments have been found to be more prone to exhibiting limited or heightened negative affect, in contrast with securely attached individuals who are able to manage positive and negative emotions more successfully (Pan, Zhang, Liu, Guangming & Wang, 2016).

2.3.6 Satisfaction with life

Diener, Suh and Oishi (1997) state that subjective well-being arises through lack of negative affect and the presence of positive affect as well as the cognitive evaluations that a person makes about their life. Life satisfaction refers to this cognitive evaluation part of subjective well-being (Salami, 2010; Singh & Jha, 2008). Life satisfaction is therefore distinct from happiness as it is not an emotion but it is however linked to happiness, as people tend to think of their lives as satisfying when they feel happy (Myers, 1992). Suldo, Savage and Mercer (2014) implemented a 10-week positive psychology programme with a group of middle school students in the US and found significant increases in life satisfaction for the intervention group at post-testing compared to pre-testing.

2.3.7 Happiness, positive and negative affect and life satisfaction

There have been a variety of studies which have made links between happiness, positive and negative affect and life satisfaction. Singh and Jha (2008) found a significant correlation between Grit, Happiness, Positive Affect and Life Satisfaction. Extremera and Rey (2016) also found a significant association with life satisfaction and positive and negative affect. Research has found that happy students, who also showed a high satisfaction with life were actually more flexible and efficient in problem solving (Salami, 2010).

2.3.8 Well-being and behaviour

Baumgardner and Crothers (2009) state that people behave differently when they are in a positive mood compared to when they are feeling distressed. It is argued that positive affect improves positive behaviours, suggesting that optimal

functioning is achieved through positive emotions (Baumgardner & Crothers, 2009).

The broaden and build theory was developed by Fredrickson (1998, 2001). This theory is represented in the diagram below, taken from Hefferon and Boniwell (2011).

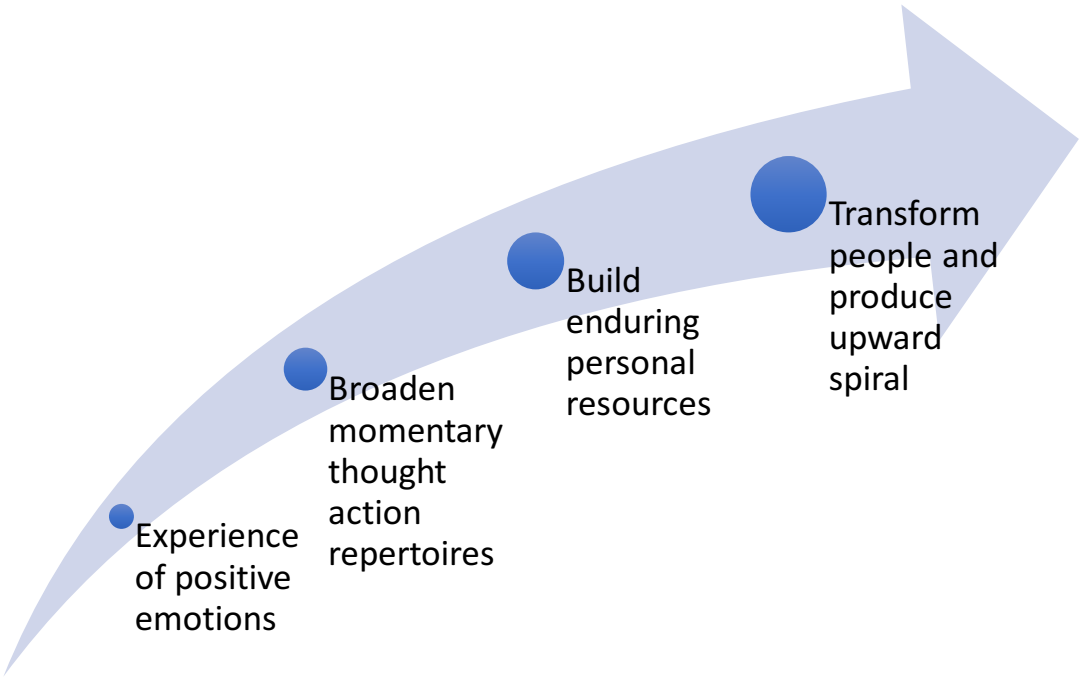


Figure 3: *Broaden and Build Theory as presented by Hefferon and Boniwell (2011)*

The broadening aspect of this model proposes that when a positive emotion is experienced, this leads to the 'opening up' of our mind which then broadens our thinking (Hefferon & Boniwell, 2011). The broaden hypothesis states that the scope of attention, cognition and action are broadened through positive emotions (Fredrickson, 1998). Fredrickson and Branigan (2005) carried out several experiments to test the broaden and build hypothesis. Findings indicated that those who experienced positive emotions showed broader scopes of attention than those who showed no particular emotions. There is also early research which suggests that the scope of attention is narrowed by negative emotional states (Easterbrook, 1959).

The building aspect of this theory states that experiences of positive emotions combined with the broadening effect enables personal resources to be built upon, including psychological resources (Fredrickson and Branigan, 2005; Hefferon & Boniwell, 2011).

Fredrickson and Branigan (2005) also argue that positive emotions produce an 'undoing effect', as they can help to undo 'lingering negative emotions' (Fredrickson, 2001). Specifically, positive emotions have been found to undo the cardiovascular reactivity that occurs within the body which is linked to negative emotions (Tugade & Fredrickson, 2004).

Positive well-being has also been linked to behaviour and attainment at school. Pupils who adopt a growth mind-set are able to persist with academic challenges, whilst competence in problem-solving has also been linked to better academic performance (Public Health England, 2014). Wagner and Ruch (2015) found a link between character strengths, positive classroom behaviour and academic achievement. Behaviour in the classroom is considered to impact upon educational outcomes (Wagner & Ruch, 2015) and so is an important area to focus on. Much research into the broaden and build theory has been carried out within classrooms (Kristjansson, 2013).

The researcher has included an investigation of the impact of a positive psychology programme on behaviour as an additional dimension within this study to understand if there are any observable changes which can be seen in participant's attention at school. This therefore moves away from the reliance on self-report measures.

2.3.9 Resilience

Resilience has an important role in enhancing emotional well-being (Public Mental Health, 2016). Baumgardner and Crothers (2009, p57) define resilience as the 'ability to bounce back and even thrive in the face of serious life challenges'. Tugade and Fredrickson (2004) link this with positive psychology, as they argue that 'positive emotionality' is a key part of psychological resilience. However,

Kristjansson (2012) argues that resiliency does not naturally fit within positive psychology as it is not focused on enhancing wellness.

Resilience does however link with emotions and Fredrickson's (1998, 2001) broaden and build theory. Tugade and Fredrickson (2004) argue that the broaden and build theory provides a framework for understanding resilience. Fredrickson (2001) argues that positive emotions contribute to enhancing psychological resiliency by increasing one's personal resources. Tugade and Fredrickson (2004) found that positive emotions contribute to psychological resilience. Those who were more resilient were found to make more positive appraisals about events, therefore generating positive emotions (Tugade & Fredrickson, 2004). Baumgardner and Crothers (2009) argue that research by Fredrickson (2001, 2002) shows that positive emotions lead to more flexible, creative and resilient responses to challenge.

Baumgardner and Crothers (2009) state that there has been much research which has shown a link between non-resilient children and an increased number of negative life events. This highlights the important of enhancing resiliency in young people, particularly those who have experienced troubling life events, making them more at risk of developing future difficulties. Kristjanssen (2012) argues that research indicates the importance of doing this preventatively, with research such as Seligman, Ernst, Gillham, Reivich and Linkins (2009) highlighting that educating young people in schools can help reduce the escalation of issues, such as the development of depression.

As resilience is one of the key aims of the positive psychology programme used within the study, the researcher wanted to investigate whether participants who received the programme showed any changes in this area.

2.3.10 Self-efficacy

The construct of self-efficacy was derived from Bandura's (1977) social cognitive theory (Gist & Mitchell, 1992) and involves positive self-appraisals (Moneta, 2014). The theory argues that a person's beliefs and expectations about their ability to engage in actions determines whether they attempt an action, therefore

influencing the choices a person makes and their behaviour (Lee, 1989). Self-efficacy beliefs therefore impact on a person's success, intrinsic interest and persistence when faced with failure (Lee, 1989). It is argued that self-efficacy therefore has a causal role in determining behaviour (Lee, 1989). Salami (2010) states that self-efficacy is a key component in 'enhancing students' learning, success and quality in education'. Many research studies have found a link between self-efficacy and higher education students' attitudes and academic performance (Salami, 2010). Many studies have also linked self-efficacy with behaviours (Salami, 2010). In a sample of 242 college students, Salami (2010) found that those with high generalised self-efficacy, subjective happiness and emotional intelligence had positive attitudes and motivation for academic activities. Salami (2010) found that those who had high self-efficacy, tended to view academic problems as opportunities for them to be successful and wanted to continually develop their skills to successfully tackle further problems. Salami (2010) argued that it is therefore important to develop student's awareness of their emotions, as well as their ability to manage their emotions, as this can help them to be motivated. Salami (2010) suggested that it is therefore necessary for interventions to be developed which can enhance self-efficacy and emotional intelligence, with psychologists having an important role in this. In addition, Salami (2010) indicated that positive psychology has an important part to play in proactively enhancing 'positive elements' in students.

Academic self-efficacy, social and emotional self-efficacy are all important when looking at self-efficacy in young adolescents and children. Raising students' academic self-efficacy is an important aspect of enhancing their well-being, as higher levels of academic self-efficacy have been linked with lower risks of developing internalising and hyperactivity/distractibility difficulties (Rocchino, Dever, Telesford & Fletcher, 2017). Therefore, it is proposed that high academic self-efficacy is an important resilience factor to develop in at risk students (Rocchino et al., 2017). Ludwig and Pittman (1999) found that high social self-efficacy was linked with a higher likelihood of a young person resisting engaging in risky behaviours.

Muris (2001) argues that Bandura's scale for measuring self-efficacy failed to consider emotional self-efficacy which is important when measuring 'affect' (Muris, 2001). Valois, Zullig and Revels (2017) found a significant association for some adolescent groups between reduced emotional self-efficacy and carrying a weapon and being injured or threatened with a weapon, in a sample of US high school students. This therefore indicates that there is a need to explore emotional self-efficacy in young people.

Self-efficacy was included in this study by the researcher to explore if participants felt more positive following the programme: if this then impacted upon their view of themselves in terms of their behaviour, emotions and academic achievements.

2.3.11 Positive psychology in schools

Morris (2009) argues that the purpose of education should focus on ensuring children are fulfilled and develop true happiness. It is argued that school is an important place for happiness to develop, as young people spend such large amounts of time at school and this is a key goal for people, therefore, schools should strive to promote and foster this (Talebzadeh & Samkan, 2011). It is particularly important for schools to ensure children are equipped with the necessary tools to help them to be happy, as there is such a high rate of depression in young people (Engel, 2015; Rijavec, 2015). Engel (2015) states that teaching students how to be happy can help them to achieve this in adulthood. Talebzadeh and Samkan (2011) argue that happiness is important in creating positive attitudes which can therefore lead to a higher academic achievement.

Morris (2009) argues that teaching happiness and well-being in schools is controversial, due to the narrow view of education as being for teaching skills and knowledge ready for work.

Engel (2015, p91) argues that as children progress through school, parents and children lose sight of the fact that school 'can teach the abilities that underlie a good life' and focus purely on their children developing the skills to access college or employment. It is also argued that creating a therapeutic ethos in schools is

actually demoralising for students and moves teachers towards becoming therapists (Ecclestone, 2004; Ecclestone & Hayes, 2009).

Schools are considered to be the best place for positive psychology programmes, as they are where children spend the vast majority of their time (Kristjansson, 2013; Seligman, Ernst, Gillham, Reivich & Linkins, 2009). Psychologists have a key role in supporting schools to develop the necessary skills to develop interventions and promote well-being (Peterson & Seligman, 2004). Parks and Biswas-Diener (2013, as cited in Shankland & Rosset, 2017) argue that positive psychology interventions are important because they promote well-being and enhance strengths, rather than focusing on weaknesses. Huebner and Hills (2011) argue that there is a place for positive psychology in schools, to enhance the quality of life of young people, however more research is needed to understand the impact. Shankland and Rosset (2017) argue that existing research into Positive Psychology interventions and whole school programmes has provided some evidence regarding the effectiveness of Positive Psychology in schools.

Watson, Emery, Bayliss, Boushel and McInnes (2012) state that positive psychology interventions can be viewed as being invasive into young people's emotional lives (Kristjanssen, 2013). However, Shankland and Rosset (2017) also argue that PPI's can be considered costly to schools, as they usually need to be led by a trained professional. They can also be difficult for schools to implement because they require such a high level of commitment (Shankland & Rosset, 2017).

2.4 Systematic literature review

2.4.1 Rationale and purpose of systematic reviews

Systematic reviews are useful in answering questions about 'what works' (Pettigrew & Roberts, 2006). Systematic reviews therefore help to identify existing research, so that areas for further research can be identified (Pettigrew & Roberts, 2006). In order to carry out a 'systematic' search, methods need to be clear and explicit, in order to answer a set question (Gough, Oliver & Thomas, 2012).

This systematic review follows the following stages as proposed by Gough (2007):

- Formulate review question and develop protocol
- Define studies to be considered
- Search for studies
- Screen studies
- Describe studies
- Appraise study quality and relevance
- Synthesise findings
- Communicate and engage

2.4.2 Formulation of review question

2.4.2.1 Rationale and purpose of this review

The purpose of this specific review is to identify and evaluate previous research which has been carried out to measure the impact of positive psychology programmes in schools.

2.2.2.2 Review question

How effective are positive psychology interventions used within schools to support students in terms of their well-being?

2.4.3 Definition of studies to be considered

2.4.3.1 Inclusion criteria

- Published and unpublished studies (to remove the potential of publication bias).
- Studies which include an intervention/programme which is based in positive psychology, where the role of positive psychology is explicitly identified and is clear within the outlined sessions.
- Studies which evaluate a school based, small group or whole class intervention.
- Studies where the intervention is delivered within the school setting.
- Studies which involve children and young people in Key Stage 2 and above (minimum age 8, maximum age 18).

- Studies which include pre- and post-measures.
- Studies where outcome measures focus on the impact of the programme on at least one aspect of well-being.
- Studies which have been carried out in any country.
- Studies which are randomised controlled trials, quasi-experimental designs or single group designs.
- Studies which were found as a result of the search methods listed below, using only four databases: ERIC, PsycInfo, Web of Science and Proquest Dissertation & Theses.

2.4.3.2 Exclusion criteria

- Studies which describe positive psychology and do not focus on a programme or intervention.
- Studies where positive psychology programmes have been used outside of the school.
- Studies which do not include pre- and post-measures of the impact of a positive psychology programme
- Studies which are carried out with children below age 8.
- Interventions where positive psychology is not a key feature or there is not enough information about the positive psychology content within the intervention.
- Studies which focus on the impact of positive psychology on a school as a whole.

2.4.4 Searching for studies – search methods used

To identify possible relevant papers, an electronic search of four databases took place.

ERIC, PsycInfo and Web of Science were searched to identify published studies. An additional search also took place for unpublished studies within one electronic database: Proquest Dissertations and Theses.

A range of search terms were used and combined, in order to generate the most relevant papers. Thesauruses and Boolean operators were used within the search.

The following five searches were therefore made in each of the databases and combined together using AND:

1. positive psychology OR positive ADJ psychology

2. intervention OR program*

3. wellbeing OR well-being OR well ADJ being OR resilience OR happiness OR self-efficacy OR self ADJ efficacy OR mental ADJ health

4. school* OR academ*

5. child* OR teen* OR young ADJ person OR youth OR adolescen*

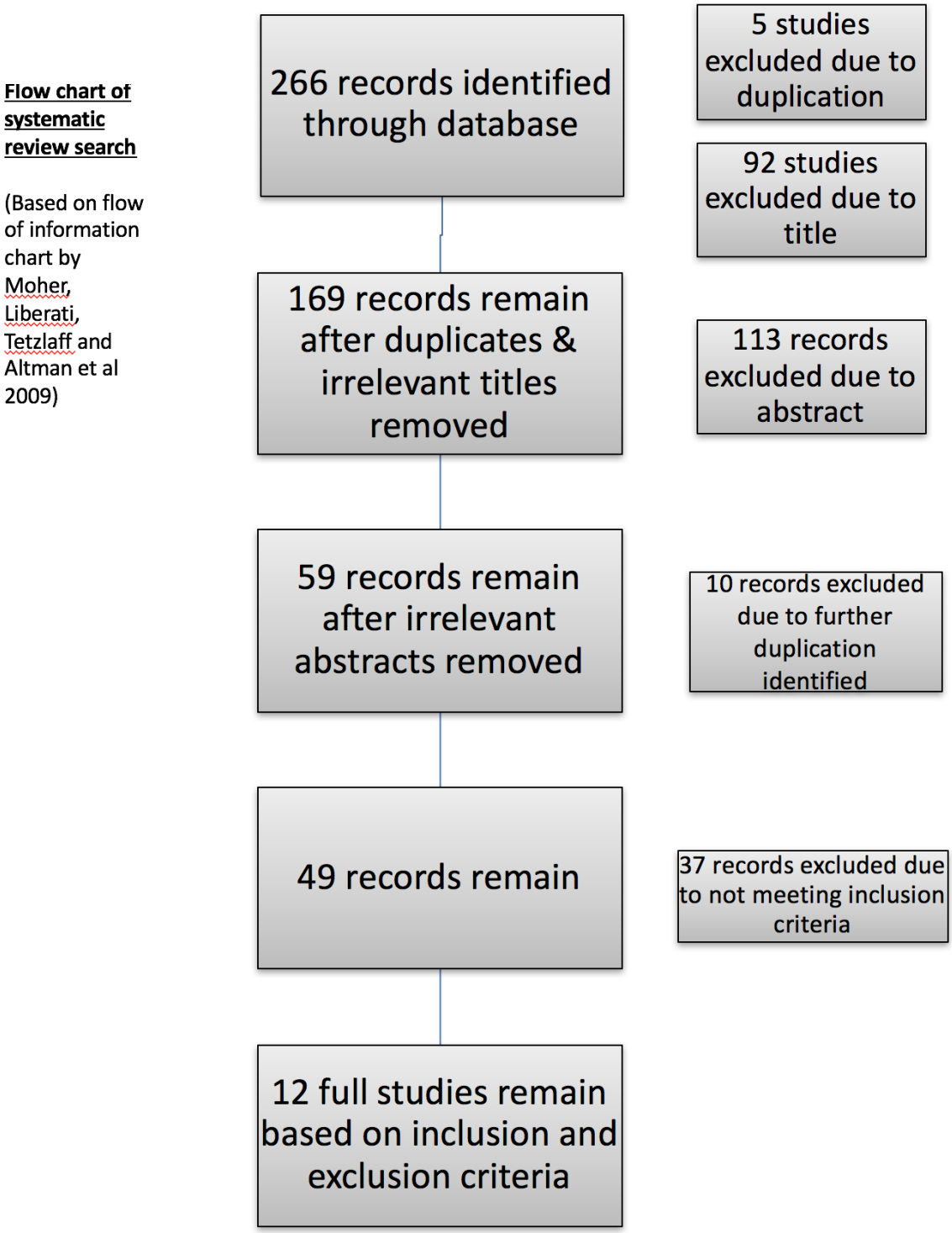
It was necessary to slightly alter the above search terms for searching within the Proquest Dissertation and Theses database. Appendix 1 outlines the search terms used and results generated from each database in more detail. Only studies generated from the search of these four databases were considered for inclusion in this systematic literature review.

2.4.5 Screening of studies

A search of these four databases using the search terms above generated a total of 266 articles. These articles were then screened, with duplicate articles and irrelevant titles excluded. Of the remaining studies, abstracts were screened according to the inclusion and exclusion criteria. Studies which did not meet the inclusion criteria/met at least one of the exclusion criteria were excluded. The full texts of the remaining studies were screened as above and studies were excluded according to the criteria. Studies where full texts could not be accessed and not enough information was provided in the abstract, to meet the inclusion criteria were also excluded. This left a total of 12 studies to be included in this review. The

process taken to screen the studies and results at each stage of the screening process are presented in the flow diagram below.

Figure 4: *Flow chart of systematic review search*



2.4.6 Description of studies

The table below provides a summary of the articles included within this review.

Authors & Date	Intervention	Location	Participants	Method/Design	Key findings
Burckhardt, Manicavasagar, Batterham, Miller, Talbot & Lum (2015)	6 week 'Biteback' online positive psychology program	Australia	572 students aged 12-18 (Grades 7-12) across 4 high schools	Cluster randomised controlled trial	No effects of the online positive psychology program compared to control condition.
Suldo, Savage & Mercer (2014)	10-week group wellness promotion intervention	Florida	55 students aged 10-12 (6^{th} grade) in 1 middle school	Randomised controlled trial, with targeted sample stratified by scores on Life Satisfaction Scale.	Increase in life satisfaction of students in the intervention group at post-testing.

Authors & Date	Intervention	Location	Participants	Method/Design	Key findings
Suldo, Hearon, Bander, McCullough, Garofano, Roth & Tan (2015)	11 session class wide positive psychology intervention	Florida	12 students aged 9-10 (4th grade) in 1 classroom in 1 school	Single group design	At the end of the intervention, children reported more frequent positive emotions, an increase in global life satisfaction and greater contentment. These findings were maintained at follow-up and there was also a reported increase in school satisfaction.
Hearon (2017)	13 sessions across 10-week positive psychology programme adapted from Suldo, Savage & Mercer (2014) Sessions and materials also included for parents and teachers	Florida	179 students aged 9-11 (Fourth & fifth grade) in 6 classes in 1 elementary school	Randomised controlled trial	At post-testing, there were no significant improvements in life satisfaction, positive or negative affect, classmate or teacher support, emotional or behavioural engagement compared to control group.
Shoshani & Steinmetz (2014)	15 sessions, delivered bi-weekly across 1 year Teachers & student workshops	Israel	1167 students (7th to 9th grade) from two middle schools	Matched pairs design	Self-esteem, self-efficacy & optimism were strengthened in the intervention group. There were significant decreases in distress, anxiety and depression in the intervention group.

Authors & Date	**Intervention**	**Location**	**Participants**	**Method/Design**	**Key findings**
Roth, Suldo & Ferron (2016) Abstract only	10 sessions delivered weekly, plus 2 follow up sessions 5-7 weeks later	Florida	42 students aged 11-13 (7th grade) in one large middle school Students and parents involved	Randomised controlled trial	Significant improvements found for life satisfaction, positive affect and negative affect at post-testing for those in the intervention group. Gains in positive affect were maintained at follow-up.
Proctor, Tsukayama, Wood, Maltby, Eades & Linley (2011)	24 Strengths Gym sessions (based on the 24 character strength) delivered during a 6 month period	England Channel Islands & Cheshire	319 students aged 12-14 (Year 8 & 9) in 2 secondary schools	Quasi-experimental Treatment-control condition design with a convenience sample	Students who took part in Strengths Gym showed increased life satisfaction in comparison to the control group at post-testing
Quinlan, Swain, Cameron & Vella-Brodrick (2015)	6 session Awesome Us strengths programme, delivered weekly	New Zealand	8-12 year olds in 9 classrooms in 1 intermediate & 5 primary schools	Quasi-experimental treatment-control design with a convenience sample	Children who received the intervention reported higher positive affect, classroom engagement and strengths use at post-testing. Higher class cohesion and lower class friction was also reported at post-testing by the intervention group, compared to the control group.

Authors & Date	Intervention	Location	Participants	Method/Design	Key findings
Froh, Sefick & Emmons (2008)	Daily for 2 weeks Based on gratitude	USA	221 middle school students, mean age 12.17 (grades 6 & 7) from 11 classes in 1 school	Cluster randomised control trial with 3 conditions	Enhancements in gratitude, optimism life satisfaction and decreased negative affect were all associated with the gratitude condition of counting blessings.
Madden, Green & Grant (2011)	Fortnightly coaching sessions across 2 school terms (6 months) Based on character strengths	Australia	38 male students aged 10-11(Year 5) from 1 independent private primary school	Mixed methods, single group design	Significant increases in reported feelings of engagement and hope, at post-testing for the intervention group.
Boniwell, Osin & Martinez (2016)	18 bi-weekly Personal Well-Being Lessons across one year, based in positive psychology	London	164 students aged 11-12 (Year 7) in 2 schools	Mixed methods, Non-randomised, repeated measures control group design with pre- and post-testing	Results showed that there was a decrease in satisfaction with self and friends, a decrease in positive affect and an increase in negative affect. These findings were not as strong in the intervention group, compared to the control group, suggesting the intervention had a 'buffering effect'.

Burckhardt, Manicavasagar, Batterham & Hadzi-Pavlovic (2016)	16 sessions across 3 months Positive Psychology & acceptance & commitment therapy (Strong Minds)	Sydney	267 high school students, aged 14-16 (Years 10 & 11) in 1 school	Cluster randomized control trial	Those in the intervention group with high pre-test symptom scores showed significant reductions in depression compared to controls. Results indicated increased well-being at post-testing for participants in Year 10, in the intervention group.

Table 1: A summary of studies included in this systematic review

2.4.7 Appraisal of study quality and relevance

2.4.7.1 Weight of Evidence Model

The Weight of Evidence Model (Gough, 2007) helps to identify the quality and relevance of evidence presented within each of the studies that have been included. Within this model there are three sets of judgements which are outlined – Weight of Evidence A, B and C (Gough, 2007). These judgements need to be made to lead to Weight of Evidence D, which is a final judgement in regards to the extent that the study contributes to the review (Gough, 2007).

The Weight of Evidence for this review are described below and in greater detail in Appendix 3.

Weight of Evidence A

Quality and trustworthiness are important. The studies need to be clear in what they are measuring (linked to well-being).

Weight of Evidence B

This is the appropriateness of the method. This review is interested in the impact of positive psychology interventions on aspects of wellbeing. Randomised controlled trials are highly valued methods in research, followed by quasi-experimental studies (Robson, 2011).

Weight of Evidence C

This is concerned with the relevance of the studies to the review question. It is important that the studies are focused on well-being and interventions are strongly based in positive psychology. Studies have been included in this review which involve multiple aspects of positive psychology or one aspect of positive psychology. Those including multiple aspects are considered to be most relevant as they involve broader positive psychology than those which only include a single aspect of positive psychology.

	Weight of Evidence A	Weight of Evidence B	Weight of Evidence C	Overall Weight of Evidence D
Burckhardt, Manicavasagar, Batterham, Miller, Talbot & Lum (2015)	High	High	Medium	High
Suldo, Savage & Mercer (2014)	Medium	High	High	High
Suldo, Hearon, Bander, McCulough, Garofano, Roth & Tan (2015)	Medium	Low	Medium	Medium
Hearon (2017)	Low	High	Medium	Medium
Shoshani & Steinmetz (2014)	Medium	High	Low	Medium
Roth, Suldo & Ferron (2016)	High	High	High	High
Proctor, Tsukayama, Wood, Maltby, Eades & Linley (2011)	High	Medium	Low	Medium
Quinlan, Swain, Cameron & Vella-Brodrick (2015)	Medium	Medium	Low	Medium
Froh, Sefick & Emmons (2008)	Medium	High	Low	Medium
Madden, Green & Grant (2011)	Medium	Low	Low	Medium
Boniwell, Osin & Martinez (2016)	High	Medium	High	Medium
Burckhardt, Manicavasagar, Batterham & Hadzi-Pavlovic (2016)	High	High	Medium	Medium

Table 2: Weight of Evidence Model applied to studies included in this systematic review

2.4.8 Synthesis of findings

2.4.8.1 General characteristics

Although there were no restrictions placed on the dates of the studies, all of the studies included within this review were carried out within a recent time frame, between 2008 and 2017. There are several researchers, such as Suldo and Burkhardt which are involved in more than one study. The studies were carried out in a wide range of countries, five in the USA (with four of these specifically in Florida), three in Australia, two in Great Britain, one in Israel and one in New Zealand. Within these twelve studies, there are also a variety of different types of schools included; religious schools, private schools, elementary schools, middle schools and high schools.

2.4.8.2 Participant selection

There are differences in how the schools and students were recruited to take part in the included studies. Several schools were recruited due to the staff at these schools. In Burckhardt, Manicavasgar, Batterham and Hadzi-Pavlovic (2016), the research group was approached by a member of school staff. Suldo et al. (2015) do not list how they recruited the school, however they state that the class teacher expressed an interest in an intervention for their students, which is why the specific class was chosen. The school within Hearon's (2017) research was recruited based on the fact that the staff at this school had shown an interest in well-being and the school's link psychologist also expressed an interest in implementing a programme within the school. In Roth, Suldo and Ferron's (2016) research, life satisfaction was a priority for the school involved.

Two schools considered the location of schools as part of their recruitment process. Within Burckhardt et al. (2015), 20 schools were initially selected because these were close to the research institute and non-governmental, the four schools who then expressed interest in the study were included. Shoshani and Steinmetz (2014) also initially selected 35 middle schools based on their geographical location, 7 of these schools were then excluded due to their religious nature.

Proctor et al. (2011) and Quinlan, Swain, Cameron and Vella-Brodrick (2015) chose to use a convenience sample within their research. Within three of the studies, specific schools were selected but little explanation was given as to why or how these choices were made. For example, Froh, Sefick and Emmons (2008) chose participants who were already part of a mandatory curriculum, Boniwell, Osin and Martinez (2016) selected schools who were part of the Haberdashers' Aske's Federation of Schools and Madden, Green and Grant (2011) selected a private primary school. Suldo, Savage and Mercer (2014) do not explain how the school in their study was initially recruited.

2.4.8.3 Participant details

Detail regarding the number of participants who took part in each study can be seen in Table 1. Quinlan, Swain, Cameron and Vella-Brodrick (2015) had the greatest number of schools taking part, with a total of 6 schools. However, Shoshani and Steinmetz (2014) had the largest number of participants, with 1167 students from two schools recruited to take part. Suldo et al's (2015) study involved the fewest number of participants, with 12 in total completing pre- and post- measures. The youngest participants were those in Quinlan, Swain, Cameron & Vella-Brodrick (2015), where ages ranged from 8-12. Burckhardt et al. (2015), included the biggest range of students in terms of age (12-18), as well as the oldest students. Most of the interventions were delivered to class groups of children, although there were some interventions, such as Suldo et al. (2015), where smaller groups were involved.

Within most of the studies, information is provided about the gender of the participants. Quinlan, Swain, Cameron and Vella-Brodrick (2015) had more male participants than female. Froh, Sefick and Emmons' (2008) study also had slightly more males, however there were 9.5% of participants who did not report their gender. Burckhardt, Manicavasgar, Batterham and Hadzi-Pavlovic (2016) had a higher number of male participants with the researchers indicating that this could be explained due to the school previously having only admitted boys, Suldo et al. (2015) included a high number of male participants (two thirds) whilst Madden, Green and Grant's (2011) research solely involved males. Suldo, Savage and Mercer's (2013) study contained slightly more females, as did Proctor et al's

(2011) study. Shoshani and Steinmetz (2014) involved around an equal number of males and females, as did Boniwell, Osin and Martinez (2016) and Roth, Suldo and Ferron (2016). Burckhardt et al. (2015) and Hearon (2017) both did not discuss the gender of their participants.

A small number of the studies also provided sessions for teachers and/or parents as part of the intervention. Hearon (2017) involved sessions and materials for parents and teachers, Shoshani and Steinmetz (2014) provided workshops for teachers and Roth, Suldo and Ferron (2016) also included parents.

2.4.8.4 Religion, ethnicity and socio-economic status

Proctor et al. (2011), Hearon (2017) and Boniwell, Osin and Martinez (2016) do not provide information regarding the ethnicity, religion or socioeconomic status of the participants. The school in Madden, Green and Grant's (2011) study was an independent private school but no more information was provided. In Burckhardt, Manicavasagar, Batterham and Hadzi-Pavlovic's (2016) study, a high proportion of the participants were from high socio-economic backgrounds, with the high school, described as being 'Episcopalian'. Burckhardt et al. (2015) did not describe the ethnicity, socioeconomic or religion of the individual participants, however the schools involved in the study were all religious (Anglican, Catholic and Jewish). Within Shoshani and Steinmetz's (2014) study, the majority of the participants were Jewish (although schools considered to be 'ultra orthodox' religious were excluded).

Suldo, Savage and Mercer's (2014) study included students from a range of socioeconomic backgrounds and a range of ethnicities. The participants in Suldo et al.'s study (2015) also included a range of ethnicities, however the majority of participants were from low socioeconomic backgrounds. Participants in Quinlan, Swain, Cameron and Vella-Brodrich's (2015) study were reported to be from mid to low socioeconomic backgrounds. There were also a range of ethnicities included, although most were identified as New Zealand European. Froh, Sefick and Emmons (2008) reported that 68.9% of participants in their study were Caucasian, with no information regarding socio-economic status. In Roth, Suldo

and Ferron (2016), a large proportion of the participants were white, with a small number from a low socioeconomic background.

This highlights that positive psychology interventions have been carried out with variety of different populations.

2.4.8.5 Study design

The majority of studies included in this review are either randomised control trials or quasi-experimental studies, as these designs are considered to be the best approach to finding out the effectiveness of an intervention (Robson, 2011).

Hearon (2017) and Roth, Suldo and Ferron (2016) are both randomised controlled trials. Three of the studies are cluster randomised controlled trials, as these were randomised by group, rather than at the individual level. These are: Burckhardt et al. (2015), Burckhardt, Manicavasgar, Batterham and Hadzi-Pavlovic (2016) and Froh, Sefick and Emmons (2008).

Shoshani and Steinmetz (2014) randomized a school to the intervention and another school was matched to act as the wait-list control, according to the socio-demographics and number of students.

Proctor et al. (2011) and Quinlan, Swain, Cameron and Vella-Brodrick (2015) used a quasi-experimental treatment-control condition design, both with a convenience sample. Boniwell, Osin and Martinez (2016) used student groups which already existed within the school for the control and intervention. Froh, Sefick and Emmons' (2008) study was the only one which had three conditions: intervention, comparison and control group.

Suldo et al (2015) and Madden, Green and Grant (2011) used a single group design, measuring the impact of the intervention on those students who took part in it. Madden, Green and Grant (2011) also gathered qualitative data in the form of teacher observations. Boniwell, Osin and Martinez (2016) were the only study to collect qualitative data regarding the students views and experience of the intervention.

2.4.8.6 Types of programmes/intervention

The following table summarises the aspects of positive psychology included in each of the interventions, as described by the authors of the studies, within the studies themselves.

Study	Type of intervention	Aspects of positive psychology
Burckhardt et al. (2015)	Biteback online program	9 domains: Gratitude, Mindfulness, Optimism, Flow, Meaning, Hope, Character Strengths, Healthy Lifestyle, Positive Relationships
Suldo, Savage & Mercer (2014)	Wellness promotion intervention	Gratitude, Acts of kindness, Character Strengths, Optimistic thinking, Hope
Suldo et al. (2015)	Class wide positive psychology intervention	Positive relationships, Character Strengths, Character, Kindness
Hearon (2017)	Positive psychology programme adapted from Suldo, Savage & Mercer (2014)	Positive relationships, gratitude, happiness, Character strengths, Acts of kindness
Shoshani and Steinmetz (2014)	Positive psychology sessions	Gratitude (plus other aspects not specifically listed)
Roth, Suldo & Ferron (2016)	Positive psychology sessions	Positive emotions, gratitude, Acts of kindness, Character strengths, Savouring, Optimism
Boniwell, Osin & Martinez (2016)	Personal Well-Being lessons	Happiness, Positive emotions, Hope, Flow, Positive relationships, Character strengths, Forgiveness, Kindness, Gratitude
Burckhardt, Manicavasagar, Batterham & Hadzi-Pavlovic (2016)	Positive psychology, acceptance & commitment therapy	Happiness, Kindness
Quinlan, Swain, Cameron & Vella-Brodrick (2015)	Awesome Us strengths programme	Character strengths
Proctor et al. (2011)	Strengths Gym	Character strengths
Madden, Green & Grant (2011)	Coaching sessions	Character strengths
Froh, Sefick and Emmons (2008)	Gratitude programme	Gratitude

Table 3: A summary of the aspects of positive psychology included in the interventions within each study

As shown in Table 3, eight of the interventions included a range of different aspects of positive psychology, based on their descriptions. These are; Burckhardt et al. (2015), Suldo, Savage and Mercer (2014), Suldo et al. (2015), Hearon (2017), Shoshani and Steinmetz (2014), Roth, Suldo and Ferron (2016), Boniwell, Osin and Martinez (2016) and Burckhardt, Manicavasagar, Batterham and Hadzi-Pavlovic (2016). The studies all varied in the number of sessions dedicated to different areas of positive psychology. Burckhardt, Manicavasagar, Batterham and Hadzi-Pavlovic (2016) has the fewest sessions related to positive psychology as the intervention combined positive psychology with acceptance and commitment therapy. Shoshani and Steinmetz (2014) only listed gratitude as one of the areas which was included in the intervention. Gratitude and character strengths can be seen as key areas which were covered by many of the different interventions. Flow was only incorporated into two programmes and savouring in one.

Table 3 shows four of the interventions focused on one specific area of positive psychology, as described by the authors. These were the character strengths interventions described within Quinlan, Swain, Cameron and Vella-Brodrick (2015), Proctor et al. (2011) and Madden, Green and Grant (2011) and the gratitude programme in Froh, Sefick and Emmons (2008). Three were therefore based on character strengths and one was based on gratitude. Quinlan, Swain, Cameron and Vella-Brodrick (2015) used the 'Awesome Us' strengths programme. This programme was developed by the researchers in collaboration with teachers and students. The programme involved participants identifying their activity strengths and then through this identifying their character strengths and learning how to use these. Proctor et al. (2011) used the Strengths Gym programme, which was also created specifically for the purposes of the study. In contrast to Quinlan, Swain, Cameron and Vella-Brodrick (2015), participants learnt about all of the 24 character strengths, as each session involved participants learning about a new character strength and then looking at these strengths in action and how to build on these and use these. As part of this, participants were asked to identify their own character strengths. Madden, Green and Grant (2011) used a coaching programme, the first part of which involved participants identifying their character strengths.

Froh, Sefick and Emmons (2008) were the only study which focused solely on gratitude, where students had to list things which they were grateful for. This was also the only programme which therefore did not involve a lot of input being provided about the topic, as participants did not need to have knowledge about gratitude itself to be able to complete this activity.

The interventions included in this review varied in the number of sessions, the length of sessions and the intensity of session delivery. Two weeks was the shortest time frame in which an intervention was implemented (Froh, Sefick & Emmons, 2008) and across one year was the longest time frame (Shoshani & Steinmetz, 2014). Each of the sessions varied from being 30 minutes long to 90 minutes long, as in Quinlan, Swain, Cameron and Vella-Brodrick (2015).

The interventions are also varied in terms of who they were facilitated by. Burckhardt et al (2015) was internet based. The programme within the research by Madden, Green and Grant (2011) was a coaching programme which was implemented by a teacher, who also had a coaching qualification.

In Suldo et al. (2015) and Quinlan, Swain, Cameron and Vella-Brodrick (2015), a researcher acted as the main facilitator but teachers were also involved in the implementation. Suldo et al's (2015) study also involved the school psychologist. Burkhardt, Manicavasagar, Batterham and Hadzi-Pavlovic (2016) involved a researcher and a clinical psychologist facilitating the intervention. Suldo, Savage and Mercer (2014) stated that six school psychologists (two of the researchers and four doctoral students) delivered the intervention. This was similar to Roth, Suldo and Ferron (2016), where a researcher led the sessions, with support from doctoral students.

In Boniwell, Osin and Martinez (2016), Froh, Sefick and Emmons (2008), Proctor et al. (2011) and Shoshani and Steinmetz (2014) teachers led the sessions, however the level of support provided to the teachers to be able to do this varied across these studies. In Shoshani and Steinmetz (2014), clinical psychologists trained the teachers during workshops which ran alongside the student sessions. In Proctor et

al. (2011) the teachers were only provided with the written materials needed for the sessions and no additional training.

Hearon's (2017) intervention involved sessions for parents and teachers, as well as the students, in the form of a psycho-education session for each of these groups for those involved in the intervention group. Roth, Suldo and Ferron (2016) similarly held a parent information session. Parents in Roth, Suldo and Ferron's (2016) study were also provided with detail about the topic of the group each week so that they could support their children at home.

2.4.8.7 Attrition bias

Some of the studies reported on the dropout rates experienced within their studies and this did appear to be a particular issue within many of the studies, where many participants were lost at post-testing or follow-up. It is important to consider attrition rates as bias can be introduced as a result of attrition, as the characteristics of those who remain in the study may differ from those who have left the study (Dumville, Torgerson & Hewitt, 2006). Therefore, a high level of attrition can reduce the reliability of the research and the research findings.

Quinlan, Swain, Cameron and Vella-Brodrick (2015) reported a high retention rate, with 95% of participants completing follow-up questionnaires. Froh, Sefick and Emmons (2008) was a short intervention, with pre, post and follow up and there were no drop outs reported. Madden, Green and Grant (2011) also did not report any drop outs. 179 participants took part in the initial pre-tests within Hearon's (2017) study and of these 179, all of these participants also completed post-test and follow up measures. These studies therefore do not raise concerns in terms of attrition rates.

Suldo, Savage and Mercer (2014) began with 67 participants but between pre-testing and follow-up, 12 students were lost to the study, for a variety of reasons. Suldo et al (2015) began the study with 15 participants but three chose to withdraw before the completion of the intervention. 12 participants included post-test data, with 9 providing follow up data.

Proctor et al. (2011) describe 487 surveys being administered to 319 participants, however at post–testing, 146 of these surveys were not completed. Proctor et al. (2011) reports that some of these were due to the teacher not giving these out and others because the students did not complete these, however the researchers were not provided with information about why there was this lack of completion. Boniwell, Osin and Martinez (2016) initially had 211 participants in the intervention group and 85 in the control group but due to absences and teacher negligence ended with 96 and 68. Shoshani and Steinmetz (2014) began with 578 students in the intervention group and 589 in the control group but only gained longitudinal data for 537 students and 501 students. They stated that this was due to absences, drop out or refusal to complete questionnaires. Burkhardt, Manicavasgar, Batterham and Hadzi-Pavlovic (2016) began with 267 participants at pre-testing and ended with 221 at post-intervention, although reasons for this attrition were not given.

Burckhardt et al. (2015) reported that 572 participants were initially included but only 338 completed the pre-measures. Two students and two schools dropped out of the study and 149 participants were lost to follow up. In addition, out of the 336 original participants, only 187 participants completed 5-6 workbooks, with the rest of the participants completing much less, therefore considered to be not fully engaged with the programme.

2.4.8.8 Measures

Across these studies, a variety of measures were used to gain an understanding of the effects of Positive Psychology programmes on aspects of well-being. A list of the measures used in each study can be found within Appendix 2. All of the studies included self-report measures and used pre- and post- measures. There were 8 studies which also included follow-up measures. These were: Suldo et al. (2015), Suldo, Savage & Mercer (2013), Hearon (2017), Shoshani and Steinmetz (2014), Quinlan, Swain, Cameron and Vella-Brodrick (2015), Froh, Sefick and Emmons (2008) and Roth, Suldo and Ferron (2016). Shoshani and Steinmetz (2014) were the only study which collected data at four time points. Froh, Sefick and Emmons (2008) also took well-being and prosocial measures daily between pre- and post-testing.

All of the studies used at least one standardised measures and most studies used entirely standardised measures, which helps make the findings from these studies more reliable. However, Froh, Sefick and Emmons (2008) used many scales which they adapted from a previous study.

The Student Life Satisfaction Scale (SLSS; Huebner, 1991b), a seven-item measure, with a six-point scale, was used in the majority of the studies (9 out of 12). High internal consistency of Cronbach's alpha .82 has been reported for this measure, as well as high test re-test reliability (r =.74).

The Positive and Negative Affect Scale for Children (PANAS-C; Laurent et al., 1999) or variations of this scale were used in many of the studies within this review. This scale measures frequency of experiences of positive and negative emotions through 27 items, on a five-point scale. High internal consistency has been reported for both positive and negative affect (Cronbach's Alpha .92 and 0.89).

Only a few studies used more specific measures. Proctor et al. (2011) and Shoshani and Steinmetz (2014) measured self-esteem using the Rosenberg Self-Esteem Scale. Shoshani and Steinmetz (2014) also focused specially on measuring self-efficacy using the General Self-Efficacy Scale, whilst Burckhardt et al. (2015) measured flourishing. Suldo, Savage and Mercer (2014) used a measure of behaviour.

Hearon (2017) used teacher and student self-report measures and measured engagement and student-teacher relationship.

2.4.8.9 Intervention results

The studies included in this review varied in terms of the specific positive psychology programme they used and the aspects of well-being which they measured. Overall, the findings from each of the studies provided mixed results as to the effectiveness of positive psychology programmes in schools.

Burckhardt et al's (2015) web based programme was delivered as part of the school curriculum. Burckhardt et al. (2015) found no significant effects of the programme on depression, anxiety, stress or life satisfaction, compared to a control group. Flourishing was the only area where a significant difference between the control group and the intervention group across the pre- and post-measures was found. However, the researchers felt that this could possibly be explained by regression to the mean. Therefore, the researchers concluded that the Bite Back programme did not improve the mental health of those who took part.

Hearon (2017) also found no significant differences in well-being measures for the intervention group at post-testing compared to the control group, with their 10-week programme delivered to classes of elementary students.

In terms of character strengths, Proctor et al. (2011) found that those who received the Strengths Gym intervention scored higher on self-esteem and positive affect at post-testing than the control group, whilst also scoring lower on negative affect. Proctor et al's (2011) results showed significant increases in life satisfaction for those in the intervention group, compared to those students in the control group. Quinlan, Swain, Cameron and Vella-Brodrick (2015) found that those in the intervention group scored significantly higher on measures of positive affect, and on measures of classroom engagement and class cohesion, as well as significantly lower on class friction, compared to the control group. However, there were no significant differences in negative affect or student life satisfaction across the two groups at follow-up. Therefore, mixed results were produced within this study.

The results from Madden, Green and Grant's (2011) strengths coaching programme showed significant increases in both measures of hope and engagement. Madden, Green and Grant (2011) report a large effect size (Cohen's d=2.70) for hope and a medium effect size (d=.98) for engagement. Positive feedback regarding this programme was also gained from the teacher-coach in this study. Froh, Sefick and Emmons (2008) gratitude programme led to increases in gratitude, optimism and life satisfaction and decreases in negative affect. Those who took part in the gratitude programme indicated significantly greater school

experience satisfaction than those in the control or hassles group, at post-testing and follow-up.

Suldo, Savage and Mercer (2014) found no significant differences for positive affect, negative affect, internalizing or externalizing between pre- and post-testing or across the intervention and control group. However, they report increases in life satisfaction for those in the intervention group, from pre-to post-testing. Brief feedback provided by the students who took part in the intervention was also positive. Suldo et al. (2015) also reported positive feedback from the participants in terms of their enjoyment of the intervention sessions. Suldo et al. (2015) found medium effect sizes (d=52, d=40) when comparing participant's pre-test scores with their post-test scores, finding significantly higher scores on measures of positive affect and satisfaction with self, as well as global life satisfaction, satisfaction with friends and satisfaction with living environment. There were no significant gains from post-testing to follow up in any measures of subjective well-being.

Roth, Suldo and Ferron (2016) also found that participants enjoyed taking part in the intervention. They found significant increases in life satisfaction, positive and negative affect as post-testing for those in the intervention group. At follow-up, the significant increases in positive affect were also maintained.

Shoshani and Steinmetz (2014) found significant increases in self-esteem, self-efficacy and optimism between pre-testing (time 1) and follow-up (time 4), in the intervention group, whilst significant decreases were reported in the control group for self-esteem and self-efficacy. However, there were no significant differences in life satisfaction across the two groups. Shoshani and Steinmetz (2014) also reported significant decreases in reports of distress, anxiety and depression.

Through interviews, Boniwell, Osin and Martinez (2016) found that participants developed their awareness of self and their awareness of others. Boniwell, Osin and Martinez (2016) found no significant effects of the intervention on life satisfaction. However, they conclude that the intervention helps to protect students from declines in well-being, which were evident in the control group at post-

testing. Specifically, they state that the programme protects from a decrease in positive affect, an increase in negative affect and a decrease in satisfaction with self and friends.

Burckhardt, Manicavasagar, Batterham and Hadzi-Pavlovic (2016) found significant reductions in scores for depression and stress in the intervention group, compared to the control group. Well-being increased for year 10 students in the intervention group at post-testing, however there were no significant differences across the two groups.

2.4.9 Limitations of this review

This review has considered many different Positive Psychology interventions and discussed these, although the interventions differ from each other. In addition, interventions delivered in a variety of different countries have been included. It is important that caution is therefore taken when considering the findings discussed due to the differences between educational systems, languages and cultures which exist across countries. In addition, this review has included unpublished research which has not therefore been peer reviewed. This review only involved searches of a small number of databases and does not include all possible Positive Psychology interventions. Mallet, Hagen-Zanker, Slater & Duvendack (2012) argue that despite the use of inclusion and exclusion criteria to ensure objectivity, subjectivity still exists within the screening process of articles.

2.4.10 Conclusions

This systematic review has highlighted the relevance of positive psychology in schools today. In terms of the question regarding how effective positive psychology interventions are in schools, there are mixed findings. Most studies did find the intervention to have some positive impact upon the students but this was not the case for all of the studies within this review. These varied findings therefore suggest that more research needs to be carried out within this area to find out more about the effectiveness of Positive Psychology interventions in schools, particularly in the UK.

2.5 Current research and rationale

As indicated in the systematic review, more research needs to be carried out to measure the effectiveness of Positive Psychology interventions. The research evidence appears to show that there have been limited studies in the UK. In addition, there have been no studies which have focused on measuring the impact of a positive psychology programme on young people potentially at-risk of developing future mental health difficulties based on the range of factors identified in this study, including being a looked after child. Most studies have tended to focus on general well-being, rather than more specific areas, such as exploring the potential impact on behaviour, which this study intends to do. Furthermore, the studies above have all focused on the impact of the programme at the group level. The following study intends to focus on the personal experience of the individual and measure the effects of the programme for each individual.

The following research was developed from the Positive Approaches to Life (PAL) programme which was a Positive Psychology intervention originally used in New Zealand and previously adapted for use within the UK within the local authority where the researcher is currently based. Notter (2013) found decreases in ratings of depression and significant increases in wellbeing, gratitude, satisfaction with life, happiness and resilience in those that participated in the PAL intervention which were greater than those who took part in a CBT programme.

The purpose of this study is to explore the impact of a positive psychology programme on secondary school students, primarily in terms of their well-being, whilst also exploring the impact on behaviour. This was carried out as not only does more need to be done to enhance the well-being of young people, schools need to develop their understanding of how this can be done and EPs need to be supporting schools with this. There needs to be more research into the use of positive psychology programmes in the UK, particularly as there is little research which has looked at the impact of a programme which combines various aspects of positive psychology and which focuses on students potentially at risk (Notter, 2013).

The aim of this study is to establish an understanding of the impact of a positive psychology on an individual, to understand whether positive psychology can successfully contribute to enhancing well-being and behaviour. This study has a unique contribution to the evidence base due to its focus on the individual. The view is that the findings of this study can then add to the existing literature around how young people can be supported preventatively in terms of their well-being, within a school setting, a clear priority highlighted by the UK government. Findings of this study will also be useful to practising EPs in terms of possible recommendations for schools.

2.6 Research questions

Research question 1

Does the positive psychology programme delivered within a school setting have a positive impact on young people's self-report of their own perceived subjective well-being?

Hypothesis

The positive psychology programme will increase participants' ratings of their own perceived subjective well-being.

Null hypothesis

There will be no change in participants' ratings of their own perceived subjective wellbeing following their participation in the positive psychology programme.

Research question 2

Does the positive psychology programme positively impact on the behaviours of young people when measured through classroom observations and questionnaires?

Hypothesis

The positive psychology programme will lead to an increase in on-task behaviours observed for each participant and a decrease in perceived difficulties.

Null hypothesis

There will be no change in the observed on-task behaviours or ratings of the participants' difficulties following participation in the positive psychology programme.

Research question 3

Does the positive psychology programme have a positive impact on young people's ratings of perceived resilience, as measured through pre- and post-questionnaires?

Hypothesis

The positive psychology programme will increase participants' ratings of their perceived resilience at post-test compared to pre-test.

Null hypothesis

There will be no change in the participants' ratings of perceived resilience following participation in the positive psychology programme.

Research question 4

Does the positive psychology programme have a positive impact on young people's ratings of perceived self-efficacy, as measured through pre- and post-questionnaires?

Hypothesis

The positive psychology programme will increase participants' ratings of perceived self-efficacy at post-test compared to pre-test.

Null hypothesis

There will be no change in the participants' ratings of perceived self-efficacy following their participation in the positive psychology programme.

Research question 5

How do young people perceive the programme to have impacted upon them?

3.Chapter 3: Methodology

3.1 Introduction

This chapter explores the methodology used within this study. Theoretical paradigms are discussed and the paradigm on which this research is based, is highlighted. The reasons for the study design and the design itself are discussed with the criteria for participants and how participants were recruited. The intervention is presented, alongside the procedure for the research and the measures used. Ethical issues, as well as issues of reliability and validity are discussed.

3.2 Real world research

Real world research fits within the role of the EP because it focuses on relevant issues which affect people's lives (Robson, 2011). It is argued that EPs are ideally positioned to be able to investigate issues in education as they are uniquely trained in mental health, learning and education (Burden, 1997; Froese & Montgomery 2014). The application of science has become an important part of the EPs role, with EPs being defined as 'scientist-practitioners' (Hagstrom, Fry, Cramblet & Tanner, 2007). Froese and Montgomery (2014, p376) describe scientist-practitioners as:

'conducting, analysing and synthesising research, providing evidence-based practices in their own work and applying research results in effective and understandable ways'

Hagstrom, Fry, Cramblet and Tanner (2007) argue that a key question for EPs is whether theories, when applied to practice, actually work and are effective. This application of theory to practice can therefore be investigated through the scientist-practitioner approach. Froese and Montgomery (2014) argue that an important part of the profession is 'knowledge transfer', where research is actioned through meaningfully applying it in the real world. However, the role of EPs as scientist-practitioners is criticised for lack of consideration of the knowledge that the individual, as a professional, develops through their own practice (O'Gorman, 2001).

3.3 Evidence-based practice

Psychologists working in schools need to ensure that interventions which they promote are based in evidence (Kratochwill and Shernoff, 2004). Evidence-based practice provides information about which strategies are effective and which strategies are less effective (Barkham, Hardy & Mellor-Clark, 2010). Quick, small scale studies are considered useful as they provide practical, usable information and results (Neuman & McCormick, 1995). Such studies and practice helps EPs to know which strategies and interventions to promote. There does however need to be caution when interpreting findings from evidence-based practice. This is because no evidence of an intervention being effective is not the same as evidence of no effectiveness (Barkham, Hardy & Mellor-Clark, 2010).

3.4 Theoretical Paradigms and Philosophical Assumptions

3.4.1 Ontology

Ontology is concerned with the 'nature of reality' (Allison & Pomeroy, 2000, p92). Some believe that reality is socially constructed whilst others believe it is to be discovered (Allison & Pomeroy, 2000). Research within psychology therefore arises from and is influenced by these philosophical statements, as they determine what scientists consider as real. (Yanchar and Hill, 2003). This is an important consideration within research as assumptions about reality determine the type of research which arises and is undertaken (Yanchar & Hill, 2003).

3.4.2 Epistemology

Epistemology is concerned with 'the knower and the would be known' and the connection that exists between these (Mertens, 2007 p215). The focus is upon how one looks at, finds out about and gains knowledge about the world (Yanchar & Hill, 2003).

Within psychology there are a range of perspectives, theoretical and ontological viewpoints which can be adopted (Yanchar & Hill, 2003). This range is considered a strength of psychological research as there are a variety of positions from which an understanding of individuals can be gained (Yanchar & Hill, 2003). It is also

argued that having competing positions contributes to the progression of science (Yanchar & Hill, 2003). However, a contrasting argument is that having a variety of theoretical and philosophical bases therefore negatively impacts the clarity and coherence of research and understanding (Yanchar & Hill, 2003).

There are four main paradigms in psychological research: postpositive, constructivist, transformative and pragmatic, as described by Mertens (2015). A paradigm refers to 'a way of looking at the world' (Mertens, 2015 p8). A paradigm is important because it influences and determines the research questions and procedures, providing rules for the researcher to work within (Newby, 2014). This helps to determine the appropriate methodology for the research. Methodology is concerned with the approach – the research rules and tools to be used (Mertens, 2007; Newby, 2014;). The four paradigms, the ontology, epistemology and methodology within each of these are highlighted below.

3.4.2.1 Postpositivist

Post-positivism is based on the view that there is one reality (Allison & Pomeroy, 2000). It is argued that researchers have limitations, including their own perceptions, which means theories and hypotheses cannot fully be proven and so reality can only be known imperfectly (Allison & Pomeroy, 2000; Clark, 1998). Rigorous procedures are therefore needed to support researchers to be neutral and objective (Mertens, 2015). This means that quantitative methods which are systematic and involve hypotheses testing fit within this paradigm (Kaplan, 2015).

3.4.2.2 Constructivist

The constructivist paradigm is based within the view that 'reality is socially constructed' (Mertens, 2015 p16). It is argued that people construct reality in different ways, depending on their view of the word (Allison & Pomeroy, 2000). This approach assumes that multiple realities can be produced, making qualitative methods appropriate within this paradigm (Flick, 2015).

3.4.2.3 Transformative

The transformative paradigm is based on the view that realities are constructed and there are therefore believed to be multiple perceptions regarding reality (Mertens,

2007). It is argued that realities are influenced by social, political, cultural and economic values (Mertens, 2007). Issues of power differences are recognised and there is a focus on accessing the marginalised (Jackson et al., 2018). Mixed methods fit within this paradigm, allowing for measurement as well as an exploration of perspectives (Jackson et al., 2018).

3.4.2.4 Pragmatic

This approach states that there is one reality but each individual has a unique interpretation of reality (Mertens, 2015). The focus is on what works within a specific setting in the real world and developing practical solutions to existing problems (Fishman, 1991). Programmes are designed to address problems in the real world and these are evaluated in terms of their effectiveness (Mertens, 2015; Fishman, 1991). Mixed methods research is therefore appropriate within this paradigm (de Kock, 2015). Fishman (1991) highlights that a strength of this approach is its focus on human knowledge and decision making. Onwuegbuzie and Leech (2005) argue that pragmatic researchers are flexible, focusing on questions as they arise.

3.4.3 The current study

The current research fits within a pragmatic paradigm. This is appropriate as the research aims to investigate if a programme works in a certain setting. In addition, the research aims to explore the views of those involved in the programme as well as measuring the impact using a quantitative approach. A mixed methods approach is therefore appropriate in answering the proposed research questions.

3.5 Methodological considerations

Traditional approaches to research typically involve either qualitative or quantitative methods. Qualitative methods involve interpretations whilst quantitative methods test hypotheses and measure variables (Neuman, 2006). Onwuegbuzie and Leech (2005) argue that the traditional approach of research being either qualitative or quantitative is ‘counterproductive’ and does not help research in the social sciences to move forwards and progress.

A contrasting view to the traditional approach is therefore that research should draw on the strengths of both approaches (Onwuegbuzie & Leech, 2005). In arguing the importance of mixed methods research, Onwuegbuzie and Leech (2005), identify similarities between the two methods:

1. Use of observations
2. Use of similar techniques within the research, such as attempting to minimize biases and triangulating data.
3. Use of analytical techniques to draw meaning from data.
4. Use of data reduction techniques.

Neuman (2006, p151) describes research involving quantitative and qualitative approaches as being 'more comprehensive'. Although they are different, it is argued that they complement each other (Neuman, 2006; Onwuegbuzie & Leech, 2005). For example, qualitative data can be useful in understanding relationships which have emerged through quantitative data (Onwuegbuzie & Leech, 2005). Combining both qualitative and quantitative methods therefore helps explore the research at different levels (Onwuegbuzie & Leech, 2005).

However, mixed methods approaches are criticised as it is argued that combining the approaches reduces each of them (Mertens, 2015). Long (2015) argues that there is a lack of exploration regarding the validity of mixed methods research. In addition, it is argued that as quantitative and qualitative methods derive from different ontological and epistemological assumptions and paradigms they are therefore incompatible and so cannot be combined (Greene, Caracelli & Graham, 1989; Onwuegbuzie & Leech, 2005). Onwuegbuzie and Leech (2005) question whether the debate really matters as all research in the social sciences is an attempt to understand humans, regardless of the approach.

3.5.1 Quantitative approaches

3.5.1.1 Randomised control trials

Randomised control trials are often used as a way of assessing the effectiveness of an intervention at the group level (Robson, 2011). They are considered to be the 'gold standard' of experimental designs, particularly because the randomisation reduces the bias (Margison et al., 2000; Robson, 2011, p99) and comparisons can

be made between groups (Maric, de Haan, Hogendoorn, Wolters & Huizenga, 2015). However, Barlow, Nock and Hersen (2009) argue that the more random a sample is, the more individual characteristics become lost in the group. This makes it difficult to understand the specific impact of an intervention on each individual within a group (Barlow, Nock & Hersen, 2009). Reason and Morfidi (2001) offer support for this view, arguing that group designs fail to consider individual differences, including non-responders (Horner et al., 2005).

3.5.1.2 Single case experimental designs (SCEDs)

SCEDs were developed as an experimental methodology for studying changes within individuals (Barlow, Nock & Hersen, 2009). Reason and Morfidi (2001) attribute the purpose of SCEDs as being to measure the effectiveness of an intervention upon an individual. Inferences about the impact of an intervention can be made by comparing findings during different conditions for one subject (Kazdin, 2003). The approach was developed as a rigorous, reliable and systematic way to collect data at the individual level. (Horner et al., 2005; Robson, 2011, Matson, Turygin, Beighley & Matson, 2012). Maric, de Haan, Hogendoorn, Wolters and Huizenga (2015) state that several studies have shown that individual experiments can be useful in initial investigations into an intervention, before the need for an RCT arises. SCEDs are also considered valuable when working with heterogeneous populations (Maric, de Haan, Hogendoorn, Wolters & Huizenga, 2015). However, SCEDs can be considered complex and challenging in terms of the reliability of observational data, the need for a certain number of data points in each phase and contentions around the analysis of SCED data (Hser, Shen, Chou, Messer & Anglin, 2001; Smith, 2012).

3.5.1.3 Types of SCED

There are several SCED designs: A-B, A-B-A, A-B-A-B and multiple baseline designs, which can be across settings, across behaviours or across participants (Robson, 2011). Within a SCED a target behaviour is identified, measured at baseline and then continually measured during the intervention phase and any other subsequent phases (Kazdin, 2003).

The A-B-A design is the simplest reversal SCED design (Yaden, 1995). There is an initial baseline phase, an intervention phase and then a further baseline phase where the intervention is withdrawn. For the intervention to be viewed as successful, it is expected that there is an increase in the desired response during the intervention phase which is then seen to decrease when the intervention is withdrawn (Yaden, 1995). This design allows for inferences to be made regarding the impact of the intervention (Yaden, 1995). However, this design is considered to be unethical because it involves removing the intervention in order to assess its impact (Robson, 2011).

The A-B-A-B design alternates the baseline with the intervention condition (Behi & Nolan, 2018). The intervention is implemented, removed, implemented again and then removed. Results are analysed by looking at the differences between each of the phases, where an improvement should be seen during the times when the intervention is being implemented (Yaden, 1995). An A-B-A-B design is therefore considered more beneficial than a A-B-A design as the intervention is reintroduced (Gulliford, 2015).

These repeated designs are considered particularly beneficial as they control for extraneous variables and so researchers can be more certain that it is the intervention that has led to the change in responses (Yaden, 1995). However, these are problematic as once something is learned through the intervention this cannot necessarily be unlearned (Yaden, 1995).

Multiple baseline designs are considered more beneficial as these can involve several participants and so the data gathered can be analysed to see if the intervention works for each of these individuals (Horner et al., 2005; Pressley, Graham & Harris, 2006). In addition, this does not involve removing the intervention to measure the impact (Kucera & Axelrod, 1995). A baseline period occurs until it is stable and then the intervention is introduced (Kucera & Axelrod, 1995). Therefore, it is possible for baseline periods and intervention periods to be at different times for different pupils. However, with this design it is essential that the dependent variables do not co-vary but rather that they are independent from each other (Kucera & Axelrod, 1995).

The A-B design is the most simplistic of all the SCED designs (Tervo, Estrem, Bryson-Brockman & Symons, 2003). There is a baseline phase followed by an intervention phase and repeated measures are taken across both phases (Barlow, Nock & Hersen, 2009). With caution, conclusions about the impact of an intervention can therefore be made based on the changes identified across the two phases (Barlow, Nock & Hersen, 2009).

The AB SCED design is simple and widely used because of its practicality and feasibility (Barlow, Nock & Hersen, 2009; Michiels & Onghena, 2018). However, it is questionable because of its lack of internal validity and particularly its control over extraneous variables (Michiels & Onghena, 2018; Tervo, Estrem, Bryson-Brockman & Symons, 2003). Therefore, it is argued that A-B designs are not adequate enough to conclude if a treatment has been effective or not (Manolov, Gast, Perdices & Evans, 2014). This is because it does not account for changes which may have been influenced by external events in a person's life, rather than the intervention itself (Barlow, Nock & Hersen, 2009). The use of this specific design therefore raises great concern regarding the external validity of findings and establishing causality (Robson, 2011; Tervo, Estrem, Bryson-Brockman & Symons, 2003).

3.5.1.4 Current study

A SCED is considered suitable to investigate the outcomes of interventions (Smith, 2012) and therefore is appropriate to use in the current study to investigate the positive psychology programme. A SCED is appropriate as it aims to explore any meaningful changes that arise in the dependent variables (subjective well-being, resilience, self-efficacy and behaviour) as a result of the introduction of the independent variable (the programme). In addition, a SCED allows for the exploration of within-person change, a key aspect of this current research. A case study would not offer the same robust measurement of the impact of the intervention. Furthermore, a group design was considered unsuitable for the current study as the participants do not form a homogeneous group. A group design was also rejected due to the research focus upon thoughts and feelings which are unique to individuals. A SCED allows for the repeated measurement of

data over time, which fits well with the exploration of the impact of the programme on participants' well-being and behaviour over time. A group pre- and post- design would not provide this same level of detailed weekly data.

As explained above, this study is based within a pragmatic paradigm and uses mixed methods. The quantitative aspect is the main part of this study and uses a single case design. More specifically, an AB single case experimental design has been adopted for this research. Although the AB model does have drawbacks, other designs were not viewed by the researcher as being appropriate for this study. A multiple baseline design was not possible as the intervention is a group intervention and therefore required the participants to take part in the intervention at the same time. Part of the aims of the intervention was to provide the participants with strategies that they could use to access positive emotions in the future. Therefore, it was not possible to use a reversal design as once the content was learned by the participants it could not be unlearned and so there could be no return to baseline following the completion of the intervention.

The AB design in this study consisted of a baseline phase of three to four weeks where there was no intervention introduced. This was followed by an intervention phase consisting of 8 weeks, where the positive psychology programme was delivered once a week. Data was gathered from repeated measures across the two phases to explore changes, in order to be able to draw some conclusions about the impact of the positive psychology programme upon the participants. Barlow, Nock and Hersen (2009) argue that a follow-up assessment can improve an AB design. However, this was not possible due to the time constraints placed upon the researcher in the current study.

3.5.2 Qualitative approaches

In addition to the quantitative aspect of this design, a qualitative aspect has also been used in the form of semi-structured interviews to extend the information gathered about the impact of this programme on young people. The qualitative data aimed to explore the views of each individual regarding the impact of the programme.

Qualitative methods are advantageous in exploring meanings presented by people (Braun & Clarke, 2013). Qualitative methods open up knowledge and understanding, allowing for a deeper exploration of people's experiences, which may not otherwise arise through quantitative data (Braun & Clarke, 2013).

3.5.2.1 Focus groups

Focus groups are one approach to gathering more detailed information regarding participant's views. The interaction of participants is important within focus groups; however, the interaction is also criticised for tendency to conform and the possibility of the development of group norms (King & Horrocks, 2010). Within the focus group, some may feel more confident with sharing their views, whilst others may be more reluctant to share their views in a whole group situation (King & Horrocks, 2010). Focus groups are considered useful in understanding wider processes and frameworks (King & Horrocks, 2010).

3.5.2.2 Interviews

One to one interviews are advantageous as they are considered to be quick ways of gathering detailed information (Marshall & Rossman, 2006). In depth information can be gathered from individuals and follow-ups and clarification are possible (Marshall and Rossman, 2006). Personal interaction and cooperation between interviewer and interviewee are important factors in interviews to ensure interviewees feel comfortable to share with the interviewer (Marshall & Rossman, 2006).

As the researcher was familiar with the participants through the intervention, it was felt that an individual interview would therefore be the most appropriate way in which to collect the qualitative data. The use of an interview would allow each participant to share their views in detail, removing the tendency to conform, which can occur within focus groups. In addition, the researcher wanted to explore each individual participant's view in detail, something which the researcher felt could not be gained in the same comprehensive way through a focus group.

3.6 Unique contribution

This research is intended to add to existing research which has used group designs to explore the impact of positive psychology programmes. By employing a single case experimental design, individual responses to the intervention can be monitored. Prior research regarding this specific programme has focused at the group level. In addition, this research explores the impact of the programme with a population in a school within the UK and with those who are considered potentially vulnerable to future difficulties, including LAC. This is important, as the local government has a responsibility for LAC and LAC are considered to be potentially vulnerable to future mental health difficulties. In addition, there is currently limited evidence regarding preventative interventions, such as positive psychology programmes in schools (Department of Health & Department for Education, 2017b) and so there is a need to monitor outcomes in order to ensure the most effective support is provided regarding mental health in schools (Department of Health & Department for Education, 2017b). Positive psychology approaches fit well with the role of the EP and the continued emphasis on schools to promote well-being (Noble & McGrath, 2008). However, educational psychology practice can often focus on deficits and reactive approaches despite enhancing competence and building capacity being key aspects of the EP role (Noble & McGrath, 2008). It is therefore necessary for continued research to be carried out regarding preventative work and EP practice (Noble & McGrath, 2008).

3.7 Relevant stakeholders

The stakeholders in this this study are:

- The University of Nottingham
- The Trainee Educational Psychologist, as the researcher.
- The Educational Psychology Service where the trainee is currently on placement.
- The Head teacher and teachers at the school
- The Virtual School Team

3.8 The intervention

The Positive Approaches to Life Programme is a positive psychology programme originally consisting of twelve hourly sessions. It was developed by Notter & Jose (2010) with the aim of enhancing positive affect, whilst also increasing well-being and resilience and preventing the potential development of depression. The programme is based within positive psychology and covers a variety of themes (Appendix 4).

Notter's (2013) research aimed to contrast the impact of a programme focused on reducing negative affect compared to a programme based on enhancing positive affect. Notter (2013) selected to use a Cognitive Behavioural Therapy (CBT) based programme, the Kiwi ACE and developed the PAL programme based in positive psychology, as a comparison. The Kiwi ACE programme (Woods, 2008) is an adapted version of the ACE programme (Wignall, Gibson, Bateman and Rape, 1998). The Kiwi ACE sessions were as follows:
Session 1: Introduction – Stress and My Body
Sesison 2: Thinking and Feeling
Session 3: Thoughts aren't Facts
Session 4: Detecting Evidence
Session 5: Problem-solving
Session 6: Thinking Errors and Changing Unhelpful Habits
Session 7: Social Skills
Session 8: Assertiveness
Session 9: Negotiation and Compromise
Session 10: Deep down Beliefs & Self-esteem
Session 11: Review of Kiwi ACE
Session 12: Survey and Review

The PAL programme was developed based on the same structure as the Kiwi ACE but CBT techniques were changed to positive psychology approaches. Three sessions from Kiwi ACE which did not involve CBT were also included in the positive psychology programme: problem solving, assertiveness and negotiation

and compromise. The PAL sessions were designed to be as comparable to Kiwi ACE as possible, in terms of the format and process.
The aim of PAL was to increase well-being and decrease depression through positive psychology.
The PAL sessions covered a variety of themes as follows:
Session 1: Introduction – Variety of Emotions
Session 2: Practising Gratitude
Session 3: Identifying strengths
Session 4: Enjoying Life
Session 5: Problem-solving
Session 6: Habits and Goal Setting
Session 7: Building Relationships
Session 8: Assertiveness
Session 9: Negotiation and Compromise
Session 10: Liking who I am
Session 11: Review of PAL
Session 12: Survey and Review

Nine schools were involved in the research in New Zealand. Kiwi ACE was delivered to 27 students (in 4 schools) and PAL to 38 students (in 4 schools), with a control group of 69 students. The programmes were delivered weekly, on a small group basis (approximately 10) by school counsellors and clinical psychologists who were experienced in using CBT and were trained by the researcher in terms of positive psychology and the PAL programme.

Notter (2013) found that one year after participants took part in either programme there were increases in wellbeing and decreases in depressive symptoms. However, Notter's (2013) findings also showed that there were stronger effects on gratitude, satisfaction with life, happiness and resilience following participation in the PAL programme compared to the Kiwi ACE. Notter (2013) concluded that focusing on positive emotions was as effective as CBT strategies in preventing depression and was more effective in increasing positive outcomes, such as resilience. Notter (2013) argued that more research is needed around building positives and supporting those at risk of psychological difficulties in the future.

3.8.1 Adaptations to materials

The PAL programme was previously used by the EP service where the researcher was based and so the booklets had been adapted for use with a UK population. Each of the PAL sessions are outlined in a facilitators manual, with a similar format for every session; a review, a game/activity, an introduction to new content, group activities (including use of the participant handbook) and discussion of ways to practice skills.

The researcher wanted to remain close to the original development of the programme and so aimed to make few changes to the content and materials which were initially developed. However, some of the initial eleven sessions did not fit within the true theoretical underpinnings of positive psychology and so it was decided to remove these sessions from the programme. For this reason, three sessions were therefore removed: problem-solving, assertiveness and negotiation and compromise. These changes were also agreed by the Specialist Senior Educational Psychologist who had previously run the programme. The remaining eight sessions were therefore delivered to the participants as the positive psychology intervention. These eight sessions were as follows:

1. Introduction – variety of emotions.
2. Practicing gratitude
3. Identifying strengths
4. Savouring
5. Flow
6. Acts of kindness
7. Liking who I am
8. Positive coping and review

Appendix 5 lists the aims and overview of the sessions. *

The following table provides an outline of the delivery of the intervention.

*An example session can be found on the attached CD.

An outline of the delivery of the intervention

Week	Date	Title	Content & sequence	Delivered by	Roles
Week 1	27/04/18	Introduction – Variety of emotions	1. Introduction of the programme 2. Rapport building activity 3. Group rules 4. Problem situations and happy situations 5. Our bodies and emotions 6. Feeling-meter 7. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher & Assistant Psychologist (AP) introduced themselves and took part in the rapport building. Both researcher & AP were involved in discussions and activities with the participants.
Week 2	04/05/18	Practicing Gratitude	1. Review of week 1 and the practice activity 2. Pictures of gratitude 3. What is gratitude? 4. Things we are grateful for 5. Expressions of gratitude 6. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP – spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher – introduced concept of gratitude. Researcher & AP took part in discussions around gratitude with the participants.

Week 3	11/05/18	Identifying strengths	1. Review of week 2 and the practice activity 2. Favourite characters 3. Introduction to character strengths 4. Character strengths questionnaire 5. Identifying and using our strengths 6. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP– spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher & AP took part in discussion around favourite characters. AP supported students to complete character strengths questionnaire Researcher – led reflections on findings of questionnaire. AP & researcher supported students regarding ways in which they could use their strengths.
Week 4	18/05/18	Savouring	1. Review of week 3 and the practice activity 2. Savouring using our senses 3. How to savour the past, present and future 4. Planning time for savouring 5. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP– spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher introduced savouring. AP gave out materials for participants to try to experience savouring. Researcher introduced savouring past, present & future. Researcher & AP supported discussions around savouring and completion of activity.

Week 5	25/05/18	Flow	1. Review of week 4 and the practice activity 2. Experiencing flow through a game 3. Understanding flow through discussion 4. Creating a flow record 5. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP– spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher introduced concept of flow. AP – explained flow game Both AP & researcher took part in flow game. Researcher led discussion around flow supported by AP.
Week 6	08/06/18	Acts of Kindness	1. Review of week 5 and the practice activity 2. Giving compliments game 3. Discussion about acts of kindness 4. Identifying acts of kindness 5. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP– spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher & AP involved in compliments game. Researcher introduced acts of kindness. AP supported participants regarding developing and sharing their ideas.

Week 7	15/06/18	Liking who I am	1. Review of week 6 and the practice activity 2. Praising ourselves 3. Understanding self-esteem 4. Ways in which our self-esteem can be robbed/boosted 5. Liking ourselves 6. Introduction of weekly practice activity	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP– spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher – introduced self-esteem and led discussion, AP supported participants.
Week 8	22/06/18	Positive Coping Skills and review	1. Review of week 7 and the practice activity 2. Review of key concepts learnt throughout the programme 3. Consideration of how knowledge and content learnt can be used and applied in everyday life and when faced with difficulties. 4. Reflection on what has been learnt	Researcher Assistant Psychologist	Researcher – recapped on previous week. AP – spoke with individual participants, supporting them to reflect on previous week and the practice activity. Researcher led discussion regarding key concepts and learning from the programme and application of learning. AP supported students with discussion and collated ideas onto paper.
Prior to each session, the researcher and the AP met together to discuss the activities within the next session, plan and prepare any materials required for the session. Throughout the delivery of the intervention, the Teaching Assistant was present in the room, observing the session to be able to understand the intervention and support the participants in between sessions.					

Table 4: An outline of the delivery of the intervention

Immediately after each session, the facilitators completed session checklists for adherence to that sessions content. In addition, observations of 20% of the sessions were carried out by a Senior Educational Psychologist who was familiar with the programme, to provide inter-rater data regarding the programme delivery (Appendix 6).

3.9 Quantitative data collection

3.9.1 Independent & dependent variables

The quantitative aspect of this study is interested in answering the first four research questions.

The independent variable is: The positive psychology programme which aims to enhance well-being and resilience.

The dependent variables are:

- Behaviour measured through weekly on and off-task classroom observations and pre- and post- SDQ measures.
- Subjective-well being measured through weekly positive and negative affect questionnaires and pre- and post-measures of subjective happiness and life satisfaction.
- Self-efficacy measured through pre- and post-measures.
- Resilience measured through pre- and post-measures.

3.9.2 Participants and recruitment

In order to find one school to participate in this study, it was necessary for the researcher to approach schools who met the following criteria:

- Secondary School within the city.
- At least one child looked after by the local authority in Year 8 or 9 currently attending the school.

3.9.3 Rationale for including looked after children

The interest in looked after children being included within the group arose from the psychology service where the researcher was working. The Specialist Senior Educational Psychologist for Looked After Children had run the programme before

and was keen to use the programme with LAC as she felt that it could potentially be of great benefit to them. Research indicates that the mental health of looked after children is poorer than for non-looked after children, with looked after children having poorer outcomes in adulthood. (The Education Committee, 2016). In addition, it is argued that research with LAC needs to focus on positive outcomes, rather than problems (Luke, Sinclair, Woolgar & Sebba, 2014).
As the local authority act as corporate parents for looked after children, it was therefore necessary for the school involved to be a city school. In addition, as the programme was originally used for Year 9 students it was felt Year 8, 9 or 10 students would be appropriate for this research. However, Year 10 students were discounted due to the demands of doing GCSE courses beginning in Year 10.

The researcher contacted the Specialist Senior Educational Psychologist responsible for LAC who as part of their role had access to information regarding where looked after children within the city were attending school. For the purposes of this research the definition of LAC was as follows: LAC refers to those children who are looked after by the local authority. In England, children considered to be LAC are those which according to the Children's Act (1989), receive accommodation from the local authority for more than 24 hours, have a care order or a placement order (DfE, 2016a). LAC can be living with foster parents, with their parents under social services supervision, in residential children's homes or other residential settings (NSPCC, 2017).

3.9.4 School recruitment

The Specialist Senior Educational Psychologist identified the schools which fit the above criteria. Information letters (Appendix 7) about the research were then sent to these schools. Six schools expressed interest in the research. These expressions of interest were followed up by the researcher either through telephone conversation (one school) or a meeting (five schools). Five of the schools were unable to take part in the research for various reasons including that they did not feel that the programme would benefit the current students as they were involved in other programmes, the students had changed schools and there were no longer any Year 8 or 9 looked after children or they did not feel that they had the staff capacity to support the implementation and monitoring. Only one school fulfilled

the above criteria and felt that they were able to support the implementation of the programme and research. This school was therefore the school which became part of the research, a large inner city secondary school.

3.9.5 Participant selection

Inclusion Criteria	Rationale
At least one risk factor for mental health difficulties (DfE, 2016b) Appendix 7	The risk factors defined by the DfE (2016b) were developed to support schools in identifying children and adolescents at-risk of developing future mental health difficulties. This list of risk factors was therefore considered to be an appropriate way in which to identify pupils who would potentially benefit from being part of a preventative positive psychology programme. The list is also advantageous as it includes environmental influences as well as within child factors, which evidence suggests have an impact on the development of mental health difficulties.
Aged between 12-14. Attending Year 8 or 9	The programme was also originally designed for use with early adolescents, aged 13 and so Year 8 or 9 pupils were chosen as the target population. It was felt appropriate to target this programme at early adolescents, to equip pupils with skills to support their own well-being. This was based on what is known about adolescent mental health: • Adolescence is a sensitive period of brain development (Fuhrmann, Knoll & Blakemore, 2015). • It is estimated 1 in 5 adolescents experience mental health issues (Fink et al., 2015). • Mental health difficulties which arise in adolescence continue to have a negative impact on one's life into adulthood (Fink et al., 2015).
Not currently receiving any other interventions around emotional well-being	To reduce the impact of extraneous variables, so that any changes between pre- and post-testing could not be attributed to another intervention.
No learning difficulties or diagnosis which would impact their ability to access the programme	Due to the content of the programme and the language used it was important to select students who would be able to understand this.

Table 5: Inclusion criteria for selection of participants and rationale for each criterion

3.9.6 Participant identification

The SENCo and Head of Year were presented with the DfE criteria (Appendix 8) and information regarding the positive psychology programme. The SENCo and Head of Year selected potential participants and discussed these anonymously with the researcher and Specialist Senior Educational Psychologist, to ensure that they met these criteria and would be suitable to be part of the research.

Information letters were sent to the parents/carers of the individual students, alongside consent forms (Appendix 9, 10). Each parent/carer was also contacted by the Head of Year who explained the programme and research, based on the information letter and all parents/carers gave verbal consent for their child to take part in the programme and research. Parents were asked to sign the consent sheets and return these. Two parents did not do so and were contacted by telephone. One parent agreed for their child to take part. A total of 5 parents therefore gave consent for their child to take part in the programme and research. Information sheets and consent forms (Appendix 11, 12) were sent to the young people, alongside consent forms and 5 young people also agreed to take part.
The table below provides a summary of the participants:

Participant	**Gender**	**Age (at the start of the study)**	**Risk factor(s)**
Christopher	Male	12 years 8 months	Domestic violence Sibling difficulties
Charlotte	Female	13 years	Low self-esteem Low academic achievements Significant life event within family Sibling difficulties
Marcus	Male	12 years 11 months	Looked after child Verbal abuse from siblings
Jay	Male	13 years 5 months	Significant life event within the family Parental conflict Deviant peer influences
Oliver	Male	13 years 6 months	Domestic violence Family breakdown Criminality in the family

Table 6: A summary of each participants risk factors, showing how each participant met the selection criteria

3.9.7 Measures

In order to answer the proposed research questions, the researcher spent time considering the most appropriate measures to use. To answer the research questions posed, a range of measures were used at different points in the study. Weekly measures were complemented by pre- and post- measures in order to triangulate the findings. Triangulation is important to be able to measure the same thing in different ways (Neuman, 2006) using multiple measures provides information from different angles which helps to enhance the accuracy of findings (Neuman, 2006).

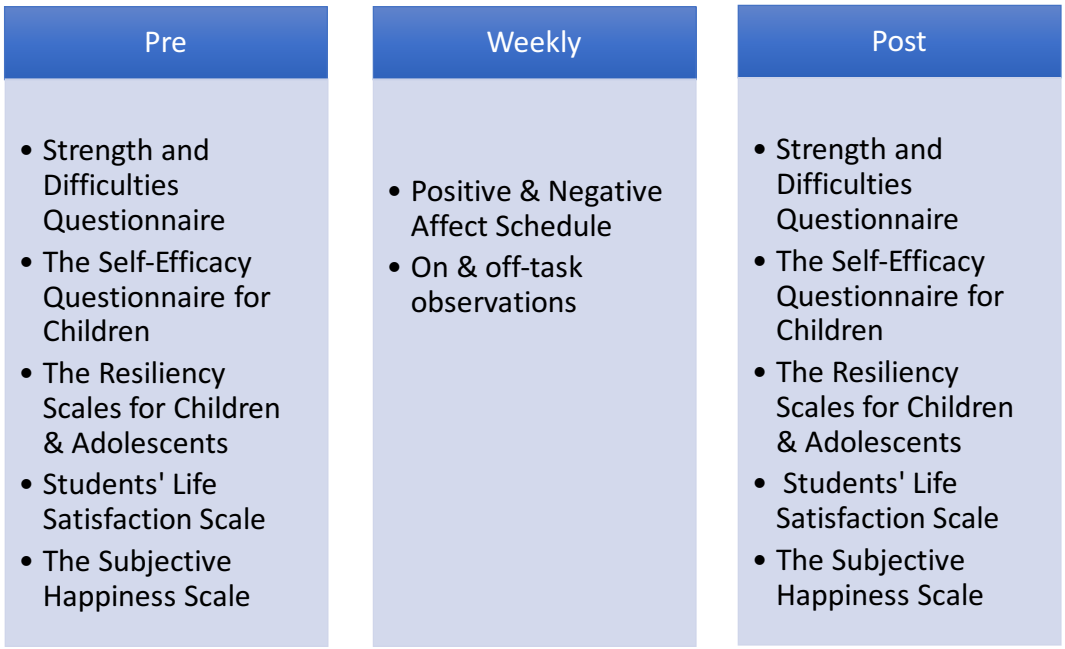


Figure 5: *Measures used and times of use within the current study*

3.9.7.1 Behaviour measures

Weekly observations of behaviour

A SCED usually incorporates observations related to measuring a dependent variable. It was necessary for the researcher to establish which behaviours to measure and how to do this. The researcher's focus was on the frequency of on and off-task behaviours for each child in one particular subject. The researcher intended for the observations to occur in a subject which each child was finding the most difficult based on their academic levels. However, due to practicality issues this was not possible. Therefore, the subject for each child to be observed in was

determined by the school based on timetabling and the availability of the HLTA who would be carrying out the observations.

The researcher gave each teacher an information sheet and consent form (Appendix 13, 14). All of the selected teachers consented and therefore took part in a semi-structured interview regarding the behaviours which the selected child displayed in the classroom (Appendix 15). In order to understand what on and off-task behaviour looked like for each individual child. Based on the information gathered via these interviews, individual observation schedules were developed for each child. This was done because in order to find out if a child is on-task, it was necessary to understand what being off-task looked like for them. Appendix 16 provides a summary of the off-task behaviours identified for each child. Once the off-task behaviours were identified and defined, an appropriate observational schedule was developed for each participant (Appendix 17). A momentary time sampling approach was used, with observations being recorded every 30 seconds. Each observation would last for 20 minutes and where possible the participants were observed twice weekly.

As the researcher was aware that one member of staff would be carrying out all of the observations, it was necessary to ensure that the observation schedules were clear, understandable and easy to use. Therefore, the researcher decided to ensure that all of the observation schedules were similar in style and so a momentary time sampling approach was used for all of the observations.

A HLTA was chosen by the school to carry out all of the observations. The HLTA was provided with an information sheet and consent form and provided with the opportunity to ask the researcher questions (Appendix 18, 19). The chosen HLTA consented to take part. Once the on and off-task behaviours were therefore identified and defined, the researcher provided training to the HLTA regarding these definitions and how to carry out the observations and record information (Appendix 20, 21). The steps for training the HLTA were taken from Barlow, Nock and Hersen (2009).

Pre- and post- measure of behaviour

Strengths & Difficulties Questionnaire (SDQ – Goodman, 1997, Appendix 22)

This scale contains 25 items which measures positive and negative attributes. The scale is made up of 5 subscales – emotional symptoms, conduct problems, hyperactivity-inattention, peer problems and prosocial behaviour. Responses are on a three-point scale – 'not true', 'somewhat true' and 'certainly true'. There is a self-report version, as well as a version for parents and teachers.

Reliability & validity

This scale has been found to have acceptable internal consistency and test-retest reliability for children aged 10-14 (Muris, Meesters & van den Berg, 2003). The scale has also been found to have good concurrent validity with other measures (Muris, Meesters & van den Berg, 2003).

Rationale

This measure was chosen as it provides a valid and reliable way of gaining information from a range of views regarding behaviour. Holder and Klassen (2010) emphasise the importance of gaining the views of others and not just relying on self-report measures. This measure therefore enable parents and teachers views to be gathered.

3.9.7.2 Subjective well-being measures

Weekly measure of affect

Positive and Negative Affect Scale for Children (PANAS-C - Laurent, Catanzaro, Joiner, Rudolph, Potter, Lambert, Osborne & Gathright, 1999, Appendix 23)

The PANAS-C is a self-report scale which measures one of the three aspects of subjective well-being, that of 'affect'. The scale consists of 27 items and responses are indicated by circling a number 1-4 which best represents how much that person has felt that way. Responses range from 'not much at all' to 'quite a bit'. This measure was developed by Laurent et al (1999) as a scale which could be used with a school population. The PANAS-C has been used with a variety of children between the ages of 6-17 (Laurent, Joiner & Catanzaro, 2011), therefore indicating its suitability for use with the current age group. Permission for the use of this scale was gained from the author. The scale was originally developed to ask how much the person felt that way during the past few weeks, however the wording was adapted so this could be used as a weekly measure. Watson, Clark & Tellegen

(1988) and Watson (1988) found that the time frame used in the directions for the Positive and Negative Affect Schedule does not appear to impact on the psychometric properties of the scale.

Reliability & validity

Cronbach's alpha coefficients for the negative affect scale have been found to be .94 and .92, indicating very high reliability (Laurent et al., 1999). For the negative affect scale the Cronbach's alpha coefficients have been found to be .90 and .89, indicating high reliability. (Laurent et al., 2011). The 27 item PANAS-C scale has been shown to have good convergent and discriminant validity with scores for depression and anxiety measures (Laurent et al., 1999).

Rationale

The PANAS-C is based in theory and is considered to have good psychometric properties (Laurent, Joiner & Catanzaro, 2011). This measure was therefore chosen as it has been found to be a relevant measure of affect, which is a key part of subjective well-being. It was chosen as a weekly measure because it is quick and easy to administer, time frame is not considered to impact on psychometric properties and is suitable for use with a school population around mental health.

Pre and post measures of subjective well-being

Students' Life Satisfaction Scale (SLSS - Huebner, 1991b, Appendix 24)

This scale is a self-report scale which measures one of the three aspects of subjective well-being – life satisfaction. This scale consists of 7 items. Respondents are asked to indicate a response to each item by circling the response which indicates the extent that they agree or disagree with each statement. There are six possible responses, which range from 'strongly disagree' to 'strongly agree'. Scoring ranges from 1 – Strongly disagree, 2 – Moderately disagree, 3 – Mildly disagree, 4 – Mildly agree, 5 – Moderately agree, 6 – Strongly agree. Scores are calculated by adding together the scores from each item to give an overall score. Two of the items are negatively worded – 'I would like to change many things in my life' and 'I wish I had a different kind of life' and so these are reversed scored. The scale was developed for use with 8-18 year olds.

Reliability & validity

Internal consistency has been found to be strong, .82 (Huebner, 1991). Test-retest reliability has been found to be moderate, .74. Good convergent validity has been found for this scale with other well-being measures (Huebner, 1991).

Rationale

The scale was chosen for this study as it has been found to be a reliable and valid measure of life satisfaction for the current population and it is also easy to administer and complete.

The Subjective Happiness Scale (SHS - Lyubomirsky & Lepper, 1999, Appendix 25)

This is a self-report scale which measures one aspect of subjective wellbeing – subjective happiness. There are 4 items in this scale and responses are indicated by circling a number on a scale between 1-7. The respondent is asked to indicate where they feel they are in response to each item. Although this scale was originally developed to be used with adults and older adolescents there is evidence of it being used with children. For example, Holder and Klassen (2010) used it with 9-12 year olds in Canada and O'Rourke and Cooper (2010) with primary school students. Both researchers adapted the wording of the scale to make it more appropriate for the age group. Holder and Klassen (2010) adapted the phrasing of two of the questions to make them more readable and this has also been used in this study. Question 3 and 4 are adapted from 'To what extent does this characterization describe you? to 'How much does this sentence describe you?'

Reliability & validity

When used with students aged 14 and above, this scale has shown high internal consistency, with Cronbach's alpha ranging from .79 to .94 (Lyubomirsky & Lepper, 1999). More recently, Tkach and Lyubomirsky (2006) found this scale to be a reliable measure of happiness with Cronbach's alpha .85. There is evidence of good test-re-test reliability after one month and good convergent and discriminant validity (Lyubomirsky & Lepper, 1999).

Rationale

This scale was chosen for use in the current study because it is a reliable and valid measure of happiness which is quick and easy to complete and has been previously used with children and adolescents, suggesting its suitably for the current age group.

3.9.7.3 Resilience measure

The Resiliency Scales for Children and Adolescents (RSCA - Prince-Embury, 2007, Appendix 26)

This is a self-report scale of resilience which provides a profile of personal strengths and vulnerability (Prince-Embury, 2007). It consists of three scales – sense of mastery, sense of relatedness and emotional reactivity. The three scales consist of 10 subscales. The scales consist of a range of statements with responses via a 5-point scale ranging from Never (0) to Almost Always (4). It is designed specifically for use with 9-18 year olds and has been used with both clinical and normative samples. Scores are calculated by totalling the responses and these are changed into t scores.

Reliability & validity

When used with 12-14 year olds, the alpha coefficient for the Sense of Mastery scale has been found to be .89, for the Sense of Relatedness Scale it is .91 and for the Emotional Reactivity Scale .95 therefore falling within the highly reliable to very highly reliable ranges (Prince-Embury, 2010).

Rationale

Sense of Mastery and Sense of Relatedness measure an individual's perception of their personal resource. This scale was chosen as suitable as it focuses on competence and therefore fits well with positive psychology and the purpose and aims of the sessions.

3.9.7.4 Self-efficacy measure

The Self-Efficacy Questionnaire for Children (SEQ-C - Muris, 2001, Appendix 27)

This scale is a self-report measure of a person's perceived self-efficacy. The scale measures three types of self-efficacy, as defined by Muris (2001):

Academic self-efficacy – the perceived capability to manage one's own learning behaviour, to master academic subjects and fulfil academic expectations.
Social self-efficacy – the perceived capability for peer relationships and assertiveness.
Emotional self-efficacy – the perceived capability of coping with negative emotions.

The version used within this study was taken from Suldo and Shaffer (2007) 21 item version which involved slight modifications to items to make them more readable. The measure was adapted further by Landon, Ehrenreich and Pincus (2007) who reworded the items into statements and used a 4 point rating scale, rather than 5. The way in which this measure has been adapted for the purposes of this study has therefore been in line with the changes made by Landon, Ehrenreich and Pincus (2007) and Suldo and Shaffer (2007).

Reliability and validity

Muris (2001) found satisfactory internal consistency for the SEQ-C. Furthermore, Muris (2002) used the 21 item SEQ-C scale with Belgian students aged 12-19 and found Cronbach's Alphas for the three factors as follows: social self-efficacy - .82, academic self-efficacy .84, emotional self-efficacy .86.

Rationale

This measure was chosen as it has been specifically developed for children to measure three types of self-efficacy. In addition, some of the questions within the measure are relevant to the school environment which links to where the current research takes place.

3.10 Quantitative data analysis

The analysis of SCED data is considered to be a challenge, particularly as there are little guidelines which outline standards of reporting and there is lack of agreement around the most appropriate methods of analysis (Maric et al., 2015; Smith, 2012).

3.10.1 Statistical analysis of single case experimental designs

Statistical analysis is one way in which SCED data can be analysed. It is considered advantageous in comparison to visual analysis as it removes subjectivity and there is less risk of bias (Kazdin, 2003; Maric et al., 2015). Maric

et al. (2015) argues that the use of statistical approaches can help to improve the standards of SCEDs and support scientist-practitioners within their work.

However, there is not one agreed statistical approach and there is little agreement about ways of calculating effect sizes in SCEDS (Kratochwill et al., 2012; Smith, 2012). Statistical approaches that are used often violate statistical assumptions (Kratochwill et al., 2012). In addition, studies have shown that different statistical analysis methods used with the same SCED data can lead to different results, therefore raising concerns about the use of statistical approaches for SCEDs (Kratochwill et al., 2012).

Some of the possible statistical analysis approaches for SCEDs are considered below.

Conventional t and F tests

Such tests are traditionally used to explore differences between two groups or more and could be considered for use with a SCED to compare differences between phases (Barlow, Nock & Hersen, 2009). However, SCED data threatens the assumptions underlying these tests and therefore are not applicable to SCED's (Barlow, Nock & Hersen, 2009). Therefore, these tests have not been used within the current study.

Randomisation tests

These tests do not rely on parametric assumptions and are 'distribution free' (Barlow, Nock & Hersen, 2009). However, for this approach to be used, random assignment to experimental conditions is required (Barlow, Nock & Hersen, 2009). Therefore, this is unsuitable for use in this study.

Interrupted time series analysis

Interrupted time series analysis can be a useful approach for single case experimental designs as effects of an intervention on dependent variables can be considered (Barlow, Nock & Hersen, 2009). However, in order for this approach to be used it requires a minimum of 50 data points for one participant, with no missing data and is therefore unsuitable for use in this current research (Barlow, Nock & Hersen, 2009).

3.10.2 Visual analysis of single case experimental designs

Visual analysis is considered to be the most commonly used method for presenting information in a SCED (Lane & Gast, 2014; Maric et al., 2015). Visual analysis involves analysing the trend, level and stability of the data (Lane & Gast, 2014). Visual analysis allows for detailed thinking about the properties of the data and makes changes easily recognisable (Kazdin, 2003; Plavnick & Ferreri, 2013) which helps to determine the importance of the results (Kazdin, 2003). Using these methods allows for exploration of changes between the baseline phase and intervention phase (Lane & Gast, 2014).

Line graphs are the most used way of visually representing SCED results (Lane & Gast, 2014). Presenting information in graphs means that they can be examined to consider key features of the data, such as level and trend (Kratochwill et al., 2013).

There are a range of limitations to the use of visual analysis:

- There is a lack of rules for decision making (Barlow, Nock & Hersen, 2009).
- It is subjective and open to interpretation, as researchers may differ in how they interpret the data (Kazdin, 2003; Barlow, Nock & Hersen, 2009).
- It is open to type 1 errors (Barlow, Nock & Hersen, 2009).
- There tends to be a focus on the most obvious effects, therefore overlooking weaker effects which are still reliable (Kazdin, 2003). However, these effects may be important to consider, particularly when early research is being carried out for a new intervention (Kazdin, 2003).

However, there is a wide range of research that has shown that results determined by visual analysis are just as reliable as those which are gained through the use of statistical analysis (Kazdin, 2003). In addition, key properties of the data are identified through visual analysis, as changes in mean, level and slope are all explored (Kazdin, 2003). Visual analysis is particularly useful when there are clear intervention effects (Kazdin, 2003).

3.10.3 Analysis of SCED data used in the current study

Within the current study, the researcher has used visual analysis as a way of interpreting the research findings. This approach was chosen due to it being a common approach which allows for in depth exploration of the data and due to the unsuitability of the statistical approaches.

In order to carry out the visual analysis, the researcher examined the data within each phase and then compared the data across the phases, as described by Kratochwill et al. (2012).

The key features of visual analysis are summarised below (as described by Kratochwill et al. (2012) and Kazdin, 2003).

Key feature	**Meaning**
Changes in means	Differences between the averages in each phase
Changes in level	Change between last day of one phase to the first day of the next phase
Changes in trend	Slope of the best fitting straight line within a phase
Variability	Range and standard deviation about the best-fitting line and degree of the overall scatter
Immediacy of effect	Change in level between the last three data points in one phase and the first three in the next phase
Overlap	Proportion of data from one phase that overlaps with data from previous phase
Consistency of data patterns across similar phases	Consistency of patterns within data from phases within the same condition.

Table 7: The features of visual analysis

Within this current research, six of the key features are used within the visual analysis. The consistency of data patterns across similar phases is not included due to this SCED design being an AB design. Immediacy of effect is not included because the intervention is designed to have an impact on participants over time.

The calculation of each of the key features of the visual analysis is presented below, as described by (Harbst, Ottenbacher & Harris, 1991).

Changes in means

The mean shift between the Baseline phase and the intervention phase will be calculated by subtracting the mean of the Baseline Phase from the mean of the intervention phase and dividing the answer by the mean of the baseline phase. A positive result will show an increase in mean level across the two phases, a negative result will show a decrease in mean level.

Changes in level

This will be calculated by selecting the last data point in the baseline phase and the first data point in the intervention phase. The larger number will then be divided by the smaller number to show the change in level.

Changes in trend

The slope from the baseline phase will be subtracted from the slope of the intervention phase to determine the degree of change. The larger the value, the greater the change in slope.

Variability

Firstly, the standard deviation of the data points within each phase will be calculated. The standard deviation within the baseline phase will then be subtracted from the standard deviation of the intervention phase to calculate the degree of change.

Percentage of overlap

The number of data points in the intervention phase which fall within the spread of data points in the baseline phase will be worked out and then divided by the total number of data points in the intervention phase, multiplied by 100 to generate a percentage of overlap.

Analysis of pre- and post- measures

The scores on each measure at post-testing are compared to the scores at pre-testing through calculating the differences in scores between these two times.

3.11 Qualitative data collection

3.11.1 Participants

All five of the individuals who participated in the quantitative aspect of this study were also asked by the researcher to take part in the qualitative aspect by taking part in the interviews. Of the five participants, three consented to being part of the qualitative aspect of this study.

3.11.2 Procedure

Semi-structured interviews were carried out with each of the three individual participants, post-intervention. For two participants, the interviews occurred one week after the intervention was completed, for the third participant this was two weeks following the end of the intervention. These took place in a small room within the school. Each interview was audio recorded.

3.11.3 Interview questions

The interviews followed a semi-structured interview schedule (Appendix 28) which was developed by the researcher prior to the interviews. The following questions were included:

Question	**Why included**
What to do you think you have learnt as a result of taking part in this programme?	To explore what the participants felt they had gained from the programme.
Which session do you feel you learnt the most from and why?	To explore which area of positive psychology they felt had the most impact on them.
How do you think the strategies from the programme can help you in your everyday life?	To explore how the participants perceived the strategies to be helpful to them in their lives.
Which strategies/activities have you found yourself using outside of the sessions, if any?	To explore the participant's application of what they learnt within the group to their life outside of the group
Which strategies/activities do you think you will continue to use in the future?	To explore the participant's intentions to practice the strategies in the future.
How do you think you can use what you have learnt from the programme to help you when faced with difficult or challenging situations?	To explore if the participants felt that the strategies they had learnt would help them when faced with challenges.

Have you noticed any changes in your behaviour at home or school since beginning the programme? Have you noticed any changes in terms of your attention or concentration since beginning the programme?	To explore whether the participants felt the programme had impacted upon their general behaviour and also more specifically, their attention.
Do you think the programme has changed your thoughts or feelings about yourself? (How?)	To explore whether the pupils felt there have been any positive changes to their views about themselves.
Do you think the programme has changed your thoughts or feelings about your life? (How?)	To explore whether the participants felt that there had been any positive changes to their views about their life.
Have you noticed any changes in your emotions since beginning this programme? (experiences of, awareness of, ability to manage?)	To explore whether the pupils felt that they had noticed any changes in terms of their emotions.
Is there anything else you would like to add about your experience of the programme?	To provide participants with the opportunity to add additional information about their thoughts regarding the programme, which has not been covered by previous questions.

Table 8: A list of interview questions and rationale for inclusion

3.12 Qualitative data analysis

The data collected from these interviews was analysed using a thematic approach. Thematic analysis is considered a useful tool for qualitative data which involves searching across the data to identify repeated patterns and to analyse and report these patterns, which are therefore the themes (Braun & Clarke, 2006; Clarke & Braun, 2017). A theme is defined as showing something significant about the data (Braun & Clarke, 2006). Thematic analysis is considered to be an advantageous approach for use with qualitative data as it is flexible and accessible and can also be used with a small amount of data (Clarke & Braun, 2017).

The researcher followed the steps developed by Braun and Clarke (2006) in order to carry out the thematic analysis. These were as follows:

1. Familiarising oneself with the data

   The audio recordings of each of the three interviews were transcribed. * A verbatim transcription was carried out, with the researcher listening repeatedly to the audio recordings to check the accuracy of the transcription. The researcher then read through the transcript, making brief notes of ideas.
2. Generating initial codes

   The researcher began to create codes by colour coding and numbering the data in each of the transcripts. These were read through several times and codes were adapted and changed accordingly, until a final list of codes was generated.
3. Searching for themes

   Codes were grouped together and themes and sub-themes generated.
4. Reviewing themes through generating a thematic map and checking these themes.

   Themes were reviewed through the thematic map and checking of these themes against the data.
5. Defining and naming themes

   The researcher analysed for the specifics and tried to ensure theme names were clear.
6. Producing the report

   The researcher put the themes together to answer the research question asked, selecting relevant extracts.

Appendices 29 and 30 show key stages of the thematic analysis.

3.13 Reliability

Reliability is concerned with the 'consistency' with which something is measured (Robson, 2011, p85). Issues of reliability are particularly important within research around behaviour (Barlow, Nock & Hersen, 2009).

* Entire transcripts can be found on the attached CD.

3.13.1 Observer bias

Inter-observer agreement can be used as a way to enhance the reliability of behaviour observations (Barlow, Nock & Hersen, 2009). This can be done by having a secondary observer join the original observer for 15-25% of sessions (Barlow, Nock & Hersen, 2009). Data from both observers can therefore be compared to gain a percentage of agreement (Barlow, Nock & Hersen, 2009). 80% agreement is considered to be acceptable (Barlow, Nock & Hersen, 2009). Inter-observer agreement is important to ensure accuracy in the behaviour that is being measured (Robson, 2011). This can be calculated using Cohen's Kappa (Cohen, 1960).

Observer drift poses a threat to research as it is argued that as one becomes familiar with an observation tool and the categories used, this may lead to them seeing the behaviours more easily, therefore impacting on results (Robson, 2011). The use of inter-observer agreement checks help to reduce potential observer drift. (Robson, 2011).

To help enhance the reliability of the observations, the HLTA was trained in the use of the intervention schedules and each schedule followed the same format. The same HLTA carried out all of the observations. To reduce the impact of extraneous variables, each participant was observed in the same lesson, at exactly the same times each week. The HLTA positioned themselves in the same position of the classroom each week, with an unobtrusive view of each participant.

3.13.2 Participant bias

This applies to the current research as the participants had become more familiar with the researcher by post-testing and so this may have impacted upon their responses. For example, participants may have wanted to please the researcher by responding more positively. To reduce this risk, the researcher made the purpose of the programme, the research and the questionnaires clear throughout the research. The researcher also emphasised the importance of honesty at pre- and post-testing.

3.14 Validity

3.14.1 Internal validity

Internal validity is important in ensuring conclusions from research are sustained by the data itself (Cohen, Manion & Morrison, 2011). There are a variety of threats within research which may impact upon the internal validity of a study and therefore need to be considered by researchers when developing their research. Cook and Campbell (1979) developed a list of threats to internal validity. Relevant threats and how these were considered by the researcher for this study are discussed below.

Threat	**Definition of threat**	**How this threat has been addressed**
History	Changes in the participants' environment.	-Participants not involved in any other interventions around well-being. -Use of weekly measures
Maturation	Growth, change or development of participants (not linked to the intervention)	-Use of multiple cases -Use of a baseline
Testing	Changes which occur because of practice or experience of tests	-Additional measures – pre- and post- used to triangulate data from weekly measures.
Instrumentation	The way in which the measures were collected is changed which may therefore impact on results.	-Weekly measures taken at the same time each week, in the same environment, administered by the same adult. -Pre- and post- measures administered individually with each participant, by the researcher, in same environment. -HLTA trained in how to carry out observations. Joint observations carried out during baseline and intervention phase.

Regression	Later testing tends to regress towards the mean	-Use of weekly measures over time.
Mortality	Participants dropping out of the study	-Parents and participants provided with detailed information about the study before consenting.
Fidelity of the intervention	The intervention is not delivered as designed.	-Fidelity checks carried out by a Senior Educational Psychologist familiar with the programme.
Hawthorne effect	Participants altering their behaviour due to their awareness of being observed.	-Observations carried out by a member of school staff who may typically be in the classroom environment.

Table 9: Internal validity threats to research and information on how these threats have been addressed

Although the researcher has tried to address these threats within the research, history and maturation are difficult to be controlled for by the researcher and therefore these continue to be a limitation of this study.

3.14.2 Construct validity

Construct validity refers to whether the research actually measures what the researcher thinks that it does (Robson, 2011). It is concerned with the measures used and how each measure fits with the theoretical definition constructed within the literature (Cohen, Manion & Morrison, 2011). The researcher has tried to address this issue by correlating weekly measures with pre- and post- measures in order to triangulate the data. The researcher has identified relevant constructs (resilience, self-efficacy, subjective well-being) and definitions of these within the literature. Measures which have previously been used to measure such constructs and which have information regarding their reliability and validity have been chosen for inclusion in this study.

3.14.3 External validity

External validity is the extent to which findings can be generalised to wider populations (Cohen, Manion & Morrison, 2011). Within this study, the inclusion of different participants and a range of measures of the dependent variables are ways

in which the researcher has tried to enhance the external validity (Horner et al., 2005). Horner et al. (2005) states that at least 3 different participants are needed for effects to be demonstrated. This SCED is also limited because all of the participants involved attend one setting, However, a SCED is not designed with the purpose of being able to generalise findings.

3.15 Ethics

It was necessary for the researcher to ensure that this research complies with ethical standards set for EPs and researchers. There were therefore three guidelines which the researcher consulted, provided by the British Psychological Society (2009, 2014), Health and Care Professionals Council (2009) and the University of Nottingham (2013). In order to be able to carry out this research, the researcher applied to the university's Ethics Committee to gain ethical approval. This was gained in July 2017 (Appendix 31). The researcher was also supervised by a University tutor and Senior Educational Psychologist whilst carrying out this research. Key ethical issues and how these were considered by the researcher are discussed below.

3.15.1 Informed consent

Parents and young people were provided with information regarding this research before being asked to consent to taking part. Both parents and the young people were made aware of the different aspects of the research and the programme itself. No information was withheld from the parents or the young people at any point during the study. Parents and young people were provided with the researchers contact details on several occasions so that they could ask any questions about the research at any time.

3.15.2 Anonymity and Confidentiality

All data was treated confidentially and participants were anonymised by being given a pseudonym. Participants were informed of this at the beginning of the research. All data was stored securely in compliance with the Data Protection Act (1998). The information gathered for this research was stored confidentially and only accessed by those with whom permission was granted. Parents/carers, the

children and the teachers were informed about who the information would be accessed by, before they gave consent.

3.15.3 Right to withdraw

Information sheets and discussions with parents and young people emphasised that the participants were free to withdraw at any time from the research. The information sheets also informed parents and the young people that if they chose to withdraw they would be able to ask for any data collected to be destroyed and withdrawn. The young people were reminded at the beginning of each session that they were free to withdraw at any point. During the initial meeting with the teachers, the research was explained and it was also explained that they were free to withdraw from participating and have their data destroyed at any point during the data collection.

3.15.4 Concerns raised about participants during the study

During the first meeting with participants, the researcher made it clear that if anything that the participant reported raised safeguarding concerns, the researcher would have to follow this up and report this to an adult in school. The researcher was aware of the key members of staff to pass on any concerns.

3.16 Summary

Within this section, issues of epistemology and ontology have been discussed. Issues of methodology have been highlighted and the design, method and procedure for this research has been explained. In addition, the researcher has shown how they have considered ethical issues as well as issues of reliability and validity.

4. Chapter 4: Results

4.1 Introduction

This section presents the findings of this research for each participant. The SCED data is visually analysed and presented in graphs and tables, which is then complemented by the pre- and post- data. The findings are reported for each participant in relation to each research question. An explanation of the findings and summary of results is also presented for each participant.

4.2 Participant 1: Christopher

4.2.1 Participant description

Christopher is a male student, aged 12 years and 8 months at the beginning of this study. He is a pupil premium student, eligible for free school meals. Christopher's academic performance ranges from below average to average. Christopher has a small number of behaviour points and has received detentions throughout the school year due to low level behaviours which he has exhibited in school. Christopher was observed in a lesson in which he demonstrated little academic progress in the past year.

4.2.2 Christopher's response to the intervention

Christopher was a quiet member of the group. He was reluctant to share how he could use the ideas learnt in the group and to complete activities outside of sessions. He required some support to share his thoughts and ideas with others. He attended five out of the eight sessions and was often late to arrive.

4.2.3 Research question 1: Subjective well-being

Figure 6: *A line graph to show Christopher's weekly scores on the PANAS-C*

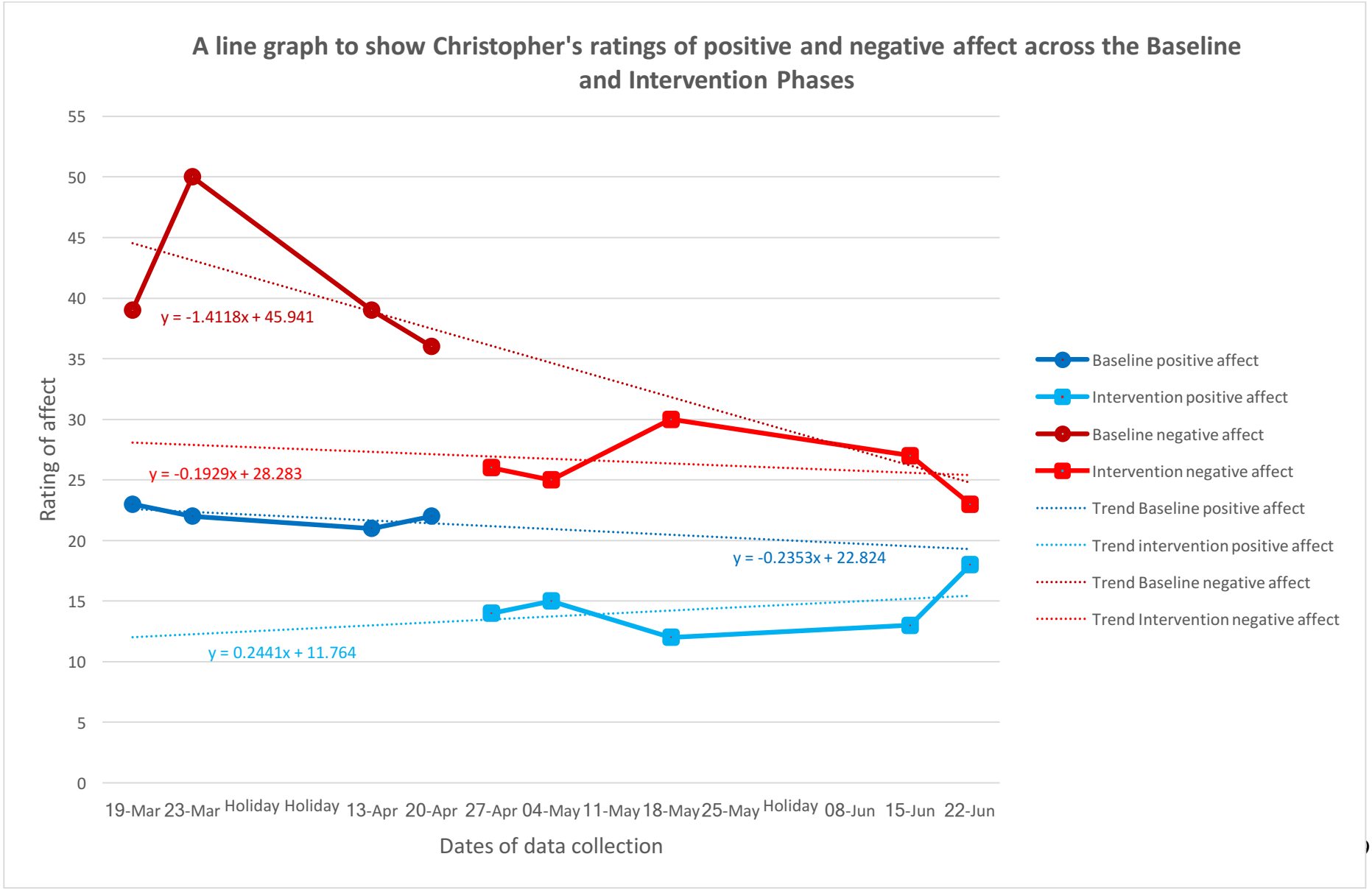

A line graph to show Christopher's ratings of positive and negative affect across the Baseline and Intervention Phases
Rating of affect
55
50
45
40
35
30
25
20
15
10
5
0
y = -1.4118x + 45.941
y = -0.1929x + 28.283
y = -0.2353x + 22.824
y = 0.2441x + 11.764
19-Mar
23-Mar
Holiday
Holiday
13-Apr
20-Apr
27-Apr
04-May
11-May
18-May
25-May
Holiday
08-Jun
15-Jun
22-Jun
Dates of data collection
Baseline positive affect
Intervention positive affect
Baseline negative affect
Intervention negative affect
Trend Baseline positive affect
Trend intervention positive affect
Trend Baseline negative affect
Trend Intervention negative affect

Table 10: Visual analysis of Christopher's weekly ratings of positive affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	22	The mean of positive affect ratings during the intervention phase is lower than the mean of positive affect ratings during the baseline phase. The mean shift therefore shows a decrease in mean level across the two phases.
	Mean of intervention phase	14.4	
	Mean shift from baseline to intervention phase	-0.35	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	-8	There is a decrease in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	-0.03	There is a very small decelerating trend for the baseline phase. There is a very small accelerating trend for the intervention phase. The magnitude of change shows a very small positive change in slope between the baseline and intervention phase.
	Trend for intervention phase	0.03	
	Magnitude of change between the baseline and intervention phase	0.07	
Variability	Baseline phase Range Standard deviation	 2 0.71	There is a greater range of scores in the intervention phase than there are in the baseline phase. The standard deviation is higher in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 6 2.06	
Overlap	Percentage of data overlap between the baseline & intervention phase	0%	There are no data points in the intervention phase which overlap with data points in the baseline phase.

Table 11: Visual analysis of Christopher's weekly ratings of negative affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	41	The mean level of the intervention phase is much lower than the mean level of the baseline phase. The mean shift between the baseline and intervention phase shows a decrease in mean level.
	Mean of intervention phase	26.2	
	Mean shift from baseline to intervention phase	-0.36	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	-10	There is a decrease in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	-0.24	There was a decelerating trend in the baseline phase and a small decelerating trend in the intervention phase. The magnitude of change shows a positive change in slope from the baseline to the intervention phase.
	Trend for intervention phase	-0.03	
	Magnitude of change between the baseline and intervention phase	0.21	
Variability	Baseline phase Range Standard deviation	 11 5.34	There is a wider range of scores within the baseline phase, compared to the intervention phase. The standard deviation is lower in the intervention phase than the baseline phase.
	Intervention phase Range Standard deviation	 7 2.32	
Overlap	Percentage of data overlap between the baseline & intervention phase	0%	There was no overlap of data points in the intervention phase with any data points in the baseline phase.

4.2.3.1 Summary

Visual analysis of Figure 6 shows a decrease in Christopher's positive affect as well as a decrease in his negative affect at intervention phase compared to baseline phase, based on a decrease in the mean scores. Figure 6 shows a decrease between the last score of the baseline and the first score of the intervention for both positive and negative affect. No scores overlap in the intervention and baseline phase which suggests an intervention effect in decreasing both negative and positive affect. However, this is stated with caution, as the data shows a decrease in Christopher's scores for negative affect during the baseline phase, as highlighted by the decelerating trend. Therefore, it is possible that the decrease in negative affect would have continued without the introduction of the intervention.

4.2.3.2 Pre- and post- data

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

The table below shows Christopher's scores on this scale.

	Score
Pre-test	13
Post-test	14
Difference	1

Table 12: Christopher's scores on the SHS

There is a very small increase in Christopher's rating of subjective happiness at post-testing compared to pre-testing.

Students' Life Satisfaction Scale *(*Huebner, 1991b)

The table below shows Christopher's scores on this scale.

	Score
Pre-test	15
Post-test	22
Difference	7

Table 13: Christopher's scores on the SLSS

There is an increase in Christopher's rating of satisfaction with life at post-testing compared to pre-testing.

4.2.3.3 Summary for research question 1

When considering the impact of the intervention upon Christopher's subjective well-being, the findings show a decrease in ratings of negative affect and a slight increase in ratings of subjective happiness and an increase in life satisfaction. However, there was also a decrease in positive affect during the intervention phase. This suggests that the intervention had the most impact on two aspects of Christopher's subjective well-being – increasing his life satisfaction as demonstrated through pre- and post-testing and decreasing his ratings of negative affect as shown through the weekly measures. The measures used do not show an overall positive impact on all aspects of Christopher's wellbeing, as was hypothesised.

4.2.4 Research question 2: Behaviour

Figure 7: *A line graph to show the frequency of Christopher's on and off-task behaviours*

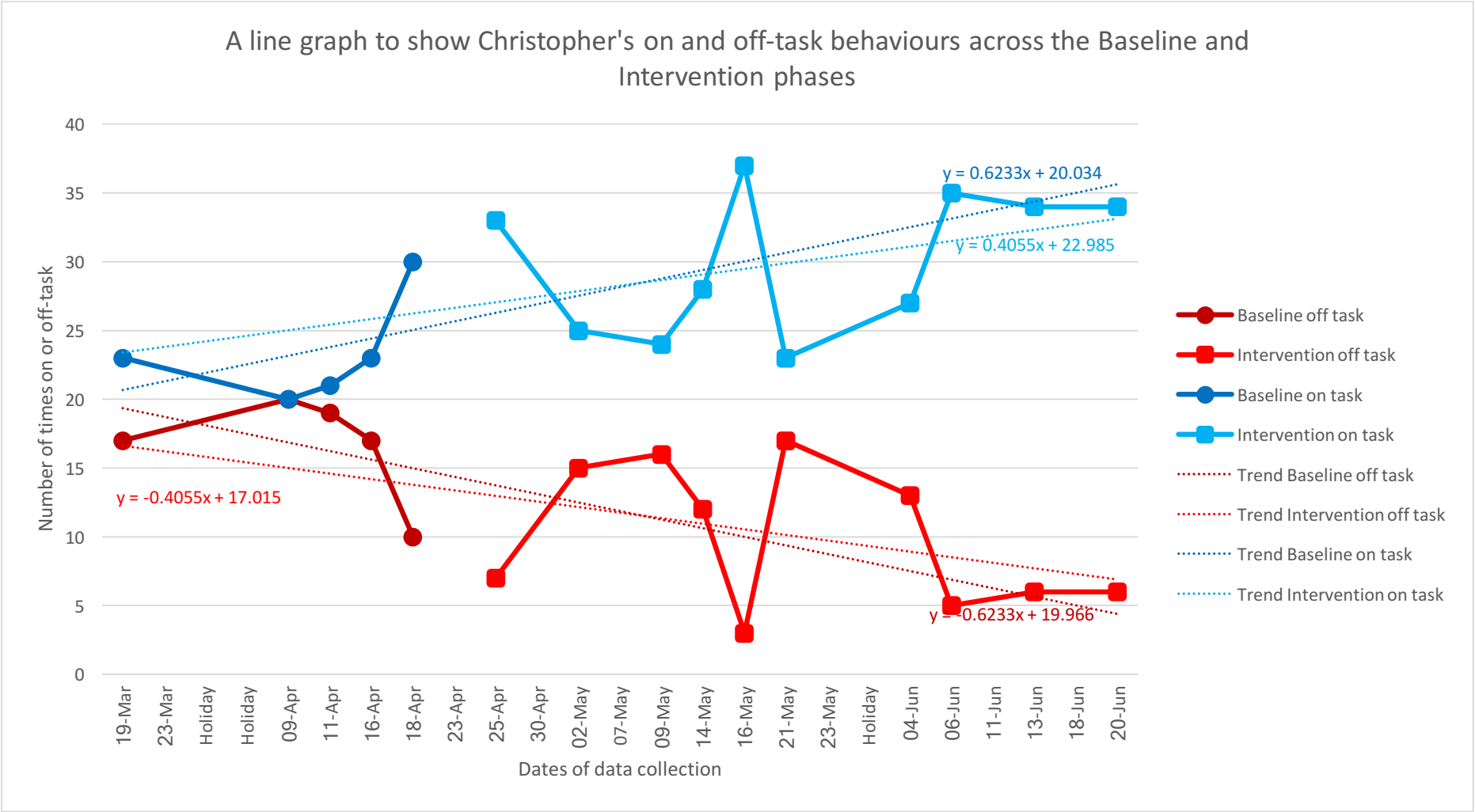

A line graph to show Christopher's on and off-task behaviours across the Baseline and Intervention phases
Number of times on or off-task
40
35
30
25
20
15
10
5
0
y = 0.6233x + 20.034
y = 0.4055x + 22.985
y = -0.4055x + 17.015
y = -0.6233x + 19.966
19-Mar
23-Mar
Holiday
Holiday
09-Apr
11-Apr
16-Apr
18-Apr
23-Apr
25-Apr
30-Apr
02-May
07-May
09-May
14-May
16-May
21-May
23-May
Holiday
04-Jun
06-Jun
11-Jun
13-Jun
18-Jun
20-Jun
Dates of data collection
Baseline off task
Intervention off task
Baseline on task
Intervention on task
Trend Baseline off task
Trend Intervention off task
Trend Baseline on task
Trend Intervention on task

Table 14: Visual analysis of Christopher's on and off-task behaviours					
Criteria	**Numerical description**	**On-task**	**Description (On-task)**	**Off-task**	**Description (off-task)**
Mean	Mean of baseline phase	23.4	The mean for observed on-task behaviours is higher in the intervention phase compared to the baseline phase. The mean shift shows an increase in mean level across the two phases.	16.6	The mean for observed off-task behaviours is lower in the intervention phase. The mean shift shows a decrease in mean level across the two phases.
	Mean of intervention phase	30		10	
	Mean shift from baseline to intervention phase	0.28		-0.40	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	3	There is an increase in on-task behaviour observed at the beginning of the intervention phase compared to the end of baseline phase.	-3	There is a decrease in off-task behaviour observed at the beginning of the intervention phase compared to the end of the baseline phase.
Trend	Trend for baseline phase	0.11	There is an accelerating trend for the baseline phase and intervention phase, with are very similar. The magnitude of change shows a very small negative change in slope from the baseline to the intervention phase.	-0.11	There is a decelerating trend for the baseline and intervention phase, which are very similar. The magnitude of change shows a very small positive change in slope from the baseline to intervention phase.
	Trend for intervention phase	0.10		-0.10	
	Magnitude of change between the baseline and intervention phase	-0.002		0.002	

Variability	Baseline phase Range Standard deviation	 10 3.50	There is a greater range of scores in the intervention phase compared to the baseline phase. There is a higher standard deviation in the intervention phase compared to the baseline phase.	 10 3.50	There is a greater range of scores in the intervention phase compared to the baseline phase. There is a higher standard deviation in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 14 4.88		 14 4.88	
Overlap	Percentage of data overlap between the baseline & intervention phase	10%	There is a small percentage of overlap of scores, with one score in the intervention phase overlapping with one score in the baseline phase.	10%	There is a small percentage of overlap of scores, with one score in the intervention phase overlapping with one score in the baseline phase for on and off-task behaviour.

4.2.4.1 Summary

Visual analysis of Figure 7 shows a decrease in frequency of off-task behaviours in the intervention phase, compared to the baseline phase which is shown through a decrease in mean scores. The frequency of on-task behaviours therefore increased at the intervention phase, compared to the baseline phase. However, both baseline phases are unstable. There is evidence of an accelerating trend for on-task behaviours at the baseline phase and a decelerating trend for off-task behaviours at the baseline phase. It is therefore possible that the increase in frequency of on-task behaviours and decrease in frequency of off-task behaviours would have continued without the introduction of the intervention.

4.2.4.2 Inter-rater Agreement

In order to enhance the reliability of the observational measure, joint observations of on and off-task behaviour were carried out for 23.5% of the observations (4 out of 17 observations). To calculate the level of inter-rater agreement, Cohen's Kappa coefficient was used (Cohen, 1960).

The range of Cohen's Kappa across the 4 observations was 0.72 to 1. This indicates substantial to almost perfect strength of agreement, as described by Landis and Koch (1977), with the mean showing a very strong level of agreement.

4.2.4.3 Pre- and post- data

The table below shows Christopher's scores on the Strengths and Difficulties Questionnaire (Goodman, 1997).

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	6	2	7	6
Post-test	7	4	5	7
Difference	-1	2	-2	1
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	7	7	21	
Post-test	7	2	23	
Difference	0	-5	2	

Table 15: Christopher's scores on the SDQ

The table above shows an increase in Christopher's rating of total difficulties, at post-testing compared to pre-testing. However, although he indicated an increase in difficulties, there is a decrease in Christopher's ratings of the impact of his difficulties on his life at post-testing compared to pre-testing. There is a small reduction in Christopher's report of emotional symptoms and hyperactivity at post-testing when compared to pre-testing. However, there is a slight increase in reported conduct and peer problems, with no change in reports of prosocial behaviour.

The table below shows Christopher's teacher's ratings for Christopher on the Strengths and Difficulties Questionnaire.

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	3	0	9	3
Post-test	5	3	10	4
Difference	2	3	1	1
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	6	1	15	
Post-test	6	2	22	
Difference	0	1	7	

Table 16: Christopher's teacher's ratings on the SDQ

The results above show a higher score given by Christopher's teacher for Christopher's total difficulties at post-testing compared to pre-testing and an increase in emotional symptoms, conduct problems, hyperactivity and peer problems as well as the impact of these problems. There was no difference in pro social behaviour from pre-testing to post-testing.

4.2.4.4 Summary for research question 2

The weekly observational measures of on and off-task behaviour indicate a positive impact of the programme on Christopher's attention in the classroom, as that there was an increase in on-task behaviours for Christopher during the intervention phase, when compared to the baseline. However, Christopher's

perception and his teacher's perception of his total difficulties were that these were worse post-intervention compared to pre-intervention.

4.2.5 Research question 3: Resilience

The table below shows Christopher's score on the Resiliency Scales for Children and Adolescents (Prince-Embury, 2007).

	Sense of Mastery	Score ranking	Sense of Relatedness	Score ranking	Emotional Reactivity	Score ranking
Pre-test	22	Low	23	Low	61	High
Post-test	29	Low	27	Low	63	High
Difference	7		4		2	

Table 17: Christopher's scores on the RSCA

Christopher's sense of mastery and sense of relatedness both increased at post-testing compared to pre-testing, suggesting that there was a positive impact on aspects of his resilience. However, Christopher demonstrated high emotional reactivity at pre-testing which increased at post-testing. Therefore, this suggests Christopher continued to feel that he has difficulties in terms of his emotional reactivity following his participation in the intervention.

4.2.6 Research question 4: Self-efficacy

The table below shows Christopher's scores on the Self-Efficacy Questionnaire for Children (Muris, 2001).

	Total	Academic	Social	Emotional
Pre-test	28	8	11	9
Post-test	33	9	11	13
Difference	5	1	0	4

Table 18: Christopher's scores on the SEQ-C

The scores for academic and emotional self-efficacy increased at post-testing, whilst social self-efficacy scores remained the same. The overall pre- and post-test ratings of self-efficacy show an improvement at post-testing compared to pre-testing.

4.2.7 Summary of results

Christopher's results show positive changes following the introduction of the intervention in several aspects of his subjective well-being; that of subjective happiness, life satisfaction and negative affect. There was also an increase in his on-task behaviours in the classroom, as well as an increase in his self-efficacy and resiliency following the introduction of the intervention. However, there were also some negative changes noted following the intervention, in terms of his ratings of emotional reactivity, positive affect and ratings of his behaviour difficulties by his teacher and himself. This suggests that the intervention had a positive impact on Christopher in some areas but not others. However, Christopher's attendance at weekly counselling sessions during the intervention period means that any changes cannot reliability be attributed to his participation in the positive psychology programme.

4.2.8 Qualitative data

Research question 5: How do young people perceive the programme to have impacted upon them?

Christopher's interview data was transcribed, alongside the interview data gathered for two other participants. Thematic analysis was used across the three transcripts, following the steps of Braun and Clarke (2006). Three main themes were identified: Changes in thoughts, Changes in emotions and Changes in behaviour. Christopher's data in relation to these three themes is presented using excerpts from his transcript below.

Theme 1: Changes in thoughts

> *"Erm in in some ways (.) er I've been like thinking about (.) how it could be more (.) more er positive on-on and affect me in the future"*

> *"Erm I've learnt to be more (.) more more kind of positive in some (.) ways"*

"I've been more more (.) more like (.) erm (.) thinking in-in advance and how (.) i-if-if-if I do certain things that they might affect me later on"

These quotations show that following the intervention, Christopher felt more positive about his life and the future.

Theme 2: Changes in emotions

"Yeah I've been less (.) less (.) er (.) upset about things that a-a-a have been happening (.) er in-in my everyday life"

This shows that Christopher felt that following the intervention, there were positive changes in his experience of negative feelings.

Themes 3: Changes in behaviour

"Er a-a little bit (.) erm more-more concentration in in certain lessons and (.) and that er lessons I-I've I've picked for my future options"

"Er (.) er kindness I've been more (.) more erm more kind to to like general people"

These quotations show that Christopher felt that following the intervention he was able to focus more in some lessons and his behaviour towards others had changed positively.

4.2.9 Summary of qualitative data for Christopher

Christopher therefore identified many positive changes which occurred following his participation in the intervention, which supports aspects of the quantitative data.

4.3 Participant 2: Charlotte

4.3.1 Participant description

Charlotte is a female student, aged 13 years at the time of this study. Charlotte is a pupil premium student who receives free school meals. Her academic achievement is considered to be below average and she receives additional support in the form of literacy interventions. Charlotte has excellent school attendance.

4.3.2 Charlotte's response to the intervention

Charlotte was very quiet during the group sessions and needed support from the group facilitators to share her ideas. She appeared more comfortable sharing her ideas on a one to one basis or writing these down. As time passed, she became more confident in talking with the group facilitators and taking part in group activities. She attended all sessions on time and was a helpful member of the group. She shared with the group facilitators that she completed some of the requested activities outside of the sessions, but did not engage in all of these.

4.3.3 Research question 1: Subjective well-being

Figure 8: *A line graph to show Charlotte's weekly scores on the PANAS-C*

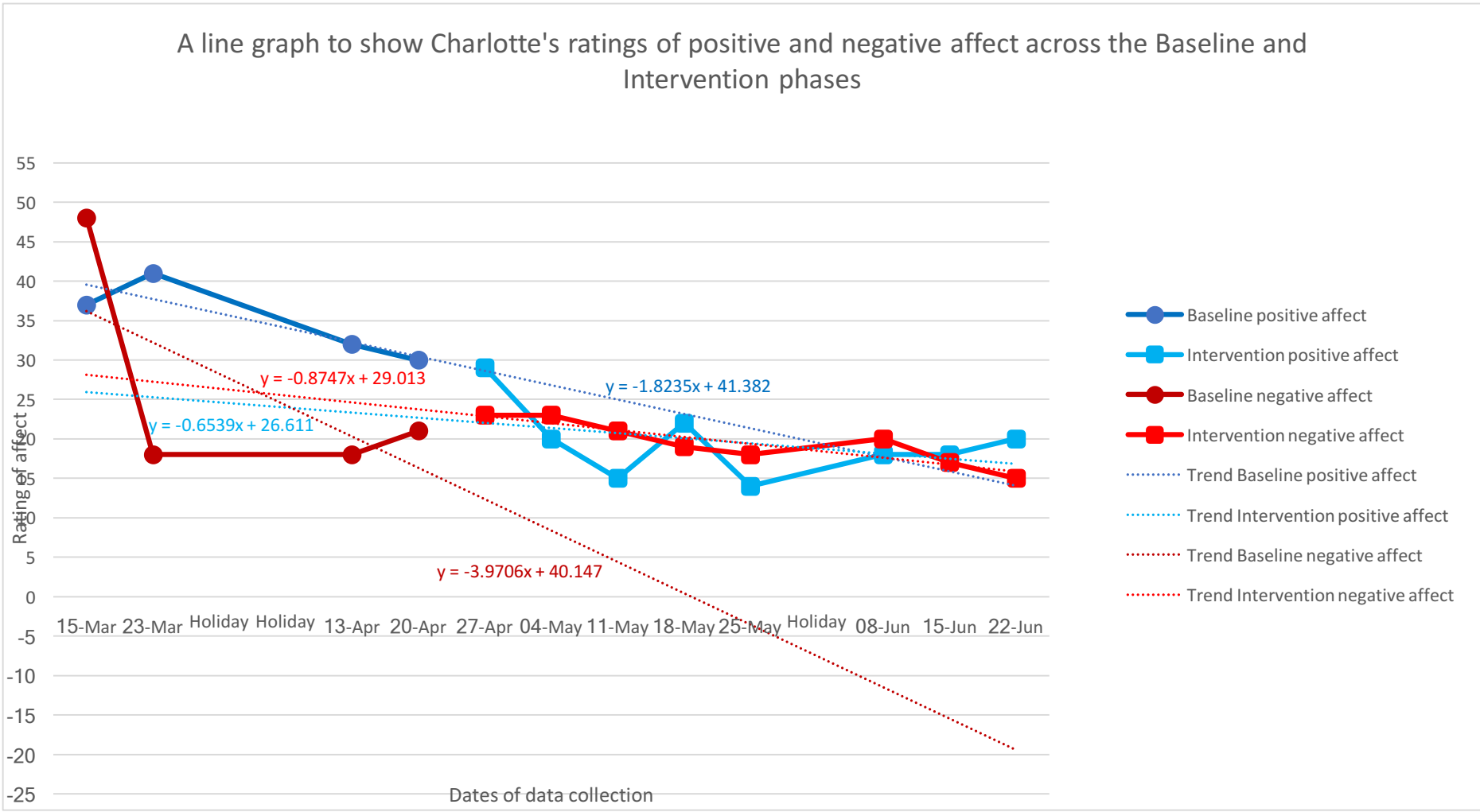

A line graph to show Charlotte's ratings of positive and negative affect across the Baseline and Intervention phases
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
Rating of affect
y = -0.8747x + 29.013
y = -0.6539x + 26.611
y = -1.8235x + 41.382
y = -3.9706x + 40.147
15-Mar
23-Mar
Holiday
Holiday
13-Apr
20-Apr
27-Apr
04-May
11-May
18-May
25-May
Holiday
08-Jun
15-Jun
22-Jun
Dates of data collection
Baseline positive affect
Intervention positive affect
Baseline negative affect
Intervention negative affect
Trend Baseline positive affect
Trend Intervention positive affect
Trend Baseline negative affect
Trend Intervention negative affect

Table 19: Visual analysis of Charlotte's weekly ratings of positive affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	35	The mean of positive affect ratings during the intervention phase is much lower than the mean of positive affect ratings during the baseline phase. The mean shift shows a decrease in mean level across the two phases.
	Mean of intervention phase	19.5	
	Mean shift from baseline to intervention phase	-0.44	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	-1	There is a slight decrease in level at the beginning of the intervention phase compared to the end of the baseline phase.
Trend	Trend for baseline phase	-0.25	There was a decelerating trend in the baseline phase and an even smaller decelerating trend in the intervention phase. The magnitude of change shows a positive change in slope from the baseline to intervention phase.
	Trend for intervention phase	-0.09	
	Magnitude of change between the baseline and intervention phase	0.16	
Variability	Baseline phase Range Standard deviation	 11 4.30	The range of scores in the intervention phase was higher than the range of scores in the baseline phase. The standard deviation was slightly higher in the intervention phase than the baseline phase.
	Intervention phase Range Standard deviation	 15 4.36	
Overlap	Percentage of data overlap between the baseline & intervention phase	0%	There were no data points in the intervention phase which overlapped with data points in the baseline phase.

Table 20: Visual analysis of Charlotte's weekly ratings of negative affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	26.25	The mean of negative affect ratings during the intervention phase is much lower than the mean of negative affect ratings during the baseline phase. The mean shift shows a decrease in mean level from the baseline to the intervention phase.
	Mean of intervention phase	19.5	
	Mean shift between baseline and intervention phase	-0.26	
Level	Change in level between baseline and intervention phase	2	There is a small increase in level at the beginning of the intervention phase, compared to the end of the baseline phase.
Trend	Trend for baseline phase	-0.57	There is a decelerating trend within the baseline phase. There is a smaller decelerating trend in the intervention phase. The magnitude of change shows a large positive change in slope from the baseline to intervention phase.
	Trend for intervention phase	-0.12	
	Magnitude of change between the baseline and intervention phase	0.44	
Variability	Baseline phase Range Standard deviation	 27 12.62	The range of negative affect scores is much greater in the baseline phase compared to the intervention phase. There is a much higher standard deviation in the baseline phase compared to the intervention phase.
	Intervention phase Range Standard deviation	 8 2.65	
Overlap	Percentage of data overlap between the baseline & intervention phase	25%	A quarter of the data points in the intervention phase overlap with data points in the baseline phase.

4.3.3.1 Summary

Visual analysis of Figure 8 shows a decrease in positive affect and a decrease in negative affect from the baseline to intervention phase, as demonstrated by the mean scores. However, there was a decelerating trend for positive affect in the baseline phase and so it is possible that there would have continued to be a decrease in trend for positive affect, without the introduction of the intervention. Whilst there was also a decelerating trend for negative affect, there were a quarter of scores which overlapped, therefore reducing the likelihood of an intervention effect. The wide range of scores in the baseline phase for negative affect also shows evidence of an unstable baseline. The last few data points do show evidence of a steady increase in positive affect with a steady decrease in negative affect.

4.3.3.2 Pre- and post- data

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

The table below shows Charlotte's scores on this scale.

	Score
Pre-test	18
Post-test	17
Difference	-1

Table 21: Charlotte's scores on the SHS

Charlotte's scores on The Subjective Happiness Scale indicate a very small decrease in subjective happiness at post-testing compare to pre-testing.

Students' Life Satisfaction Scale (Huebner, 1991b)

The table below shows Charlotte's scores on this scale.

	Score
Pre-test	35
Post-test	36
Difference	1

Table 22: Charlotte's scores on the SLSS

Charlotte's score at post-testing is slightly higher than at pre-testing for satisfaction with life.

4.3.3.3 Summary for research question 1

The results show that following the introduction of the intervention there was a decrease in negative affect, suggesting an intervention effect. However, there was also a decrease in positive affect and minimal changes in terms of life satisfaction and subjective happiness at pre- and post-testing. Therefore, overall there is no reliable positive change in Charlotte's subjective well-being from pre-to post-testing, as was hypothesised.

4.3.4 Research question 2: Behaviour

Figure 9: *A line graph to show the frequency of Charlotte's on and off-task behaviours*

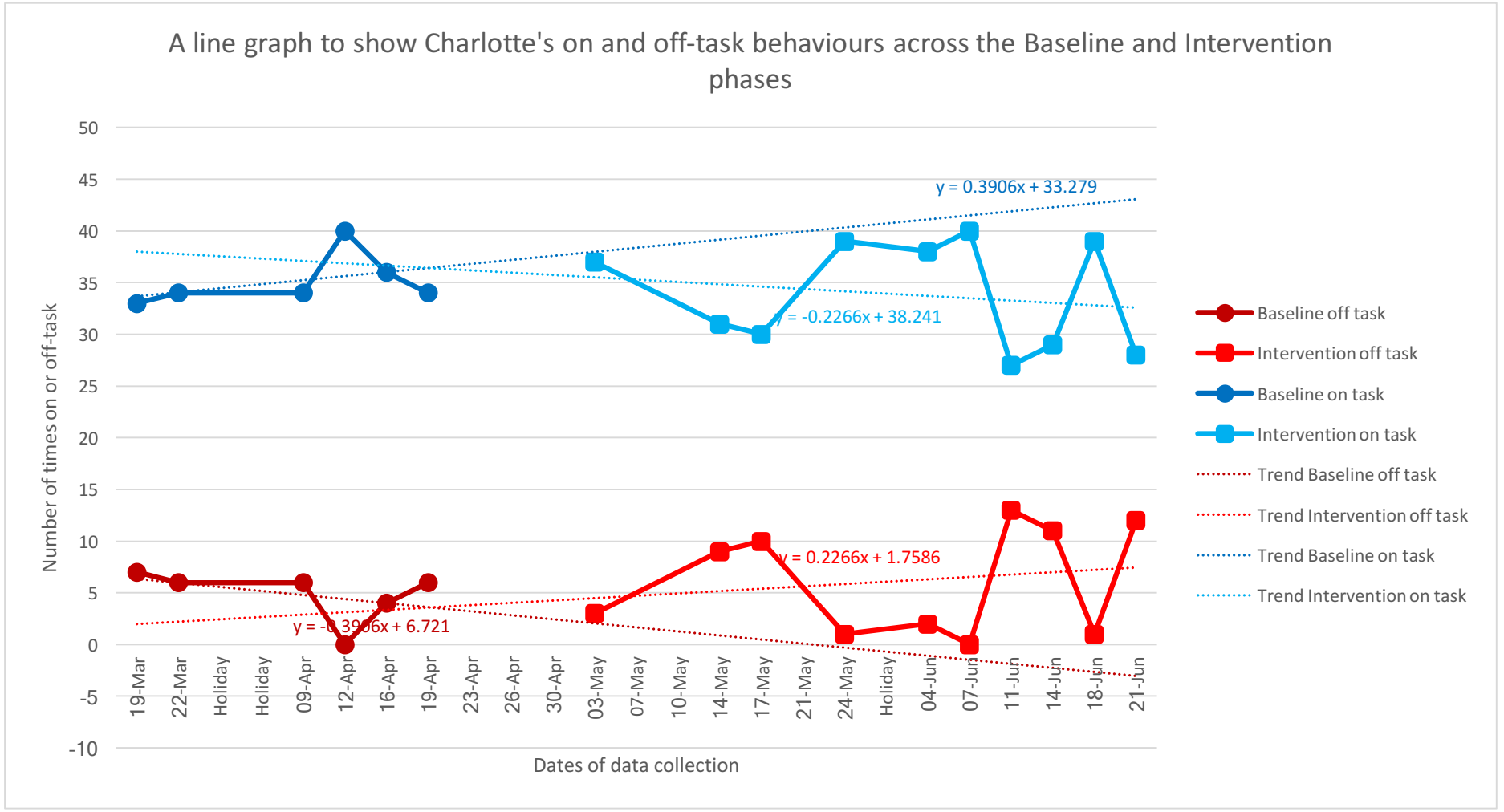

A line graph to show Charlotte's on and off-task behaviours across the Baseline and Intervention phases
Number of times on or off-task
50
45
40
35
30
25
20
15
10
5
0
-5
-10
19-Mar
22-Mar
Holiday
Holiday
09-Apr
12-Apr
16-Apr
19-Apr
23-Apr
26-Apr
30-Apr
03-May
07-May
10-May
14-May
17-May
21-May
24-May
Holiday
04-Jun
07-Jun
11-Jun
14-Jun
18-Jun
21-Jun
Dates of data collection
y = 0.3906x + 33.279
y = -0.2266x + 38.241
y = 0.2266x + 1.7586
y = -0.3906x + 6.721
Baseline off task
Intervention off task
Baseline on task
Intervention on task
Trend Baseline off task
Trend Intervention off task
Trend Baseline on task
Trend Intervention on task

Table 23: Visual analysis of Charlotte's on and off-task behaviours					
Criteria	**Numerical description**	**On-task**	**Description (on-task)**	**Off-task**	**Description (off-task)**
Mean	Mean of baseline phase	35.17	The mean is lower in the intervention phase compared to the baseline phase. The mean shift shows a small decrease in mean level across the two phases.	4.83	The mean is higher in the intervention phase compared to the baseline phase. The mean shift shows an increase in mean level across the two phases.
	Mean of intervention phase	33.8		6.2	
	Mean shift from baseline to intervention phase	-0.04		0.28	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	3	There is an increase in level from the end of the baseline phase to the beginning of the intervention phase.	-3	There is a decrease in level from the end of the baseline phase to the beginning of the intervention phase.
Trend	Trend for baseline phase	0.09	There is a very small accelerating trend in the baseline phase. There is a very small decelerating trend in the intervention phase. The magnitude of change shows a negative change in slope between the baseline and intervention phase.	-0.09	There is a very small decelerating trend in the baseline phase. There is a very small accelerating trend in the intervention phase. The magnitude of change shows a positive change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.06		0.06	
	Magnitude of change between the baseline and intervention phase	-0.14		0.14	

Variability	Baseline phase Range Standard deviation	 7 2.34	The range of scores in the intervention phase is greater than the range of scores in the baseline phase. The standard deviation is higher in the intervention phase compared to the baseline phase.	 7 2.34	The range of scores in the intervention phase is greater than the range of scores in the baseline phase. The standard deviation is higher in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 12 4.96		 12 4.96	
Overlap	Percentage of data overlap between the baseline & intervention phase	10%	There is a small percentage of overlap of one score in the intervention phase with scores in the baseline phase.	10%	There is a small percentage of overlap of one score in the intervention phase with scores in the baseline phase.

4.3.4.1 Summary

Visual analysis of Figure 9 suggests an increase in off-task behaviours and therefore a decrease in on-task behaviours during the intervention phase, compared to the baseline phase, as demonstrated by the mean scores. There is evidence of an immediate increase in on-task behaviours and an immediate decrease of off-task behaviours from the end of the baseline to the beginning of the intervention phase. For on-task behaviours, the trend for the baseline phase was accelerating slightly whilst the trend for the intervention phase was decelerating slightly whereas the trend for off-task behaviours was decelerating slightly during the baseline phase but accelerating slightly during the intervention phase. Therefore, the introduction of the intervention did not have a positive impact on Charlotte's on-task behaviours in the classroom.

4.3.4.2 Inter-rater Agreement

In order to enhance the reliability of the observational measure, joint observations of on and off-task behaviour were carried out for 25% of the observations (4 out of 16 observations). To calculate the level of inter-rater agreement, Cohen's Kappa coefficient was used (Cohen, 1960).

The range of Cohen's Kappa across the 4 observations was 0.25 to 0.89, with a mean of 0.71. The mean therefore shows a substantial level of agreement, as described by Landis and Koch (1977).

4.3.4.3 Pre- and post- data

The table below shows Charlotte's scores on the Strengths and Difficulties Questionnaire (Goodman, 1997).

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	4	1	5	2
Post-test	8	1	7	2
Difference	4	0	2	0

	Prosocial behaviours	Impact on life	Total difficulties	
Pre-test	9	Missing	12	
Post-test	8	1	18	
Difference	-1		6	

Table 24: Charlotte's scores on the SDQ

Table 24 shows an increase in Charlotte's rating of total difficulties at post-intervention compared to pre-intervention, as well as an increase in her ratings of emotional symptoms and hyperactivity. Charlotte indicated no changes in terms of conduct or peer problems, with a slight decrease in her prosocial behaviours.

The table below shows Charlotte's teacher's scores for Charlotte on the Strengths and Difficulties Questionnaire.

	Emotional symptoms	Conduct problems	Hyper activity	Peer problems
Pre-test	7	2	3	1
Post-test	9	0	3	Missing
Difference	2	-2	0	
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	4	3	13	
Post-test	Missing	2	Missing	
Difference		-1		

Table 25: Charlotte's teacher's ratings on the SDQ

Unfortunately, due to missing data it was not possible to calculate the total difficulties score at post-testing compared to pre-testing. Charlotte's teacher's score shows no change in terms of hyperactivity, whilst indicating a small improvement in the impact of the difficulties on life and conduct problems but an increase in emotional symptoms.

4.3.4.4 Summary for research question 2

There is no evidence to suggest that the intervention has had a positive impact on Charlotte's behaviour. This is due to the increase in Charlotte's ratings of her difficulties at post-testing compared to pre-testing and the increase in off-task behaviours following the introduction of the intervention.

4.3.5 Research question 3: Resilience

The table below shows Charlotte's scores on the Resiliency Scales for Children and Adults (Prince-Embury, 2007).

	Sense of Mastery	Score ranking	Sense of Relatedness	Score ranking	Emotional Reactivity	Score ranking
Pre-test	41	Below average	36	Low	47	Average
Post-test	41	Below average	44	Below average	47	Average
Difference	0		8		0	

Table 26: Charlotte's scores on the RSCA

Charlotte's scores on the resiliency scales show an increase in her rating of her sense of relatedness at post-testing compared to pre-testing. However, there were no changes in her pre- and post-ratings of her sense of mastery or emotional reactivity.

4.3.6 Research question 4: Self-efficacy

The table below shows Charlotte's scores on the Self-Efficacy Questionnaire for Children (Muris, 2001).

	Total	Academic	Social	Emotional
Pre-test	36	11	12	13
Post-test	36	14	11	12
Difference	0	3	-1	-1

Table 27: Charlotte's scores on the SEQ-C

Charlotte's overall score for self-efficacy remained the same at post-test as it was at pre-test. There was a small increase in her rating of academic self-efficacy but a slight decrease for both social and emotional self-efficacy.

4.3.7 Summary of results

Charlotte's results show positive changes in terms of a reduction in her ratings of negative affect and an increase in academic self-efficacy and sense of relatedness following the introduction at the intervention. However, there were no changes in terms of her overall self-efficacy, sense of mastery or emotional reactivity. There were also negative changes, with an increase in positive affect, increase in difficulties as rated by Charlotte and her teacher and an increase in off-task behaviours following the introduction of the intervention. The intervention does not appear to have had the expected overall positive impact upon Charlotte's well-being, behaviour, self-efficacy and resilience, as hypothesised.

4.4 Participant 3: Marcus

4.4.1 Participant description

Marcus is a male student aged 12 years and 11 months at the beginning of this study. He is a looked after child with above average academic performance and excellent school attendance. Within the subject that he was observed in, his progress had decreased. Marcus has many achievement points and average behaviour points. He has attended the school's internal provision once in the academic year due to his behaviour.

4.4.2 Marcus's response to the intervention

Marcus was a confident member of the group who was willing to share his thoughts and ideas. He demonstrated a good understanding of the contents of the sessions and showed that he had learnt from previous sessions by reflecting on these in following sessions. He often shared with the group how he had attempted activities outside of the group. He worked well with all other members of the group and helped to encourage less confident members of the group to share their thoughts and ideas. Marcus attended all sessions.

4.4.3 Research question 1: Subjective well-being

Figure 10: *A line graph to show Marcus' weekly scores on the PANAS-C*

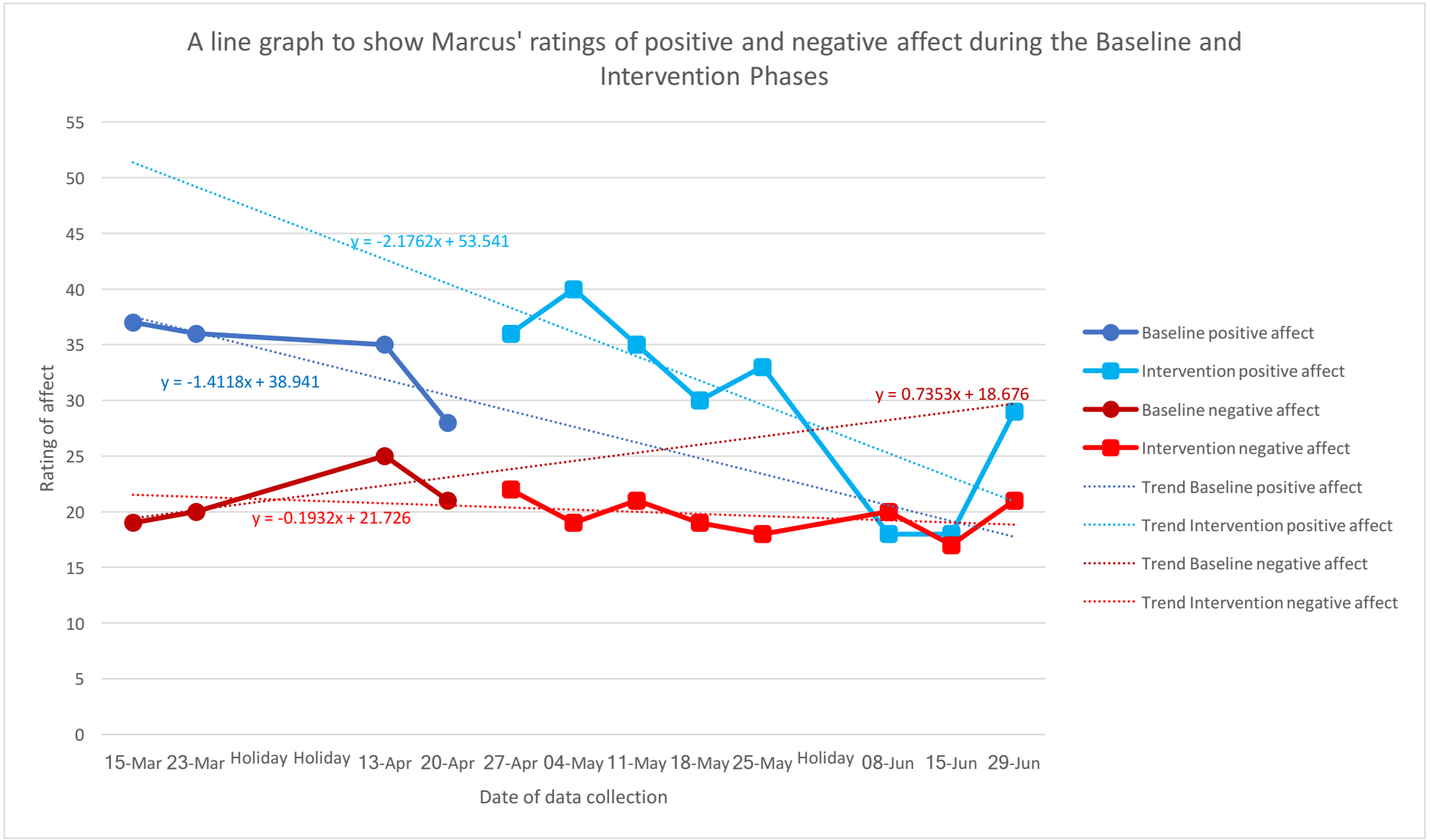

A line graph to show Marcus' ratings of positive and negative affect during the Baseline and Intervention Phases
Rating of affect
55
50
45
40
35
30
25
20
15
10
5
0
y = -2.1762x + 53.541
y = -1.4118x + 38.941
y = 0.7353x + 18.676
y = -0.1932x + 21.726
15-Mar
23-Mar
Holiday
Holiday
13-Apr
20-Apr
27-Apr
04-May
11-May
18-May
25-May
Holiday
08-Jun
15-Jun
29-Jun
Date of data collection
Baseline positive affect
Intervention positive affect
Baseline negative affect
Intervention negative affect
Trend Baseline positive affect
Trend Intervention positive affect
Trend Baseline negative affect
Trend Intervention negative affect

Table 28: Visual analysis of Marcus' weekly ratings of positive affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	34	The mean of positive affect ratings in the intervention phase was lower than the mean of positive affect ratings in the baseline phase. There is a negative shift in mean level between the baseline phase and intervention phase.
	Mean of intervention phase	29.88	
	Mean shift from baseline to intervention phase	-0.121	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	8	There is a large increase in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	-0.20	There is a decelerating trend in the baseline phase and intervention phase. The magnitude of change shows a very small negative change in slope between the baseline phase and the intervention phase.
	Trend for intervention phase	-0.27	
	Magnitude of change between the baseline and intervention phase	-0.07	
Variability	Baseline phase Range Standard deviation	 9 3.54	There is a greater range of scores in the intervention phase compared to the baseline phase. The standard deviation is larger in the intervention phase than the baseline phase.
	Intervention phase Range Standard deviation	 11 7.57	
Overlap	Percentage of data overlap between the baseline & intervention phase	25%	A quarter of positive affect scores in the intervention phase overlap with positive affect scores in the baseline phase.

Table 29: Visual analysis of Marcus' weekly ratings of negative affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	21.25	The mean of negative affect scores in the intervention phase is smaller than the mean of negative affect scores in the baseline phase. The mean shift shows a decrease in mean level across the two phases.
	Mean of intervention phase	19.63	
	Mean shift from baseline to intervention phase	-0.08	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	1	There is a decrease in level from the end of the baseline phase to the beginning of the intervention phase.
Trend	Trend for baseline phase	0.10	There is a small accelerating trend for negative affect in the baseline trend and a smaller decelerating trend in the intervention phase. The magnitude of change indicates a small negative change in slope between the phases.
	Trend for intervention phase	-0.02	
	Magnitude of change between the baseline and intervention phase	-0.12	
Variability	Baseline phase Range Standard deviation	 6 2.28	The range of scores is slightly lower in the intervention phase compared to the baseline phase. The standard deviation is higher in the baseline phase than the intervention phase.
	Intervention phase Range Standard deviation	 5 1.58	
Overlap	Percentage of data overlap between the baseline & intervention phase	62.5%	More than half of the scores for negative affect in the intervention phase overlap with the scores in the baseline phase.

4.4.3.1 Summary

Figure 10 shows a decrease in positive affect scores and a decrease in negative affect scores as demonstrated by the means. For negative affect, there was an accelerating trend in the baseline phase which changed to a decelerating trend in the intervention phase, therefore suggesting an intervention effect. For positive affect, there was already a decelerating trend in the baseline phase and so this could possibly have continued without the introduction of the intervention.

4.4.3.2 Pre- and post- data

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

The table below shows Marcus' scores on this scale.

	Score
Pre-test	15
Post-test	19
Difference	4

Table 30: Marcus' scores on the SHS

Marcus' score for subjective happiness increased at post-testing compared to pre-testing.

Students' Life Satisfaction Scale (Huebner, 1991b)

The table below shows Marcus' scores on this scale.

	Score
Pre-test	25
Post-test	33
Difference	8

Table 31: Marcus' scores on the SLSS

Marcus' score for his satisfaction with life increased at post-testing compared to pre-testing.

4.4.3.3 Summary for research question 1

Marcus' scores show an increase in his ratings of subjective happiness and life satisfaction as well as a decrease in negative affect following the introduction of the intervention, suggesting a positive impact of the intervention on Marcus' well-being. However, there was also a decrease in positive affect following the introduction of the intervention, which does not support the hypothesis.

4.4.4 Research question 2: Behaviour

Figure 11: *A line graph to show the frequency of Marcus' on and off-task behaviours*

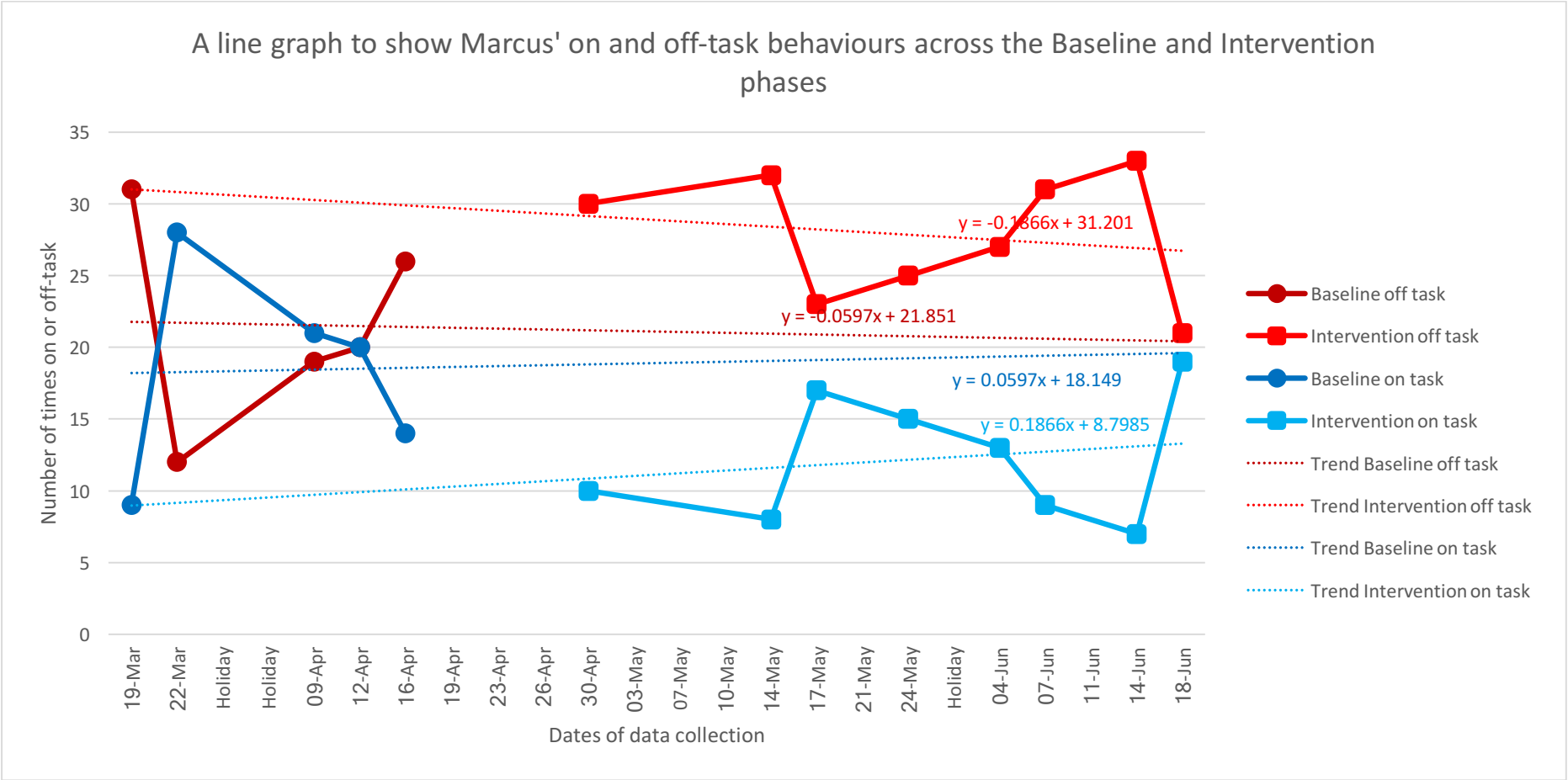

A line graph to show Marcus' on and off-task behaviours across the Baseline and Intervention phases
Number of times on or off-task
35
30
25
20
15
10
5
0
19-Mar
22-Mar
Holiday
Holiday
09-Apr
12-Apr
16-Apr
19-Apr
23-Apr
26-Apr
30-Apr
03-May
07-May
10-May
14-May
17-May
21-May
24-May
Holiday
04-Jun
07-Jun
11-Jun
14-Jun
18-Jun
Dates of data collection
y = -0.1866x + 31.201
y = -0.0597x + 21.851
y = 0.0597x + 18.149
y = 0.1866x + 8.7985
Baseline off task
Intervention off task
Baseline on task
Intervention on task
Trend Baseline off task
Trend Intervention off task
Trend Baseline on task
Trend Intervention on task

Table 32: Visual analysis of Marcus' on and off-task behaviours					
Criteria	**Numerical description**	**On-task**	**Description (on-task)**	**Off-task**	**Description (off-task)**
Mean	Mean of baseline phase	18.4	The mean of on-task behaviours in the intervention phase is lower than the mean in the intervention phase. The mean shift shows a decrease in mean level across the two phases.	21.6	The mean of off-task behaviours is higher in the intervention phase than in the baseline phase. The mean shift shows an increase in mean level across the two phases.
	Mean of intervention phase	12.25		27.8	
	Mean shift from baseline to intervention phase	-0.33		0.28	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	-4	There is a decrease in level between the end of the baseline phase and the beginning of the intervention phase.	4	There is an increase in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	-0.002	There is a very minimal decelerating trend for the baseline phase. There is a small accelerating trend for the intervention phase. The magnitude of change shows a small positive change in slope between the baseline and intervention phase.	0.002	There is a very minimal accelerating trend for the baseline phase. There is a small decelerating trend for the intervention phase. The magnitude of change shows a very small negative change in slope between the baseline and intervention phase.
	Trend for intervention phase	0.04		-0.04	
	Magnitude of change between the baseline and intervention phase	0.04		-0.04	

Variability	Baseline phase Range Standard deviation	 19 6.47	There is a smaller range of scores in the intervention phase compared to the baseline phase. The standard deviation is lower in the intervention phase than in the baseline phase.	 19 6.47	There is a smaller range of scores in the intervention phase compared to the baseline phase. The standard deviation is lower in the intervention phase than in the baseline phase.
	Intervention phase Range Standard deviation	 11 4.15		 11 4.15	
Overlap	Percentage of data overlap between the baseline & intervention phase	12.5%	There is a small overlap of one score in the intervention phase with one score in the baseline phase.	12.5%	There is a small overlap of one score in the intervention phase with one score in the baseline phase.

4.4.4.1 Summary

Visual analysis of Figure 11 shows a decrease in on-task behaviours and an increase in off-task behaviours during the intervention phase compared to the baseline phase, as demonstrated by the mean scores. For the on-task behaviours, the trend changed from slightly decelerating for the baseline phase to accelerating during the intervention phase whilst the trend for off-task behaviours changed from slightly accelerating to decelerating. There was a large range of scores in both phases but particularly in the baseline phase. There was a small amount of overlap of scores across the phases. Therefore, the results show no positive impact of the intervention on Marcus' on and off-task behaviours.

4.4.4.2 Inter-rater Agreement

In order to enhance the reliability of the observational measure, joint observations of on and off-task behaviour were carried out for 30% of the observations (4 out of 13 times). To calculate the level of inter-rater agreement, Cohen's Kappa coefficient was used (Cohen, 1960).

The range of Cohen's Kappa across the 4 observations was 0.81 to 1, with a mean of 0.89. The mean therefore shows an almost perfect level of agreement, as described by Landis and Koch (1977).

4.4.4.3 Pre- and post- data

The table below shows Marcus' scores on the Strengths and Difficulties Questionnaire (Goodman, 1997).

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	2	3	8	3
Post-test	3	1	5	2
Difference	1	-2	-3	-1
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	10	0	16	
Post-test	10	0	11	
Difference	0	0	-5	

Table 33: Marcus' scores on the SDQ

Table 33 shows a decrease in Marcus' ratings of total difficulties at post-testing compared to pre-testing. There was also a decrease in his hyperactivity, conduct problems and peer problems but a small increase in emotional symptoms. There were no changes in his report of prosocial behaviours.

The table below shows Marcus' teachers scores for Marcus on the Strengths and Difficulties Questionnaire.

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	1	2	8	0
Post-test	1	2	7	1
Difference	0	0	-1	1
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	8	1	11	
Post-test	6	1	11	
Difference	-2	0	0	

Table 34: Marcus' teacher's ratings on SDQ

Table 34 shows no changes in Marcus' teacher's score for Marcus' total difficulties. There is a small decrease in the hyperactivity and prosocial behaviour score but a small increase in peer problems at post-testing compared to pre-testing.

4.4.4.4 Summary for research question 2

There were no positive changes observed in Marcus' attention in the classroom following the introduction of the intervention and Marcus' teacher also indicated no positive changes in his behaviour, shown through the pre- and post- total difficulties score. However, Marcus reported a reduction in his total difficulties following the introduction of the intervention and reported decreases in his hyperactivity, conduct problems and peer problems. Therefore, this suggest although there were no observed changes, Marcus felt that changes had occurred regarding his behaviour.

4.4.5 Research question 3: Resilience

The table below shows Marcus' scores on the Resiliency Scales for Children and Adolescents (Prince-Embury, 2007).

	Sense of mastery	Score ranking	Sense of relatedness	Score ranking	Emotional Reactivity	Score ranking
Pre-test	32	Low	48	Average	52	Above average
Post-test	33	Low	40	Low	50	Above average
Difference	1		-8		-2	

Table 35: Marcus' scores on the RSCA

Marcus' rating of his sense of mastery was low at pre-testing and post-testing, with only a minor increase. His sense of relatedness decreased at post-testing compare to pre-testing. Marcus' emotional reactivity although slightly lower at post-testing, was high at pre-testing and post-testing. Therefore, no overall positive improvements in Marcus' ratings of resiliency can be concluded.

4.4.6 Research question 4: Self-efficacy

The table below shows Marcus' scores on the Self-Efficacy Scale for Children (Muris, 2001).

	Total	Academic	Social	Emotional
Pre-test	39	9	18	12
Post-test	42	9	22	11
Difference	3	0	4	-1

Table 36: Marcus' scores on the SEQ-C

Marcus' score for overall self-efficacy increased at post-testing compare to pre-testing. There was an increase in his rating of his social self-efficacy at post-testing, but a decrease for emotional self-efficacy and the scores remained the same at post-testing and pre-testing for academic self-efficacy.

4.4.7 Summary of results

The results indicate that there were some positive changes in Marcus' well-being at post-testing compared to pre-testing. Therefore, there appears to be some impact of the intervention on Marcus' subjective well-being. However, results also showed no positive impact on Marcus's behaviour in the classroom. There is evidence of a small impact on self-efficacy but no impact on resiliency as demonstrated by pre- and post-testing.

4.4.8 Qualitative data

Research question 5: How do young people perceive the programme to have impacted upon them?

Marcus' interview data was transcribed, alongside the interview data gathered for two other participants. Thematic analysis was used across the three transcripts, following the steps of Braun and Clarke (2006). Three main themes were identified: Changes in thoughts, Changes in emotions and Changes in behaviour. Marcus' data in relation to these three themes is presented using excerpts from his transcript below.

Theme 1: Changes in thoughts

> *"liking yourself and your appearance and your personality and just liking who you are"*
>
> *"you feel good about yourself and proud"*
>
> *"when you like who you are (.) its just like better for you and (.) helps ya in (.) life and everything"*

These quotations show that following the intervention, Marcus spoke positively about himself.

Theme 2: Changes in emotions

"I think I've been a bit happier"

"if you compliment someone it makes their day happier"

"if-if you're grateful then it makes other people's day happier and better"

These quotations show that following the intervention, Marcus spoke about positive changes in terms of his own happiness as well as reflecting upon how to make others happy.

Themes 3: Changes in behaviour

"if you concentrate on one thing you do it much better than you would if you concentrate on more than one"

"I think I've been concentrating much more since (.) the session"

"Its by remembering (.) like (.) things that you've learnt ((pause)) and try a put them in action basically"

The above quotations show that Marcus felt that since participating in the programme he had developed his ability to concentrate.

4.4.9 Summary of qualitative data for Marcus

Marcus therefore spoke of many positives arising following his participation in the intervention. His focus upon the development of happiness supports the quantitative data which shows increases in subjective happiness and life satisfaction at post-testing compared to pre-testing. Marcus' views regarding the positive changes in his ability to concentrate do not reflect the observations which were carried out which showed no positive impact on the on and off task behaviours measured.

4.5 Participant 4: Jay

4.5.1 Participant description

Jay is a male student aged 13 years and 5 months at the start of this study. He is a pupil premium student whose attendance is low. Jay has received many detentions and been to the schools' internal exclusion unit many times throughout the school year, mostly due to refusal to follow instructions. He is considered to be average academically.

4.5.2 Jay's response to the intervention

Jay was a confident member of the group. He was able to share his ideas clearly and confidently within the group. He demonstrated a good understanding of the concepts introduced to him in each session and showed reflection upon these in following sessions. Jay missed several of the sessions due to being absent from school. He made other students smile and worked well with all members of the group.

4.5.3 Research question 1: Subjective well-being

Figure 12: *A line graph to show Jay's weekly scores on the PANAS-C*

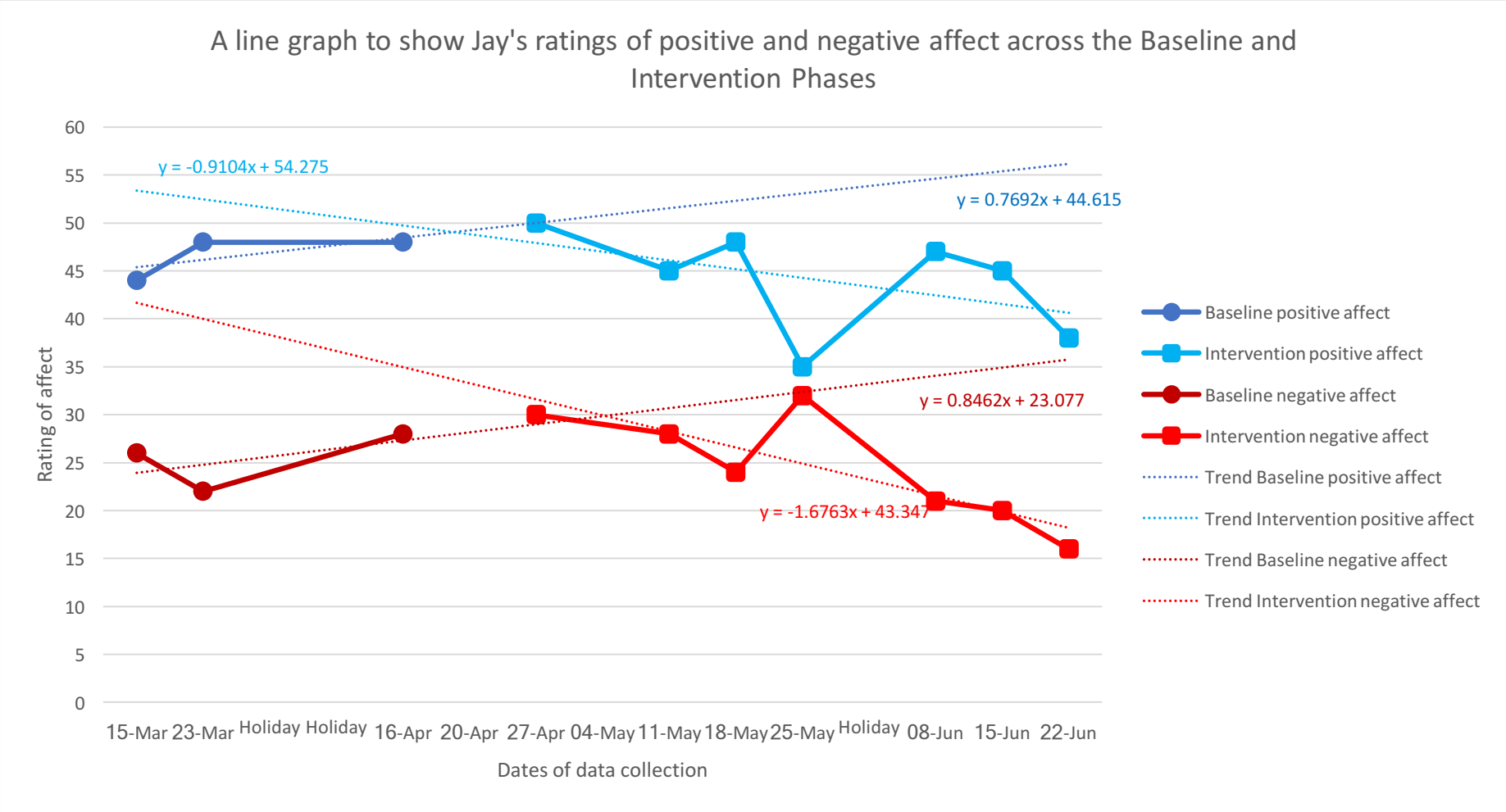

A line graph to show Jay's ratings of positive and negative affect across the Baseline and Intervention Phases
Rating of affect
60
55
50
45
40
35
30
25
20
15
10
5
0
y = -0.9104x + 54.275
y = 0.7692x + 44.615
y = 0.8462x + 23.077
y = -1.6763x + 43.347
15-Mar
23-Mar
Holiday
Holiday
16-Apr
20-Apr
27-Apr
04-May
11-May
18-May
25-May
Holiday
08-Jun
15-Jun
22-Jun
Dates of data collection
Baseline positive affect
Intervention positive affect
Baseline negative affect
Intervention negative affect
Trend Baseline positive affect
Trend Intervention positive affect
Trend Baseline negative affect
Trend Intervention negative affect

Table 37: Visual analysis of Jay's weekly ratings of positive affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	46.6	The mean of positive affect scores is lower in the intervention phase than the baseline phase. The mean shift shows a small decrease in mean level across the two phases.
	Mean of intervention phase	44	
	Mean shift from baseline to intervention phase	-0.06	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	2	There is a small increase in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	0.10	There is a small accelerating trend for the baseline phase. There is a small decelerating trend for the intervention phase. The magnitude of change shows a negative change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.13	
	Magnitude of change between the baseline and intervention phase	-0.23	
Variability	Baseline phase Range Standard deviation	 4 1.89	The range of scores in the intervention phase is much greater than the range of scores in the baseline phase. The standard deviation is higher in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 12 5.07	
Overlap	Percentage of data overlap between the baseline & intervention phase	14.29%	There was a very small overlap of one score which was in the intervention phase as well as the baseline phase.

Table 38: Visual analysis of Jay's weekly ratings of negative affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	25.3	The mean of scores for negative affect in the intervention phase is lower than in the baseline phase. The mean shift shows a small decrease in mean level across the two phases.
	Mean of intervention phase	24.4	
	Mean shift from baseline to intervention phase	-0.04	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	2	There is an increase in negative affect at the beginning of the intervention phase compared to the end of the baseline phase.
Trend	Trend for baseline phase	0.11	There is a small accelerating trend for negative affect scores in the baseline phase. There is larger decelerating trend for negative affect scores in the intervention phase. The magnitude of change indicates a negative change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.24	
	Magnitude of change between the baseline and intervention phase	-0.35	
Variability	Baseline phase Range Standard deviation	 6 2.49	There is a much wider range of scores in the intervention phase compared to the baseline phase. The standard deviation is much greater in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 16 5.39	
Overlap	Percentage of data overlap between the baseline & intervention phase	14.29%	There is a small overlap of one score in the intervention phase overlapping with a score in the baseline phase.

4.5.3.1 Summary

Visual analysis of Figure 12 shows that there was a decrease in positive affect and a decrease in negative affect scores at the intervention phase compared to the baseline phase as demonstrated by the mean scores. There is evidence of changes in trend for the different types of affect. For positive and negative affect, there was an accelerating trend for the baseline phase and a decelerating trend for the intervention phase.

4.5.3.2 Pre- and post- data

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

The table below shows Jay's scores on this scale.

	Score
Pre-test	17
Post-test	17
Difference	0

Table 39: Jay's scores on the SHS

Jay's scores of subjective happiness remained the same at post-testing compared to pre-testing.

Students' Life Satisfaction Scale (Huebner, 1991b)

The table below shows Jay's scores on this scale.

	Score
Pre-test	33
Post-test	28
Difference	-5

Table 40: Jay's scores on the SLSS

Jay's satisfaction with life scores decreased at post-testing compare to pre-testing.

4.5.3.3 Summary for research question 1

Results indicate a positive impact of the intervention upon Jay's ratings of negative affect, as there was a decrease in negative affect scores in the intervention phase compared to the baseline phase. However, there appears to be no positive impact of the intervention on other aspects of his subjective wellbeing – positive affect, subjective happiness and life satisfaction. Therefore, there is no overall positive impact on Jay's subjective well-being.

4.5.4 Research question 2: Behaviour

Figure 13: *A line graph to show the frequency of Jay's on and off-task behaviours*

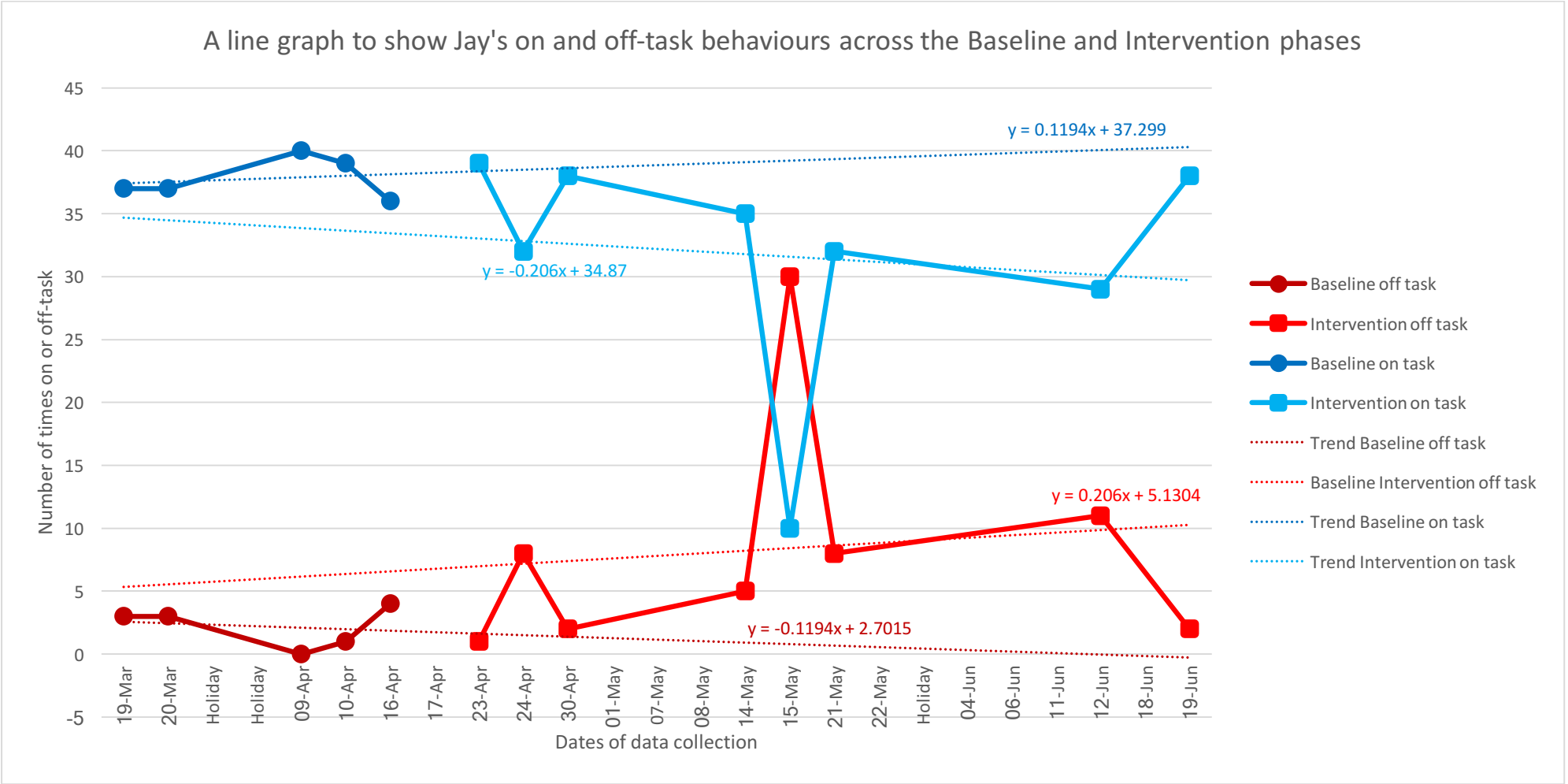

A line graph to show Jay's on and off-task behaviours across the Baseline and Intervention phases
Number of times on or off-task
45
40
35
30
25
20
15
10
5
0
-5
y = 0.1194x + 37.299
y = -0.206x + 34.87
y = 0.206x + 5.1304
y = -0.1194x + 2.7015
19-Mar
20-Mar
Holiday
Holiday
09-Apr
10-Apr
16-Apr
17-Apr
23-Apr
24-Apr
30-Apr
01-May
07-May
08-May
14-May
15-May
21-May
22-May
Holiday
04-Jun
06-Jun
11-Jun
12-Jun
18-Jun
19-Jun
Dates of data collection
Baseline off task
Intervention off task
Baseline on task
Intervention on task
Trend Baseline off task
Baseline Intervention off task
Trend Baseline on task
Trend Intervention on task

Table 41: Visual analysis of Jay's on and off-task behaviours					
Criteria	**Numerical description**	**On-task**	**Description (on-task)**	**Off-task**	**Description (off-task)**
Mean	Mean of baseline phase	37.8	The mean of observed on-task behaviours is lower in the intervention phase compared to the baseline phase. The mean shift shows a decrease in mean level across the two phases.	2.2	The mean of observed off-task behaviours is higher in the intervention phase compared to the baseline phase. The mean shift shows a large increase in mean level across the two phases.
	Mean of intervention phase	31.63		8.38	
	Mean shift from baseline to intervention phase	-0.16		2.81	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	3	There is an increase in level from the end of the baseline phase to the beginning of the intervention phase.	-3	There is a decrease in level from the end of the baseline phase to the beginning of the intervention phase.
Trend	Trend for baseline phase	0.03	There is a very small accelerating trend in the baseline phase. There is a very small decelerating trend in the intervention phase. The magnitude of change shows a very small negative change in slope between the baseline and intervention phase.	-0.03	There is a small decelerating trend in the baseline phase. There is a small accelerating trend in the intervention phase. The magnitude of change shows a small positive change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.04		0.04	
	Magnitude of change between the baseline and intervention phase	-0.07		0.07	

Variability	Baseline phase Range Standard deviation	4 1.47	There is a very wide spread of scores in the intervention phase and a much lower range of scores in the baseline phase. The standard deviation is much higher in the intervention phase compared to the baseline phase.	4 1.47	There is a very wide spread of scores in the intervention phase and a much lower range of scores in the baseline phase. The standard deviation is much higher in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	29 8.82		29 8.82	
Overlap	Percentage of data overlap between the baseline & intervention phase	12.5%	There is a small overlap of one data point from the intervention phase with the baseline phase.	12.5%	There is a small overlap of one data point from the intervention phase with the baseline phase.

4.5.4.1 Summary

Visual analysis of Figure 13 shows that there was a reduction in the observation of on-task behaviours at the intervention phase compared to the baseline phase, whilst there was an increase in observed off-task behaviours in the intervention phase, as demonstrated by the mean scores. For on-task behaviours there was a small accelerating trend during the baseline phase but this changed to a decelerating trend during the intervention phase. Therefore, for off-task behaviours there was a small decelerating trend in the baseline phase and a small accelerating trend in the intervention phase. There was a very wide range of scores during the intervention phase compared to the baseline phase and a small overlap. This suggests that the intervention did not have a positive impact on Jay's on and off-task behaviours in the classroom.

4.5.4.2 Inter-rater Agreement

In order to enhance the reliability of the observational measure, joint observations of on and off-task behaviour were carried out for 23% of the observations (3 out of 13 times). To calculate the level of inter-rater agreement, Cohen's Kappa coefficient was used (Cohen, 1960).

The range of Cohen's Kappa across the 3 observations was 0.51 to 1, with a mean of 0.72 The mean therefore shows a substantial level of agreement, as described by Landis and Koch (1977).

4.5.4.3 Pre- and post- data

The table below shows Jay's score on the Strengths and Difficulties Questionnaire (Goodman, 1997).

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	0	3	6	1
Post-test	0	1	2	0
Difference	0	-2	-4	-1

	Prosocial behaviours	Impact on life	Total difficulties	
Pre-test	6	1	10	
Post-test	9	0	3	
Difference	3	-1	-7	

Table 42: Jay's scores on the SDQ

Table 42 shows a decrease in Jay's total difficulties score at post-testing compared to pre-testing. Particularly, there is a decrease in hyperactivity, whilst there is also a decrease in conduct problems, peer problems and the impact on life, with an increase in prosocial behaviours.

Jay's teacher did not complete the SDQ at post-testing and so scores could not be compared in terms of any changes noticed by his teacher.

4.5.4.4 Summary for research question 2

The results for Jay indicate that there was no positive change in his on and off-task behaviours at post-intervention compared to pre-intervention. However, his perception is of a reduction in difficulties and at post-testing.

4.5.5 Research question 3: Resilience

The table below shows Jay's score on the Resiliency Scales for Children and Adults (Prince-Embury, 2007).

	Sense of Mastery	Score ranking	Sense of Relatedness	Score ranking	Emotional Reactivity	Score ranking
Pre-test	46	Average	52	Average	55	Average
Post-test	49	Average	44	Below average	44	Below average
Difference	3		-8		-11	

Table 43: Jay's scores on the RSCA

Table 43 shows a small increase in Jay's self-report of his sense of mastery but a decrease in his sense of relatedness at post-testing compared to pre-testing. The findings also show a large decrease in Jay's report of his emotional reactivity at

post-testing compared to pre-testing. This therefore indicates positive changes in terms of sense of mastery and emotional reactivity post-intervention.

4.5.6 Research question 4: Self-efficacy

The table below shows Jay's score on the Self-Efficacy Questionnaire for Children (Muris, 2001).

	Total	Academic	Social	Emotional
Pre-test	55	13	22	20
Post-test	60	15	24	21
Difference	5	2	2	1

Table 44: Jay's scores on the SEQ-C

Jay's score for overall self-efficacy increased at post-testing compared to pre-testing. His scores for academic, social and emotional self-efficacy were all higher at post-testing compared to pre-testing. This shows positive changes in Jay's self-efficacy following his participation in the intervention.

4.5.7 Summary of results

Whilst results indicate a decrease in negative affect post-intervention, there is no overall positive impact on Jay's subjective well-being following the intervention. Whilst there was no observed positive impact on Jay's attention in the classroom, Jay's views regarding his difficulties, indicated that he felt a decrease in difficulties following the intervention. Results also indicate a positive impact on Jay's self-efficacy and some aspects of his resiliency, following the intervention.

4.5.8 Qualitative data

Research question 5: How do young people perceive the programme to have impacted upon them?

Jay's interview data was transcribed, alongside the interview data gathered for two other participants. Thematic analysis was used across the three transcripts, following the steps of Braun and Clarke (2006). Three main themes were identified: Changes in thoughts, Changes in emotions and Changes in behaviour.

Jay's data in relation to these three themes is presented using excerpts from his transcript below.

Theme 1: Changes in thoughts

> *"I just think more positive like (.) like what I wanna do in the future like I-I feel more positive that I can do it"*

> *"Yeah like I feel more positive about myself like it changed like my feelings about that"*

The quotations above therefore show that Jay felt more positive since participating in the programme and this impacted on his thoughts for the future.

Theme 2: Changes in emotions

> *"I learnt to how like (.) like I don't know how to explain it like (.) keep myself happy"*

> *"but like I seem to be more like happy"*

> *"how to like say when I get (.) upset and like down with myself"*

> *"Yeah like I don't seem to get (.) upset um like say mardy and stuff like that as as much"*

The quotations above therefore show that Jay felt that there were positive changes in his happiness following his participation in the programme and there were changes to his experience of negative feelings.

Themes 3: Changes in behaviour

> *"Yeeaah like I don't seem to talk a lot like I used to get in like trouble not for bad stuff but like talking too much to my friends but I don't really (.) like get in trouble for talking and stuff I seem more settled in like lessons"*

> *"Erm well I us-like when I use the flow is like when I'm go to football and stuff like that and I go out with my mates and stuff and then like gratitude is like (.) ugh I don't really know how to explain it (.) like (.) like when like say my mum will like cook me dinner like after I've had it I'll just say like oh thank you for that and stuff like that"*

These quotations show that Jay felt that there had been a positive change in his behaviour at school since participating in the programme. He also stated how he was able to apply aspects of the programme to his everyday life.

4.5.9 Summary of qualitative data for Jay

These data suggest that following his participation in the programme, there were some positive changes which Jay felt had occurred. These could be considered to complement the quantitative data where Jay indicated a decrease in difficulties following the intervention and an increase in his self-efficacy.

4.6 Participant 5: Oliver

4.6.1 Participant description

Oliver is a male student aged 13 years and 6 months at the start of this study. His attendance is good and he has a high amount of achievement points compared to behaviour points. He has received lots of detentions throughout the school year for low level behaviours or due to failing to complete homework tasks. He is often late arriving to school. He is an academically average student.

4.6.2 Oliver's response to the intervention

Oliver worked well with other students in the group. He shared some of his thoughts and ideas in small groups and with a little encouragement spoke within the wider group. He commented on practising some of the activities outside of the group.

4.6.3 Research question 1: Subjective well-being

Figure 14: *A line graph to show Oliver's weekly scores on the PANAS-C*

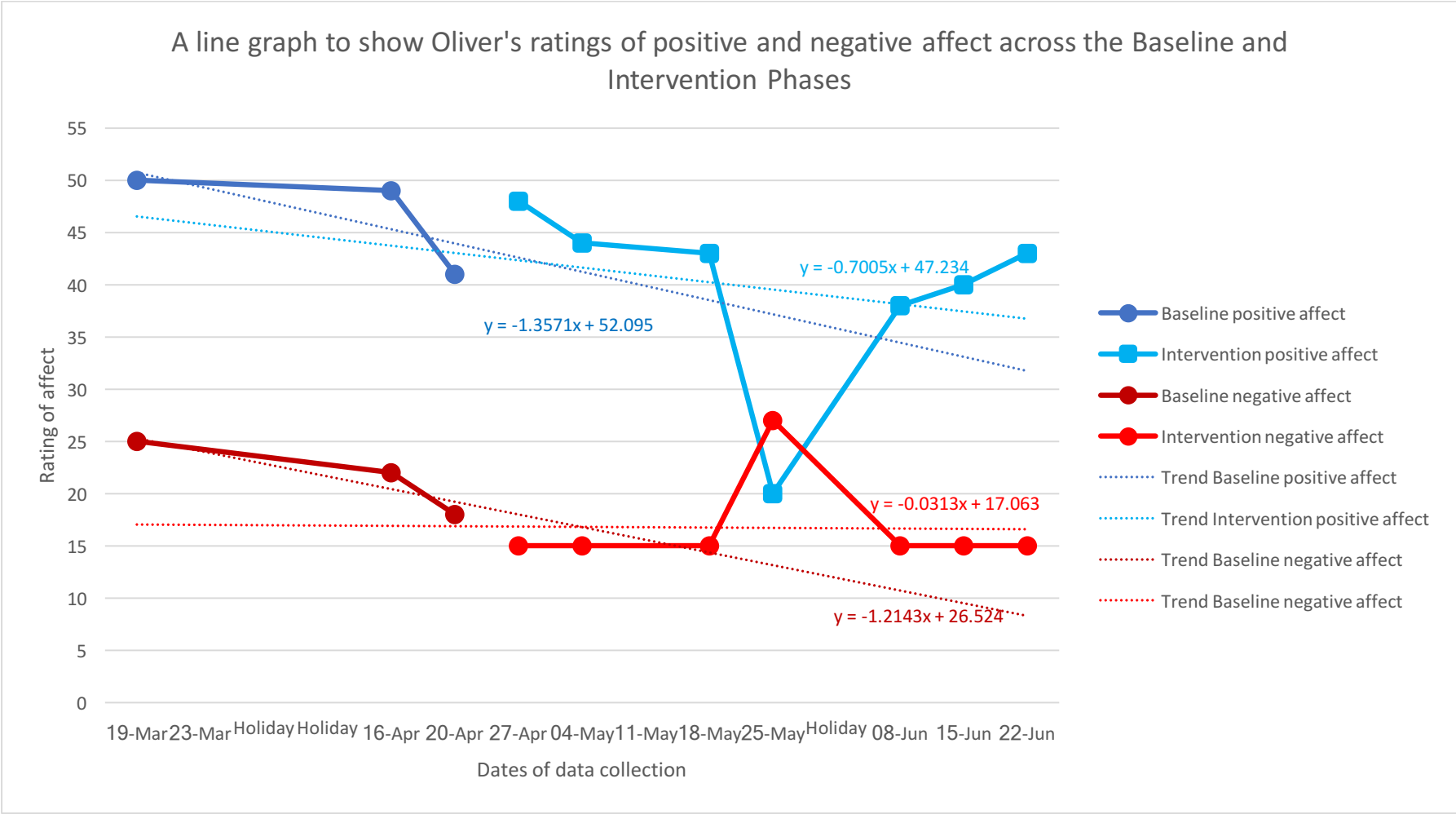

A line graph to show Oliver's ratings of positive and negative affect across the Baseline and Intervention Phases
Rating of affect
55
50
45
40
35
30
25
20
15
10
5
0
y = -1.3571x + 52.095
y = -0.7005x + 47.234
y = -0.0313x + 17.063
y = -1.2143x + 26.524
19-Mar
23-Mar
Holiday
Holiday
16-Apr
20-Apr
27-Apr
04-May
11-May
18-May
25-May
Holiday
08-Jun
15-Jun
22-Jun
Dates of data collection
Baseline positive affect
Intervention positive affect
Baseline negative affect
Intervention negative affect
Trend Baseline positive affect
Trend Intervention positive affect
Trend Baseline negative affect
Trend Baseline negative affect

Table 45: Visual analysis of Oliver's weekly ratings of positive affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	46.67	The mean of positive affect scores is lower in the intervention phase than in the baseline phase. The mean shift therefore shows a decrease in mean level across the two phases.
	Mean of intervention phase	39.4	
	Mean shift from baseline to intervention phase	-0.16	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	7	There is an increase in level between the end of the baseline phase and the beginning of the intervention phase.
Trend	Trend for baseline phase	-0.19	There is a decelerating trend for the baseline phase. There is a decelerating trend for the intervention phase. The magnitude of change indicates a small, positive change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.10	
	Magnitude of change between the baseline and intervention phase	0.09	
Variability	Baseline phase Range Standard deviation	 9 4.03	There is a much wider range of scores in the intervention phase than the baseline phase. The standard deviation is much larger in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 18 8.45	
Overlap	Percentage of data overlap between the baseline & intervention phase	0%	There is no overlap between scores in the baseline phase with scores in the intervention phase.

Table 46: Visual analysis of Oliver's weekly ratings of negative affect			
Criteria	**Numerical finding (to 2dp)**		**Description**
Mean	Mean of baseline phase	21.67	The mean of the intervention phase is lower than the mean of the baseline phase. The mean shift shows a decrease in mean level across the two phases.
	Mean of intervention phase	16.7	
	Mean shift from baseline to intervention phase	-0.23	
Level	Change in level between last score of the baseline phase and the first score of the intervention phase	-3	There is a decrease in level from the baseline phase to the intervention phase.
Trend	Trend for baseline phase	-0.18	There is a decelerating trend for negative affect scores in the baseline phase. There is a very small decelerating trend for negative affect scores in the intervention phase. The magnitude of change therefore shows a positive change in slope between the baseline and intervention phase.
	Trend for intervention phase	-0.004	
	Magnitude of change between the baseline and intervention phase	0.17	
Variability	Baseline phase Range Standard deviation	 7 2.87	There is a much greater range of scores in the intervention phase compared to the baseline phase. The standard deviation is greater in the intervention phase compared to the baseline phase.
	Intervention phase Range Standard deviation	 12 4.2	
Overlap	Percentage of data overlap between the baseline & intervention phase	0%	There is no overlap between scores in the baseline phase and scores in the intervention phase.

4.6.3.1 Summary

Visual analysis of Figure 14 shows a decrease in positive affect and a decrease in negative affect during the intervention phase compared to the baseline phase, as demonstrated by the mean scores. For positive affect, there was a decelerating trend at baseline and this reduced but remained decelerating at intervention. For negative affect, there was a decelerating trend at baseline and this reduced to a very small decelerating trend at intervention. The range of scores was much greater in the intervention phase for both positive and negative affect. All scores for negative affect (except one high score) were below the baseline scores. There appears to be some impact on decreasing negative affect but due to the already decelerating at the baseline phase it is difficult to conclude that the decrease in negative affect was due to the introduction of the intervention.

4.6.3.2 Pre- and post- data

The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999)

The table below shows Oliver's scores on this scale.

	Score
Pre-test	22
Post-test	20
Difference	-2

Table 47: Oliver's scores on the SHS

Oliver's score at post-testing for subjective happiness was slightly lower than his score at pre-testing.

Students' Life Satisfaction Scale (Huebner, 1991b)

The table below shows Oliver's scores on this scale.

	Score
Pre-test	31
Post-test	31
Difference	0

Table 48: Oliver's scores on the SLSS

Oliver's score for satisfaction with life remained the same at pre- and post-testing.

4.6.3.3 Summary

Oliver's results show a decrease in negative affect, suggesting a small positive impact of the intervention on one aspect of his subjective well-being. However, in terms of positive affect, subjective happiness and life satisfaction there were no positive changes reported following the introduction of the intervention. Therefore, there is no overall positive impact on Oliver's subjective well-being.

4.6.4 Research question 2: Behaviour

4.6.4.1 On and off-task behaviour

Oliver did not wish to be observed in a lesson and so there is no observational data and no teacher reports for his behaviour. However, Oliver consented to completing the Strengths and Difficulties at pre- and post-intervention.

4.6.4.2 Pre- and post- data

The table below shows Oliver's score on the Strengths and Difficulties Questionnaire (Goodman, 1997).

	Emotional symptoms	**Conduct problems**	**Hyper activity**	**Peer problems**
Pre-test	2	2	5	3
Post-test	3	2	5	2
Difference	1	0	0	-1
	Prosocial behaviours	**Impact on life**	**Total difficulties**	
Pre-test	5	1	12	
Post-test	8	0	12	
Difference	3	-1	0	

Table 49: Oliver's scores on the SDQ

Oliver's scores show very little change in all areas between pre- and post-testing. His score for total difficulties following the intervention remained the same as his score prior to the intervention. His scores do show a small decrease in terms of peer problems and the impact of problems on his life as well as an increase in his self-report of his prosocial behaviours.

4.6.4.3 Summary for research question 2

There was little to no change in Oliver's reports of his behaviour at post-testing compared to pre-testing, suggesting no intervention effects.

4.6.5 Research question 3: Resilience

The table below shows Oliver's scores on the Resiliency Scale for Children and Adolescents (Prince-Embury, 2007).

	Sense of Mastery	Score ranking	Sense of Relatedness	Score ranking	Emotional Reactivity	Score ranking
Pre-test	44	Below average	47	Average	40	Low
Post-test	44	Below average	45	Just below average	48	Average
Difference	0		-2		8	

Table 50: Oliver's scores on the RSCA

The results above show that there was no change in Oliver's rating of his sense of mastery at post-test compared to pre-test, whilst his reports of sense of relatedness decreased at post-testing. Oliver's emotional reactivity score increased at post-testing, placing him within the average range. This shows no positive impact of the programme on Oliver's resilience at post-testing.

4.6.6 Research question 4: Self-efficacy

The table below shows Oliver's scores on the Self-Efficacy Scale for Children (Muris, 2001).

	Total	Academic	Social	Emotional
Pre-test	54	14	21	19
Post-test	45	13	16	16
Difference	-9	-1	-5	-4

Table 51: Oliver's scores on the SEQ-C

There was a decrease in Oliver's scores of self-efficacy at post-testing compared to pre-testing in all areas, therefore suggesting a negative impact of the intervention.

4.6.7 Summary of results

The results show no positive changes for Oliver in terms of his self-report of his overall subjective wellbeing, behaviour, self-efficacy or resiliency. This is demonstrated as there was no change between his pre- and post-test results of life satisfaction, behaviour difficulties or resiliency. Results indicated negative changes in terms of his reports of subjective happiness, and self-efficacy.

4.7 Research question 5: How do young people perceive the programme to have impacted upon them?

The thematic analysis followed the steps provided by Braun and Clarke (2006) and generated three main themes:

1. Changes in thoughts
2. Changes in emotions
3. Changes in behaviour

4.7.1 Main theme 1

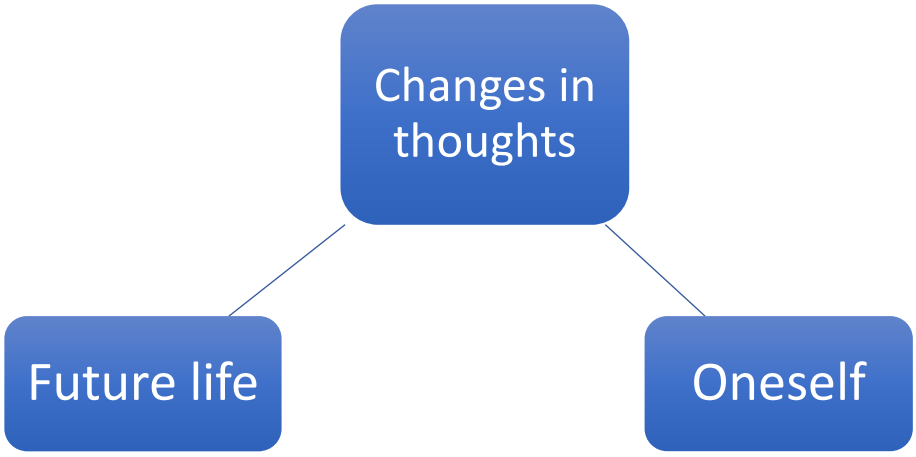


Figure 15: *Diagram to show theme 1 and subthemes*

One main theme identified through thematic analysis was changes in thoughts that arose for the participants. Within this theme, there were two sub-themes identified, thoughts about their lives and thoughts about themselves.

Sub theme 1: Thoughts about their future life

The participants spoke about how the programme has impacted on their thoughts about their life in the future:

> *"I just think more positive like (.) like what I wanna do in the future like I-I feel more positive that I can do it"* (Participant C)

"Erm in in some ways (.) er I've been like thinking about (.) how it could be more (.) more er positive on-on and affect me in the future" (Participant A)

"I've been more more (.) more like (.) erm (.) thinking in-in advance and how (.) i-if-if-if I do certain things that they might affect me later on" (Participant A)

Participants spoke about looking ahead and feeling more positive about their future lives.

Sub-theme 2: Oneself

The participants spoke about how being part of the programme changed the way in which they view themselves. Participants spoke about liking themselves and how this is beneficial.

"liking yourself and your appearance and your personality and just liking who you are" (Participant B)

"you feel good about yourself and proud" (Participant B)

"when you like who you are (.) its just like better for you and (.) helps ya in (.) life and everything" (Participant B)

"Yeah like I feel more positive about myself like it changed like my feelings about that" (Participant C)

4.7.2 Main theme 2

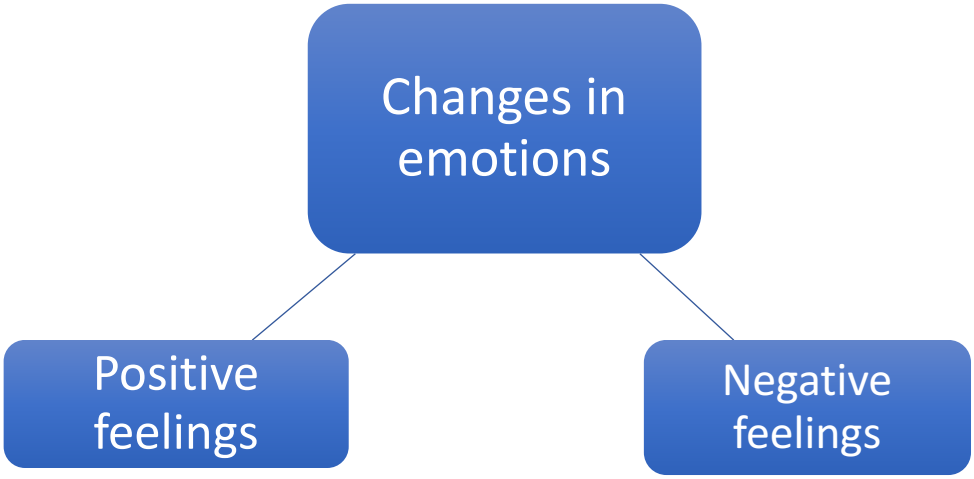


Figure 16: *Diagram to show theme 2 and subthemes*

A second theme identified was around the changing emotions of the participants, both positive and negative.

Sub-theme 1: Positive emotions - themselves and others

Participants spoke about feelings of happiness increasing following the intervention and how their actions can also make other people feel happy.

> *"I learnt to how like (.) like I don't know how to explain it like (.) keep myself happy"* (Participant C)

> *"but like I seem to be more like happy"* (Participant C)

> *"I think I've been a bit happier"* (Participant B)

> *"if you compliment someone it makes their day happier"* (Participant B)

> *"if-if you're grateful then it makes other people's day happier and better"* (Participant B)

Sub-theme 2: Negative emotions

Participants spoke of noticing and feeling less upset following the intervention.

> *"how to like say when I get (.) upset and like down with myself"* (Participant C)

> *"Yeah like I don't seem to get (.) upset um like say mardy and stuff like that as as much"* (Participant C)

> *"Yeah I've been less (.) less (.) er (.) upset about things that a-a-a have been happening (.) er in-in my everyday life"* (Participant A)

4.7.3 Main theme 3

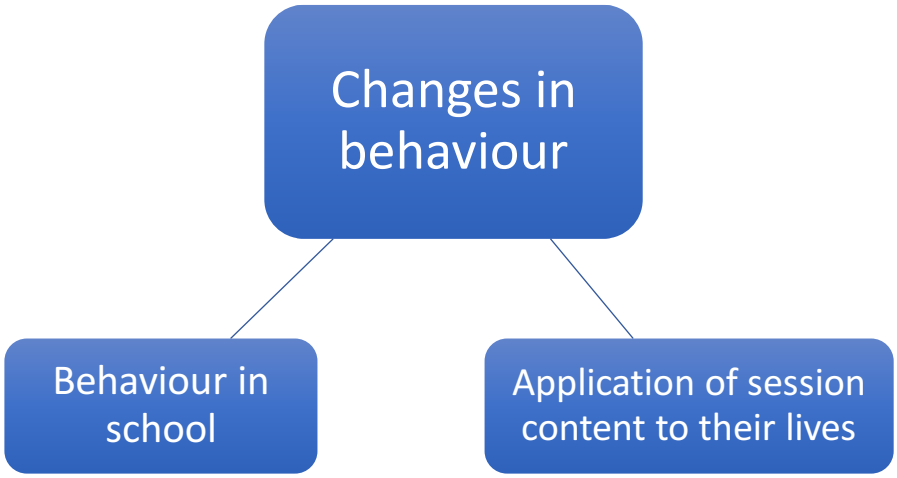


Figure 17: *Diagram to show theme 3 and subthemes*

Subtheme 1: Behaviour in school

Participants spoke about positive changes in the way in which they behave in the classroom. When asked about possible changes in concentration, participants spoke of concentrating more, as well as benefits of concentrating.

> *"Yeeaah like I don't seem to talk a lot like I used to get in like trouble not for bad stuff but like talking too much to my friends but I don't really (.) like get in trouble for talking and stuff I seem more settled in like lessons"* (Participant C)

"if you concentrate on one thing you do it much better than you would if you concentrate on more than one" (Participant B)

"I think I've been concentrating much more since (.) the session" (Participant B)

"Er a-a little bit (.) erm more-more concentration in in certain lessons and (.) and that er lessons I-I've I've picked for my future options" (Participant A)

Subtheme 2: Application of session contents to their lives

Participants commented on which activities and key learning from the sessions they had begun to use in their lives and how they had applied these.

"Erm well I us-like when I use the flow is like when I'm go to football and stuff like that and I go out with my mates and stuff and then like gratitude is like (.) ugh I don't really know how to explain it (.) like (.) like when like say my mum will like cook me dinner like after I've had it I'll just say like oh thank you for that and stuff like that" (Participant C)

"Its by remembering (.) like (.) things that you've learnt ((pause)) and try a put them in action basically" (Participant B)

"Er sssavouring er savouring like moments that that I-I-I like (.) in in er (.) and (.) erm (.) r-remembering them" (Participant A)

"Er (.) er kindness I've been more (.) more erm more kind to to like general people" (Participant A)

"er grateful (.) for the things I've I've already got" (Participant A)

4.7.4 Summary of findings for research question 5

The three main themes identified highlight the impact of the programme on the participants' emotions, thoughts and behaviour. All of the participants spoke of positive changes in these areas.

The first theme showed that the participants felt that the programme had changed the way in which they viewed themselves and participants expressed that they felt more positive about themselves and also spoke about feeling positive about their futures.

The second theme showed that the participants felt that the programme impacted upon their emotions. Particularly, the participants spoke of the programme supporting them to feel less upset and making them feel a greater sense of happiness.

The third theme showed that the participants felt that there were some changes in terms of their behaviour following their participation in the programme. Participants spoke about their behaviour in the classroom but also the wider impact of the programme, in terms of actively using what they had learnt.

5. Chapter 5: Discussion

5.1 Introduction

This chapter provides an outline of the key findings from the five single case designs and semi-structured interviews, in relation to the research questions posed. These findings are then discussed in terms of the key literature. The limitations and considerations of this study are also highlighted. The chapter ends with a consideration of what this research means for EPs in practice and for future research in this area.

5.2 Summary of findings for research question 1: Subjective well-being

Does the positive psychology programme delivered within a school setting have a positive impact on young people's self-report of their own perceived subjective well-being?
Hypothesis: The positive psychology programme will increase participants' ratings of their own perceived subjective well-being.

Findings from the subjective well-being measures did not show a positive impact in all three areas of subjective well-being for any of the five participants. Therefore, full support is not offered for the above hypothesis.

Affect

For all five of the participants, there was a decrease in positive affect, therefore this does not support the hypothesis that positive affect would increase over the course of the intervention. However, for all of the participants, there was a reduction in negative affect demonstrated during the intervention phase compared to the baseline phase. This supports the hypothesis that there would be a decrease in the ratings of negative affect experienced by the participants.

Subjective happiness

For two participants, Christopher and Marcus, there was an increase in subjective happiness ratings at post-testing compared to pre-testing, supporting the hypothesis. However, for one participant, Christopher, this increase was minimal.

For two participants, Charlotte and Oliver, there was a decrease in subjective happiness ratings at post-testing compared to pre-testing, rejecting the hypothesis. However, for one participant, Charlotte, this decrease was minimal.

For one participant, Jay, his pre- and post- ratings of subjective happiness remained the same at post-testing as at pre-testing.

Life Satisfaction

For three of the participants, Christopher, Charlotte and Marcus, there was an increase in their ratings of their life satisfaction at post-testing compared to pre-testing. However, for one participant, Charlotte, this increase was very small.

For one participant, Jay, there was a decrease in his rating of life satisfaction at post-testing compared to pre-testing.

For one participant, Oliver, his ratings of life satisfaction remained the same at pre- and post- testing.

Summary of results

The results above show varied findings in terms of the participant's ratings of affect, subjective happiness and life satisfaction. These are summarised in the table below.

Participant	Positive affect	Negative affect	Subjective happiness	Life satisfaction
Christopher	Decrease	Decrease	Increase	Increase
Charlotte	Decrease	Decrease	Decrease	Increase
Marcus	Decrease	Decrease	Increase	Increase
Jay	Decrease	Decrease	Same	Decrease
Oliver	Decrease	Decrease	Decrease	Same

Table 52: A summary of findings for research question 1

The findings indicate that there was no overall positive impact on any of the participants overall subjective-wellbeing. This is because none of the participants showed increases in positive affect, subjective happiness and life satisfaction, with a decrease in negative affect.

As can be seen in the table above, two participants (Jay and Oliver), showed no overall positive changes in any of the three areas of subjective well-being (affect, subjective happiness or life satisfaction). The only positive change was that there was a decrease in negative affect during the intervention phase compared to the baseline phase. However, in terms of positive affect there were decreases for both participants. In addition, their subjective happiness was either the same (Jay) or decreased (Oliver) at post-testing compared to pre-testing. Their life satisfaction was also either the same (Oliver) or decreased (Jay) at post-testing compared to pre-testing.

For one participant, Charlotte, there was an increase in life satisfaction at post-testing compared to pre-testing but there was a decrease in subjective happiness at post-testing compared to pre-testing. However, both changes were minimal.

For two of the participants, Christopher and Marcus, there were only negative changes for positive affect, whereas there were positive changes in terms of negative affect, subjective happiness and life satisfaction. Both Christopher and Marcus showed decreases in negative affect and increases in terms of subjective happiness and life satisfaction. This suggests that there were positive changes for Christopher and Marcus in three out of the four aspects of subjective well-being.

The overall results do not support the hypothesis that there would be positive changes in all aspects of subjective well-being following the intervention phase, compared to pre-intervention. However, there is evidence of a positive impact in three areas, for two participants. There is also evidence of an impact on negative affect experienced by participants.

5.2.1 Explanations

Issues regarding the stability of the baselines for affect impact upon the reliability of these findings and therefore the conclusions that can be made regarding the impact of the intervention upon affect. In particular, for two of the participants, Christopher and Charlotte, there was already a decelerating trend in positive and negative affect in the baseline phase, which continued into the intervention phase. Therefore, this decelerating trend may have continued without the introduction of the intervention itself. Additionally, the participants' ratings of happiness and life satisfaction were only captured at two points in time and so this reduces the reliability of the data gained from these measures.

5.2.2 Links to existing literature

In terms of subjective well-being, the findings of this research offer little support to the original study which used the PAL programme with at-risk students in New Zealand. When used by Notter (2013) with students potentially at risk of depression, there were increases in participant's psychological well-being, satisfaction with life and subjective happiness and resilience post-intervention. The current results could be explained due to the lack of support participants received in-between sessions to encourage them to practice the strategies. Furthermore, there was also a lack of time for the participants to practice the strategies due to the absence of a follow-up and the reduction of the number of intervention sessions. The varied results across the individual participants highlights the need for research around well-being to be measured at an individual level, rather than group level.

The findings of this research showed that negative affect was reduced for all of the five participants. This is supported by Boniwell, Osin and Martinez's (2016) findings that positive psychology lessons across a year, helped to protect students from an increase in negative affect. The decrease in negative affect, offers some support for the 'undoing effect' proposed by Fredrickson (2001), where it is suggested that positive emotions help to undo negative emotions. However, this is problematic as findings did not show increases in positive emotions and the

baselines were also unstable. In addition, the lack of a follow up in this study does not allow for the further exploration of this. The findings of no overall improvements in subjective well-being support the findings of Hearon (2017) who found no significant improvements in life satisfaction or affect from a ten-week positive psychology programme.

Although it is argued that happiness is a key aspect of positive psychology, attempts to enhance this and measure it, as this study has done, are problematic. Firstly, this is due to happiness being associated with certain personality traits and therefore being linked to a person's genetics, suggesting one's happiness cannot be changed (Carr, 2004). Furthermore, the hedonic treadmill theory (Brickman & Campbell, 1971) suggests that true happiness can never be achieved, as reactions to events are brief, followed by a return to a neutral state. It is argued that people continually seek happiness through setting new goals, and therefore attempts to increase happiness will not be successful (Diener, Lucas & Scollon, 2006). This highlights the difficulty in measuring happiness, as was attempted in this study.

In addition, this study focused on the hedonic model of subjective well-being, focusing on a person's thoughts and feelings about their life, as defined by Moneta, (2014) and supported by Singh and Jha (2008). Therefore, this study has neglected the eudaimonic view of wellbeing, However Deci and Ryan (2008) define well-being as multi-dimensional, suggesting that both perspectives of well-being are important.

The current findings do not therefore support the majority research in this area which has found positive changes for participants in terms of their well-being, as a result of the introduction of a positive psychology programme. Suldo, Savage and Mercer (2014) and Proctor, Tsukayama, Wood, Maltby, Eades and Linley (2011) found that participants showed increases in their life satisfaction at post-testing compared to pre-testing following the introduction of a programme based in positive psychology. Roth, Suldo and Ferron (2016) also found these positive changes in life satisfaction and affect at post-testing. However, such studies measured findings at the group level, rather than focusing on the individual.

5.3 Summary of findings for research question 2: Behaviour

Does the positive psychology programme positively impact on the behaviours of young people when measured through classroom observations and questionnaires? Hypothesis: The positive psychology programme will lead to an increase in on-task behaviours observed for each participant and a decrease in perceived difficulties.

Four of the participants took part in the behaviour aspect of this research. For only one participant, Christopher, there was an increase in on-task behaviours and a decrease in off-task behaviours observed during the intervention phase compared to the baseline phase.

For three of the participants, Charlotte, Marcus and Jay, there was an increase in off-task behaviours and a decrease in on-task behaviours observed.

For two of the participants, Marcus and Jay, there was a decrease in their total difficulties score on the Strengths and Difficulties Questionnaires at post-testing compared to pre-testing. However, for two of the participants, Christopher and Charlotte, there was an increase in their total difficulties score at post-testing compared to pre-testing.

For two students, Jay and Charlotte, the total difficulties score could not be calculated for teachers due to missing data. For one student, Christopher, there was an increase in the teacher's scores for total difficulties at post-testing compared to pre-testing. For one student, Marcus, the teacher's scores remained the same for total difficulties at post-testing compared to pre-testing.

Summary of results

Participant	On-task	Off-task	SDQ self	SDQ teacher
Christopher	Increase	Decrease	Increase	Increase
Charlotte	Decrease	Increase	Increase	Missing
Marcus	Decrease	Increase	Decrease	Same
Jay	Decrease	Increase	Decrease	Missing
Oliver			Same	

Table 53: A summary of findings in for research question 2

The findings suggest that there was no overall positive impact of the positive psychology programme on the participants' behaviour.

For one participant, Charlotte, there were no positive changes in any of the measures of her behaviour. For Oliver, there was no change in his ratings of his strengths and difficulties.

For one participant, Christopher, there were some positive changes in behaviour noted. There was an increase in on-task behaviour, a decrease in off-task. However, there was an increase in his total difficulties reported at post-test compared to pre-test by both Christopher and his teacher.

For two participants, Marcus and Jay, there were positive changes in behaviour indicated through a decrease in total difficulties on the SDQ, reported by the participants themselves at post-testing compared to pre-testing. Although there were no positive changes in terms of an increase in on-task behaviours and a decrease in off-task behaviours.

5.3.1 Explanations

Christopher was the only participant who showed increases in his on-task behaviour following the introduction of the intervention. However, Christopher began to receive counselling at the same time as the duration of the intervention and so the increase in on-task behaviour cannot be reliably attributed to the introduction of the intervention.

5.3.2 Links to existing literature

As there were no changes in terms of the participants' subjective well-being, it is unsurprising that there are also no overall positive changes observed in the participants' on and off-task behaviours. Baumgardner and Crothers (2009) state that positive affect improves positive behaviours and mood impacts upon behaviour. This is supported by the broaden and build theory, which proposes that positive emotions broaden ones thinking and scope for attention (Fredrickson,

1998; Hefferon & Boniwell, 2011). Therefore, without an increase in positive affect, an increase in on-task behaviour is not expected.

Feeling competent and adopting a growth mind-set have been linked with improvements in academic performance (Public Health England, 2014). Therefore, students indicating a reduction in their difficulties at post-testing is a positive finding, which may therefore impact on their behaviour. However, the observation measures focused on attention within one classroom and so failed to consider broader aspects of the participant's behaviours, where changes may have been observed. The lack of follow-up in this study also does not allow for further exploration of this.

5.4 Summary of findings for research question 3: Resilience

Does the positive psychology programme have a positive impact on young people's ratings of perceived resilience, as measured through pre- and post-questionnaires? Hypothesis: The positive psychology programme will increase participants' ratings of their perceived resilience at post-test compared to pre-test.

Three participants, Christopher, Marcus and Jay showed increases in their sense of mastery at post-testing compared to pre-testing. Two participants, Charlotte and Oliver scored the same at post-testing as they did on their pre-test for sense of mastery.

For two participants, Christopher and Charlotte, scores for sense of relatedness increased at post-testing compared to pre-testing. For three participants, Marcus, Jay and Oliver, scores of sense of relatedness decreased at post-testing compared to pre-testing.

In terms of emotional reactivity, two participants, Marcus and Jay, decreased in their reactivity scores at post-testing compared to pre-testing; showing a positive impact (as lower scores indicate resiliency). Whilst the score of one participant, Charlotte, stayed the same at post-testing compared to pre-testing. Two participants, Christopher and Oliver, increased in their reactivity scores at post-testing compared to pre-testing.

Summary of results

Participant	Sense of Mastery	Sense of Relatedness	Emotional Reactivity
Christopher	Increase	Increase	Increase
Charlotte	Same	Increase	Same
Marcus	Increase	Decrease	Decrease
Jay	Increase	Decrease	Decrease
Oliver	Same	Decrease	Increase

Table 54: A summary of findings for research question 3

Although there is evidence of positive changes in some aspects of resiliency, the results do not show positive changes in all three of the aspects for any of the participants. Therefore, this does not support the hypothesis that there would be an overall increase in resiliency.

5.4.1 Explanations

Caution needs to be taken when considering these findings, as resilience has only been measured at two particular points in time, through pre- and post- self-ratings only.

5.4.2 Links to existing literature

Resiliency has been linked to Fredrickson's broaden and build theory, as it is argued that the theory provides a framework for understanding resilience (Tugade & Fredrickson, 2004). The building aspect of this theory states that experiences of positive emotions combined with the broadening effect enables personal resources to be built upon (Fredrickson & Branigan, 2005; Hefferon & Boniwell, 2011). However, the results of the current study show little impact of the intervention on participants' resilience, as rated by them. Resiliency has however been linked with positive emotions (Tugade & Fredrickson, 2004), therefore the lack of findings of a positive impact on resiliency is unsurprising due to the lack of evidence of increases in positive emotions as a result of the introduction of the intervention in this study. Therefore, the varied findings regarding resiliency do not offer support to the Mental Health Foundation (2017) who state that promoting wellbeing is

linked to young people developing resiliency to cope with life's events. However, the very definition of resilience refers to the 'ability to bounce back and thrive in the face of serious life challenges' (Baumgardner & Crothers, 2009 p57), which would suggest that resilience cannot truly be measured through the use of a questionnaire. The lack of a follow-up also makes it difficult to understand the true impact of the intervention in this area.

5.5 Summary of findings for research question 4: Self-efficacy

Does the positive psychology programme have a positive impact on young people's ratings of perceived self-efficacy, as measured through pre- and post-questionnaires?
Hypothesis: The positive psychology programme will increase participants' ratings of perceived self-efficacy at post-test compared to pre-test.

For three participants, Christopher, Marcus and Jay, there was an increase in total self-efficacy scores at post-testing compared to pre-testing. For one participant, Jay, there was an increase in total self-efficacy as well as an increase in all three areas of self-efficacy-academic, social and emotional, at post-testing compared to pre-testing.

For one participant, Charlotte, her total self-efficacy score remained the same at post-testing as it was at pre-testing.

For one participant, Oliver there was a decrease in his total self-efficacy score at post-testing compared to pre-testing and a decrease in scores at post-testing for academic, social and emotional self-efficacy.

Two participants, Jay and Charlotte showed increases in academic self-efficacy at post-testing compared to pre-testing. For one participant, Oliver, there was a decrease and for two participants, Christopher and Marcus, there was no change in scores.

Three participants, Christopher, Marcus and Jay showed increases in social self-efficacy at post-testing compared to pre-testing whilst two participants showed a decrease in social self-efficacy.

For two participants, there was an increase in emotional self-efficacy at post-testing compared to pre-testing whereas for three participants there was an increase in emotional self-efficacy.

Summary of results

Participant	Total	Academic	Social	Emotional
Christopher	Increase	Same	Increase	Increase
Charlotte	Same	Increase	Decrease	Decrease
Marcus	Increase	Same	Increase	Decrease
Jay	Increase	Increase	Increase	Increase
Oliver	Decrease	Decrease	Decrease	Decrease

Table 55: A summary of findings for research question 4

Findings regarding self-efficacy scores are varied. All but one participant showed increases in at least one area of self-efficacy, therefore indicating some support for the hypothesis that self-efficacy scores would increase at post-testing compared to pre-testing. Only one participant showed increases in all areas of their self-efficacy, however there were overall increases for three out of the five participants.

5.5.1 Explanations

Caution needs to be taken when considering these results, as self-efficacy was measured using one questionnaire at pre- and post- only. In addition, the researcher made several changes to the questionnaire, which although were in line with previous research, reduces the validity of the measure and the reliability of these findings.

5.5.2 Links to existing literature

Results show some impact on the participants' self-efficacy beliefs. Therefore, suggesting that the introduction of the positive psychology programme has impacted upon the participants' positive self-appraisals.

These findings offer some support to Shoshani and Steinmetz (2014) who found increases in self-efficacy as well as self-esteem and optimism in students who were part of a fifteen-session positive psychology programme. This also supports Salami (2010) who stated that positive psychology programmes can enhance positive aspects for students. Salami (2010) argues that this is important as self-efficacy has been linked with positive attitudes and motivation to complete academic activities.

Lee (1989) found that self-efficacy beliefs impact upon choices about behaviour and therefore determine behaviour, it is therefore surprising that the changes in self-efficacy beliefs were not reflected in changes in behaviour.

5.6 Summary of findings for research question 5

How do young people perceive the programme to have impacted upon them?

Thematic analysis of semi-structured interview data from interviews with three of the participants suggested three core themes about the effects of the programme:

- Changes in thoughts (future life and oneself)
- Changes in emotions (positive and negative)
- Changes in behaviour (behaviour in school and application of session contents to their lives)

The impact of the programme was positive in all of these areas, therefore agreeing with Salami (2010), that positive psychology can help to develop positive aspects in students.

In terms of the participants' positive comments regarding the programme, this suggests that preventative support for mental health in schools is valued by the students themselves and has the potential to make a difference to participants lives.

Therefore, this indicates that school is an important and appropriate place for mental health promotion, as argued by Patton, Glover, Bond, Butler, Godfry, Di Petro and Bowes (1999). This also supports Weare and Nind (2011) who argue that schools can promote positive mental health, build students resilience and enable them to thrive.

5.7 Positive psychology programmes in schools

When considering the evidence base for positive psychology programmes in schools, the quantitative aspect of the current research shows some agreement with the findings of Burckhardt, Manicavasagar, Batterham, Miller, Talbot and Lum (2015) who found no effects of a 6-week positive psychology online programme (bite back), a programme which also consisted of a variety of different aspects of positive psychology.

There was little support from the school to help the participants to practice and generalise the skills they were learning, as this was not a priority for them. This supports Thorley (2016) who argued that mental health and well-being are neglected in schools, as the focus for OFSTED is on academic outcomes. Furthermore, this also emphasises the need for secondary schools to develop cultures where mental health and well-being are valued, with schools requiring support in order to achieve this (Thorley, 2016). This research does therefore show that there is a role for the EP in helping secondary schools to implement preventative programmes, supporting Andrews (2017).

5.8 Review of methods

5.8.1 AB design

This research used an AB SCED to explore the impact of the positive psychology programme. An AB design was chosen due to it being a practical and feasible design, as well as due to the unsuitability of other designs, as previously addressed (Barlow, Nock & Hersen, 2009; Michiels & Onghena, 2018). However, AB designs raise concerns regarding internal and external validity. It is therefore

difficult to establish causality or to conclude about the effectiveness of an intervention from the use of an AB SCED (Manolov, Gast, Perdices and Evans, 2014; Michiels & Onghena, 2018; Robson, 2011; Tervo, Estrem, Bryson-Brockman & Symons, 2003;). Although AB designs can be strengthened through the use of a follow-up (Barlow, Nock & Hersen, 2009), this was not possible in the current study due to time constraints.

5.8.2 Baseline phase

Issues with the baseline phase for affect and behaviour influences the conclusions that can be made about the possible impact of the intervention. Barlow, Nock and Hersen (2009) argue that there needs to be stability and reliability of results in the baseline phase, before an intervention is introduced. It is argued that stability is demonstrated by an absence in slope in the baseline phase (Barlow, Nock & Hersen, 2009; Kazdin, 2003) This is important so that any changes can be understood through the introduction of the intervention. However, in the current study, most of the baselines for affect and behaviour are unstable and therefore show trends. It is therefore difficult to know if these trends would have continued without the introduction of the intervention.

Unfortunately, due to the intervention being run in the summer term, there was a limited time period with which the baseline and intervention phases needed to fit and so the researcher had to compromise a stable baseline. A holiday period within the baseline period was also not ideal as it meant there were larger gaps between some data points as data could not be collected during the holiday periods. This lack of stability in the baselines impacts upon the conclusions which can be drawn, making it difficult to be confident in conclusions about the impact of the intervention on the dependent variables. Future research should endeavour to ensure the baseline phase is stable before there is an introduction of the intervention.

5.8.3 Holidays

During both the baseline phase and the intervention phase there were school holiday periods. This was an extraneous variable that the researcher was unable to control for due to the time constraints posed upon the researcher.

5.8.4. Selection of participants

The selection of participants for this research can be critiqued due to the reliance on a pre-determined list of at risk factors. The researcher did not actually carry out a screen with potential participants to understand if they were showing signs of being at risk of mental health difficulties. The researcher was also constricted by the local authority who were keen for looked after children to be involved in receiving the programme.

The description of the participants as being 'at-risk' could also have impacted upon the way in which the participants thought about themselves. Although the researcher took appropriate ethical steps to support participants, their understanding of being defined as 'at-risk' and their feelings regarding this were not explicitly discussed. In addition, all people could be considered to be 'at-risk' of developing mental health difficulties and so the use of this term needs to be considered carefully when used in research.

5.8.5 Weight of Evidence model

The very definition of 'weight of evidence' can be considered unclear, with a lack of consensus existing in literature regarding what it actually means (Weed, 2005). Gough's (2007) Weight of Evidence model can be critiqued because it is a subjective model, based upon the researcher's decisions. Although weight of evidence A, B and C are loosely defined within the model, they require the researcher to interpret these and apply these to their study. In the current study, the researcher used the Weight of Evidence Model (Gough, 2007) as a way to understand the quality and relevance of the studies but upon reflection this did not influence the studies which were then included and discussed.

5.8.6 Visual analysis

The researcher has used visual analysis to interpret the findings. The statistical approaches were not seen as appropriate for the current research. In addition, the researcher used visual analysis as this is the most commonly used approach for SCED data, as presenting information in this way makes changes easily identifiable (Kazdin, 2003; Lane & Gast, 2014, Maric et al., 2015; Plavnick & Ferreri, 2013). This analysis also allowed for an exploration of changes in terms of mean, level and slope (Kazdin, 2003)

However, there is criticism regarding the use of this approach. Kazdin (2003) argues that visual analysis is subjective and therefore open to error. Kazdin (2003) also argues that visual analysis tends to mean that there is a focus on obvious effects as these are most easily identifiable and therefore less obvious effects may be overlooked. The researcher was unable to have findings inter-rated and so this reduces the reliability of the conclusions made about the data.

5.8.7 Internal validity

Although the researcher tried to control for aspects of internal validity, there were some issues which occurred, as highlighted below.

History

There were changes in one participant's life during the course of the intervention which may have therefore impacted upon the findings. Christopher began counselling during the time of the intervention and also became a Child in Need due to difficulties at home. None of the other participants experienced any known changes during the time of the intervention.

Maturation

As the study occurred over a few months, participants showed maturation which could not be controlled for by the researcher.

Testing

The PANAS-C was used as a weekly repeated measure and so there are issues around practice effects, which may have impacted upon the participants' responses.

Instrumentation

The researcher tried to ensure that the measures were taken on the same day of the week, at the same time each week, however this was not always possible and so is a critique of the current study.

Hawthorne Effect

This is a limitation of this study, as students had some awareness that they were being observed, especially as joint observations were carried out by the researcher, alongside the HLTA. Therefore, this awareness may have changed the behaviour of the participants. Teachers of two of the students, Jay and Charlotte, suggested that this was the case when they were being observed.

5.8.8 Definitions

This study has sought to measure internal constructs. This raises difficulties in terms of defining these constructs and ensuring that the measures used are actually measuring these. It could be that the measures chosen by the researcher may not be sensitive to the changes which the programme has made to the participants' well-being. The researcher focused on the subjective well-being of the participants rather than psychological well-being.

5.8.9 Measures

Self-report measures

Firstly, this study relies mostly on self-report measures of internal constructs. This is important in ensuring the child's views are heard (Wigelsworth, Humphrey, Kalambouka & Lendrum, 2010). However, self-report measures are reliant on honesty from the participant and there is a danger of socially desirable responses being made (Mertens, 2015; Wigelsworth, Humphrey, Kalambouka & Lendrum, 2010). This is particularly pertinent to the current study as the researcher was known to the participants through delivering the intervention, as well as collecting data.

Parent measures

The researcher intended to gain parents views regarding the participant's behaviour however due to a lack of parental response, the researcher was unable to gather the data.

Observation measures

This study attempted to measure on and off-task behaviour. This raises difficulties in terms of defining what is considered to be on-task and what is off-task and removing subjectivity. The behaviours measured were subtle and not easy to observe. The observations were carried out by a higher-level teaching assistant, who, although trained, did not have a high level of training or understanding of research.

The observations were repeated at the same time each week, in the same lessons to try to reduce the impact of extraneous variables upon the participant's behaviour. However, observations were only for short periods of time across the week.

Due to ethical reasons in not deceiving the participants, they were aware that they were being observed and so this may have impacted upon how they behaved.

Inter-rater observations help to enhance the reliability of the observation data. Inter-rater checks were carried out but these were done by the researcher, who was not a usual member of the school environment and who participants were familiar with and therefore this could have also impacted upon the participant's behaviour.

In addition, the on and off-task behaviour schedule used an interval sampling approach. Behaviour was recorded every 30 seconds, according to what the participant was doing for that second. This required the observer to make a quick decision about the behaviour. The use of this approach meant that behaviour between these times was not recorded and so missed.

5.8.10 The programme

There were several difficulties which arose in terms of the delivery of the intervention.

Firstly, although the programme facilitators were supported by a Senior Educational Psychologist who had previously delivered the programme, the two facilitators had not previously had experience of running the programme and so this could have impacted the delivery. In addition, although participants were asked to complete activities between sessions, the lack of support to generalise these strategies and apply them to their everyday lives may have impacted upon the success of the intervention.

5.8.11 Intervention integrity

The researcher planned to follow the sessions of the programme as they were presented in the facilitators manual. This was achieved as sessions were delivered in order and the manual was followed. Each session followed the structure of the manual. However, timings of activities were difficult to adhere to. On several occasions, some of the participants arrived late to the sessions and so this meant the session time reduced. The students were a particularly quiet group and so the way in which some of the activities were delivered needed to be adapted to suit the group of participants (e.g. working in pairs or writing ideas down before sharing with the whole group). Several observations of the delivery of the programme showed that all of the activities were included (except one). Ratings of activities achieving their purpose ranged from 'somewhat achieved' to 'completely achieved', with most activities falling within the 'mostly achieved' category. The facilitators inexperience of delivering the programme may therefore have impacted upon the programme delivery.

5.8.12 Researcher role

The researcher was involved in both the delivery of the programme and the collection of data and was therefore evaluating their own practice. This may have therefore led to researcher bias. Unfortunately, due to the lack of availability of EPs and Assistant Psychologists, the researcher was required to deliver the intervention as well as measure its impact. This in itself could have affected the participants' responses, as they were more familiar with the researcher at post-testing than pre-testing. The researcher's role in the programme delivery, may have

led to the participants wanting to please the researcher with their responses. Due to the tight timeframes for delivering this intervention and the fact that it was designed to be led by those who are familiar with positive psychology theory, it was not deemed appropriate to train up school staff to deliver the intervention.

5.9 Implications for EP practice

5.9.1 Preventative work in schools

EPs have an important role to play in gathering data around the effectiveness of interventions, to contribute to evidence based practice. There continues to be a focus on the role of EPs in offering reactive support to schools. However, this research has shown that EPs can offer preventative programmes to schools and support schools in their work to enhance the well-being of students. It is important that school staff working with children and young people are aware of the risk factors and the protective factors regarding mental health, so that they can be proactive in supporting students. EPs have a role in raising the profile of these at-risk children, including LAC and promoting the preventative support that can be offered. This is important due to the UK government's focus on enhancing the well-being of adolescents and the focus on mental health promotion in schools (Patton et al., 1999). EPs also have an important role because of the increasing academic demands on schools and the pressures on the mental health service (Thorley, 2016). This research has shown that despite some difficulties, it is possible to run a preventative, positive psychology programme in a secondary school. This research also highlights positive responses from participants when asked about the programme's impact. This indicates the need for EPs to continue to deliver such programmes within the school environment.

This research is relevant to the current political focus upon mental health in schools. The need for the 'assess-plan-do-review' cycle has been demonstrated through the application of this programme and the measurement of its effectiveness. In particular, this research has shown the importance of measuring the impact of support around mental health and wellbeing at the individual level and gaining the views of the individual about how they feel the support has impacted upon them.

This research has also shown the need for school staff to understand the contribution which EPs can make to early, preventative mental health provision. The EP can support staff in developing their skills and knowledge in approaches such as positive psychology. This research has however demonstrated the lack of whole school support which small group programmes can receive. This lack of support outside of the programme itself meant that the participants were not supported to embed their learning into everyday life and to generalise their learning to different real life situations. The requirement of schools to focus on mental health and the recruitment of a lead for this area (Parkin, Long, Gheera & Bate, 2019), would therefore perhaps be able to fill this gap which could mean that such programmes have the potential for a greater impact.

In addition, positive psychology has the potential to fit well within a mental health curriculum but there needs to be continued application of this within school settings to understand the benefits. Although beyond the scope of the current study, longitudinal follow-ups of mental health provision are important to understand their true impact. With the emphasis being on mentally healthy schools and school leads being appointed, this could have an impact on ensuring such detailed evidence is gathered so that the most beneficial approaches with long term benefits are used in schools.

5.9.2 Positive Psychology

This research has demonstrated the role of the EP as scientist-practitioner, as research has been gathered around the impact of a positive psychology intervention. Positive psychology focuses on enhancing human strengths, rather than reducing negative factors. However, traditional psychological approaches are more reactive, meaning the work of EPs tends to be reactive. However, research is continually developing which shows positive psychology is important in understanding how lives can be improved. Although the current research has shown mixed results, it can be argued that EPs should continue to promote aspects of positive psychology in their work. Previous research has indicated that although EPs feel well-being promotion underlines their work, SENCo's are unaware of the

contribution EPs can make in this area. This shows the need to for the EP to be promoting preventative work in their discussions with schools.

This research has highlighted issues with measuring the impact of preventative programmes and the need for more longitudinal involvement from EPs to measure the impact of preventative programmes on future outcomes for children and young people. This suggests that if EPs want to be carrying out preventative work, it is important that appropriate time is allocated to the implementation of the programmes so further evidence for such interventions can be gathered.

This research has also shown that the EP has an important role in identifying and working with students who are potentially at risk of future mental health difficulties. EPs should therefore be mindful of these students, such as looked after children, in their discussions with schools regarding support which can be offered.

5.10 Unique contribution

This research has explored the effect of a positive psychology programme on individuals potentially at risk of future mental health difficulties, including LAC. This research provides information regarding the impact of the positive psychology programme. This is important, as the Department of Health and Department for Education (2017b) argue that there is limited evidence around preventative interventions in schools and so there is a need for outcomes to be understood so that the most effective mental health support is provided in schools. This research is therefore helpful in understanding whether the positive psychology programme is beneficial with a UK population, as much previous research around positive psychology programmes in schools has been carried out in different countries.

This research has combined both quantitative and qualitative methods to understand the impact of the intervention, focusing on the individual. Previous research has focused on measuring group outcomes. This research has shown differences in individual responses to the intervention, which is therefore important when considering future research in this area. This research is important as it has attempted to measure positive aspects for participants, rather than focusing on

deficits. In addition, as well as exploring internal changes in terms of thoughts and feelings, this research has also attempted to explore the impact of the positive psychology programme on participants' behaviour.

5.11 Future research

A major drawback of this study is the lack of a follow-up to understand the long-term effects of the programme on young people's well-being, resilience, self-efficacy and behaviour. Future research in this area should aim to measure the impact of this programme with a follow-up stage. This will help to understand if the programme has any longer-term benefits in supporting students.

Overall, this study has found mixed results for participants and so further research in other schools, with different participants would be beneficial to gather more information regarding the impact of the programme, as it is difficult to generalise findings from the current research.

This study has utlilised both quantitative and qualitative approaches. Results from the qualitative data showed that participants felt that the programme had a positive impact on them through changes in their emotions, thoughts and behaviour. As much previous research into positive psychology programmes has been quantitative, future research should attempt to gather further information about the impact of the use of a programme by using qualitative methods to gain detailed, rich information from participants and those around the participant.

Future research should aim for the programme to be delivered by those who are experienced in delivering the programme. It would also be beneficial for the facilitator to be separate from the researcher, in order to reduce the risk of researcher bias.

Future research should ensure consideration is given to the way in which the participants are supported to generalise the skills that they have learnt and apply strategies in-between sessions. It will be important for additional support be given to schools regarding how to help students to be able to generalise strategies.

In addition, it will be important for future research to consider group dynamics when delivering this programme to a group of students. The current participants did not know each other well and this could therefore have impacted upon how they participated in the group. It would have been beneficial to offer opportunities for the participants to get to know each other, prior to the intervention.

This research has also highlighted the need for continued research which focuses upon preventative programmes for mental health and ways in which to enhance protective factors for those identified as being at-risk.

6. Chapter 6: Conclusion

This study has attempted to investigate the impact of a preventative, positive psychology programme upon individual students potentially at risk of future mental health difficulties. This study has contributed to the limited evidence base regarding preventative well-being interventions for adolescents within the school environment and adds to the research base regarding the use of positive psychology interventions. The study has shown the individual differences in responses to the intervention. The qualitative data has shown that all of the participants felt positive about the impact of the programme upon them and identified positive changes in terms of their emotions, thoughts and behaviour. The quantitative data has shown an impact on negative affect for all participants and an impact on many aspects of subjective well-being for two participants. Findings regarding behaviour showed changes in only one participant's on-task behaviours, although this cannot be reliably attributed to the introduction of the programme. There was a decrease in two participants self-reported difficulties at post-testing. Findings regarding resilience and self-efficacy are limited due to pre- and post-data only. None of the participants showed changes in all three aspects of resiliency measured which would indicate an overall increase in resiliency. There was an increase in overall self-efficacy for three participants only. This study is limited due to the lack of stable baselines and the lack of follow-up data. However, it has shown that participants spoke positively of the intervention, even if this was not fully reflected in the measures. This suggests that further research regarding positive psychology interventions in secondary schools is necessary.

7.Chapter 7: References

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8.Chapter 8: Appendices

8.1 Appendix 1: Search terms used in systematic literature review and results

The following key words were used across the 4 databases:

positive psychology OR positive ADJ psychology	AND
Intervention OR program*	AND
wellbeing OR well-being OR well ADJ being OR resilience OR happiness OR self-efficacy OR self ADJ efficacy OR mental ADJ health	AND
school* OR academ*	AND
child* OR teen* OR young ADJ person OR youth OR adolescen*	AND

Results from each of the database searches can be seen below:

WEB OF SCIENCE

positive psychology positive ADJ psychology	9283
Intervention program*	2 193 947
wellbeing well-being well ADJ being resilience happiness self-efficacy self ADJ efficacy mental ADJ health	604, 483
school* academ*	88 980
child* teen* young ADJ person youth adolescen*	1 766 531
All above search results combined with AND	143

ERIC

positive psychology positive ADJ psychology	377
Intervention program*	579, 736
wellbeing well-being well ADJ being resilience happiness self-efficacy self ADJ efficacy mental ADJ health	29, 735
school* academ*	759, 524
child* teen* young ADJ person youth adolescen*	404, 835
All above search results combined with AND	26

PsycInfo

positive psychology positive ADJ psychology	4952
Intervention program*	532 508
wellbeing well-being well ADJ being resilience happiness self-efficacy self ADJ efficacy mental ADJ health	180 308
school* academ*	506 217
child* teen* young ADJ person youth adolescen*	280 156
All above search criteria combined with AND	36

So total number of studies identified across the 3 databases = 143 + 26 + 36 = 205

ProQuest Dissertations and Theses A&I

For this database it was necessary to alter the search terms. Instead of using 'ADJ' it was necessary to put the two words into inverted commas. In addition, searching for these terms 'anywhere' produced thousands of results, so the search was narrowed to the search terms being within the 'abstract' of the article. These produced the following result below:

"positive psychology" positive psychology	In abstract
well-being 'well being' wellbeing resilience happiness self-efficacy "self efficacy" "mental health"	In abstract
School OR academ*	In abstract
child* teen* "young person" youth adolescen*	In abstract
Intervention OR program*	In abstract
All above search criteria combined with AND	61 results

Total number of studies found:

205 studies + 61 from ProQuest = 266

5 duplicates, leaving 261

92 studies excluded due to title = 169

113 studies excluded due to abstract = 59 studies remained
10 further duplicates were identified at this point = 49 studies remained

37 articles not suitable due to either no full text and not enough information available or due to full text being accessed and study does not meet all aspects of the inclusion criteria/meets one aspect of exclusion criteria.

12 studies identified as meeting inclusion criteria and therefore included in this systematic review.

8.2 Appendix 2: Measures used for effectiveness within each study

A table to show measures used for effectiveness within each study

Author and Date	Measures used for the effects of the intervention	Who data was collected from
Burckhardt, Manicavasagar, Batterham, Miller, Talbot & Lum (2015)	The Depression, Anxiety & Stress Scale – Short form (DASS-21) Student Life Satisfaction Scale (SLSS; Huebner 1991) The Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS)	All measures completed by students pre- and post-intervention
Suldo, Savage & Mercer (2014)	Brief Multidimensional Students Life Satisfaction Scale (BMSLSS; Seligson et al. 2003) Students Life Satisfaction Scale (SLSS; Huebner 1991) Positive and Negative Affect Scale for Children (PANASC; Laurent et al. 1999) Youth Self Report Form of the Child Behavior Checklist (YSR, Achenbach & Rescorla, 2001)	All completed by students Used as a screening measure Completed pre, post and follow-up

Suldo, Hearon, Bander, McCulough, Garofano, Roth & Tan (2015)	Positive and Negative Affect Scale for Children (PANASC; Laurent et al. 1999) Multidimensional Students' Life Satisfaction Scale (MSLSS; Huebner 1994) Students' Life Satisfaction Scale (SLSS; Huebner 1991)	All completed by students pre, post and follow-up
Hearon (2017)	Students Students Life Satisfaction Scale (SLSS; Huebner 1991) Ten item Positive & Negative Affect Scale for Children (Ebesautani et al. 2012, adapted from PANASC; Laurent et al. 1999) Child & Adolescent Social Support Scale (CASSS; Malecki, Demaray & Elliot, 2000) Engagement versus Disaffection with Learning – Student Report (EvsD-S; Skinner, Kindermann & Furrer, 2009) Teachers Student Internalizing Behavior Sreener (SIBS; Cook et al., 2011) Students Externalising Behavior Screener (SEBS; Cook, Gresham & Volpe, 2012)	Completed by students only Completed by teachers only Completed pre, post and follow-up

	Engagement versus Disaffection with Learning –Teacher Report (EvsD-S; Skinner, Kindermann & Furrer, 2009) Teacher-Student Relationship Inventory (TSRI; Ang, 2005)	
Shoshani & Steinmetz (2014)	Brief Symptoms Inventory (Derogatis & Spencer, 1982) The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) The General Self-Efficacy Scale (Zeidner et al. 1993) Satisfaction with Life Scale (SWLS; Diener et al. 1985) The Life Orientation Test-Revised (LOT-R; Scheier et al. 1994)	Completed by students at pre, post and follow-up
Roth, Suldo & Ferron (2016)	The Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson et al., 2003) The Students' Life Satisfaction Scale (SLSS; Huebner, 1991) The Positive and Negative Affect Scale for Children (PANAS-C; Laurent et al., 1999) The Brief Problem Monitor–Youth (BPM-Y; Achenbach, McConaughy, Ivanova, & Rescorla, 2011)	Completed by students at pre, post and follow-up
Proctor, Tsukayama, Wood, Maltby,	The Students' Life Satisfaction Scale (SLSS; Huebner, 1991) The positive and negative affects schedule (PANAS) (Watson, Clark, & Tellegen, 1988)	Completed by students pre- and post-test

Eades & Linley (2011)	Rosenberg Self-Esteem Scale (RSE) Rosenberg, (1965)	
Quinlan, Swain, Cameron & Vella-Brodrick (2015)	The International Positive And Negative Affect Schedule-Short Form (I-PANAS-SF) (Watson, Clark, & Tellegen, 1988) The Students' Life Satisfaction Scale (SLSS) (Huebner, 1991). Engagement Versus Disaffection with Learning measure The My Class Inventory (MCI), developed specifically for use in primary schools (Fisher & Fraser, 1981; Fraser, 1982). The 18-item Children's Intrinsic Needs Satisfaction Scale (CINSS; Koestner & Véronneau, 2001), adapted from the Intrinsic Needs Satisfaction Scale (Deci et al., 2001) The 14-item Strengths Use Scale (Govindji & Linley, 2007)	Completed by students at pre-test and follow-up
Froh, Sefick & Emmons (2008)	Well being measure: 25 affect items taken from Emmons and McCullough (2003), using a likert scale Life satisfaction measure: 2 items taken from Emmons and McCullough (2003), using a likert scale Brief Multidimensional Students' Life Satisfaction Scale (BMSLS; Seligson, Huebner & Valois, 2003) Physical symptoms measure: checklist of symptoms adapted from Emmons and McCullough (2003)	Completed by students pre-, post- and follow-up

	Reactions to aid/gratitude measure: likert scale adapted from Emmons and McCullough (2003) Prosocial behaviour measure: likert scale adapted from Emmons and McCullough (2003)	
Madden, Green & Grant (2010)	The Beck Youth Inventory (Beck et al., 2005) Values in Action Strengths Inventory for Youth Survey (Park & Peterson, 2006) A self-report questionnaire modified from Snyder's Children's Hope Scale (Snyder, 2000), and the California Healthy Kids Survey (Bernard, 2008)	Completed by students pre- and post-
Burckhardt, Manicavasagar, Batterham & Hadzi-Pavlovic (2016)	The depression anxiety and stress scale – short form (DASS-21, Lovibond & Lovibond, 1991) Flourishing Scale (FS; Diener et al., 2010)	Completed by students pre- and post-
Boniwell, Osin & Martinez (2016)	Students' Life Satisfaction Scale (SLSS) (Huebner, 1991) Multidimensional Students' Life Satisfaction Scale (MSLSS) (Huebner, 1994; Huebner & Gilman, 2002) Positive and Negative Affect Schedule for Children (Laurent et al., 1999)	Completed by students pre- and post-

8.3 Appendix 3: An explanation of the use of the Weight of Evidence model

Weight of Evidence A

Weight of Evidence A is concerned with quality. Considerations for Weight of Evidence A were taken from Gough's (2007) criteria of transparency, accuracy, accessibility and specificity. This means that for each study the researcher considered the following questions as ways to determine the quality of each study.

How clear is the purpose of the research? (Judged by whether there is a clear statement of what is being measured in terms of well-being)

How accurate and understandable is the research? (Judged by how clear the researcher considered each section to be presented and how the sections are linked together within the study).

What is the quality of the method? (Judged by the researchers understanding of the method and the level of explanation provided within the study).

Weight of Evidence B

This is concerned with the consideration of the method and the design within each study and whether it is appropriate and fit for purpose. The researcher considered the following questions:

What is the design used within the study and how does this fit with the research question?

How is the study measuring the impact of positive psychology on wellbeing?

Weight of Evidence C

This is concerned with how relevant the study is to the current research. The researcher asked the following questions to determine this:

What aspects of positive psychology are included? (those with more aspects of positive psychology were considered more relevant as this matches with the current research).

What aspects of well-being are measured? (those with a variety of aspects were considered more relevant in fitting with the current study).

8.4 Appendix 4: Themes of the original PAL programme

1. Introduction – Variety of emotions
2. Practicing Gratitude
3. Identifying strengths
4. Savouring
5. Flow
6. Problem solving
7. Act of Kindness
8. Assertiveness
9. Negotiation and compromise
10. Liking who I am
11. Positive Coping and review

8.5 Appendix 5: Aims and overview of sessions

1. Introduction – variety of emotions

   Aims: To introduce the programme, build rapport within the group and help students to learn more about their own feelings.

   Session includes the following:

   - Introduction to the programme
   - Rapport building activity
   - Group rules
   - Problem situations and happy situations
   - Our bodies & emotions
   - Feeling-meter
   - Activity to practice

2. Practicing Gratitude

   Aims: To understand the importance of gratitude and how to practice gratitude.

   Session includes:

   - Review of previous session and practice activity
   - Pictures of gratitude activity
   - What is gratitude?
   - Things we are grateful for
   - Expressions of gratitude
   - Activity to practice

3. Identifying strengths

   Aims: To identify and recognise character strengths within oneself and others and to learn ways in which these character strengths can be used.

   Session includes:

   - Review of previous session and practice activity
   - Favourite characters activity
   - Introduction to character strengths

- Character strengths questionnaire
- Identifying and using our strengths
- Activity to practice

4. Savouring

   Aims: To learn savouring techniques and develop awareness of how savouring can enhance happiness.

   Session includes:

   - Review of previous session and practice activity
   - Savouring activity
   - Savouring the past, present and future
   - Planning time for savouring
   - Activity to practice

5. Flow

   Aims: To understand flow and its benefits and how to apply flow to everyday lives.

   - Review of previous session and practice activity
   - Game to experience flow
   - Discussion about flow
   - Creating a flow record
   - Activity to practice

6. Acts of Kindness

   Aims: To explore ways of being kind and to develop an understanding of the positive impact acts of kindness can have on oneself and others.

   - Review of previous session and practice activity
   - Compliments game
   - Discussion around acts of kindness
   - Identifying acts of kindness
   - Activity to practice

7. Liking who I am

Aim: To develop one's self-esteem.

- Review of previous session and practice activity
- Praising ourselves activity
- Understanding self-esteem
- Ways in which our self-esteem can be robbed/boosted
- Liking ourselves
- Activity to practice

8. Positive coping and review

   Aim: To review session content and consider how what has been learnt can be used and applied in everyday life.

   - Review of previous session and practice activity
   - Review of key concepts
   - Coping with difficulties
   - What has been learnt?

8.6 Appendix 6: Example checklist for adherence to the programme

Session 6: Acts of kindness

Aims: 1) To explore the many different ways we can be kind to one another.
2) To increase awareness of the positive & long-term effects of acts of kindness

Activity	**Delivered (Y/N)**	**Time taken**	**Purpose achieved (1-5)**	**Comments**
Review of session 5 (5 mins)				
Game: Thanks for the compliment! (10 mins)				
Acts of Kindness (10 mins)				
Pick three (10 mins)				
Making a postcard (10 mins)				
To practice during the week (5 mins)				

Key for rating purpose: 1-not achieved at all, 2-achieved a little, 3-somewhat achieved, 4-mostly achieved, 5-completely achieved

Overall, to what extent do you feel the aims of the session were achieved? (Please circle relevant responses below)

1. **To explore the many different ways we can be kind to one another**

1	2	3	4	5
Not achieved at all	Achieved a little	Somewhat achieved	Mostly achieved	Completely achieved

Reasons:

2. **To increase awareness of the positive & long-term effects of acts of kindness**

1	2	3	4	5
Not achieved at all	Achieved a little	Somewhat achieved	Mostly achieved	Completely achieved

Reasons:

8.7 Appendix 7: Information letter for schools

The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

An evaluation of the Positive Approaches to Life programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience, happiness and related behaviours.

Researchers: Amy Duffin *Contact Details: XXXXXXXX*

University Supervisor: Dr Sarah Atkinson

Dear Headteacher,

I am a Trainee Educational Psychologist interested in carrying out a research study in a school in the City. I have been informed by the Educational Psychologist responsible for Looked After Children within the city, that you may be interested in having the programme 'Positive Approaches to Life - PALS', delivered within your school.

My research involves the use of 8 sessions from the PALS programme, a positive psychology programme aimed at building resilience and enhancing wellbeing. I am interested in measuring the impact of 8 sessions taken from the programme on individuals well-being, resilience, self-efficacy and behaviour. I am also interested in exploring individual's views and experiences in relation to this programme.

My research proposal has arisen based on research which has highlighted the importance of preventative approaches to mental health issues. I would like to implement this programme with young people who are looked after and other young people who are considered to be at-risk of developing mental health issues in the future, according to the Department for Education (2016b) criteria.

I would like to run this programme with approximately 8 young people aged 12-14. Within this group I would select between 4-6 young people to be part of my research. This would involve the young people completing questionnaires regarding their well-being, behaviour, self-efficacy and resilience before and after the programme, as well as completing a weekly well-being questionnaire. I would measure the impact of the programme on the young people's learning behaviours, repeatedly, within one subject lesson. I would also require the participation of one subject teacher for each young person. I would work with this teacher to find out about the behaviours the young person displays in class. I would then devise a checklist of these behaviours with the teacher and ask a teaching assistant to complete this each week for the young person.

I would need to gain consent from the parents/carers, young people and teachers involved. Parents, teachers and young people would be provided with detailed information so that they could make an informed decision about whether to participate. I would also ask the teachers and parents to complete a pre- and post-questionnaire regarding behaviour.

I would deliver the programme, alongside a colleague from the City Psychology Service. The sessions would take place for one hour, once a week, for eight weeks, within the school.

If you are interested in the above research taking place within your school please contact me within two weeks of this letter to express your interest via the contact details below: XXXXXX

Please note that if there are numerous schools who express interest in my research, I will only be able to select one, therefore your school may not be chosen.

Thank you

Amy Duffin

Trainee Educational Psychologist

8.8 Appendix 8: Risk factor criteria for inclusion

Definition of an at-risk/vulnerable child
In addition to LAC, the group will also be made up of young people who are not LAC. The remainder of the group will consist of children who are considered at-risk of mental health issues in the future, based upon the risk factors criteria outlined in the DfE (2016b) document. Young people will need to have one or more of the at risk criteria to be able to within the programme. They will be identified as appropriate through discussion with the school.

Within child	• Difficult temperament • Physical illness • Academic failure • Low self-esteem
Within the family	• Overt parental conflict, including domestic violence • Family breakdown (including where children are taken into care or adopted) • Inconsistent or unclear discipline • Hostile and rejecting relationships • Failure to adapt to a child's changing needs • Physical, sexual, neglect or emotional abuse • Parental psychiatric illness • Parental criminality, alcoholism or personality disorder • Death and loss – including loss of friendship
Within the school	• Bullying • Discrimination • Breakdown in or lack of positive friendships • Deviant peer influences • Peer pressure • Poor pupil to teacher relationships
Within the community	• Socio-economic disadvantage • Homelessness • Disaster, accidents, war or other overwhelming events • Discrimination • Other significant life events
Difficult events which may have an impact	• loss or separation – resulting from death, parental separation, divorce, hospitalisation, loss of friendships (especially in adolescence), family conflict or breakdown that results in the child having to live elsewhere, being taken into care or adopted; • life changes – such as the birth of a sibling, moving house or changing schools or during transition from primary to secondary school, or secondary school to sixth form; and • traumatic events – such as abuse, domestic violence, bullying, violence, accidents, injuries or natural disaster.

8.9 Appendix 9: Information sheet for parents/carers

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology

Information Sheet for parents/carers

An evaluation of a Positive Psychology programme used to suppo vulnerable secondary students to enhance their well-being, sel resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details:XXXXX*

University Supervisor: Dr Sarah Atkinson

This is an invitation for your child to take part in a research study involving a Positive Psychology programme. Before you decide if you wish for your child to take part in this research, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

The Positive Psychology programme is based on the Positive Approaches to Life Programme (Notter & Jose, 2010), which was developed specifically for adolescents with the aim of enhancing resilience and well-being. This research aims to understand the impact of sessions from the Positive Approaches to Life Programme (PALS) upon an individual's well-being, resilience, self-efficacy and learning behaviours. Resilience refers to how well people are able to cope with and recover from difficulties which they face. Self-efficacy refers to a person's beliefs about their capability to cope with difficulties (Moneta, 2014).

Your child has been selected by the school as a young person who may potentially benefit from developing their skills in each of the above areas.

The Positive Psychology programme consists of 8 hourly sessions taken from the Positive Approaches to Life Programme, which will be delivered weekly by two members of the City Psychology Service (Trainees or Assistant Psychologists), at their school, during school time. The sessions will cover the following themes:
Physical effects of emotions
Expressions of gratitude
Identifying and using strengths
Getting the most out of life
Increasing flow experiences
Practicing acts of kindness
Liking who I am

Positive Coping Skills and review of skills

If you agree for your child to participate they will be asked to complete questionnaires regarding their wellbeing. These will include: rating their resiliency and self-efficacy before the programme begins and after the programme has finished. Your child will also be asked to complete well-being measures once a week for 3-4 weeks before the programme begins and during the programme delivery. I would also interview your child before the programme to find out more about them and to gain their thoughts on some of the areas the programme will cover. I would then interview your child following the programme to find out their views about the programme and how it may have impacted on them. This will therefore provide more detailed information regarding the impact of the programme. These interviews would take place at your child's school during school time and would be audio recorded.

Your participation, as a parent/carer will also be required. You will be asked to complete a questionnaire before the programme begins and after the programme ends so that the impact of the programme on your child can be measured.

During the study, I will speak to a school member of staff to gain a pen portrait of your child.
Following this I will consult with a teacher regarding your child's learning behaviours in a particular subject and observe your child in this subject, to develop a checklist of observable behaviours. I will use this to inform classroom observations for 3-4 weeks before the programme and during the time of the programme. These classroom observations will be carried out by me or a teaching assistant. The same teacher will also be asked to complete a questionnaire before and after the programme.

Your child would also be provided with the name of a key adult at school, who they could go to, following each session, if they felt that they wanted to discuss any issues further.

Participation in this study is totally voluntary and you or your child are under no obligation to take part. You are free to withdraw your child at any point during the study and your child will be able to withdraw during the study. If you did choose to withdraw from the research you would be able to ask for any of the data you or your child had already provided to be destroyed and withdrawn. All data collected will be kept confidential and used for research purposes only. Your child's name will be anonymised and a pseudonym will be used by the researcher when reporting the findings of the study. This study will be reported as part of the researcher's doctoral thesis. All data will be stored in compliance with the Data Protection Act.

If you have any questions or concerns please do not hesitate to ask now via the contact details provided above.

8.10 Appendix 10: Consent form for parents/carers



School of Psychology

Parent/carer Consent Form

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXX*

University Supervisor: Dr Sarah Atkinson

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO

- Do you understand that you are free to withdraw your child from this study? (at any time and without giving a reason) YES/NO
- I give permission for my child's data from this study to be shared with other researchers provided that my child's anonymity is completely protected? YES/NO
- Do you agree to your child's teachers speaking with the researcher about your child and about their behaviours in class? YES/NO
- Do you agree to your child being observed in a lesson each week? YES/NO
- Do you understand that as part of this research your child will be taking part in two interviews which will be recorded and responses will be anonymously used in the reporting of this study? YES/NO
- Do you agree to take part in this study by answering questionnaires before and after the programme? YES/NO

- Do you agree for your child to take part in this study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to myself and my child taking part in this study. I understand that I am free to withdraw my child from the study at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and provided contact details and he/she has agreed to take part.

Signature of researcher: Date:

8.11 Appendix 11: Information sheet for young people

School of Psychology

Information Sheet for young people

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXX*

University Supervisor: Dr Sarah Atkinson

This is an invitation for you to take part in a research study involving a Positive Psychology Programme. Before you decide if you wish to take part in this research, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

The Positive Psychology programme is based on the Positive Approaches to Life Programme (Notter & Jose, 2010), which was developed specifically for adolescents with the aim of enhancing resilience and well-being. This research aims to understand the impact of sessions from the Positive Approaches to Life Programme (PALS) upon an individual's well-being, resilience, self-efficacy and learning behaviours. Resilience refers to how well people are able to cope with and recover from difficulties which they face. Self-efficacy refers to a person's beliefs about their capability to cope with difficulties (Moneta, 2014).

You have been selected by the school as a young person who may potentially benefit from developing their skills in each of the above areas.

The Positive Psychology programme consists of 8 hourly sessions which will be delivered weekly by two members of the City Psychology Service (Trainees or Assistant Psychologists) to a group of young people at your school, during school time. The sessions cover the following themes:
Physical effects of emotions
Expressions of gratitude
Identifying and using strengths
Getting the most out of life
Increasing flow experiences
Practicing acts of kindness
Liking who I am
Positive Coping Skills and review of skills

If you agree to participate you will be asked to complete questionnaires before the programme begins and after the programme has finished, including rating your resilience and self-efficacy. You will also be asked to complete well-being measures once a week for 3-4 weeks before the programme begins and each week during the programme delivery. I would also interview you before the programme to find out more about you and to gain your thoughts on some of the areas the programme will cover. I would then interview you following the programme to find out your views about the programme and how it may have impacted on you. These interviews would take place at your school during school time and would be audio recorded.

Your parent/carer's participation will also be required. They will be asked to complete a questionnaire before the programme begins and after the programme ends to gain their views on how the programme may have impacted you.

During the study, I will speak with a teacher who knows you well to gain a pen portrait of you and to choose a subject for you to be observed in. I would observe you in this lesson and meet with the subject teacher to develop a checklist of learning behaviours for observation. A teaching assistant and I would then be involved in completing this checklist each week for a 3-4 weeks before the programme begins and then during the programme delivery. This would be with the aim to monitor if the programme impacts upon the learning behaviours displayed by individuals. This teaching assistant would also be asked to complete a questionnaire before and after the programme.

You would also be provided with the name of a key adult at school, who you could go to, following each session, if you felt that you wanted to discuss any issues further.

Participation in this study is totally voluntary and you are under no obligation to take part. You would be free to withdraw from this study at any point. If you did choose to withdraw from the research you would be able to ask for any of the data you had already provided to be destroyed and withdrawn.

All data collected will be kept confidential and used for research purposes only. Your name will be anonymised and a pseudonym will be used by the researcher when reporting the findings of the study. This study will be reported as part of the researcher's doctoral thesis. All data will be stored in compliance with the Data Protection Act.

If you have any questions or concerns please do not hesitate to ask now via the contact details provided above.

8.12 Appendix 12: Consent form for young people

School of Psychology

Young person Consent Form

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXXX*

University Supervisor: Dr Sarah Atkinson

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO

- Do you understand that you are free to withdraw yourself from the study? (at any time and without giving a reason) YES/NO
- Do you agree to your teachers speaking with the researcher about you and about your behaviours in class? YES/NO
- Do you agree to being observed in class? YES/NO
- Do you agree to take part in two interviews and to these interviews being recorded? YES/NO
- Do you agree to the researcher using anonymous direct quotes from your interviews when reporting this study? YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in this study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part in this study. I understand that I am free to withdraw myself from the study at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and provided contact details and he/she has agreed to take part.

Signature of researcher: Date:

8.13 Appendix 13: Information sheet for teachers

School of Psychology

Information Sheet for teachers



An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXXX*

University Supervisor: Dr Sarah Atkinson

A young person in your class has agreed to take part in a research study involving an 8 session Positive Psychology programme. This is an invitation for you to take part in this research by helping to measure the impact of the programme on this young person's learning behaviours within your class. Before you decide to take part in this research, it is important for you to understand why the research is being done and what it will involve. Please take time to read the information carefully.

The Positive Psychology programme is based on the Positive Approaches to Life Programme (Notter & Jose, 2010), which was developed specifically for adolescents with the aim of enhancing resilience and well-being. This research aims to understand the impact of sessions from the Positive Approaches to Life Programme (PALS) upon an individual's well-being, resilience, self-efficacy and learning behaviours. Resilience refers to how well people are able to cope with and recover from difficulties which they face. Self-efficacy refers to a person's beliefs about their capability to cope with difficulties (Moneta, 2014).

The Positive Psychology programme consists of 8 hourly sessions taken from the Positive Approaches to Life Programme, which will be delivered weekly by two members of the City Psychology Service (Trainees or Assistant Psychologists), at school, during school time. The sessions will cover the following themes:
Physical effects of emotions
Expressions of gratitude
Identifying and using strengths
Getting the most out of life
Increasing flow experiences
Practicing acts of kindness
Self-esteem
Positive Coping Skills and review of skills

A group of young people have agreed to participate in this research by:

- Completing questionnaires rating their well-being, resiliency and self-efficacy before the programme begins and after the programme has finished.
- Completing well-being measures once a week for 3-4 weeks before the programme begins and during the weeks of the programme delivery.
- Taking part in an interview before the programme to find out more about them and to gain their thoughts on some of the areas the programme will cover.
- Taking part in an interview after the programme to find out their views about the programme and how it may have impacted upon them.

Parent/carers have also agreed to participate by:

- Completing a Strengths and Difficulties questionnaire before the programme begins and after the programme ends.

After speaking with …….. (Special Educational Needs Co-ordinator) who knows the young people well, she has suggested that it would be useful to observe the learning behaviours for at least one of these young people within your class. I therefore require your participation to enable me to do this. Your participation is required to do the following:

- Meet with myself as the researcher to discuss the young person's behaviours in your class so that I can create an observation checklist for these behaviours.
- Allow a Teaching Assistant (who will sometimes be accompanied by me) to complete this checklist in your lesson's twice weekly, at the same times each week for 3-4 weeks before the programme begins and during the 8 weeks of the programme, to measure the young person's on and off-task behaviours.
- Complete a Strengths and Difficulties Questionnaire about the young person before the programme begins and after the programme ends.

Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point during the study. If you did choose to withdraw from the research you would be able to ask for any data you had already provided to be destroyed and withdrawn. All data collected will be kept confidential and used for research purposes only. Your name will be anonymised and a pseudonym will be used by the researcher when reporting the findings of the study. This study will be reported as part of the researcher's doctoral thesis. All data will be stored in compliance with the Data Protection Act.

If you have any questions or concerns please do not hesitate to ask now via the contact details provided above.

8.14 Appendix 14: Consent form for teachers

School of Psychology

Teacher Consent Form

The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXXX*

University Supervisor: Dr Sarah Atkinson

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw yourself from the study? (at any time and without giving a reason) YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw from the study at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date

8.15 Appendix 15: Outline of questions used with teachers

Questions used with teachers to find out about participant's behaviours in the classroom.

How does Child A generally present/behave in your class? Please can you describe their behaviour in detail.

How do you know when they are on-task during your lesson? What types of things would they be doing?

When they are doing what has been asked of them what do you see?
Could you tell me more about what they would be doing?

How do you know when Child A is off-task during a lesson? What types of things would they be doing?

When they are not doing what has been asked of them, what do you see?
Could you tell me more about what they would be doing?

Is there anything else that you would like to tell me about Child A in your class?

8.16 Appendix 16: Summary of off-task behaviours identified for each participant

Christopher

Behaviour	Code
Talking to other student(s) – next to, in front of or across from himself (when not part of learning task)	T
Shouting out	SO
Looking around the room	L
Making 'silly' comments (comments which make himself or others laugh)	SC
Turning around in seat (with or without talking to others)	TA
Other (off-task behaviour not specified above)	O

Charlotte

Behaviour	Code
Talking to other student(s) (when not part of the learning task)	T
Fixed stare into space	S
Ignoring teacher by not responding when directly spoken to	I
Other (off-task behaviour not specified above)	O

Marcus

Behaviour	Code
Shouting out or across the room (not linked to the learning task)	SO
Getting up out of seat/positioned in classroom away from seat (when not instructed to do so)	AS
Talking to other student(s) nearby (when not part of the learning task)	T
Other (off-task behaviour not specified above)	O

Jay

Behaviour	Code
Laughing/giggling	L
Looking around the room	LA
Talking to another student(s) (when not part of the learning task)	T
Staring	S
Other (off-task behaviour not specified above)	O

8.17 Appendix 17: Example observation schedule

Observation record sheet

Pupil: _____ Subject lesson: _____ Days to be observed: _____

Equipment required: Observation sheet, pen/pencil, stopwatch or accurate timer.

Always try to sit at the same angle from the participant, where you have a clear, unobtrusive view.

Instructions: At the end of each 30 second interval, observe the pupil **momentarily.**

If the pupil appears **on-task** at the moment you observe then, mark this by placing a √ in the column below.

If the pupil appears **off-task** at the moment you observe them, mark this by placing an **X** in the column below.

Specific off-task target behaviours identified for this pupil:

Behaviour	**Code**
Other – (off-task behaviour not specified above)	O

If the above, specific off-task behaviours are observed, please place the correct code to indicate this behaviour has been seen, into the table below.

Pupil: _____ Date: _____ Time started: _____ Time finished: _____

Subject lesson: _____ Observer: _____

Activity description:

Time	Observation number	**On** or **off-task** **√ or X**	Observed **off-task** behaviour (coded)
30 secs	1		
1 min	2		
30 secs	3		
2 min	4		
30 secs	5		
3 min	6		
30 secs	7		
4 min	8		
30 secs	9		
5 min	10		
30 secs	11		
6 min	12		
30 secs	13		
7 min	14		
30 secs	15		
8 min	16		
30 secs	17		
9 min	18		
30 secs	19		
10 min	20		
30 secs	21		
11 min	22		
30 secs	23		
12 min	24		
30 secs	25		
13 min	26		
30 secs	27		
14 min	28		
30 secs	29		
15 min	30		
30 secs	31		
16 min	32		
30 secs	33		
17 min	34		
30 secs	35		
18 min	36		
30 secs	37		
19 min	38		
30 secs	39		
20 min	40		

8.18 Appendix 18: Information sheet for teaching assistant

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
Information Sheet for
Teaching Assistant

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXXX*

University Supervisor: Dr Sarah Atkinson

A group of young people within the school have agreed to take part in a research study involving an 8 session Positive Psychology programme. This is an invitation for you to take part in this research by helping to measure the impact of the programme on the learning behaviours of these young people. Before you decide to take part in this research, it is important for you to understand why the research is being done and what it will involve. Please take time to read the information carefully.

The Positive Psychology programme is based on the Positive Approaches to Life Programme (Notter & Jose, 2010), which was developed specifically for adolescents with the aim of enhancing resilience and well-being. This research aims to understand the impact of sessions from the Positive Approaches to Life Programme (PALS) upon an individual's well-being, resilience, self-efficacy and learning behaviours. Resilience refers to how well people are able to cope with and recover from difficulties which they face. Self-efficacy refers to a person's beliefs about their capability to cope with difficulties (Moneta, 2014).

The Positive Psychology programme consists of 8 hourly sessions which will be delivered weekly by two members of the City Psychology Service (Trainees or Assistant Psychologists) to a group of young people at your school, during school time. The sessions cover the following themes:
Physical effects of emotions
Expressions of gratitude
Identifying and using strengths
Getting the most out of life
Increasing flow experiences
Practicing acts of kindness
Self-esteem
Positive Coping Skills and review of skills

The young people have agreed to participate in this research by:

- Completing questionnaires rating their well-being, resiliency and self-efficacy before the programme begins and after the programme has finished.
- Completing well-being measures once a week for 3-4 weeks before the programme begins and during the weeks of the programme delivery.
- Taking part in an interview before the programme to find out more about them and to gain their thoughts on some of the areas the programme will cover.
- Taking part in an interview after the programme to find out their views about the programme and how it may have impacted upon them.

Parent/carers have also agreed to participate by:

- Completing a Strengths and Difficulties questionnaire before the programme begins and after the programme ends.

After speaking with …….. (Special Educational Needs Co-ordinator) who knows the young people well, she has suggested a class in which to observe each young person. I have spoken to the relevant teachers and developed a checklist of behaviours for each young person. I require your participation to measure the learning behaviours. This would involve: Observing the young person twice a week for 20 minutes each time, using the individual checklist, for 3-4 weeks before the programme begins and during the 8 weeks of the programme delivery.
I will provide you with training and support for you to do this.

Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point during the study. If you did choose to withdraw from the research you would be able to ask for any data you had already provided to be destroyed and withdrawn. All data collected will be kept confidential and used for research purposes only. Your name will be anonymised and a pseudonym will be used by the researcher when reporting the findings of the study. This study will be reported as part of the researcher's doctoral thesis. All data will be stored in compliance with the Data Protection Act.

If you have any questions or concerns please do not hesitate to ask now via the contact details provided above.

8.19 Appendix 19: Consent form for teaching assistant

School of Psychology

Teaching Assistant Consent Form

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

An evaluation of a Positive Psychology programme used to support potentially vulnerable secondary students to enhance their well-being, self-efficacy, resilience and related behaviours.

Ethics Approval Number or Taught Project Archive Number: S989R

Researchers: Amy Duffin *Contact Details: XXXXXX*

University Supervisor: Dr Sarah Atkinson

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw yourself from the study? (at any time and without giving a reason) YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw from the study at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant and he/she has agreed to take part.

Signature of researcher: Date:

8.20 Appendix 20: Definition of on and off-task provided to teaching assistant

On-task

If they are looking at the teacher, materials or activity.
UNLESS:
They are also engaging in an active off-task behaviour.

Off-task

If they are NOT looking at the teacher, activity or materials (they could also be NOT looking whilst engaging in an active off-task behaviour).
OR
If they are looking at the teacher, materials or activity whilst engaging in an active off-task behaviour.

Active off-task behaviours:
Verbal communication not linked to learning: e.g. talking, laughing, making a noise unrelated to topic or activity.

Non-verbal communication not linked to learning: e.g. touching another person, throwing an object.

Active off-task behaviours may therefore be distracting for others.

8.21 Appendix 21: Outline of training for teaching assistant regarding observations

Using observation in research

By Amy Duffin

The study

- Introduction – my role as researcher
- Information sheet and consent form
- Any questions?

Aims

- To understand the research and what I am trying to achieve.
- To understand how observations are part of my research.
- To understand how observations need to carried out as part of research methods.
- To understand the type of observation we will be using and how to carry these out reliably.

Steps to training observers

Barlow, Nock & Hersen (2009)

1. General orientation to the study
2. Learning the observation system
3. Practicing the observations outside of the assessment context
4. Practicing the observations inside the assessment context
5. Repetition with feedback, retraining and recalibration
6. Review with debriefing

1. General orientation to the study

- 8 week Positive Psychology programme being delivered.
- Positive Psychology focuses upon enhancing happiness and subjective well-being, and is therefore considered to be 'the science of what is needed for a good life' (Carr, 2004; Slade, 2010, p2).
- Programme content is as follows: physical effects of emotions, expressions of gratitude, identifying & using strenghts, getting the most out of life, increasing flow experiences, practicing acts of kindness, self-esteem, positive coping skills and review.

Research and measures

- Looking at the impact of the programme on the individual
- Measuring: well-being, behaviour, self-efficacy, resilience
- Pre and post measures, as well as weekly measures
- To measure possible changes in behaviour – need observations to be carried out. We need these before the observation begins to understand the usual behaviour displayed and then during the observation to monitor if there are any changes.
- Research suggests positive emotions are linked with cognition and attention.

Our focus: on and off task behaviours

- Off task behaviour: 'all activities not directed towards learning'. Hoffer (2007). Off task behaviour can be active and involve disturbing others, or it can be passive, where a person appears cognitively disengaged but without disturbing their surroundings.
- On task behaviour is therefore all activities which are directed towards the learning task, again these could be active (e.g. writing – relevant to the learning task) or passive (e.g. looking at the teacher when they are giving an instruction).

Development of the observation checklists

- I have spoken with one subject teacher for each young person to discuss the types of on and off task behaviour that each young person engages in during a specific lesson.
- From this, I have developed an observation checklist for each young person to be used when observing them.
- The content of each checklist differs but the method of recording is the same.

Consistency & reliability

- As part of research, need to ensure consistency in approach.
- Each observation needs to be: at the same day and time each week, during the same lesson each week.
- Observations will be twice weekly to help make them more reliable.
- Each observation will last for 20 minutes
- Inter-rater reliability: I will join you for some of the observations, in order to check for reliability – i.e. that any observer would get the same result and the behaviours are not subject to interpretation by the individual.

Further considerations to ensure reliability

- Position within classroom, where possible to be the same, always unsure that you have a clear, unobtrusive view of the young person.
- There should be no interaction with the young person or others in the room, as you are there only as an observer.
- You should continue to focus on the specific young person at all times.
- Timings of when you record data should always be accurate – use of stopwatch to ensure this.

Type of observation

- Time sampling
- Every 30 seconds you are going to look at what the young person is doing at that precise minute and you are going to record this. You will repeat this every 30 seconds for 20 minutes.
- For every minute a tally/tick should be recorded.

Individual observations

1. Young person A
2. Young person B
3. Young person C
4. Young person D

Practicing the observations (out of context)

- Engage in role play to practice using the checklists to record behaviours

Practicing the observations (in context)

- Joint observations to trial the checklists together.
- Review of these

Repetition with feedback, retraining and recalibration

- Is any further training needed as a result of using the observation schedules in the classroom?
- Discuss any changes made and what these mean/how to use these.
- Repeat use of checklists.
- Set further dates for inter-rater observations.

Review and debrief

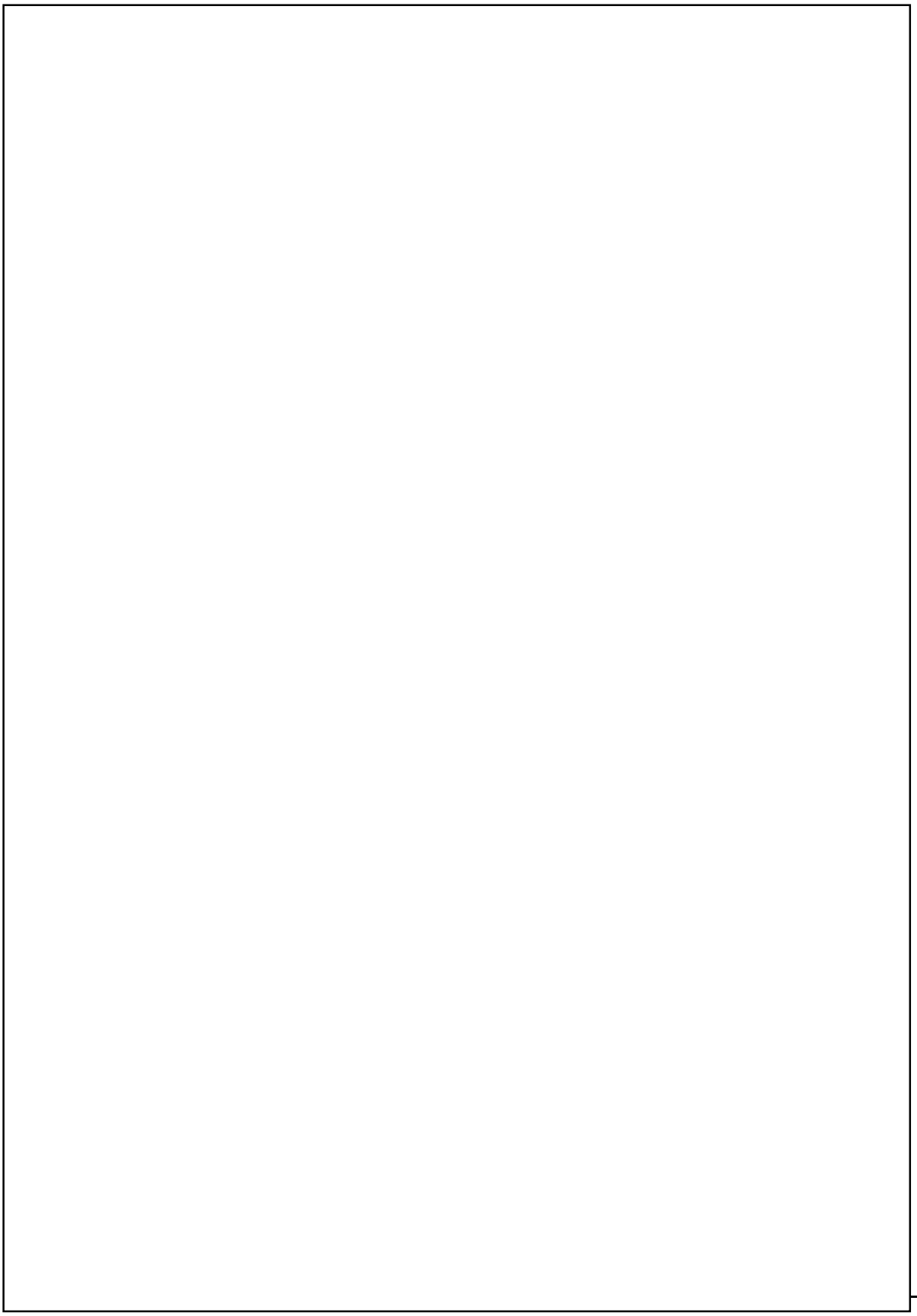
- Throughout the time of using these observations we will stay in contact. We will set dates to carry out joint observations for each

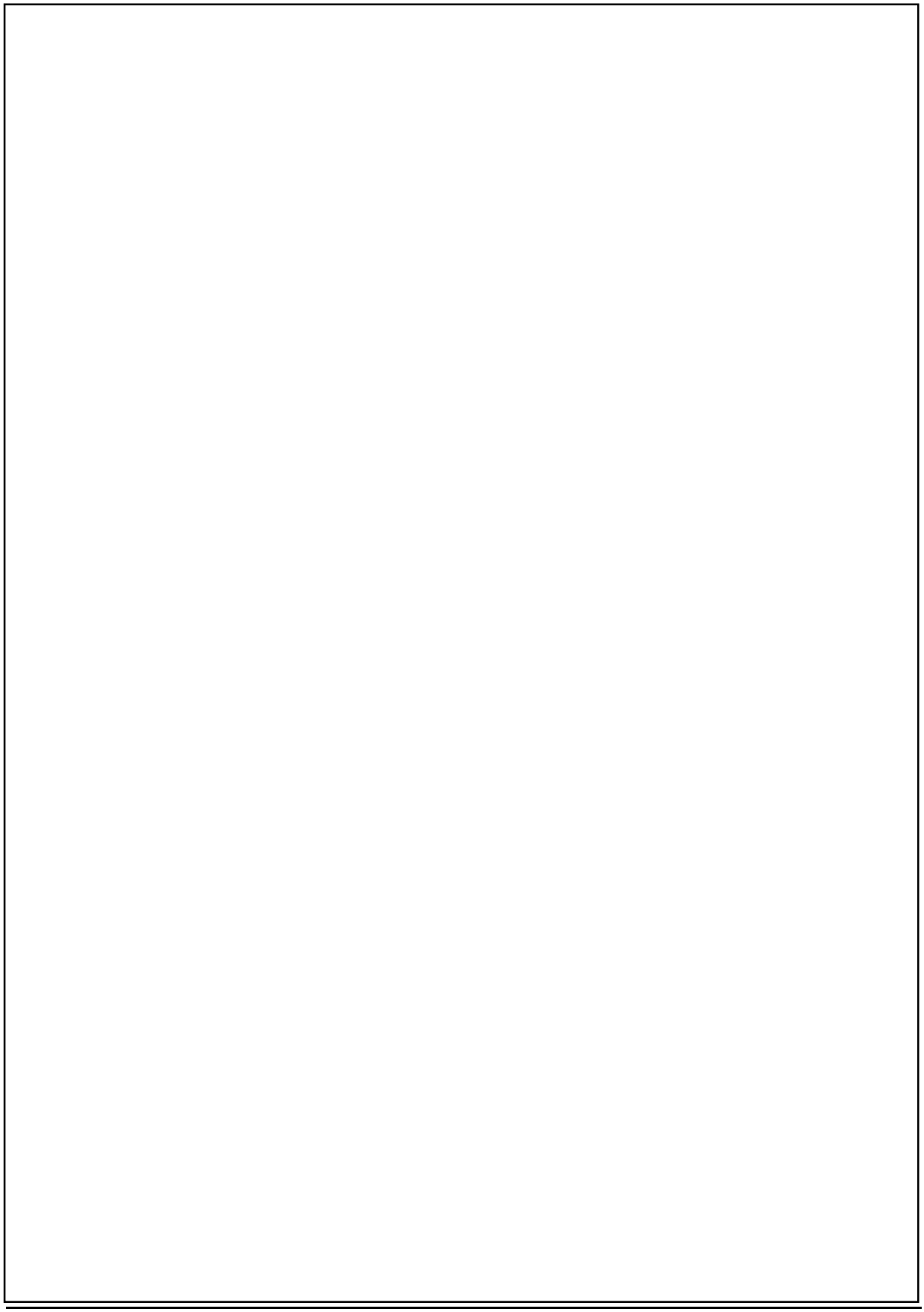
- Following the end of the programme and the end of the use of the observations, we will have a discussion and debrief about the observations.

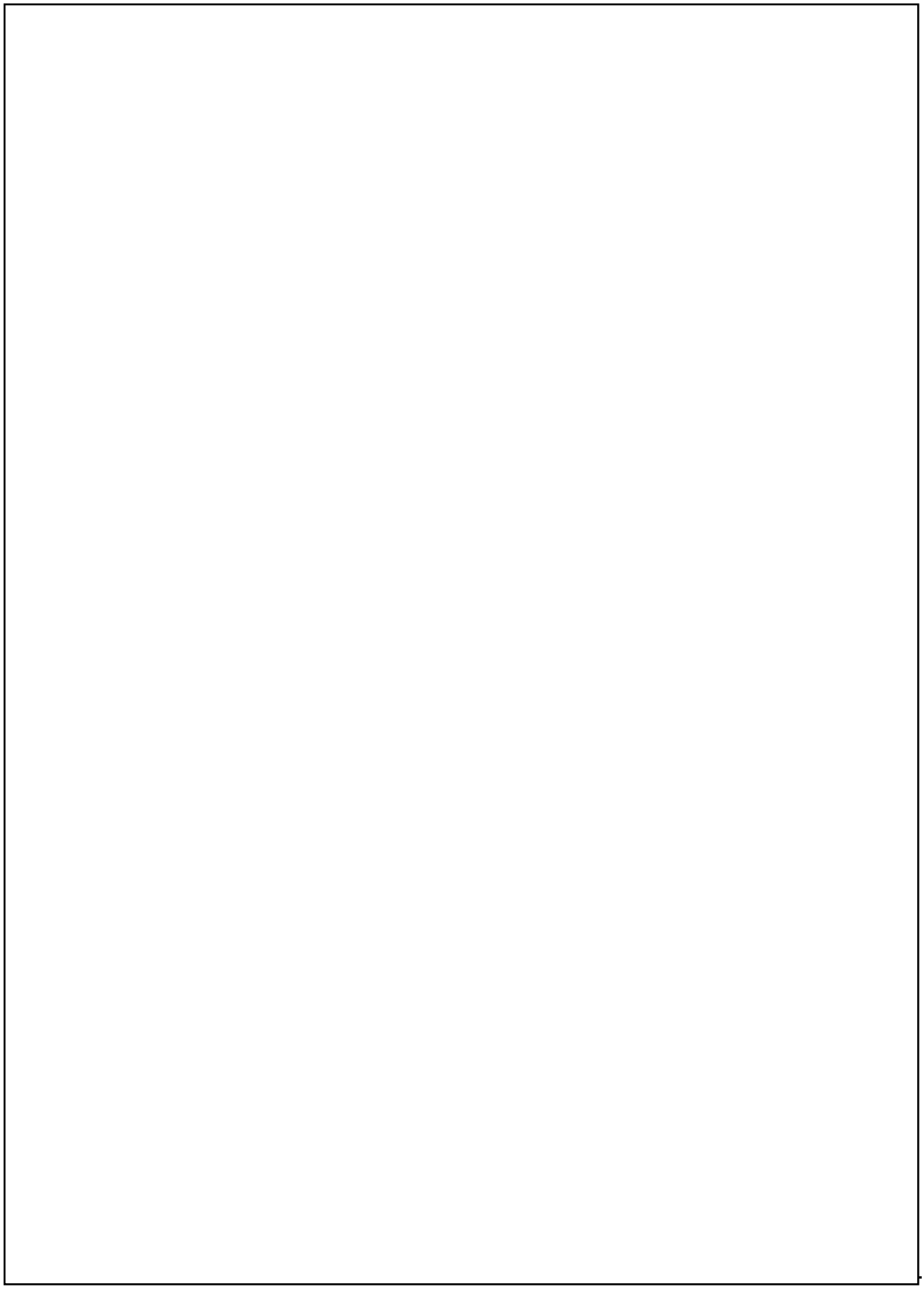
Weekly PANAS-C scale

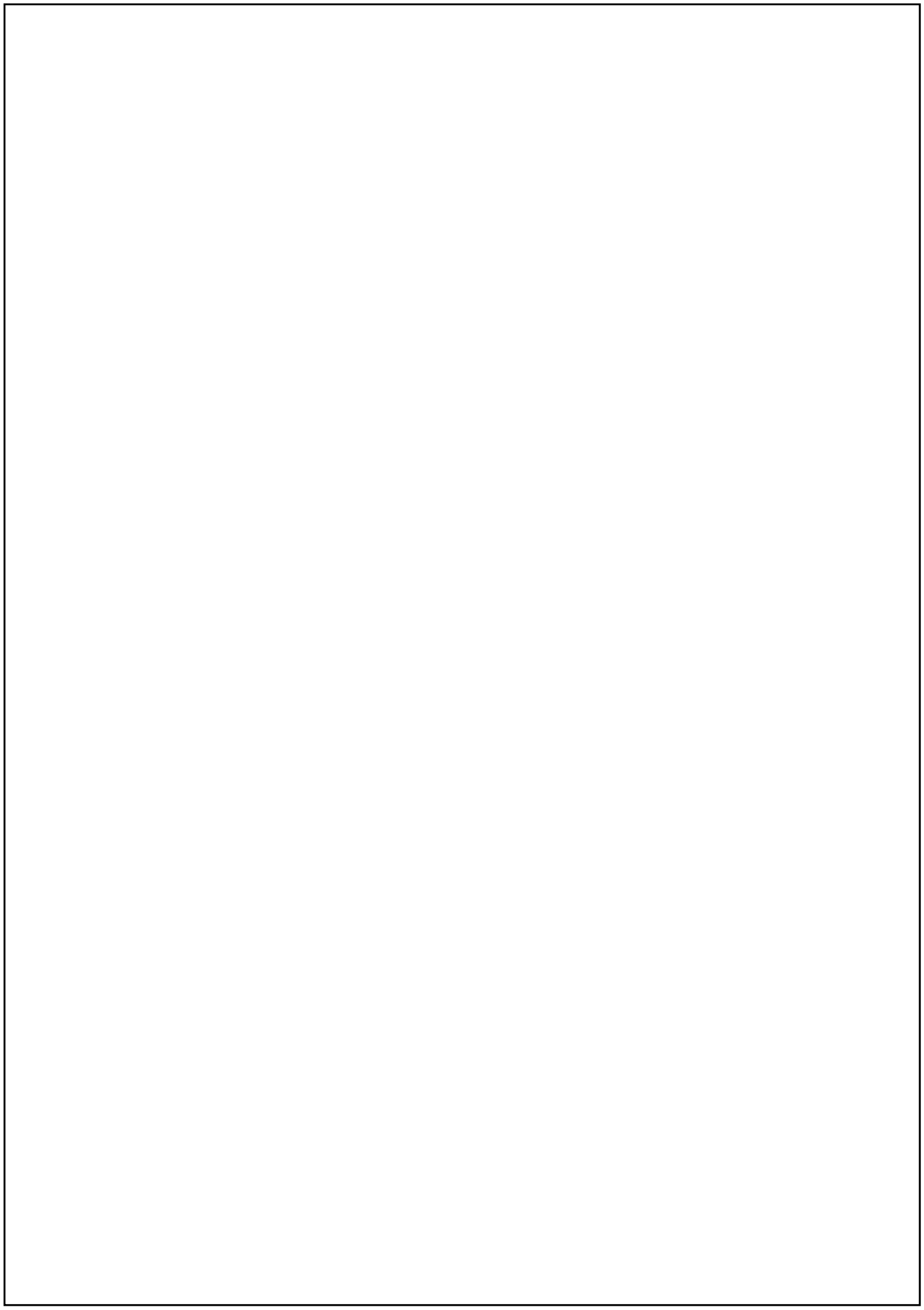
- Young people will be asked to complete this scale once each week during the period when you are observing before the programme begins and during the weeks of the programme.

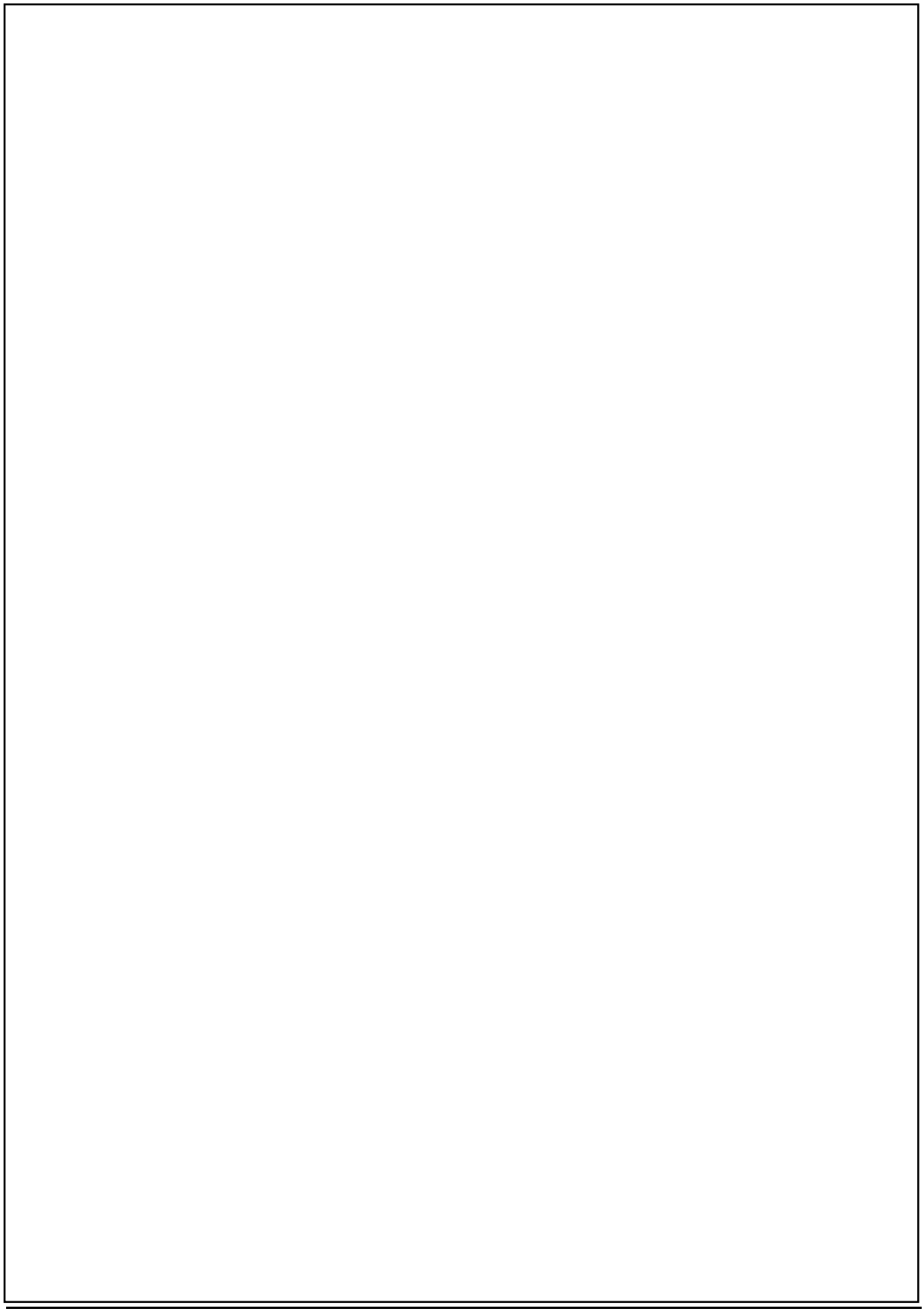
8.22 Appendix 22: Strengths & Difficulties Questionnaire

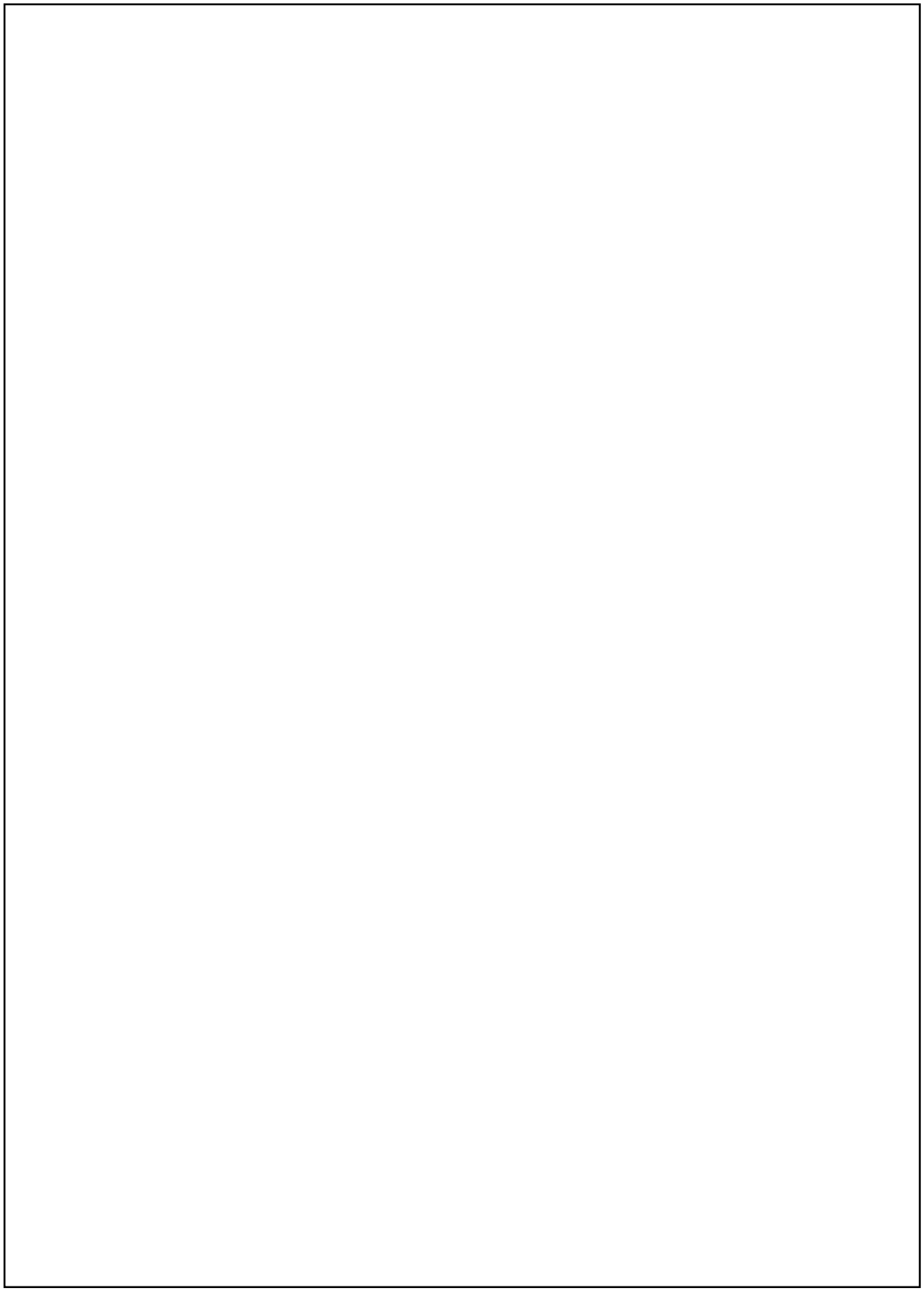


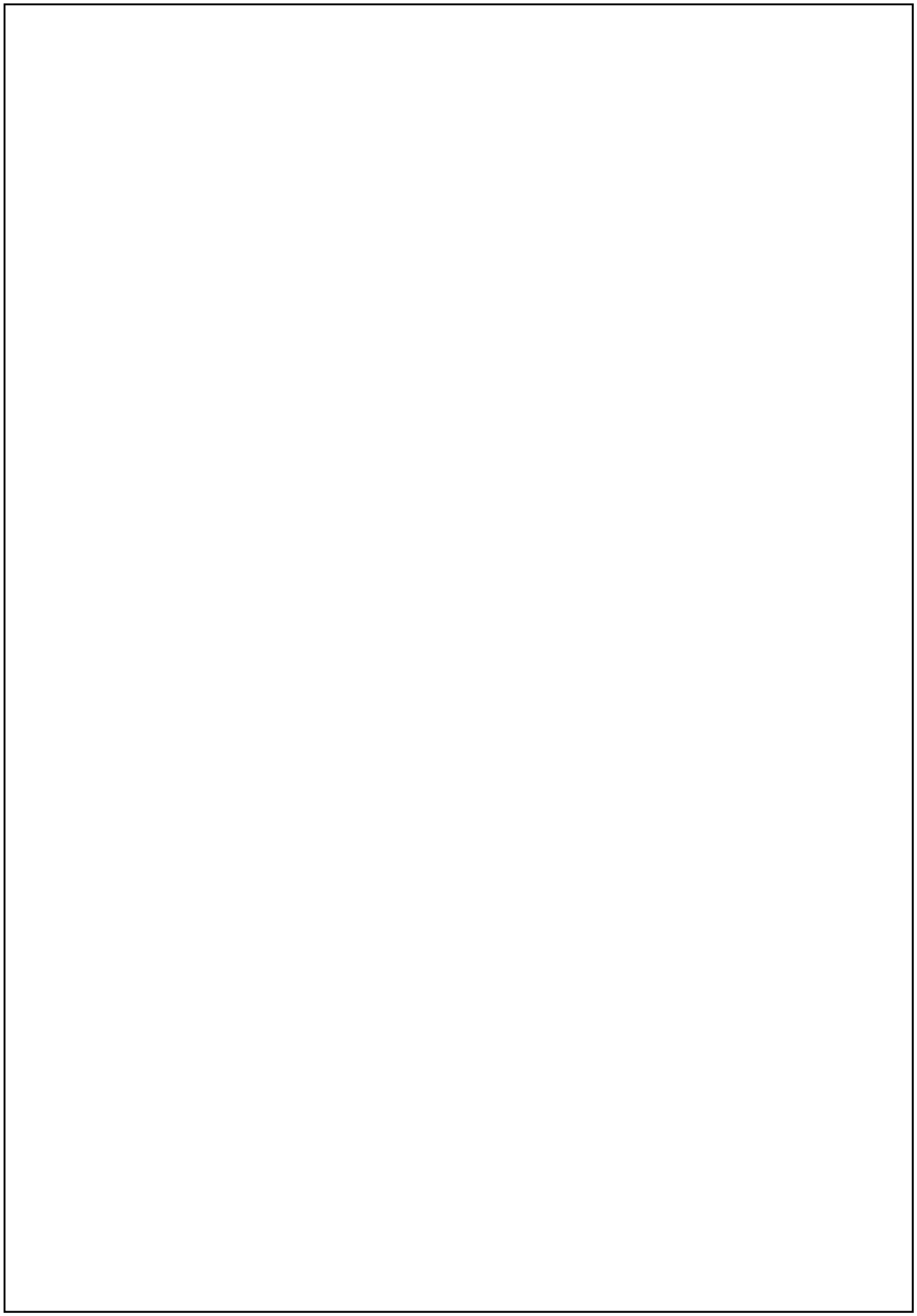


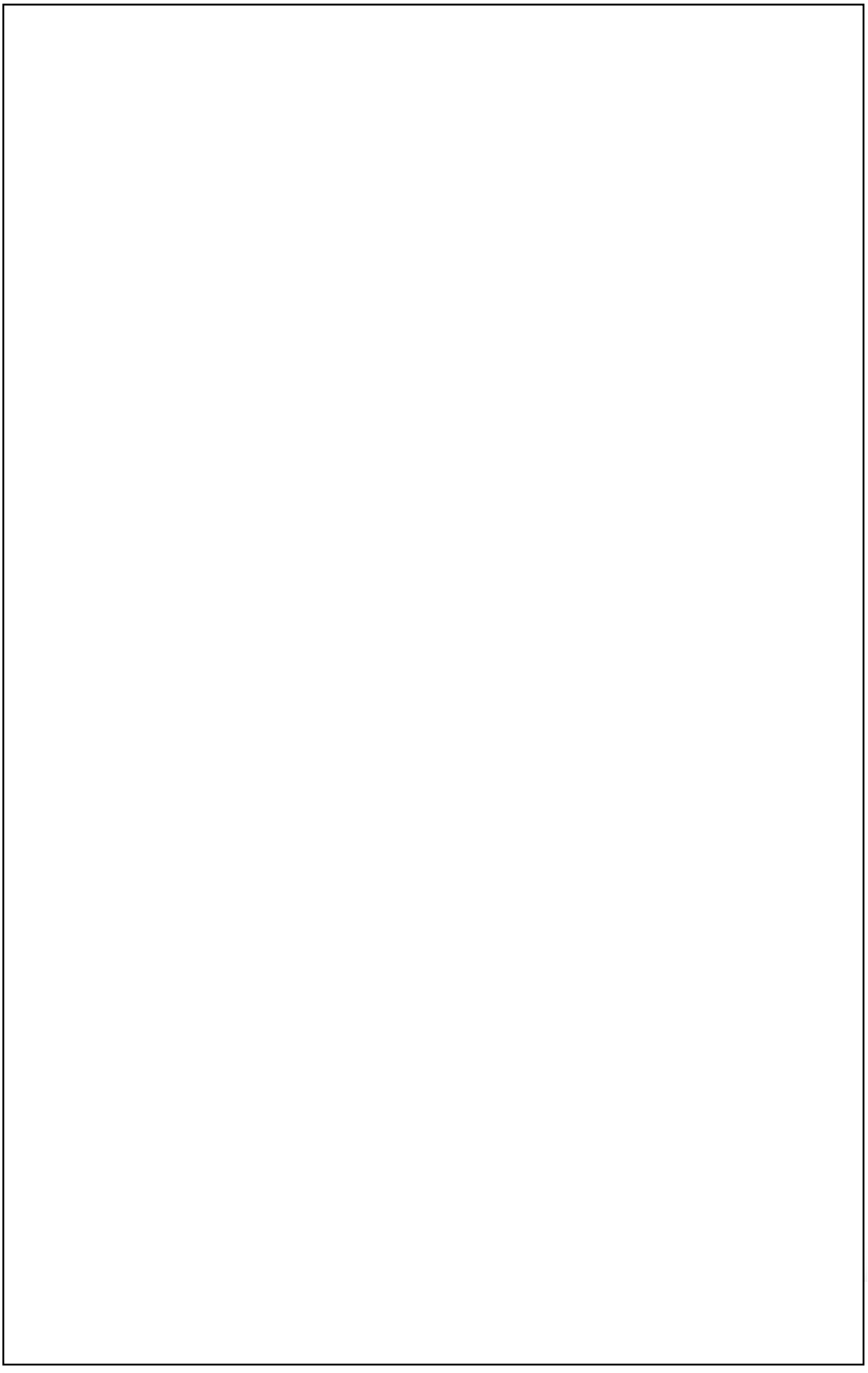


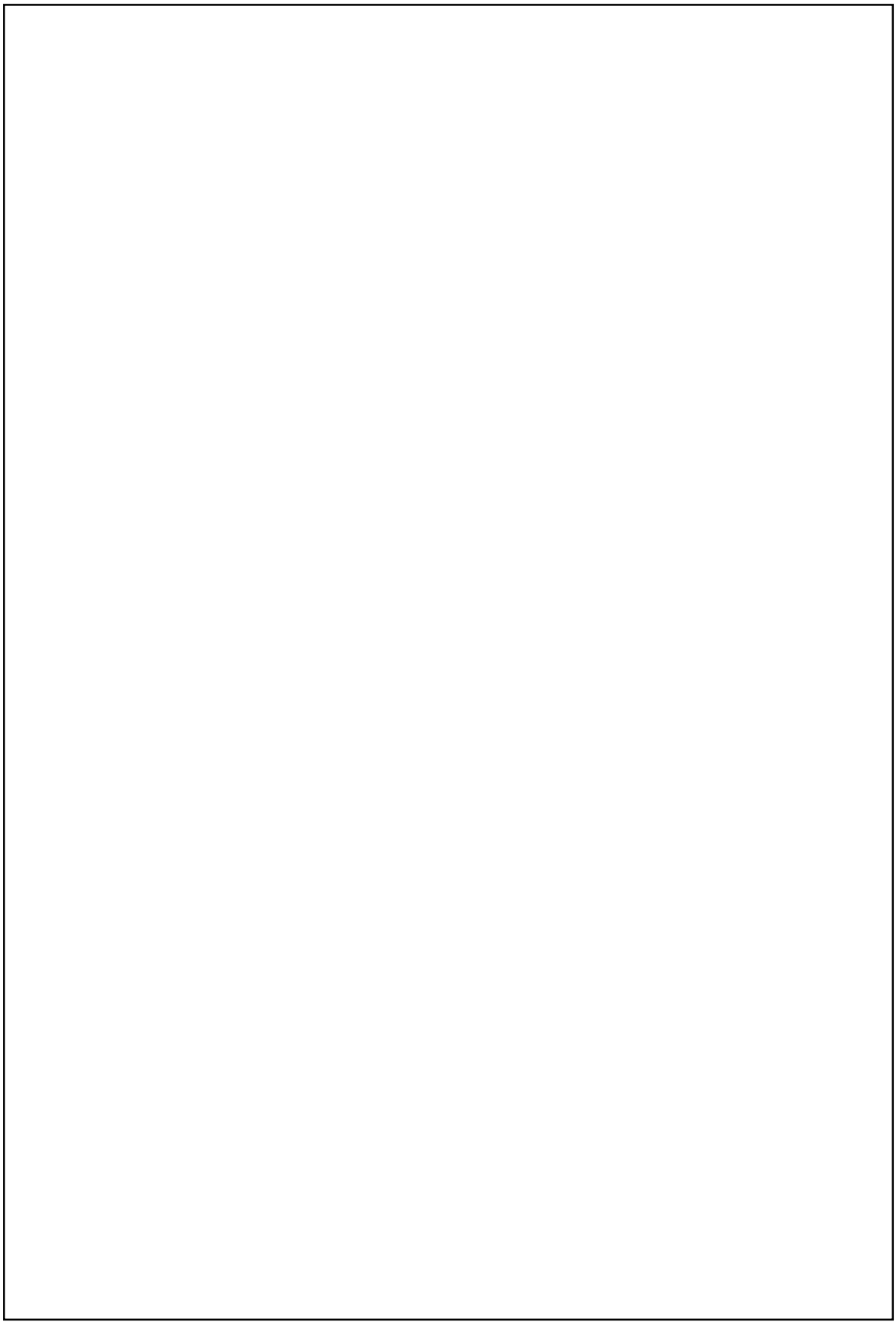


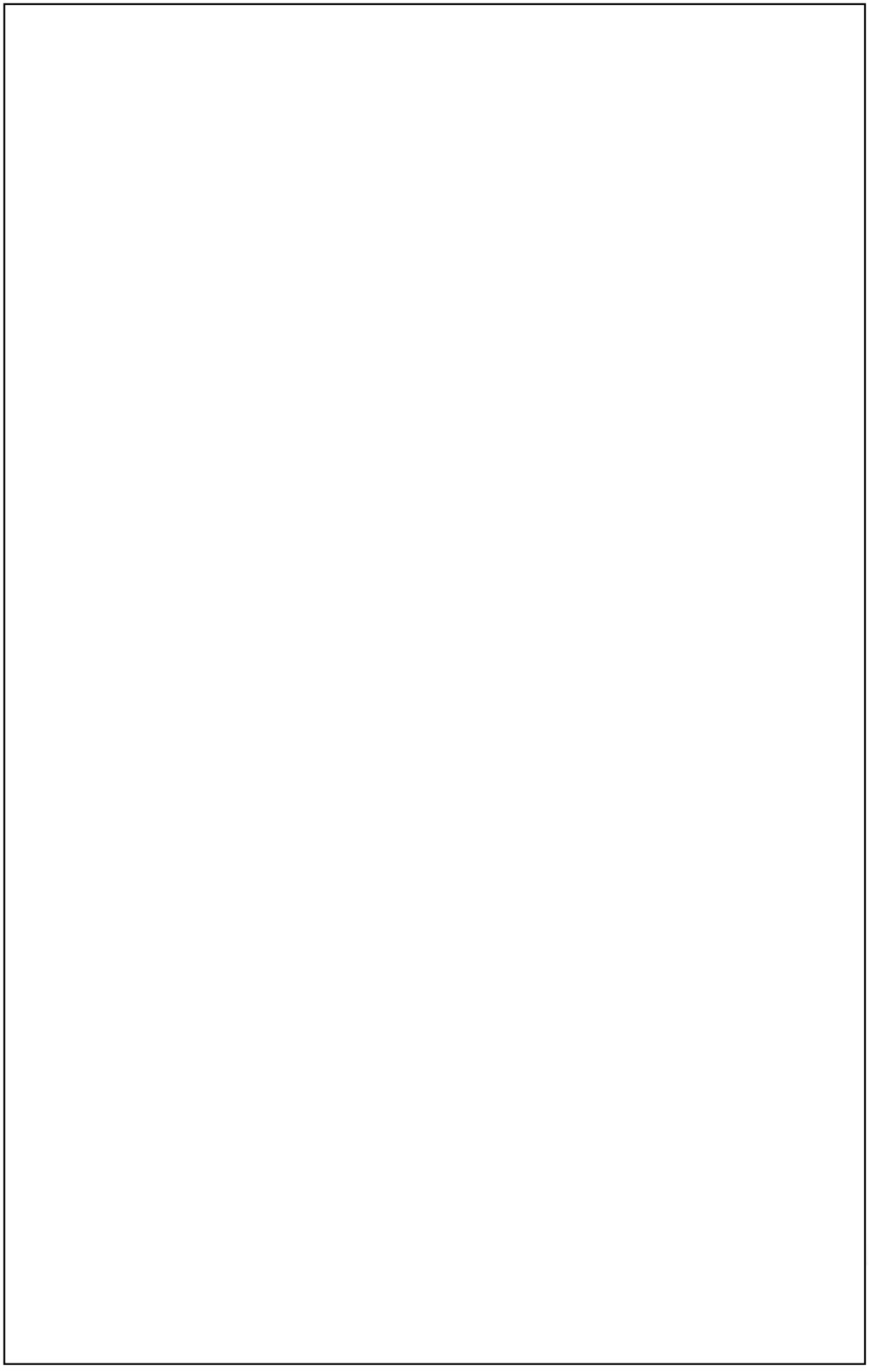


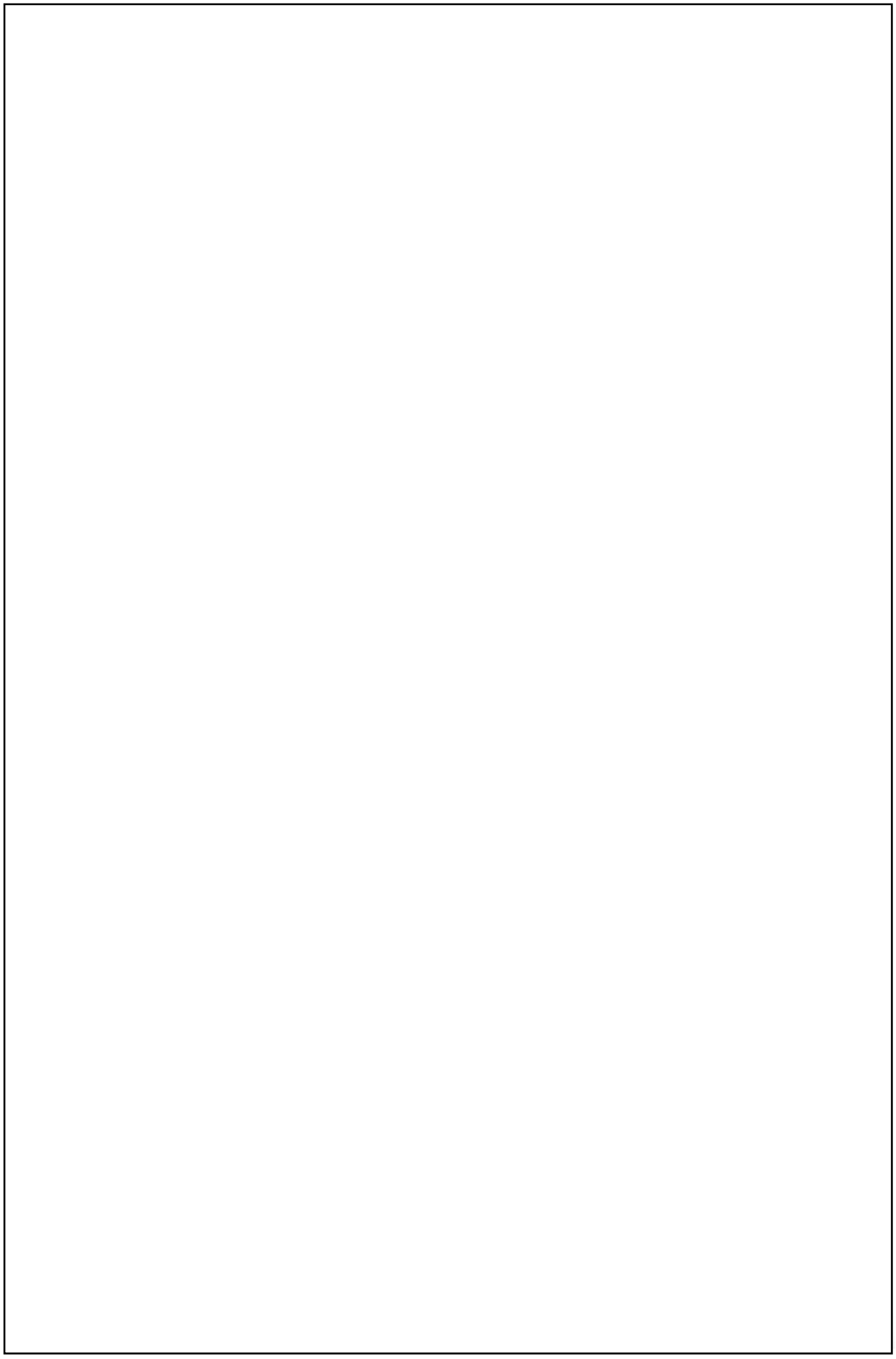


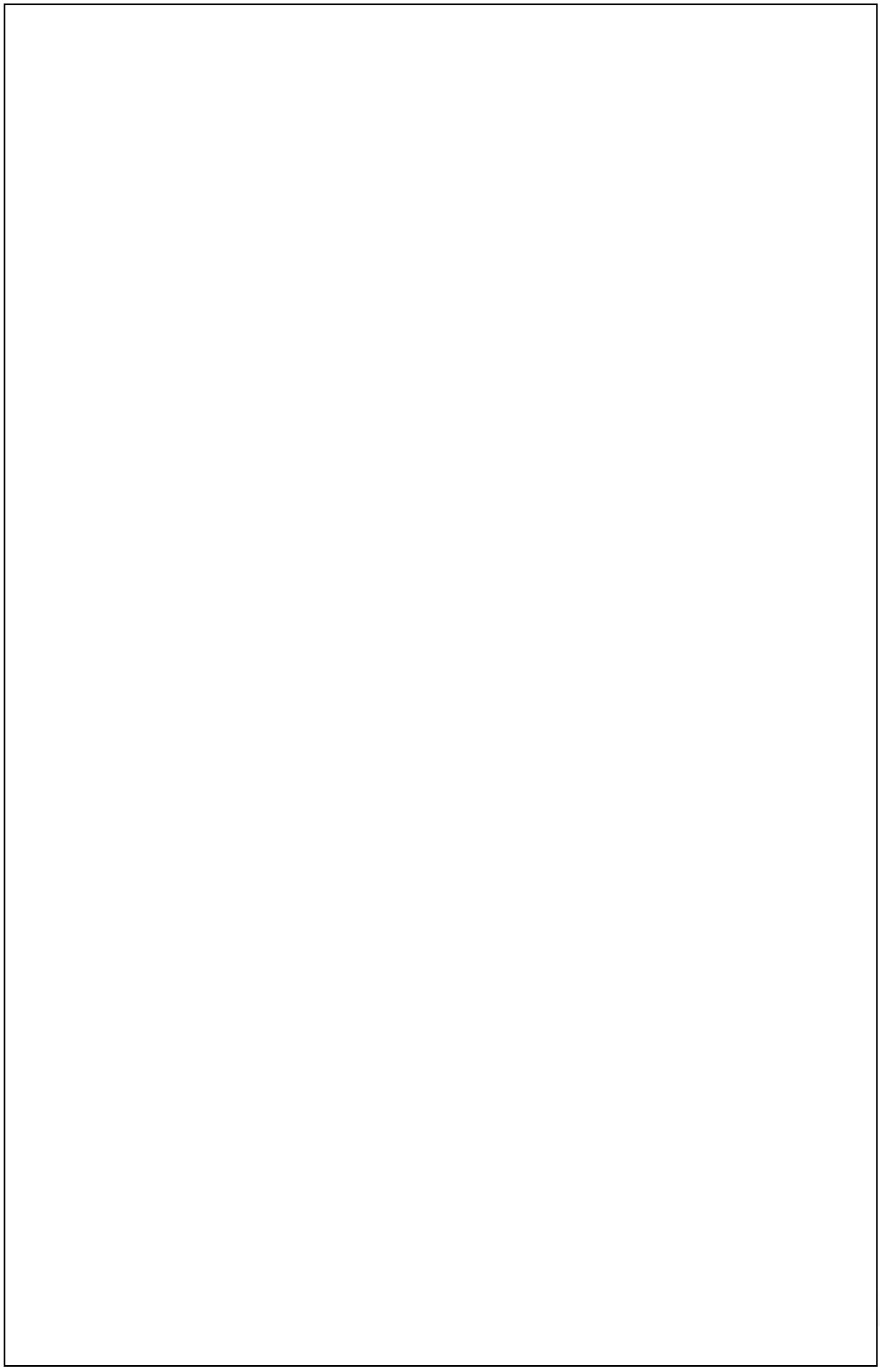












8.23 Appendix 23: Positive & Negative Affect Schedule for Children

Feelings and Emotions (PANAS-C)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to that word.
Indicate how much you have felt this way during the past few weeks.

	Not much or not at all	A little	Some	Quite a bit	A lot

8.24 Appendix 24: Students' Life Satisfaction Scale

Students' Life Satisfaction Scale
(Huebner, 1991)

Directions: We would like to know what thoughts about life you have had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with your overall life. Circle the words next to each statement that indicate the extent to which you agree or disagree with each statement. For example, if you Strongly Agree with the statement "Life is great," you would circle those words on the following sample item;

Life is great.

Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

It is important to know what you REALLY think, so please answer the questions the way you really think, not how you should think. This is NOT a test. There are NO right or wrong answers.

1. My life is going well.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
2. My life is just right.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
3. I would like to change many things in my life.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
4. I wish I had a different kind of life.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
5. I have a good life.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
6. I have what I want in life.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree
7. My life is better than most kids.					
Strongly Disagree	Moderately Disagree	Mildly Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Huebner, E. S. (1991). Initial development of the Students' Life Satisfaction Scale. School Psychology International, 12, 231-243.

8.25 Appendix 25: The Subjective Happiness Scale

Subjective Happiness Scale

(SHS – Lyubomirsky, 1999)

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

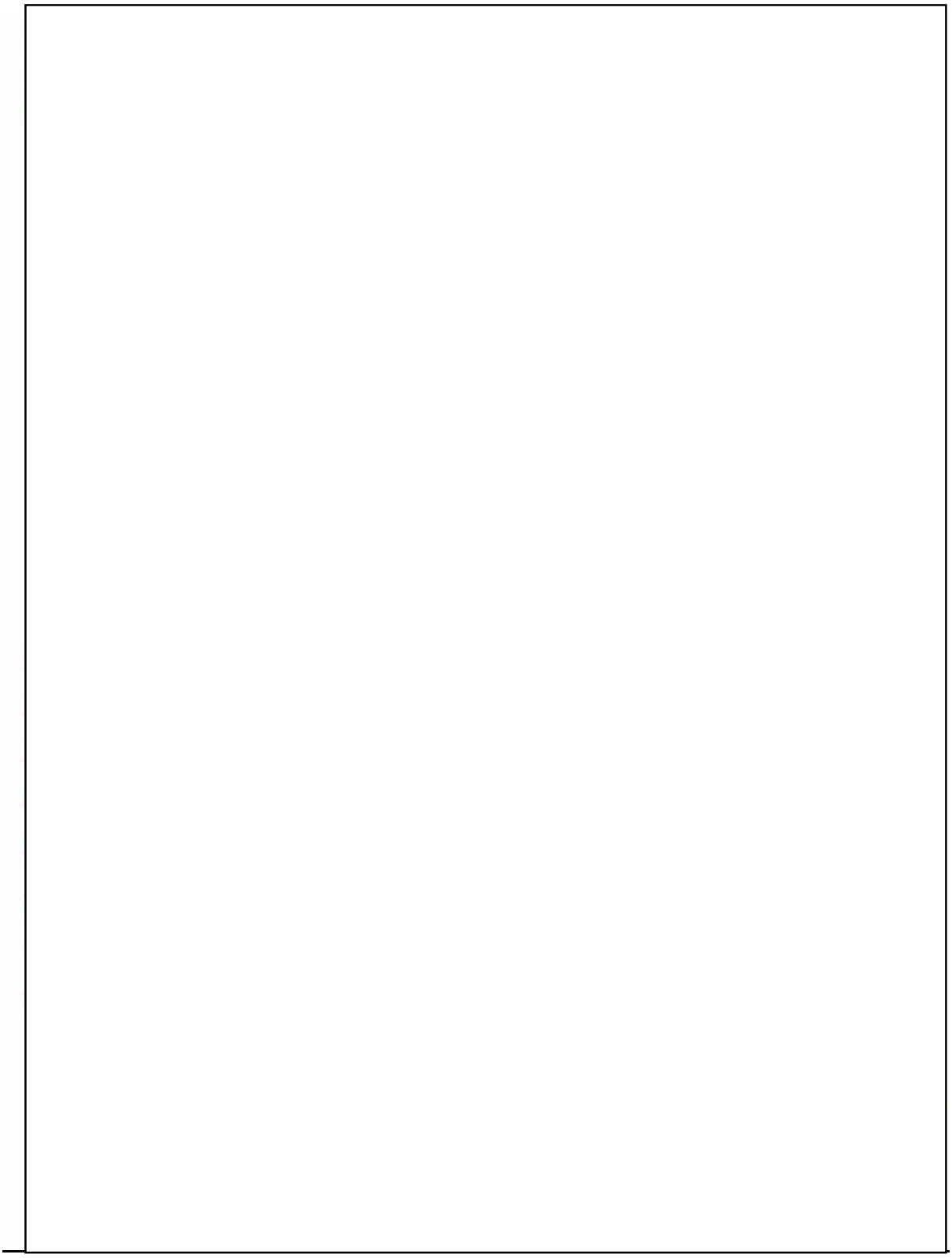
1. In general, I consider myself:

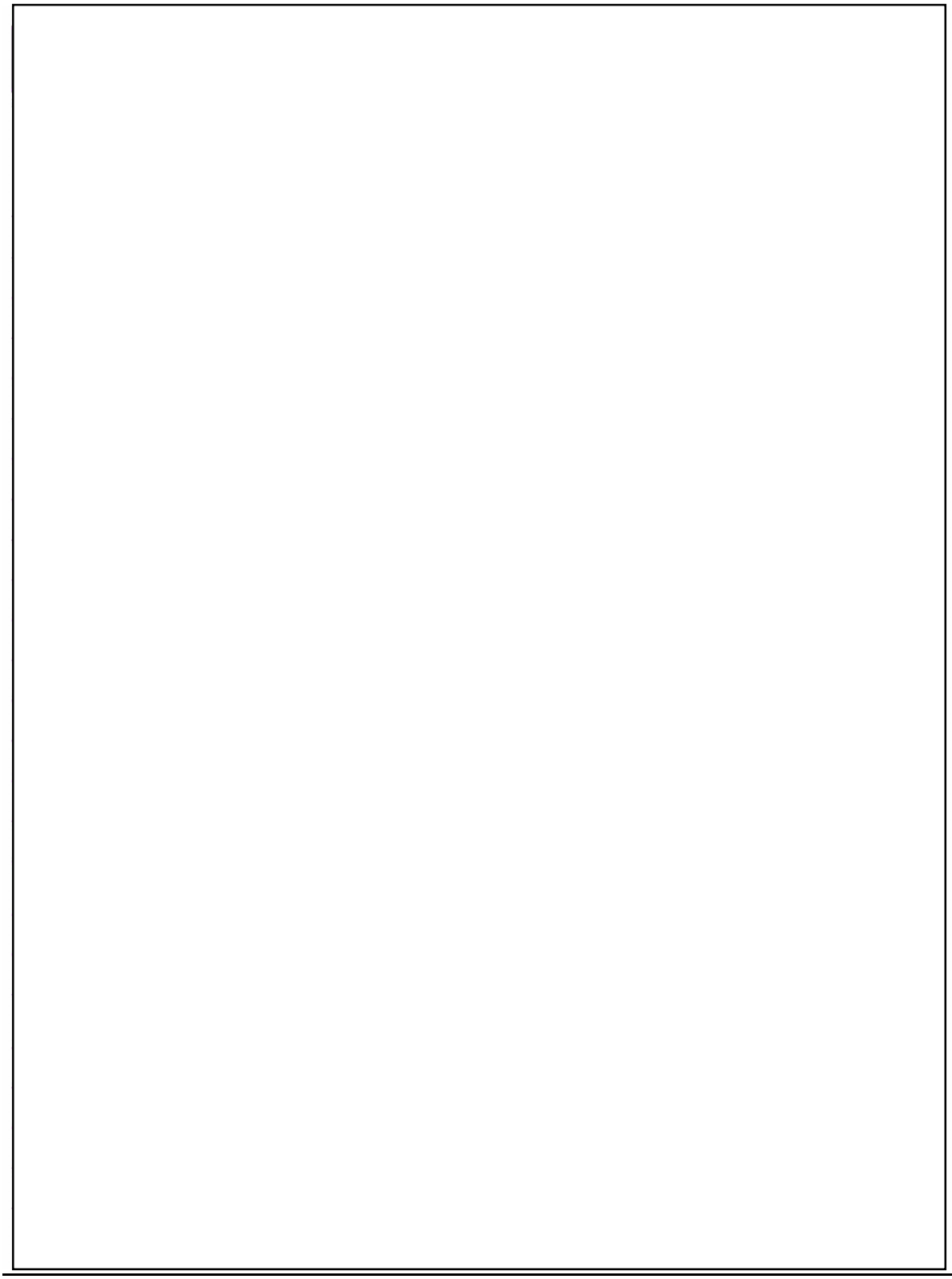
1	2	3	4	5	6
not a very happy person					a very happy person

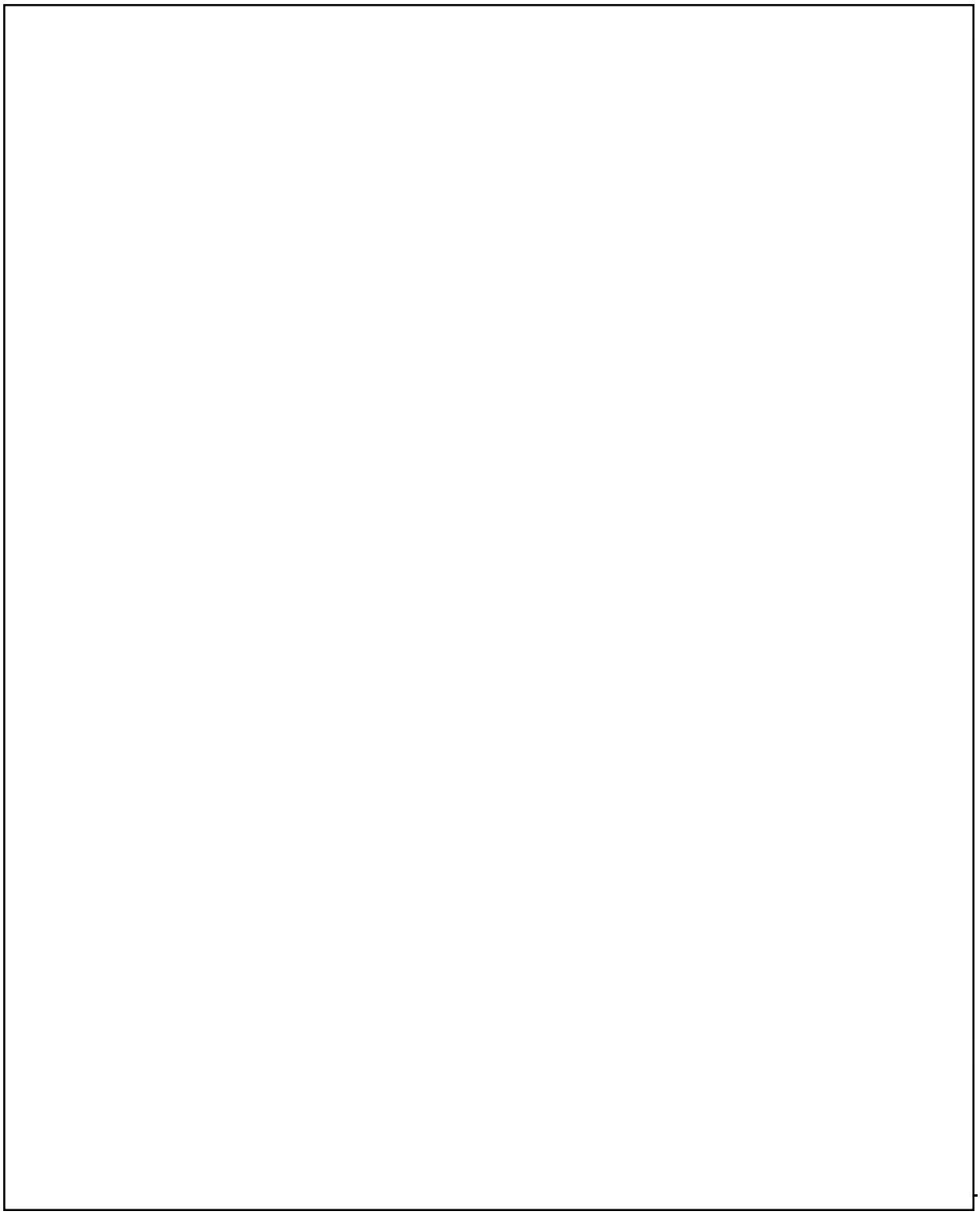
2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6
less happy					more happy

8.26 Appendix 26: The Resiliency Scales for Children and Adolescents







8.27 Appendix 27: The Self-efficacy questionnaire for children

The Self-efficacy questionnaire for children (Muris, 2001) Adapted in accordance with Landon, Ehrenreich & Pincus (2007)

For each item, please mark the box for either Not at all like me, Somewhat like me, Like me or Very much like me.

Please try to give a response for each item, even if you are unsure about which answer fits you best.

	Not at all like me	**Somewhat like me**	**Like me**	**Very much like me**
1. I am good at expressing my opinions when other classmates disagree with me.				
2. I am good at succeeding in cheering myself up when an unpleasant event has happened.				
3. I am good at studying when there are other interesting things to do.				
4. I am good at becoming calm again when I am very scared.				
5. I am good at becoming friends with other children.				
6. I am good at studying for a test.				
7. I am good at having a chat with an unfamiliar person.				
8. I am good at preventing myself from becoming nervous.				
9. I am good at finishing all of my homework everyday.				
10. I am good at working in harmony with my classmates.				
11. I am good at controlling my feelings.				
12. I am good at paying attention during every class.				
13. I am good at telling other children that they are doing something that I don't like.				
14. I am good at giving myself a pep talk when I feel low.				
15. I am good at succeeding in understanding all subjects in school.				
16. I am good at telling a funny event to a group of children.				
17. I am good at succeeding in satisfying my parents with my school work.				
18. I am good at succeeding in staying friends with other children.				

19. I am good at succeeding in suppressing unpleasant thoughts.				
20. I am good at succeeding in passing a test.				
21. I am good at not worrying about things that might happen.				

8.28 Appendix 28: Participant post interview outline

Thank you for taking part in this research and for completing the positive psychology programme. As part of my research I want to gather students views about the programme and to explore the impact students feel it has had upon them. Therefore, the purpose of this interview is for me to gain your views about what you have learnt from the programme and to gain your views about the programme content. Please answer honestly, to ensure that this research is beneficial.

This interview will be audio recorded and the recording will be kept in a secure place. Your responses will be analysed for themes and checked by another researcher/psychologist. Data from the interview will be reported in my research. This will be done anonymously, and no responses will be identified back to you.

You do not have to take part, you do not have to answer every question and you can withdraw from the interview at any point.
Before we begin, I want to check:
Are you happy to take part in this interview?
Do you have any questions that you would like to ask before we begin?

What to do you think you have learnt as a result of taking part in this programme?

Which session do you feel you learnt the most from? (Why?)

How do you think the strategies from the programme can help you in your everyday life?

Which strategies or activities (if any) have you found yourself using outside of the sessions?
(In what ways have you used these? Which ones do you think you will continue to use in the future?)

How do you think you can use what you have learnt from the programme to help you when faced with difficult or challenging situations?

Have you noticed any changes in your behaviour at home or school since beginning the programme? (concentration, focus?)

Do you think the programme has changed your thoughts or feelings about yourself? (How?)

Do you think the programme has changed your thoughts or feelings about your life? (How?)

Have you noticed any changes in your emotions since beginning this programme? (experiences of, awareness of, ability to manage?)

Is there anything else you would like to add about your experience of the programme?

8.29 Appendix 29: Examples of the thematic analysis process

Verbatim transcript example

Researcher: Okay so my first question is what do you think you have learnt as a result of taking part in the programme

Participant: How to handle emotions (.) and stress

Researcher: Okay anything else you can expand on

Participant: Just (.) yeah (.) erm (.) like liking yourself and your appearance and your personality and just liking who you are

Researcher: And which sess-in session do you feel that you learnt the most from

Participant: Er the liking who I am

Researcher: Okay why do you think you learnt the most from that one?

Participant: (.) Erm ((pause)) coz it was it was fun and (.) I enjoyed it and yeah

Researcher: Okay and how do you think the strategies from the programme can help you in your everyday life

Participant: (.) Erm ((pause)) just by like that one liking who you are (.) er ac-the act of kindness one where (.) if you compliment someone it makes their day happier and (.) you feel good about yourself and proud

Researcher: Okay and which strategies or activities if any of them have you found usef-have you found yourself using outside of the sessions

Participant: Er concentration one where like (.) the bean bag game (.) aannd (.) if you concentrate on one thing you do it much better than you would if you concentrate on more than one

Developing codes example

Number		Code
1	**Researcher:** Okay so my first question is what do you think you have learnt as a result of taking part in the programme	
2	**Participant:** How to handle emotions (.) and stress	5
3	**Researcher:** Okay anything else you can expand on	
4	**Participant:** Just (.) yeah (.) erm (.) like liking yourself and your appearance and your personality and just liking who you are	8

5	**Researcher:** And which sess-in session do you feel that you learnt the most from	
6	**Participant:** Er the liking who I am	8
7	**Researcher:** Okay why do you think you learnt the most from that one?	
8	**Participant:** (.) Erm ((pause)) coz it was it was fun and (.) I enjoyed it and yeah	3
9	**Researcher:** Okay and how do you think the strategies from the programme can help you in your everyday life	
10	**Participant:** (.) Erm ((pause)) just by like that one liking who you are (.) er ac-the act of kindness one where (.) if you compliment someone it makes their day happier and (.) you feel good about yourself and proud	10 8
11	**Researcher:** Okay and which strategies or activities if any of them have you found usef-have you found yourself using outside of the sessions	
12	**Participant:** Er concentration one where like (.) the bean bag game (.) aannd (.) if you concentrate on one thing you do it much better than you would if you concentrate on more than one	6 11

Final list of codes

1. Feeling happy
2. Negative feelings
3. Liking sessions
4. Changes in general behaviour
5. Support for coping with difficulties
6. Using session content
7. Being more positive
8. View of self
9. Thoughts about the future
10. Pleasing others through actions
11. Concentration

Grouping coded extracts – example

Sessions

3.Liking sessions

probably the flow one (.) just because I don't know I found that one quite interesting as well (.) I don't I don't know why I found it like the most (.) good

coz it was it was fun and (.) I enjoyed it and yeah

It was just enjoyable and (.) I'm glad I at first I didn't really think much of it but then as it got into it it was much better and it was good

6. Using session content

Erm I use the flow one quite a lot (.) and er (.) practising gratitude one

Erm well I us-like when I use the flow is like when I'm go to football and stuff like that and I go out with my mates and stuff and then like gratitude is like (.) ugh I don't really know how to explain it (.) like (.) like when like say my mum will like cookme dinner like after I've had it I'll just say like oh thank you for that and stuff like that

Its by remembering (.) like (.) things that you've learnt ((pause)) and try a put them in action basically

Er sssavouring er savouring like moments that that I-I-I like (.) in in er (.) and (.) erm (.) r-remembering them

(.) Er (.) er kindness I've been more (.) more erm more kind to to like general people

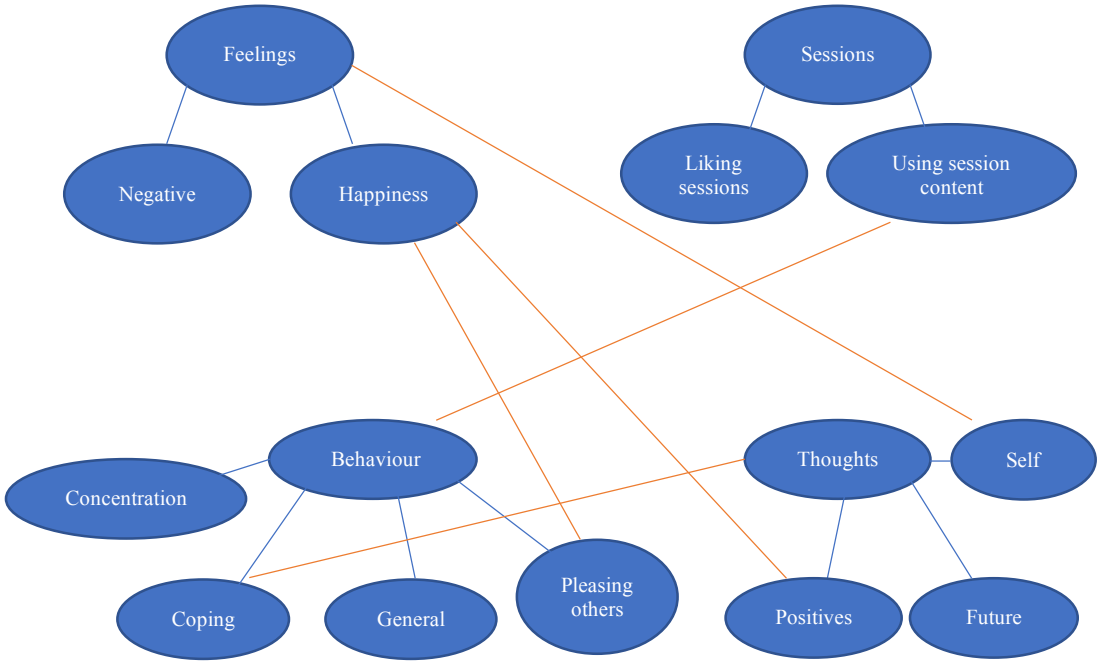
er grateful (.) for the things I've I've already got

obviously the (.) the strengths and and savouring moments (.) of of erm things that I like

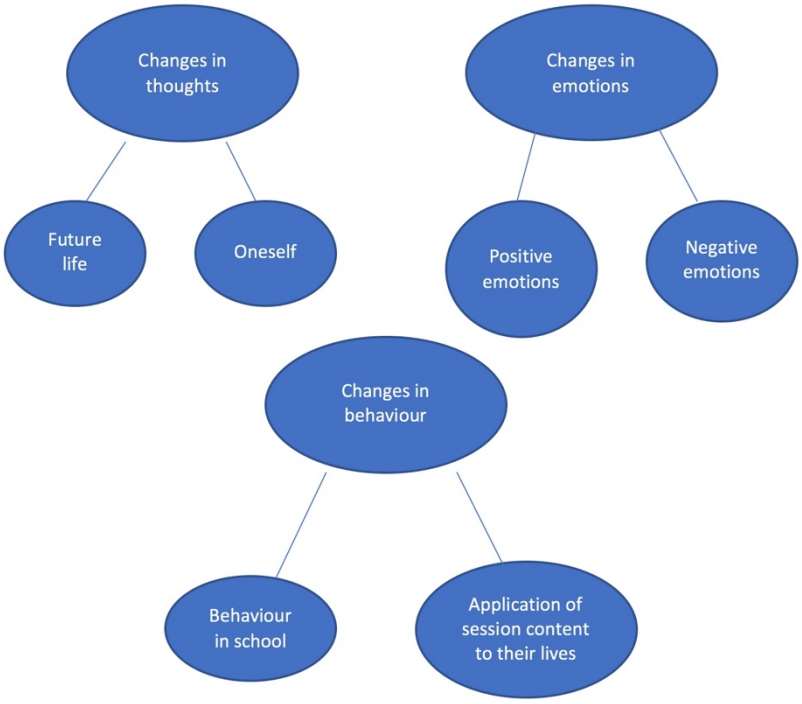
probably being grateful like its session two the practising gratitude

if you concentrate on one thing you do it much better

8.30 Appendix 30: Example of theme development



Final themes



8.31 Appendix 31: Ethical approval letter

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Friday 21st July 2017

Dear Amy and Sarah,

Ethics Committee Review

Thank you for submitting an account of your proposed research **'An evaluation of the Positive Approaches to Life programme used to support potentially vulnerable secondary students to enhance their self-efficacy, resilience, happiness and related behaviours'**.

That proposal has now been reviewed by the Ethics Committee and I am pleased to tell you that your submission has met with the committee's approval.

Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice. The Committee should be informed immediately should any participant complaints or adverse events arise during the study.

Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely



Professor Stephen Jackson
Chair, Ethics Committee