
An evaluation into how the introduction of Secondary SEAL has impacted upon School Climate & Pupils' Emotional Literacy and Resiliency Levels.

Paper 1/2: The impact of SSEAL on pupils' emotional literacy and
resiliency levels – (Word Count 8669)

Paper 2/2: The impact of SSEAL on school climate – (Word count 8274)

Submitted by Mark Anthony Snape to the University of Exeter as a thesis for the degree of
Doctor of Educational Psychology in Educational, Child & Community Psychology, May
2011.

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Acknowledgements

After finally finishing the *long* 'marathon' of writing this dissertation, I would like to show my gratitude and appreciation to the following people:

To my partner, Ashley, the one person who has put up with my excitement, frustration and tears and who was always there to offer me a cup of coffee or a glass of red wine when times got too tough.

To my dearest mum and dad, who have always supported me with my lifelong ambition to become an Educational Psychologist.

I would like to say a big thank you to my Research Supervisor, Dr Tim Maxwell, who inspired me to think about this piece of research from a number of perspectives and offered me *sound advice* at all times and was always available for a 'quick chat'.

I could not have completed this research without the support from three schools in the East Midlands who were always accommodating and without their support this research study would not have gone ahead, so thank you.

Overview

There has been an explosion of research carried out into the social and emotional well-being of children and young people in the UK during recent years.

Government policies, including the Every Child Matters Agenda (2003) along with a number of evaluative studies (both primary and secondary) have focused on the importance of the Social and Emotional Aspects of Learning Programme (SEAL) and the impact it has had on pupils' emotional literacy, behaviour and attainment, to name a few. Evidence suggests that the most effective approach to implementing a social and emotional learning programme is to use a whole school approach, which involves staff, students and parents (Weare & Gray, 2003).

Papers 1 & 2 sought to investigate whether the introduction of secondary SEAL has had an impact on school climate as well as pupils' emotional literacy and resilience levels. The current literature in the area of SEAL has predominantly focused on pupils' emotional literacy and has omitted focusing on pupil resilience. The SEAL documentation (DfES, 2007a) promotes pupils' emotional literacy, as based on Goleman's (1996) model of emotional intelligence and highlights the importance of promoting resilience.

Paper 1 explored the impact that secondary SEAL has had on pupils' emotional literacy and resiliency levels as measured by the NFER Emotional Literacy Questionnaire (Faupal, 2003) and the Child & Adolescent Resiliency Questionnaire (Prince-Embury, 2007). The data gathered from the questionnaires were

triangulated with the responses from the semi-structured interviews from paper 2 to increase the validity of the findings in paper 1. Moreover, by using the qualitative analysis of the results, it allowed the researcher to observe how SEAL has had an impact on pupils' emotional literacy and resilience.

The findings from paper 1 indicate that the introduction of SEAL had not impacted on pupils' emotional literacy scores on the questionnaire, but the qualitative responses from the teachers perceive that students are more aware of their emotions and the emotions of those around them. The quantitative results gained from the resiliency questionnaire indicated that the students' resiliency scores increased between 2010 and 2011 and their vulnerability scores decreased. The correlational data found significant associations between pupils' emotional literacy and resiliency scores.

Paper 2 explored the processes involved when introducing Secondary SEAL into the curriculum and/or pastoral system and whether SEAL had an impact on school climate. Semi-structured interviews elicited staff responses about how SEAL had been introduced into their curriculum and pastoral system and how effectively this had occurred. The results from the thematic analysis (Braun & Clarke, 2006) found three main themes: the management of SEAL, the social and emotional well-being of staff and students and school climate. Furthermore, the results gained from the OCDQ-RM (Hoy et al. 1991) found that School X had an Engaged Climate, School Y had an Open Climate and School Z had a Closed Climate.

The role of the EP was considered in both research papers and it was indicated that the role of the EP is significant in supporting schools to implement a whole school social and emotional learning programme as well as setting priorities for a school to meet their school improvement initiatives. Alongside, supporting whole school initiatives there is a role for the EP to work with schools in providing training about emotions and resilience and appropriate methods to assess and support these constructs.

What is the impact on staff and pupils when introducing Secondary SEAL (SSEAL) into a school?

AIM & RESEARCH QUESTIONS:

The aim of paper 1 was to explore whether the Secondary SEAL programme is associated with relevant pupil skills to show resilience from a difficult situation, be more in tune with their emotions and the emotions of those around them.

Question 1: What are the associations between the introduction of Secondary SEAL into a secondary school and Year 8 pupils' emotional literacy levels?

Question 2: What are the associations between the introduction of Secondary SEAL into a secondary school and Year 8 pupils' resilience levels?

Question 3: What has been the impact on pupils' emotional literacy and resiliency levels since the introduction of SEAL into the school?

Question 4: To what extent are there any gender differences from students' responses on the emotional literacy and resiliency questionnaires?

AIM & RESEARCH QUESTIONS:

The aim of paper 2 focused on the processes involved when introducing Secondary SEAL (For example, factors that may impede/support the introduction of the initiatives of SEAL) and whether this has had an impact on the school climate.

Research question 1: How has SEAL been implemented into the school's curriculum and pastoral systems?

Research question 2: What are the staff perceptions of school climate since the introduction of SEAL?

Research question 3: What are the most effective sources of analysis to explore how effectively SEAL has been introduced into a secondary school (including OFSTED reports, Questionnaires and semi-structured interviews) and its impact on schools climate?

METHOD & DESIGN:

EPISTEMOLOGICAL APPROACH: Paper 1 adopted a pragmatic epistemological approach.

DESIGN: A mixed methods design was used, combining data from quantitative questionnaires (NFER Emotional Literacy Questionnaires (Teacher and Pupil versions) and the Resiliency Scales for Children and Adolescents – A Profile of Personal Strengths (RSCA) and data gathered from Semi-structured interviews were triangulated from paper 2.

SAMPLE:

Students:

1. 64 students (31 male & 33 female), from three secondary schools in the East Midlands formed the sample.

Teachers:

1. 3 teachers completed the NFER Teacher version of the Emotional Literacy questionnaire for their form tutor group
2. 6 teachers were interviewed.

METHOD & DESIGN:

EPISTEMOLOGICAL APPROACH: Paper 2 adopted a pragmatic epistemological approach.

DESIGN: A mixed methods design was used, combining data from a quantitative questionnaire (The organizational climate description for middle schools questionnaire (OCDQ-RM) and data gathered from 6 Semi-structured interviews were triangulated.

SAMPLE:

Teachers:

1. Six teachers, from three secondary schools in the East Midlands were interviewed. Two members of staff were interviewed from each school. The sample comprised of female teachers.
2. A total of 42 teaching staff (from the three secondary schools) completed the OCDQ-RM questionnaire.

RESULTS:

QUANTITATIVE DATA:

PUPILS: The results from the NFER Emotional literacy questionnaires did not show a significant difference between 2009-2010 from any of the three secondary schools from the t-tests or ANOVA analysis.

The results from the RSCA showed mixed results. School Z had a significant result for the Vulnerability Score; School Y had a significant result on the Resourcefulness score (as indicated on the t test). The ANOVA results indicate a significant result for the three schools in 2011.

STAFF: A significant result was achieved from the ANOVA analysis between teacher's responses to the NFER Emotional literacy questionnaire.

QUALITATIVE DATA:

The information from the semi-structured interviews found that:

- Pupils were more aware of their emotions
- Pupils were more aware of other people's emotional needs
- Pupils were not always aware of what 'resilience' was
- Staff were not always aware of whether their students were resilient
- SEAL provided an awareness about the importance of resilience

RESULTS:

QUANTITATIVE DATA:

The information gathered from the OCDQ-RM indicated that:

- School X had an Engaged Climate
- School Z had a Closed Climate
- School Y had an Open Climate
-

The information gathered about staff confidence of SEAL found a mean score of:

| | Knowledge of SEAL | Evaluating SEAL |
|----------|-------------------|-----------------|
| School X | 3 | 3 |
| School Y | 4 | 3 |
| School Z | 4 | 3 |

QUALITATIVE DATA:

Information gathered from the semi-structured interviewed were analysed using Braun & Clarke's (2006) model of Thematic Analysis.

The 3 Themes that emerged from the data were:

- The management of SEAL
- Staff and pupil emotional and social well-being
- School climate.

CONCLUSIONS:

In conclusion, it can be suggested from both research papers that, SEAL has had a lesser impact on pupils' emotional literacy and resilience levels, although there is some evidence that there are associations between the correlational data and pupil emotional literacy scores and resilience scores. The qualitative data reinforced that SEAL had raised pupil and staff awareness about emotional literacy and resilience.

The results from paper 2 indicate that the type of school climate goes some way to explaining how effectively a school implements SEAL – the more open the school's climate the more effectively SEAL has been introduced across the whole school.

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Paper 1 of 2:

**What is the Impact of Secondary
SEAL on pupils' emotional literacy
and resiliency levels?**

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Chapter 1- Abstract

This research paper forms the first half of this thesis exploring how the introduction of Secondary SEAL (SSEAL) has impacted on pupils' emotional literacy and resiliency levels (as measured by the NFER Emotional Literacy Questionnaire and the Resiliency Scales For Children and Adolescents – A profile of personal strengths (RSCA) Questionnaire).

The aim of Paper 1 is to explore whether the SSEAL programme is associated with relevant pupil skills, to show resilience with a difficult situation; be more in tune with their emotions and the emotions of those around them.

The research questions for paper 1 were:

Question 1: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' emotional literacy levels?

Question 2: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' resilience levels?

Question 3: How has the introduction of SEAL had an impact on pupils' emotional literacy and resiliency levels since the introduction of SEAL into the school?

Question 4: To what extent are there any gender differences from students' responses on the emotional literacy and resiliency questionnaires?

This paper adopted a pragmatic epistemological stance and used a mixed methods design, where quantitative data was gathered from teachers and Year 8 pupils

using both the NFER Emotional Literacy Questionnaire and the Resiliency Scales for Children and Adolescents: A Profile of Personal Strengths Questionnaire. The quantitative data was triangulated with the semi-structured interviews from Paper 2 to inform the results of research question 3.

The sample was derived from three secondary schools in the East Midlands. There were 64 pupils (31 males and 33 females) and three form tutors who completed the questionnaires. The qualitative data was gained from 6 teachers from the three secondary schools in the East Midlands using a semi-structured interview.

The results gained from paper 1 found that there was not a significant result for pupils' emotional literacy scores between 2009 and 2010 for schools X, Y and Z. There was a significant ANOVA result for the teacher's version of the emotional literacy questionnaire. The results gained from the resiliency scores showed that School Y had a significant result for pupils' resourcefulness scores and School Z had a significant result for pupils' vulnerability scores. The ANOVA results showed that there was a significant result for both resourcefulness and vulnerability from the results gained in 2011. The correlational data for school X, Y and Z found an association between pupils' emotional literacy and resilience scores. The data indicated that males scored lower on the emotional literacy and resiliency questionnaires to females. A significant result was found for male scores on the Vulnerability questionnaire between 2010-2011 and there was a significant difference between males and females on the vulnerability questionnaire.

In conclusion, it can be suggested that SEAL had not significantly had an impact on pupils' emotional literacy, but had impacted on pupils' resilience scores.

Moreover, the qualitative data indicated that SEAL has made pupils more aware of their social and emotional needs and the emotional needs of others. Moreover, the results indicate that staff had become more aware of the social and emotional needs of their pupils. However, it can be concluded that the introduction of SEAL has not necessarily increased pupils' emotional literacy or resilience and other factors including, the Key Stage Three curriculum and the pastoral system has had an impact on these. From these results, the role of the EP could be to support schools in applying appropriate social and emotional assessment tools and interventions and support staff to recognise a pupil with high/low emotional literacy and resilience and the most appropriate way to support these.

Chapter 2 - Introduction

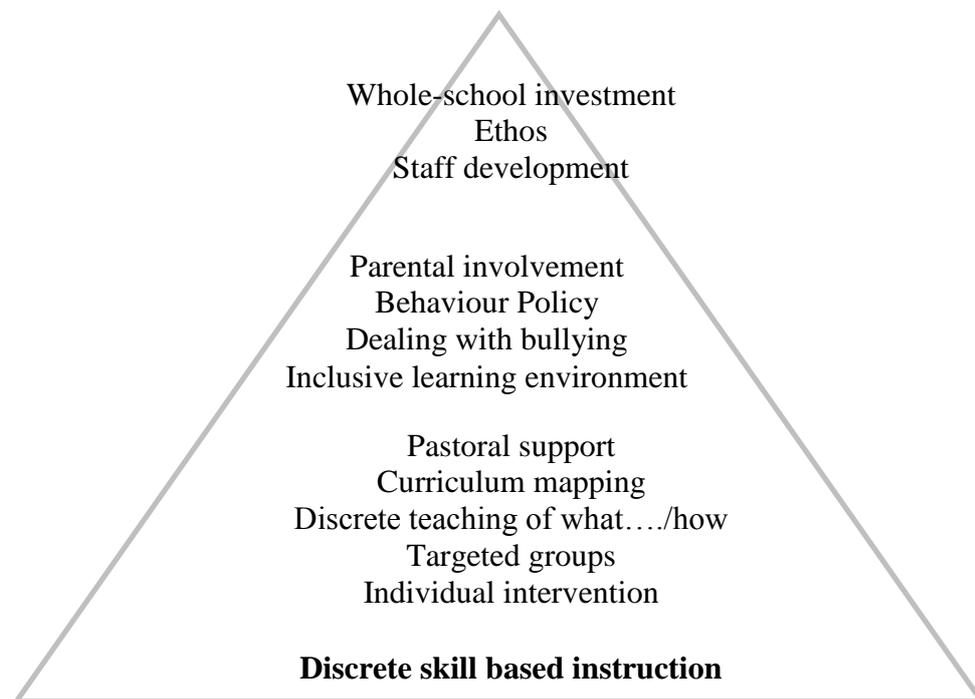
Paper one will explore how three secondary schools in the East Midlands introduced the Secondary Social, Emotional Aspects of Learning (SSEAL) programme and whether it had an impact on pupils' emotional literacy and resiliency levels.

(2.1) Rationale for the research study:

There were two main rationales for completing this research study. The first rationale derived from a local authority directive, where there was an interest in whether the introduction of Secondary SEAL had impacted on pupils' emotional literacy. The local authority dovetailed the research study to tie into the national agenda about supporting pupils' social and emotional needs and in particular the Every Child Matters Agenda (ECM) (2003).

Figure 1 represents the foci of the LA (with Educational Psychology Service support) when looking at the implementation of SEAL across a range of school levels in the county.

Figure 1: Local Authority strategy to focus on implementing SEAL



The second rationale for completing this research is due to my personal interest in how schools implement a social and emotional learning programme and the impact this has on pupils' emotional literacy and resilience levels. The background research in this area (OFSTED, 2007; Smith, O'Donnell, Easton, & Rudd, 2007; OFSTED, 2007; Humphrey et al., 2010) indicated that schools implement SEAL using a range of approaches then measure its impact by focusing on pupils' emotional literacy levels. However, resilience had not been explored, despite being regularly mentioned throughout the SEAL documents (DfES, 2007).

(2.2) Defining Emotional Intelligence and Emotional Literacy:

There is some overlap between the terms emotional literacy and emotional intelligence. It was Mayer & Salovey (1997) who first coined the term emotional intelligence, and then Goleman (1996) popularised the term in his book 'Emotional

Intelligence: Why it Can Matter More Than IQ' during the late 1990s. However, Park (1999) claims that there is some uncertainty as to whether emotional literacy and emotional intelligence are the same thing or different but if they are combined can ensure that children and young people are in an emotional state that enables them to effectively learn (as cited in Park, 1999).

(2.3) Theories of Emotional Intelligence & Emotional Literacy:

(2.3.1) Theories of Emotional Intelligence:

Mayer & Salovey (1997) perceives EI as a form of pure intelligence, that is, emotional intelligence is a cognitive ability. A second group of models comes from Bar-On (2006) and Goleman (1996), who regard EI as a mixed intelligence, consisting of cognitive abilities and personality aspects. The final model comes from Petrides & Furnham (2000) who devised the trait model of EI. Trait emotional intelligence concerns emotion-related dispositions and self-perceptions measured via a self-report. For a detailed discussion of these models please see the Literature Review in Appendix 33, Page 233).

(2.3.2) Theories of Emotional Literacy:

Steiner's (1997) theory of emotional literacy describes how people handle their emotions in a way that improves their relationships, makes co-operative work possible and facilitates the feeling of community. Steiner (1997) divides emotional literacy into:

- Knowing your feelings
- Having a sense of empathy

- Learning to manage your emotions
- Repairing emotional damage
- Putting it all together – Emotional interactivity

Within education, the term emotional literacy is preferred to that of emotional intelligence (Weare & Gray, 2003) as it is not seen as a fixed construct and can be developed through interventions and programmes, including SEAL.

(2.4) Secondary Social and Emotional Aspects of Learning

(SEAL) Programme:

Secondary SEAL (SSEAL) is a UK-based, whole-school approach for promoting the Social and Emotional Aspects of Learning in young people, it focuses on improving and supporting pupils' self-awareness, managing their feelings, motivation, empathy and social skills. According to Humphrey, Lendrum & Wigelsworth (2010) approximately 90% of primary schools and 70% of secondary schools have implemented SEAL to some extent since its introduction in 2007.

Schools implement SEAL according to their needs and the priorities set in their Self Evaluation Form and School Development Plan. An advantage of this, is that it allows schools to take ownership of the programme instead of being a tick box exercise which is meaningless to staff.

(2.5) SEL Programmes and Attainment Levels:

Hallam et al.(2006) completed the Behaviour and Attendance strategy pilot between 2003-2005 involving 25 local authorities. Document analysis, interviews, questionnaires, case studies and analysis of attainment and attendance data were used. Questionnaires were received from staff, parents and Key Stage 1 and 2 pupils.

The pilot was most effective when it fitted with existing PSHE work and when it was introduced across the whole school. The responses from the Key Stage two children regarding their attitudes towards school, relationships with teachers and perceptions of academic work were less positive than the Key Stage 1 pupils. Furthermore, girls demonstrated more positive responses to the questions compared to boys.

The attainment data showed that at Key Stage 1 there were no significant changes in relation to reading, writing or Maths in the national tests. Attainment data at Key Stage 2 showed that there were improvements in the national test scores in English and Maths for the pilot schools on average by 1% (these reflected national trends).

(2.6) National Evaluation of SEAL and the impact on

Emotional Literacy:

Humphrey et al. (2010) evaluated the impact of SEAL on a sample of 22 secondary schools and 19 control schools from 25 local authorities across England. Year 7 students completed the NFER Emotional Literacy and the Strengths and Difficulties Questionnaire. The pupil-level data indicated that SEAL failed to impact significantly upon pupils' social and emotional skills, general mental health difficulties, pro-social behaviour or behaviour problems.

However, Hallam et al., (2006) reported that many schools involved in the SEAL programme made students more independent learners, helped students understand themselves better as learners as well as making sense of their emotional states in different situations.

(2.7) Resilience Research:

Weare (2004) perceives resilience as a competency and suggests it involves: bouncing back after experiencing upset or failure, being flexible and adaptive in response to a problem, to process and learn from a difficult experience and use it to aid development and learning, to move on, rather than being immobilised by upset/failure by sticking to a task when the 'going gets tough'.

Call et al.,(2002) suggests that the concept of resilience has particular implications for adolescents because it is a significant period of biological, cognitive and social

transition between stress and vulnerability, which can lead to high levels of risk and low levels of resilience.

Tusaie & Dyer (2004) argue that the potential for resilience involves an interplay between the individual and his or her broader environment. Bronfenbrenner's (1989) ecological systems theory provides a useful framework for analysing the dynamics of resilience in schools. Frydenberg et al.,(2004) found that many SEL programmes which focus on the environment and not a specific target group are more effective with long term changes to pupil's social, emotional and behavioural skills.

Cefai (2004) and Weare (2004) both agree that resiliency and SEL frameworks have a set of skills that can be cultivated in students through a whole school programme. Cefai (2004) states that SEL programmes enrich resilience based frameworks since it equally emphasises emotional competencies and social competencies, although the SEAL programme refers to all students not just those at risk, which many resiliency programmes do.

(For a more detailed description of the research into resiliency please see the literature review in Appendix 33, Page 233).

(2.8) Research studies into resiliency and emotional intelligence:

Although there are currently no known studies examining the impact SEAL has had

on pupils' resiliency and emotional literacy there have been research studies that have explored emotional intelligence (EI) and resilience in young people. The results from these studies have indicated that those students who score high on an EI assessment generally score high on a resilience assessment.

Montgomery et al. (2008) carried out research with twenty male participants between the ages of 16-21 years old who had a diagnosis of Asperger's Disorder (AD). The participants completed The Bar-On Emotional Quotient Inventory (EQ-i:S), Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Prince-Embury Resiliency Scales, Satisfaction with Life Scale (SWLS), Behaviour Assessment System for Children (BASC) and the Wechsler Abbreviated Scale of Intelligence (WASI). Scores from the Bar-On EQ-i:S were negatively correlated with the emotional reactivity sub-tests on the resiliency questionnaire and were positively correlated with the Mastery Scale on the resiliency scale, suggesting a relationship between high EI and high resilience. Caution is needed when considering Montgomery et al's (2008) research as the sample used had a diagnosis of Asperger's Disorder and therefore may have answered the questionnaires differently compared to a sample of pupils without AD.

(For additional research into emotional intelligence and resilience see Appendix 30, Page 226).

(2.8.1) Gender and SEL Programmes

Leppanen & Hietanen (2001) claim that there are universal gender stereotypes which promote females having a better understanding of their emotions than males. Ciarrochi, Chan and Chaputi (2000) state that females appear to be more

perceptive to reading other people's emotions. Furthermore, Hampel & Petermann (2005) indicate that girls use resilient factors more than boys (such as seeking support).

Ainley et al. (1998) found from their research study that girls felt it was important to relate to others, contribute to community wellbeing. It was concluded that boys are less concerned with social development than girls. Furthermore, evidence from Hallam et al. (2006) found that boys ended up being more negative about themselves after the introduction of a SEL programme.

(2.8.2) Difficulties with high Emotional Literacy and Resiliency

Both emotional literacy and resiliency can be described as being on a continuum ranging from high to low. There has been an argument that pupils can be over resilient and emotionally literate and this can have a negative impact their well being. For example, research has found that pupils with high emotional intelligence have a shift from internal to external locus on control thereby reducing their well-being (Twenge, Zhang, & Im, 2004). Weare (2004) also writes 'An overload of emotional awareness can lead to paralysing introspection, self-centeredness and or/dwelling or getting stuck in a difficult mood rather than trying to deal with it.'

(2.9) Contribution to existing research:

After reviewing the existing literature about emotional literacy, emotional intelligence, resilience the evidence indicates that studies have explored the

relationship between emotional intelligence and resilience, although not with a non-clinical sample or with young adolescents who were part of a SEAL programme. Due to the literature provided in this paper it is clear that there is a gap in the current literature with regard to the impact SEAL has had on pupils' emotional literacy and their resilience levels.

(2.10) Aim and Research Questions:

Aim:

The aim of paper 1 explored year 8 pupils' emotional literacy and resiliency levels after the introduction of Secondary SEAL into a school since 2008. In particular, whether the SSEAL programme is associated with relevant pupil skills to show resilience from a difficult situation, be more in tune with their emotions and the emotions of those around them.

Question 1: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' emotional literacy levels?

Question 2: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' resilience levels?

Question 3: How has the introduction of SEAL had an impact on pupils' emotional literacy and resiliency levels since the introduction of SEAL into the school?

Question 4: To what extent are there any gender differences from students' responses on the emotional literacy and resiliency questionnaires?

Chapter 3 – Method & Design

(3.1) Epistemology and Methodology

(3.1.1) Pragmatism:

This research study is informed by the philosophy of pragmatism. As Johnson & Onwuegbuzie (2004) suggest pragmatism does not offer a theory of truth or knowledge; instead it allows the researcher to focus on the most appropriate method to answer the research questions. Pragmatists reject the dilemma about the nature of truth in relation to reality (Howe, 1988). Johnson & Onwuegbuzie (2004) describe how pragmatists claim that there are multiple perspectives, beliefs and opinions rather than multiple realities.

Pragmatism is viewed as a philosophical approach that fits well with mixed-methods research (Robson, 2002). As Teddlie & Tashakkori (2003) suggest, pragmatism is viewed as a practical philosophy for applied research. As Duemer & Zebidi (2009) suggest, mixed-method research is broadly defined as research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches from methods in a single study. Therefore, a mixed method approach is not merely about the collection of two distinct methods of data analysis (one statistical and one thematic) but the methodology for integrating the findings of two complementary paradigms in a single inquiry.

(3.2) Design:

A repeated measures design was adopted using Pre and post questionnaire surveys as there was no control group to compare the results against. In line with the pragmatist tradition, and being able to answer research questions one, two and three the NfER emotional literacy questionnaire (student and teacher versions) (Faupal, 2003) and the Child & Adolescence Resilience Questionnaire (Prince-Embury, 2007) were used.

(3.2.1) Questionnaire surveys:

The methods of data collection used in this research study were self-completion questionnaire surveys and semi-structured interviews (Robson, 2002 p.227).

Questionnaire surveys were used to gain the pupil's perceptions of their emotional literacy and resilience levels as well as their teacher's perceptions of their pupil's emotional literacy levels. Researchers have previously used the emotional literacy questionnaire (Humphrey et al., 2010) and the Child and Adolescent resiliency questionnaire (Montgomery et al., 2008) to measure pupils' perceptions of both of these constructs and found these to be effective (valid and reliable) methods.

Questionnaires allow the researcher to collect information from participants in a structured and broad fashion, using numerical data and compare variations between cases [Seale \(2004\)](#).

Information gained from questionnaires do not reveal the depth of views or

experiences of the pupils by using questionnaires alone (Clough & Nutbrown, 2002).

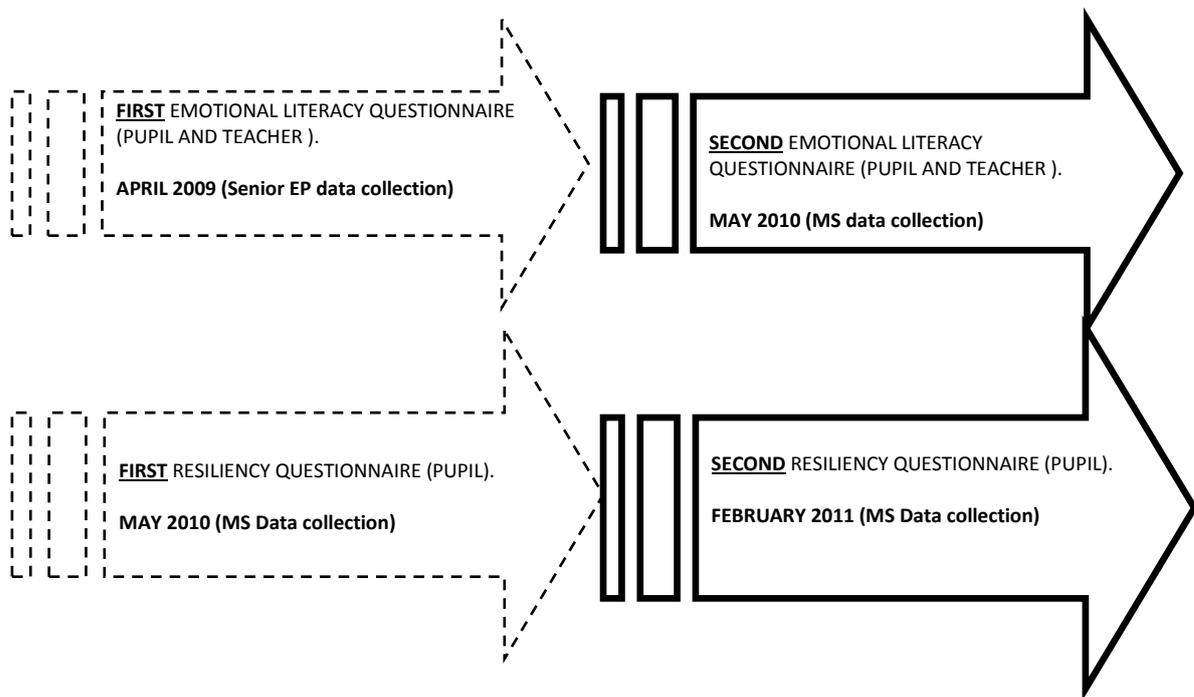
(3.2.2) Interviews with teaching staff:

To add to the validity of the data gained from the emotional literacy and resiliency questionnaires information from the semi-structured interviews from paper 2 were used. The views of the teaching staff were gathered using a semi-structured interview to provide a narrative about how secondary SEAL was introduced into each of the three schools and the impact it has had on the school's climate and pupils' emotional literacy and resiliency levels. It was felt that the information from the interviews would add some contextual findings regarding how SEAL had impacted on pupils' emotional literacy and resiliency levels.

The procedures and data collection for the semi-structured interviews can be found in Paper two in more detail.

Figure 2: The sequence of the quantitative data collection was:

In 2009, the Senior Educational Psychologist completed the first emotional literacy questionnaires with pupils and staff. In May 2010, I carried out the second emotional literacy questionnaires (for pupils and teachers) and completed both the pre and post resiliency questionnaires in 2010 and 2011.



(3.3) Participants:

A sample of 64 students (31 males and 33 females) from three secondary schools from the East Midlands formed the sample for phase 1 of Paper 1. During the first phase of this research the students were in Year 7 and by the final stage were in year 9. There were (28) students from School Z, (18) students from School Y and (18) students from School X. All students, during the first data collection stage were between the ages of 11-12 and for the second phase of the data collection between 13-14 years old.

Each school chose their students to participate in the research study by adopting a random sampling method. Schools X and Z both used a random sampling technique from the whole year group of pupils, selecting between 15-30 students to participate in the research. In contrast, School Y randomly selected a tutor group from a group of 7.

There were three secondary schools involved in the research, from different areas in a county in the East Midlands. The descriptions about each school were gained from their most recent OFSTED inspection report. A brief description of each school can be seen in Appendix 32 Pages 231-232 (Table 1).

(3.3.1) Sample for the Semi-structured interviews:

The participants involved in the second phase of paper 1 were six teachers from the same three secondary schools in the East Midlands. The sampling method was self-selected as those members of staff volunteered to be interviewed for the research. Two members of staff were interviewed from each school; one member of staff had responsibility for SEAL and the other member of staff had an interest in SEAL. All of the participants who were interviewed were female.

(3.4) Measures:

(3.4.1) Emotional Literacy:

A sample of Year 8 pupils and Year 8 teachers completed the emotional literacy questionnaire from the NFER Emotional Literacy Checklist Faupal (2003) Ages 11-16. The pupil and teacher checklists comprise of 20 items made up from five

scales including, self-awareness, self-regulation, motivation, empathy and social skills. Each item on the checklist is rated from 1-4, and the pupil's and teacher's total emotional literacy score is obtained by summing up the total scores for each item. (For a detailed description regarding this questionnaire see Appendix 6, Pages 155-157 and Appendix 9, Pages 163-169).

(3.4.2) Resiliency:

Each pupil also completed the Resiliency Scales for Children and Adolescents: A Profile of Personal Strengths by Prince-Embury (2007). The Resiliency Scales are drawn from three core theoretical areas: Sense of Mastery Subscale Scoring (MAS), Sense of Relatedness Subscale Scoring (REL) and Emotional Reactivity Subscale Scoring (REA). (For a detailed description of this questionnaire see Appendix 7 Pages 158-161 and Appendix 9 Pages, 163-169).

(3.5) Information regarding how each school introduced SEAL:

The schools involved in the research implemented SEAL according into their own needs. Below is a brief summary regarding how each of the schools implemented SEAL (A full analysis of these can be seen in the results section of Paper 2).

Table 2: How schools introduced SEAL into their curriculum and pastoral systems:

| Themes | School Z | School X | School Y |
|------------------------------|---|---|---|
| Responsibility | Senior manager plans SEAL. | Senior manager plans SEAL. | Senior manager plans SEAL. |
| Student voice | | | School Y - student voice gained through PSHE evaluations. |
| Tutor time | SEAL incorporated into tutor programme using Thinking Through Schools Programme and Global Eye. | | During tutor time, students not engage in SEAL activities. |
| PSHE | SEAL themes implemented into PSHE programme. | School not explicitly implement SEAL into their pastoral system – use CASE. | Students are taught two units of SEAL per term through PSHE. |
| Whole school training | Whole school training on staff well-being in the future. Teaching assistants received training about SEAL. | Whole staff training on SEAL not completed. | Whole staff training about SEAL, focusing on staff emotional literacy. All new staff receive SEAL training. |
| Subjects | Humanities specialist subjects (Geography and History) and then English curriculum. | School X implemented SEAL into the curriculum through their own X***** curriculum competencies across all subjects. | SEAL introduced into Creative Arts and Drama. SEAL is identified on lesson plans. PE department embedding SEAL schemes of work. |
| Assemblies | Assemblies did not always consist of SEAL themes | The school implemented elements of SEAL into their assemblies | ‘Thought of the week’ overlaps with the principles of SEAL. |
| Activity week | | The school have an activity week, which promotes SEAL-type skills. | A ‘well-being’ day focusing on pupils’ social/emotional needs |
| The future of SEAL | | Focusing on staff emotional literacy and the impact it has on pupils. | Focussing on themes from SEAL. |

Measures – Semi-structured interviews:

The views of staff were gathered using a semi-structured interview. This method was chosen because it allowed teaching staff to give a detailed narrative about how secondary SEAL was introduced into the school. The semi-structured interview schedule can be seen in Appendix 19, Pages 194-196).

(3.6) Procedure:

Prior to my involvement with the three secondary schools, there had been an initial piece of research carried out by the Local Authority and the Educational Psychology Service in 2009. Initially there were 22 schools involved in the research (including primary and secondary schools) although when I became involved in the research only three secondary schools remained. (See additional Procedure information in Appendix 29 Page 225).

My involvement with the schools began when I attended a meeting with the Senior EP who provided feedback from the pre-test emotional literacy questionnaires. After this meeting it was agreed that the same students and teachers would complete a second NFER Emotional Literacy Questionnaire, and an additional Resiliency questionnaire. It was also agreed by each school that 10% of the teaching staff would complete the Organisational Climate Description Questionnaire (OCDQ).

Each school organised sending out the consent forms to parents (See Appendices 10 & 11, pages 170 & 171).

Students from School Z met me in a quiet a classroom. After introductions I reminded the pupils that they had completed a consent form and withdraw from the research at any time and that their results would remain confidential. I reminded the students that they had completed an Emotional Literacy questionnaire in 2009.

The emotional literacy questionnaires were handed out to each pupil who completed their personal details on the form. I read the instructions from the top of the questionnaire and checked that all the students were clear on how to answer the questions. Once all the students had completed the questionnaires they were collected in by myself.

The same procedure was carried out with the resiliency questionnaire (Prince-Embury, 2007) however, students were informed that there were some sensitive questions in the questionnaire and that they needed to be responded to appropriately but honestly. Students were reminded they could withdraw from the study if they wished and all data would remain confidential. I informed the students that I would be meeting with them later in the year.

I then met with the staff and reminded them of the previous questionnaires they had completed in 2009. I talked through how to score the students on the NfER Emotional Literacy Questionnaire (teacher version) and discussed the sample question. Once the consent forms were gathered in from the staff, the issues

around honestly answering the questionnaire were discussed along with ethical issues such as confidentiality and the right to withdraw from the study at any time.

During the second visit to the school the students completed the same resiliency questionnaire and the same procedures were carried out as the first visit to the school. After the resiliency questionnaires had been collected in the whole group were debriefed about the aims of the research (See Appendix 12, Pages 173-174).

The procedures that were carried out for School Z were exactly replicated for Schools X and School Y. This was to ensure the reliability of the results gained.

(3.6.1) Phase 2: - Semi-structured interviews

All interviews were completed in the school where the teacher taught. The interview was completed in a quiet room where there would be no distractions or disturbances. The six interviews were approximately 45-60 minutes in length and were recorded using a digital Dictaphone and an Apple MacBook Pro laptop computer. An account of the interview procedure is provided in the interview schedule (Appendix 19, Pages 194-196). Staff were asked if they would like to see the interview schedule before hand and all participants declined the offer due to their limited time.

At the end of the interview, staff were informed that they would receive the results from the student and staff questionnaires along with the information

gained from the interviews once the thesis is submitted in the summer term of 2011 and a full debrief would be provided (See Appendix 12, Page 165-166).

(3.7) Reliability and validity:

Reliability refers to the consistency of a measure of a concept. For a detailed description of the different types of reliability and validity they can be found in Appendix 9, Pages 163-169.

The reliability and validity measures of the NFER Emotional Literacy Questionnaire and the Child and Adolescent Resiliency Scale can be found in Appendices 6 & 7, Pages 155 & 158.

For the purpose of the current study, inter-rater reliability was measured on both the NFER Emotional Literacy Questionnaire and the Child & Adolescent Resiliency Questionnaire. This was achieved by me scoring all of the pupil and teacher questionnaires and a colleague from the Educational Psychology Service taking a sample (10%) of the questionnaires and scoring these. A percentage total was gained from this, which was 100% accuracy from both myself and the second rater.

(3.8) Ethical Issues:

Ethical clearance was initially sought and obtained from Exeter University in March 2010 (see Appendix 28, Pages. 221-224). I considered the ethical implications of this research based on the British Psychological Society's (BPS's) Code of Conduct,

Ethical Principles and Guidelines (2009) for conducting research with human participants. The issues addressed included consent, deception, debriefing, withdrawal from the investigation, confidentiality, and protection of participants.

Informed consent was obtained from young people and their parents/carers prior to their involvement in this study. All of these young people were informed of their right to withdraw from the study at any time. All were given the right to expect that the information they provided would not be identifiable as theirs. These young people and their parents/carers were informed of the procedures for contacting me within a reasonable time period following the questionnaire, should stress, actual or potential harm, related questions or concerns arise. The information provided by the young people was not identifiable as theirs. A number was assigned to each young person and this was put on their questionnaire. A list of the allocation of names to numbers was kept until the end of the study when it was destroyed. This list was kept so that if any concerns arose during the study and when analysing the data, I would be able to identify the young person concerned and inform the appropriate agencies. All schools were allocated a letter, and those participants interviewed were given a number to ensure confidentiality of their results and the results from the school they represented.

Chapter 4 – Results

(4.1) Analysis of Gender Differences:

The results were analysed using the SPSS-15 programme to gain the descriptive and inferential results. The results gained from the NfER Emotional Literacy Questionnaire (Faupal, 2003) and the Child and Adolescent Resiliency Questionnaire (Prince-Embury, 2007) can be seen in Table 3.

(4.1.1) Gender Differences

Research Question 4: To what extent are there any gender differences from students' responses on the emotional literacy and resiliency questionnaires?

Table 4: Gender differences on the emotional literacy and resiliency questionnaire:

| | 2009 | | 2010 | |
|--------|-----------------------|------------------------|------------------------|---------------------------|
| | Male | female | male | female |
| EL (p) | Mean: 72.6 SD: 7.4 | Mean: 74.42 SD: 7.9 | Mean: 73.06 SD: 6.6 | Mean: 75.00 SD: 7.2 |
| | T=0.911, df= 62,1 NS | | T= -1.114, df=62,1 NS | |

| | 2010 | | 2011 | |
|-----------------|------------------------|-----------------------|-----------------------------|-----------------------|
| | Male | female | male | female |
| Resourcefulness | Mean: 46.1 SD: 7.8 | Mean: 47.8 SD: 5.8 | Mean: 47 SD: 7.9 | Mean: 46 SD: 8.3 |
| | T= -1.017, df 62,1 NS | | T= 0.451, df= 62,1 NS | |
| Vulnerability | Mean: 52.6 SD: 7.2 | Mean: 53.4 SD: 7.6 | Mean: 48.5 SD: 8.1 | Mean: 53.2 SD: 9.1 |
| | T= -0.417, df= 62,1 NS | | T=-2.135, df= 62,1, P=0.037 | |

The results in Table 3 report that there was only 1 of the 6 comparisons where there was a significant difference between males and females on the Vulnerability Scale $t=-2.135$, $df=62,1$, $p=0.037$, therefore suggesting no statistically significant difference. There was only 1 of the 6 comparisons where there was a significant difference between school and gender on the Vulnerability Scale ($F_{(2, 58)} = 4.446$, $p=0.016$).

(4.1.2) Pre and Post differences on the EL and resiliency questionnaires

There were no statistically significant differences between time and school on the emotional literacy (pupil and teacher) or resiliency (resourcefulness or vulnerability) scores.

(4.1.3) Pre and Post analysis of EL and Resiliency scores between school and above/below average scores:

There were no statistically significant differences between pupils scores across schools and a change in their pre (2009) and post (2010) emotional literacy scores, resourceful or vulnerability scores.

4.2 Emotional literacy & Resilience Analysis

Table 3: Descriptive and Inferential Analysis of Emotional Literacy and Resiliency scores.

| | School X (n=18) | School Y (n=18) | School Z (n=28) | F values |
|-------------|-------------------------|-------------------------|-------------------------|---|
| Pupil EL 09 | Mean = 72 SD = 7.7 | Mean = 72.7 SD = 8.5 | Mean = 75.5 SD = 7.1 | Main effects School $F=0.894$, $df=2,61$ NS Overtime 09-10 $F=0.481$, $df=1,61$ NS Interaction Sch x time: |
| Pupil EL 10 | Mean = 72.9 SD = 7.8 | Mean = 72.8 SD = 6.4 | Mean = 75 SD = 7.1 | |

| | | | | |
|---------------------|--------------------------|-------------------------|-------------------------|--|
| | | | | F= 0.094, DF=2,61 NS |
| Teacher EL 09 | Mean = 61.6 SD = 7.03 | Mean = 69.5 SD = 9.0 | Mean = 65.6 SD = 6.3 | Main effects School F=3.061, df=2,61, NS Over time 09-10: F= 1.849 df=1,61 NS Interaction Sch x time: F= 2.512, df=2,61 NS Post hoc Gabriel ELT09 School Sch Y & Sch X p=0.002 |
| Teacher EL 10 | Mean = 66.9 SD = 11.0 | Mean = 67.9 SD = 7.1 | Mean = 66.2 SD = 8.6 | |
| Resiliency (RES)10 | Mean = 45.6 SD = 6.4 | Mean = 47.4 SD = 5.8 | Mean = 46.2 SD = 8.6 | Main effects School: F=1.536, df=2,61, NS Over time 10-11: F=0.813, df=1,61 NS Interaction Sch x time: F=14.228, df=2,61 P=0.000 Post hoc - RES 2011 X & Z = 0.002, X & Y= 0.004 t=6.722, df=17, p=0.000 (School Y) |
| Resiliency (RES) 11 | Mean = 49 SD = 7.9 | Mean = 40.8 SD = 7.6 | Mean = 49 SD = 6.6 | |
| Resiliency (VUL)10 | Mean = 55 SD = 6.6 | Mean = 52 SD = 7.1 | Mean = 52 SD = 7.9 | Main effects School: F=2.093, df=2,61, NS Over time 10-11: F=1.957, df=1,61 NS Interaction Sch x time: F=2.986, df=2,61 NS Sch x gender F=4.446, df=2,58, p=0.016 Post hoc: 2011 X & Z 0.046 (t=2.379, df=27, p=0.025 School Z) |
| Resiliency (VUL) 11 | Mean = 52 SD = 9.0 | Mean = 51 SD = 8.9 | Mean = 47 SD = 6.4 | |

Question 1: Question 1: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' emotional literacy levels?

The results in Table 3 indicate that the students' mean scores are within the average range for all three schools.

(4.2.1) Paired T-test scores:

The results from the t-tests report that there were no statistically significant differences between the emotional literacy scores between 2009 to 2010 for any school.

(4.2.2) ANOVA results:

The ANOVA results reported no statistically significant difference between schools and the emotional literacy scores for 2009 or 2010. A significant difference was achieved in 2009 ($F_{(2,61)} = 6.373, p=0.003$) for teacher's responses to the emotional literacy questionnaire. Post-hoc analysis (Gabriel test) indicated statistical significance between School Y and School X ($p=0.002$).

Question 2: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' resilience levels.

(4.2.3) Paired t-test results:

The results in Table 3 report no statistical significant difference for School X for the pre and post resourcefulness or vulnerability between scores 2010 to 2011.

A statistically significant difference between the resourcefulness scores between 2010-2011 for school Y occurred ($t=6.722, MSE = 1.14, df = 17, p=0.000$) and a statistically significant difference between the vulnerability scores between 2010 and 2011 for School Z ($t=2.379, df = 27, p=0.025$).

(4.2.4) ANOVA results:

There were no statistically significance differences between the three schools and the resourcefulness and vulnerability scores in 2010. A significant difference

between the three schools for the resourcefulness and vulnerability scores were achieved in 2011 ($F_{(2,61)} = 7.831, p=0.001$) and ($F_{(2,61)} = 3.321, p=0.043$) respectively. Post hoc comparisons reported statistical significance differences between the resourcefulness scores for School X and School Z ($p=0.002$) and for School X and School Y ($p=0.004$). Post hoc comparisons (Gabriel test) report a statistically significant difference between School X and Z ($p=0.046$) for the vulnerability scores.

The results in Table 4 report that there was only 1 of the 6 comparisons where there was a significant interaction between school and time for the Resourcefulness scale ($F(1,61)=14.228, p=0.000$).

(4.2.5) Correlation Data:

School X correlational data:

The results in Table 9 indicate a statistically significant negative correlation between pupil emotional literacy questionnaires (2009) and vulnerability (2010) ($r=-0.496, n=18, p<0.05$) and a negative correlation between pupil emotional literacy (2010) and vulnerability (2010) ($r=-0.635, n=18, p<0.01$).

School Y School

A statistically significant negative correlation between pupils' emotional literacy scores (2010) and vulnerability scores (2010) ($r=-0.568, n=28, p = 0.014$).

School Z Correlational data:

When considering the statistically significant relationship between the variables in Table 7 there are 6 pairs of variables that have significant relationships. The negative correlation was:

- Pupil emotional literacy (10) and vulnerability (10) at 0.01 level.

The 4 positive correlations were:

- Pupil emotional literacy (09) and Resourcefulness (11) at 0.05 level
- Pupil emotional literacy (10) and Resourcefulness (10) at 0.01 level
- Pupil emotional literacy (10) and Resourcefulness (11) at 0.01 level
- Pupil emotional literacy (09) and Teacher emotional literacy (10) at 0.05 level.

(4.3) Data analysis of interviews regarding EL and resilience:

Table 9: Qualitative analysis from the semi-structured interviews

| Sub-themes | School X | School Y | School Z |
|-------------------|---|----------|----------|
| Definitions of EL | Pupils have emotional vocabulary. Emotions need a label | | |
| SEAL & EL | SEAL provided vocabulary and students have awareness of their emotions and emotions of others. Less conflicts between pupils. SEAL not solely improved pupils' EL. | | |
| SEAL & Resilience | Bouncing back from situations. Resilience not explicitly taught by teachers. Teachers not aware of resilient pupils. SEAL given staff awareness of resilience and to take risks with teaching and learning. Students not aware of what resilience is. | | |

Chapter 5 - Discussion

(5.1) Explaining the findings in relation to the Aim:

The aim of research paper 1 was to explore whether the introduction of the Secondary SEAL programme is associated with relevant pupil skills to show resilience with a difficult situation becoming more in tune with their emotions and the emotions of those around them.

Question 1: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' emotional literacy levels?

The findings from this research study do not support the research aim. The results gained from the t-test show no significant difference between pupils' or teachers' responses on the emotional literacy questionnaire between 2009 and 2010 for School X, Y or Z. The results gained on the ANOVA yielded no significant results between the three secondary schools and the scores on the pupils' emotional literacy questionnaire. However, a significant result was found between the school and the teacher emotional literacy questionnaire administered in 2009. The results from the Pearson product correlation co-efficient found significant relationships between pupils' emotional literacy scores and their resiliency scores (resourcefulness and/or vulnerability).

Previous research studies have failed to find a significant difference between introducing Secondary SEAL into a school and an increase in emotional literacy

scores (Humphrey, et al., 2010). Matthews et al (2004) suggests one reason for this is because social and emotional programmes are not effectively implemented into schools because there is not enough information about how they work and whether they work at all.

A further difficulty with the SEAL programme, according to Craig (2007) is that it provides a false sense of security for pupil's emotional well-being. SEAL is a universal programme that is delivered to all children, regardless of whether they need support with their social and emotional skills or not, and this could account for no improvements in the pupils' scores.

Another reason why SEAL may not be as effective as other SEL programmes in improving EL (and resilience) is because it is not consistently implemented. Instead schools choose pockets of what they want to teach instead of teaching the whole programme (Humphrey et al, 2010) and therefore add SEAL into other programmes or curriculum areas and treat it as a tick box activity as opposed to being a fully embedded initiative in a school (Weare & Gray, 2003). The schools in this research study stated that they did not teach SEAL explicitly as a stand alone subject and instead, incorporated SEAL into other subjects such as PSHE, English, Humanities and the Creative Arts.

Craig (2007) states that Goleman's theory of emotional intelligence, has received a number of criticisms and therefore states "In short, Goleman cannot be used as the intellectual foundations and justification of large scale work of this type in

schools but this is exactly what is happening with SEAL.” Thus, it may be that the constructs that SEAL is based on are not truly valid and therefore alternative psychological theories may be able to measure pupil’s social and emotional skills more effectively.

Question 2: What are the associations between the introduction of SSEAL into a secondary school and Year 8 pupils' resilience levels?

There were significant results found on the t test for pupils’ resourcefulness scores between 2010 and 2011 for School Y and a significant result was found on the t-test on the vulnerability scale for pupils at School Z between 2010 and 2011. The ANOVA results yielded positive results for both the resilience and vulnerability scores in 2011. Post-hoc comparisons found a significant difference between School X and School Z and School X and School Y respectively. The Pearson product moment correlation co-efficient found significant relationships between the pupils’ emotional literacy scores and resiliency scores between 2009-2011.

Gill (2004) reinforces that, by boosting children’s self-esteem it reduces their resilience and leads to parents being overprotective (as cited in Craig, 2009). The results from this study are inconsistent with Gill’s (2004) assumptions because the descriptive results indicate that the resourcefulness scores increased and in particular, school Y reported that their specialism curriculum improved pupil’s self-confidence and resilience levels. An interesting point that needs to be considered with regards to the SEAL programme is that many teacher training programmes do

not allow for the depth of work necessary to be rolled out into schools and more importantly, do not equip teachers with the necessary skills to support the social-emotional needs of pupils, in particular focusing on pupils' resilience levels.

Through building a classroom climate of respect and responsibility students can be encouraged to take risks as a learner and to understand that when there is a struggle to understand or make sense of something that results can be very rewarding if they are willing to be persistent. This theme was very prevalent with one particular school (Y) who felt that their specialism in the arts allowed their students to take risks with their learning and by doing this they were able to apply these skills across a number of subjects.

Question 3: How has the introduction of SEAL had an impact on pupils' emotional literacy and resiliency levels since the introduction of SEAL into the school?

The qualitative data gained from Paper two, from the semi-structured interviews, to inform the quantitative data found that pupils were more aware of their emotions, were aware of other people's emotions, had developed an emotional vocabulary, could label their emotions, there had been some positive changes in regards to conflicts between students but staff were not able to say that these changes were due to SEAL. In regards to resilience, staff were able to define resilience, but pupils did not have the vocabulary to explain whether they were resilient, staff felt that their specialism in the arts promoted resilience in pupils,

resilience can be affected by the wider community and staff were not able to state whether SEAL had caused a change in pupils' resilience.

Research Question 4: To what extent are there any gender differences from students' responses on the emotional literacy and resiliency questionnaires?

The results from the study indicate that girls generally scored higher on the emotional literacy questionnaire compared to boys. However, there were no significant differences between males and females and the pre and post emotional literacy and resiliency questionnaires. One reason for this as highlighted by Craig (2007) is that the SEAL programme is suited to girls; talking about feelings and emotions. Thus, the inherent feminine approach of SEAL does not benefit boys. Evidence to support this claim derives from Hallam et al. (2006) who found that boys ended up being more negative about themselves after the introduction of a SEL programme. The results gained from this research study would go some way to supporting Craig (2007) and Hallam et al. (2006) as the boys in this study generally scored lower on the emotional literacy and resiliency questionnaires in comparison to their female counterparts.

(5.2) Evaluation of Methods and Design:

The results reported in this research study are discussed with caution. The reason for this is because each of the individual schools implemented SEAL using different approaches and therefore making generalisations between schools need to be done with the utmost prudence. Furthermore, the results gained from the pupils' emotional literacy and resiliency scores are compared with caution because each

school is set within a separate system and have implemented SEAL individually to meet their own needs as set by their Self Evaluation Form and School Development Plan.

Due to the sample consisting of Key Stage Three students, there is an issue with generalising the results to the wider school population. The experience these pupils had in regards to how their school introduced SEAL may be different to another year group.

There are a number of limitations with the research methods used to collect the data. Firstly, a critique of the (Faupal, 2003) Emotional Literacy Checklist (teacher questionnaire) is that it relies upon teachers' perceptions rather than objective measures. Thus, it can only be inferred that there is a relationships between teachers' perceptions of emotional literacy and teacher's perceptions of behaviour. In addition the use of a rating scale can be subject to the Halo Effect, which Anastasi & Urbini (1997) would suggest that teachers may be unduly influenced by favourable or unfavourable opinions of the student they are rating.

Another difficulty with using the Emotional Literacy Checklist and the Resiliency Checklists were that students may have been less truthful when answering the questions so that their answers were seen in a more favourable light by the researcher.

The absence of a control group is a limitation of many studies (Weare and Gray, 2003) including this one. Thus, the difficulty is to ascertain whether the increase/decrease in emotional literacy and resiliency scores are due to the introduction of SEAL or the Hawthorn effect (i.e. that doing *anything* different will bring about temporary change). In the future, having control schools, completing the same NfER Emotional Literacy and resiliency questionnaires would be advantageous to draw comparisons between the results.

A further difficulty with this research is that, the two questionnaire surveys were not administered at the same time. In the future, it would be more effective to administer both questionnaires at the same time and have an equal distance of time between the pre and post survey questionnaires.

One of the difficulties with measuring the impact SEAL has had on pupils' emotional literacy and resilience is that the schools implemented the programme quite differently. Therefore, it needs to be asked whether the three schools would find an increase in their pupils' emotional literacy and resilience scores without the SEAL programme and if they did what they were doing to achieve this.

(5.3) Future research:

Despite the limitations outlines above there are a number recommendations to move the current research project forward. An important omission in the current research study is that the parent/carers voice was not gained. This is important

because the amount of work being carryout out into Family SEAL projects, where the whole family is involved in supporting a child/young person to develop their social and emotional skills. In the future, parents could complete the Parental Emotional Literacy Questionnaire to provide a 'whole' picture about the pupil's emotional literacy.

Alongside having an objective measure of each pupil's emotional literacy and resiliency levels the pupils' could be interviewed or a focus group consisting of Key Stage 3 pupils from each school could be interviewed. By doing this, it would elicit the views of the young person and provide a more detailed account of what particular factors of the SEAL programme have helped the students to become more emotionally literate and resilient.

Classroom observations would be a useful consideration in future research. This would allow the researcher to directly observe whether the schools were teaching SEAL effectively and what strategies they were using to support pupils' emotional literacy and resiliency skills.

(5.4) Contribution to Educational Psychology (Practice & Policy):

In terms of the original contributions to theory and practice development within the field of Educational Psychology this research study has added to the ever growing wealth of studies evaluating Secondary SEAL.

There are currently no published reports of EPs evaluating SEAL and measuring both emotional literacy and resiliency and so the current research study extends the application of the impact SEAL has on both of these psychological constructs.

As Humphrey et al. (2010) claim there is limited research studies that have been able to effectively evaluate Secondary SEAL. Due to the small number of evaluative studies in this field, this research study will broaden the literature into the impact SEAL has had on secondary pupils' social and emotional well-being, and in particular highlight the need for further work to be carried out into promoting resilience in schools.

The methodology used in this research study was unique. Previous research studies have not used the same questionnaires, and it appears from the literature review that the studies that have correlated resilience have used an emotional intelligence questionnaire as opposed to an emotional literacy questionnaire.

Educational Psychologists are trained to be aware of emotions and how these can be affected by risk and resilient factors. Moreover, as EPs we are aware of the best possible ways to support pupils with their social and emotional needs and their ability to be resilient when faced with challenging situations. EPs have a thorough understanding of the psychology of emotion (based on psychological theories and evidence) as well as a thorough understanding of the impact of high risk factors on pupils, including biological, cognitive, social and emotional difficulties. Not only are Educational Psychologists best suited to complete

assessments to measure pupil's emotional literacy and resilience, but are well placed to provide training to teaching staff to implement effective programmes to support the social and emotional well-being and resilience of pupils.

Examples of the types of training that could be offered to schools might include:

- a) Training staff on what emotional literacy/emotional intelligence is – using evidence-based practice.
- b) Training staff on what resilience is – using evidence –based practice. For example as an EP we can support schools to provide positive interpersonal skills training, which would act as a protective factor for increasing pupil resilience (Judge, 2005)
- c) Provide training with staff on how to administer appropriate assessment tools to measure emotional literacy and resilience and implement appropriate interventions to support their pupils.

(5.5) Link to Paper 2:

Paper 2 will continue to focus on the impact SEAL has had since its introduction into each of the three secondary schools. However, Paper 2 will explore how SEAL was introduced into the three schools specifically, how it was implemented into the school's curriculum and pastoral system and whether SEAL has impacted on the school's climate. Many of the evaluation studies into SEL programmes make an assumption that a whole school approach is necessary to implement a

programme such as SEAL and if this is achieved the benefits for staff and pupils will be positive.

Chapter 6 - Conclusion

The conclusions that can be drawn from Paper 1 are that schools have implemented SEAL quite differently into their Key Stage 3 curriculum and pastoral system. Despite each school implementing SEAL differently, there was no evidence that it had impacted on the pupils' emotional literacy scores between 2009-2010. However, there were some interesting results from each school regarding the resilience of pupils and the relationship between emotional literacy and resilience. Moreover, an interesting (and significant) emerged between the vulnerability score for males between 2010 and 2011 and between males and females.

Despite the positive, significant results from the correlational data there are further questions which need to be explored including:

1. Why did the students' emotional literacy scores not increase?
2. Why has there been an increase in pupils' resilience scores, despite teachers not being aware of how resilient their pupils are?
3. Why have males scored lower on the emotional literacy and resiliency questionnaires in comparison to their female counterparts?

Although, there are a number of further questions which need to be answered, it is clear that the role of the Educational Psychologist is significant when considering their role when supporting schools with the social and emotional needs of pupils.

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Paper 2/2

What is the Impact of Implementing Secondary SEAL On School Climate?

Tables, Figures & Graphs for Paper 2

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Chapter 1- Abstract

The aim of Paper 2 was to focus on the processes involved within a secondary school when introducing SEAL and whether SEAL had an impact on school climate as perceived by school staff. The research questions for this study were:

Question 1: How has SEAL been implemented into the school's curriculum and pastoral system?

Question 2: What are staff perceptions of school climate since the introduction of SEAL?

Question 3: What are the most effective sources of analysis to explore how effectively SEAL has been introduced into a secondary school (including OFSTED reports, Questionnaires and semi-structured interviews) and its impact on school climate?

A pragmatic epistemological approach was adopted for this research study where a mixed design was implemented. Semi-structured interviews were carried out with six teachers, (two members of staff from the three secondary schools). A school climate questionnaire (OCDQ-RM) was administered to 42 teaching staff. The results from both the semi-structured interviews and the OCDQ-RM questionnaire were triangulated. A thematic analysis was completed on the semi-structured interviews adopting Braun & Clarke's (2003) model.

The results indicate that the three schools implemented SEAL into their curriculum

quite differently. School X implemented SEAL into all subjects using their curriculum competencies; School Y introduced SEAL into their creative arts curriculum and School Z introduced it into their Humanities and English curriculum. Each school introduced SEAL into their pastoral system in different ways – School X had an activity week, which involved the local community and completed CASE during tutor times and had SEAL-type themes in assemblies. School Y explicitly taught two of the SEAL units per term through the PSHE curriculum, and during tutor time and as part of the assemblies the students engaged in ‘Thought of the week’. Students were involved in an activity day about ‘Being Healthy’. The school had training staff to use Circle of Friends with students. School Z used SEAL type themes as part of their Global-Eye and Thinking Through Schools Programme, which were delivered during assemblies and in tutor time. The school had also trained Teaching Assistants to use the Circle of Friends programme with pupils.

The results gained from the OCDQ-RM indicate that school Z had a closed climate, school X had an engaged climate and school Y had an open climate.

The conclusions from this study suggest that SEAL had not improved school climate (as perceived by school staff) although it had made staff more aware of what school climate is and had improved relationships between students and staff.

Finally, the role of the educational psychologist is important when supporting a

school when implementing a whole school social and emotional learning programme and when staff perceive the school climate as being Closed or Disengaged.

Chapter 2- Introduction

During the past 10 years there has been an increasing interest in pupils' social and emotional learning and its impact on their learning and behaviour. This was evident when the Labour Government developed the strategy for promoting young people's Social, Emotional and Behaviour Skills (SEBS) while addressing their Social and Emotional Aspects of Learning (SEAL). While the strategy is largely focused around materials to be delivered in whole school assemblies and across the curriculum, it is conceptualised that, schools are the best arenas to support staff and pupils social and emotional needs (Weare & Gray, 2003).

(2.0) Rationale for the study:

There were three main rationales for completing this study. The first rationale derived from a local authority directive, where there was an interest as to whether the introduction of Secondary SEAL had impacted on school climate since 2008. The local authority dovetailed the research study to tie into the national agenda about supporting pupils' social and emotional needs and in particular the Every Child Matters Agenda (ECM) (2003).

The second rationale emerged after reviewing the literature into the impact SEAL has had on school climate. Evidence had suggested that school climate was most effectively measured using the OCDQ-RM, which measures how open a school is (as perceived by staff and the principal) and social and emotional learning programmes are most effectively implemented using a whole school approach.

Therefore, if a school has an open school climate then it might introduce SEAL more effectively than a closed climate school.

The final rationale for this research study was to consider the processes that are carried out by a school to introduce SEAL into the curriculum and pastoral system.

(2.1) Implementing SEAL into a secondary school's systems:

Previous evaluations of SEL programmes have considered how they have been introduced into the curriculum, aim to change aspects of the school ethos, the pastoral system and involve the work of parents. As SEAL is seen as a whole-school approach it would include all of the above factors (DfES, 2007a, p.22).

A recommended six-step model (DfES, 2007a) to implementing SEAL recognises that SEAL is not a 'quick fix' approach to over-coming difficulties associated with social and emotional problems in young people. Instead, it is a whole-school commitment to social and emotional aspects of learning and may take several years to introduce and embed; so evidence of impact is unlikely to be quick (See Appendix 20, Page 197 for a description of the model).

An eco-systemic view (Bronfenbrenner, 1979) of emotional literacy recognises that the variables and the outcomes of emotional literacy interrelate and are dynamic.

Evidence to support a systemic model of introducing SEAL into a school derives from Prilleltensky & Prilleltensky (2003). Their central idea was that, a range of systems impacts on each young person; including school ethos, relationships, communications and the curriculum (Hallam, Castle, & Rogers, 2004).

In terms of educational leadership, the eco-systemic model should heighten ones' awareness about how the quality of relationships between staff and students and the importance of recognising and acknowledging other peoples' emotions. Thus, the Head Teacher can have an impact on developing relationships across the whole school.

Social Emotional Learning is often linked with work in tutorial time, Personal, Social, Health Education (PSHE) and Citizenship as well as other curriculum subjects.

SEL programmes need to ensure that relationships between staff and pupils are supportive and open so that the students can learn from staff regarding how to reflect on their behaviour, or how to successfully model appropriate emotional responses to difficulty situations. Staff need to feel confident and supported if they are going to support their pupils' social, emotional and behavioural skills effectively (Weare, 2000).

When focusing on whole school-based interventions in an American context, Rones & Hoagward (2000) outlined a range of factors which contributed to their

success, including consistent programme implementation; the inclusion of parents, teachers and peers and the integration of programme content into general classroom curricula.

(2.3) School Climate Research:

Freiber & Stein (1999) state school climate is about that quality of a school that helps each individual feel personal worth, dignity and importance, while simultaneously helping to create a sense of belonging to something beyond ourselves. “The climate of a school can foster resilience or become a risk factor in the lives of people who work and learn in a placed called school.” (p.11).

For a school to establish an effective school climate the principal (head teacher) needs to be actively involved in new initiatives, which are incorporated into the school, including SEAL. Welch (2001) suggests that the principal needs to develop a trusting relationship with all of the staff in the school and recognise that the quality of relationships among staff (and students) and their management style has an impact on school climate.

Hoy & Miskel (1987) suggest the following types of school climate:
closed climate - the principal is not successful as a leader, nor as a co-ordinator of the school’s activities. None of the stakeholders experience any real job satisfaction and there is no social mingling. Open climate - the principal acts as a facilitator and there is a pleasant relationship between principal, teachers, learners and the parent community.

The interactions of teachers can have an influence on the school climate in the

following ways:

- Teachers not being committed to the task of teaching
- Teachers perceive the principal as hindering them in their professional duties
- Teachers who do not get along with their colleagues (Kruger, 2002, p.23).

Wang, Haertel & Walberg (1997) found from their meta-analysis that the different kinds of climate had an impact on student's learning (p. 205). From 11,000 research studies they found 28 categories of what influenced pupils learning. They found that classroom management was the most significant influence, followed by parental support and student/teacher social interactions. Social behaviour attributes, motivational factors, school culture and classroom climate were the top learning influences. These suggest therefore, that school climate can have an impact on both academic and social-emotional skills in pupils.

(2.4) Evaluating how schools have implemented SEAL:

Smith, et al (2007) found that school staff and Local Authority staff were committed to the Social, Emotional and Behaviour (SEB) pilot programme. The future direction of the SEB Pilot was to maintain a whole school approach, changing cultures and attitudes and link SEB to the 'bigger picture'. In regards to how schools implemented the pilot study there were noticeable differences with regards to some schools 'drip feeding' staff about the pilot and not explicitly referencing the pilot study. Some of the schools targeted Year 7 students, some

focused on certain staff, some schools implemented the pilot across the whole curriculum and others implemented it into subjects such as PSHE and Citizenship. The schools had difficulty attributing any changes to pupil behaviour directly to the project and the schools suggested that any changes were the result of other commissioned work.

A further piece of research comes from OFSTED (2007). OFSTED inspectors visited 11 schools in 6 local authorities. Before each inspection, each school selected a group of pupils either in Year 7 or Year 8. Observations were completed by the OFSTED inspectors, focusing on the pupils' social, emotional and behavioural skills and. Interviews were carried out with pupils and staff to discuss their views on their social, emotional and behavioural skills. Socio-grams and other questionnaires were discussed with the SMT and teachers.

They found that those senior leaders who understood the philosophy of SEAL were more successful in implementing the programme compared to schools who simply added it onto PSHE or during tutor time; SEAL was more successful in schools which already had a strong ethos; it impacted greatest on teacher's understanding of pupils' social and emotional development; pupils resilience increased as did their willingness to take risks in their learning. However, schools found it difficult to disentangle what had been achieved through the programme from other initiatives.

The most recent large scale national evaluation of how schools have implemented Secondary SEAL comes from Humphrey et al., (2010) who assessed pupil and staff perceptions of school climate among other factors. In regards to how schools implemented SEAL the results showed some variability. Three of the schools made good progress with the implementation of SEAL and were able to provide evidence of engagement in the suggested school improvement cycle. However, other schools made little progress during the same time period. The nine case study schools varied in the extent to which they implemented SEAL across the whole school, namely that some schools interpreted the SEAL guidance in such a way that they purposefully selected pockets of activity or development to focus upon at the expense of seeing the 'bigger picture'. Furthermore, many of the schools felt that SEAL did not offer them anything new. Some schools were unable to sustain the pressures of trying to maintain the work that had initially been put into SEAL. Finally, some staff felt that there would be changes in the short term, which impacted on teacher's enthusiasm. Analysis of school climate scores indicated significant reductions in pupils' trust and respect for teachers, liking for school, and feelings of classroom and school supportiveness during SEAL implementation. However, the pupils' feelings of autonomy increased.

(2.5) Aim & Research Questions:

The aim of Paper 2 will focus on the processes involved within a secondary school when introducing SSEAL (For example, factors that may impede/support the introduction of the initiatives of SEAL) and whether this has had an impact on the school climate.

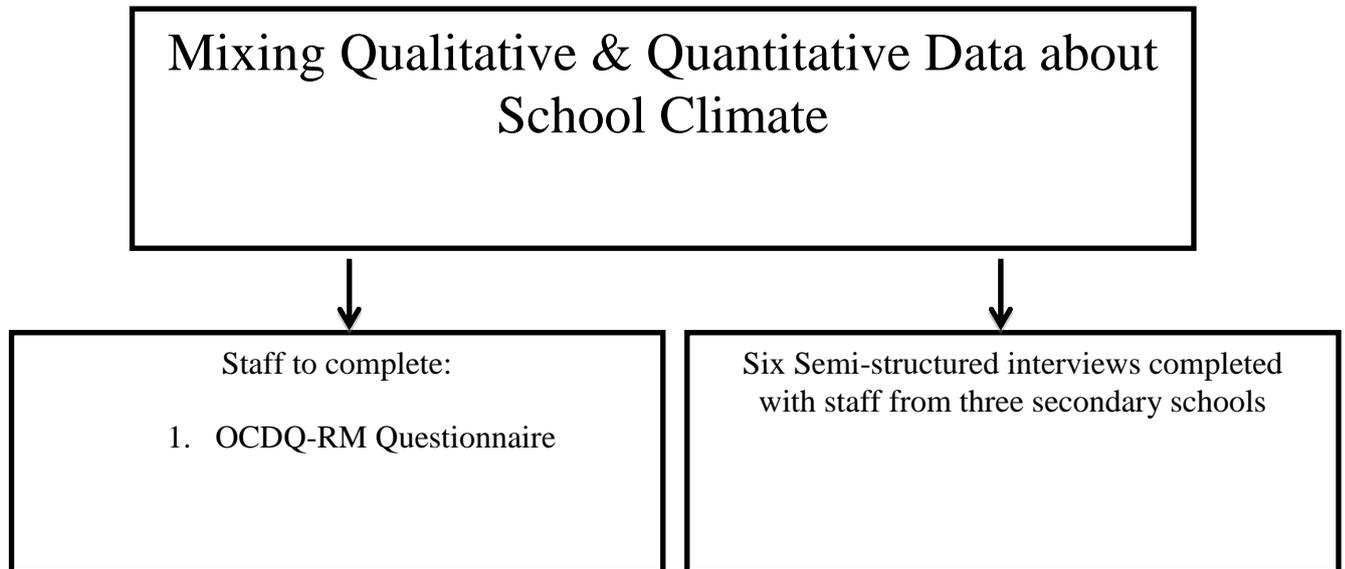
Research question 1: How has SEAL been implemented into the school's curriculum and pastoral systems?

Research question 2: What are the staff perceptions of school climate since the introduction of SEAL?

Research Question 3: What are the most effective sources of analysis to explore how effectively SEAL has been introduced into a secondary school (including OFSTED reports, Questionnaires and semi-structured interviews) and its impact on school climate?

Chapter 3- Method

Figure 1: Data collection for Paper 2:



3.0 Epistemological Stance:

The second phase of this research study builds on the findings from paper 1, which explored the association between SEAL and pupils' emotional literacy and resiliency. This research paper will explore what processes are involved in implementing SEAL into a secondary school and how it has impacted on school climate. As this research study contains two phases it will be necessary to describe the methods of data collection separately before discussing how the data are analysed and interpreted.

The epistemological stance taken for this research paper is that of the pragmatist tradition. As research in Educational Psychology is often multi-purpose (used for policy, theory, practice), such a stance allows researchers to address questions

that do not fit neatly into a wholly qualitative or quantitative approach (Creswell, 2009). A mixed quantitative and qualitative methods design can provide both broad and in-depth data.

According to Johnson & Onwuegbuzie (2004) Pragmatists entertain the existence of causal relationships, but state that it may not be possible to pin down many of these relationships. Pragmatists accept external reality and believe that values play a role in the interpretation of results. However, they believed in the existence of both subjective and objective points of view. Asserting that research is influenced by theory/hypothesis and by observations, facts and evidence, pragmatists utilise both inductive and deductive logic, choosing explanations that best produced desired outcomes and combine formal and informal writing styles that used both the personal and impersonal voice.

3.1 Mixed-Methods:

Mixed quantitative and qualitative methods were used to collect data from teaching staff about the processes involved when introducing SEAL into a school and the impact it has on school climate.

The first phase of this research study consisted of teaching staff completing the Organisational Climate Description Questionnaire for middle schools (OCDQ-RM). The advantages of using a questionnaire were that it would provide broad information about school climate in each of the schools and it was easy and quick

to administer to a large group of participants in comparison to interviewing individual participants (Bloch, 2004).

Semi-structured interviews were another method used to collect data from the staff in the schools. I had a set of pre-determined questions on my interview schedule and modified the order based upon the appropriate situation. Face-to-face interviews offered me a greater opportunity to modify the line of enquiry, follow up their responses and underlie motives in a way that a questionnaire could not provide me with (Robson, 2002).

3.2 Participants:

Due to their being two phases to this research study I shall describe both separately in regards to the sample, design, methods and ethical issues.

During the first phase of the research, there were 40 participants who completed the OCDQ-RM Questionnaire (10% of the total school teaching population from each school). The participants derived from the three secondary schools that were described in Paper 1. The sampling method used was an opportunistic sample, as those staff that were available on the day completed the questionnaires. All participants gave informed consent prior to completing the questionnaires and were informed that their responses would be kept confidential. Staff were also reminded that they could withdraw from the research at any point.

The participants involved in the second phase of this research study were six teachers from three secondary schools in the East Midlands. The sampling method was self-selected as those members of staff who offered to be interviewed volunteered to engage in the research study. Two members of staff were interviewed from each school. One member of staff had responsibility for SEAL and the other member of staff was someone who had been identified in the school as showing an interest in SEAL or who had a good working knowledge of SEAL. All of the participants interviewed were female.

3.3 Measures:

OCDQ-RM Questionnaire.

The Organisational Climate Description Questionnaire for Middle Schools (OCDQ-RM) is a 50-item self-completed questionnaire that describes particular aspects of principal and teacher behaviour in middle schools (Hoy & Sabo, 1998). The 50 items of the instrument define the six dimensions of the OCDQ-RM:

- Principal behaviour is divided into three dimensions: supportive behaviour, directive behaviour, and restrictive behaviour.
- Teacher behaviour is divided into three dimensions: collegial behaviour, committed behaviour, and disengaged behaviour.

(For a detailed description of the OCDQ-RM and its validity and reliability please see Appendix 14, Pages, 178-183).

Measures 2: Semi-structured interviews with teaching staff:

The views of staff were gathered using a semi-structured interview. This method was chosen because it allowed teaching staff to provide a detailed narrative about how secondary SEAL was introduced into the school's curriculum and pastoral system and whether it had impacted on school climate.

The semi-structured interview was designed with reference to all of the research questions. The initial interview schedule in Appendix 18, Pages 191-193 was used as a pilot interview with colleagues in the service and with my research supervisor. There were a number of changes that were recommended including phraseology and terminology of the questions. The revised interview schedule, which was used with the six participants can be seen in Appendix 19, Pages 194-196).

The semi-structured interviews were transcribed using the Jefferson transcription system (2004). For a detailed analysis of the technique see Page, 180

3.4 Procedure:

Phase 1:

All questionnaires were completed in the school where the staff worked. Each school set up a quiet room with tables, chairs and the necessary stationary. The staff entered and left the room of their own accord. Each staff member spent approximately 15-20 minutes completing the OCDQ-RM questionnaire. Once staff had completed the questionnaire they were reminded that they could withdraw

from the research and that their data would remain confidential. No participants withdrew their data from the research study. Each participant was debriefed once they had completed the questionnaire. The debrief form can be found in Appendix 26, Page 219.

Phase 2:

All interviews were completed in the school where the teacher taught. The interview was completed in a quiet room where there would be no distractions or disturbances. The six interviews were approximately 45-60 minutes in length and were recorded using a digital Dictaphone and an Apple MacBook Pro laptop computer. An account of the interview procedure is provided in the interview schedule (Appendix 19, Pages 194-196). Staff were asked if they would like to see the interview schedule prior to our meeting; all the participants declined the offer due to their limited time.

3.5 Ethical Considerations:

For both phases of this research study Ethical clearance was obtained by Exeter University (See Appendix 28, Pages 221-224). The British Psychological Society's Code of Conduct, Ethical Principles and Guidelines (BPS, 2009) for conducting research with human participants were used as guidance when considering the ethical implications of this research. The issues addressed included: Informed Consent, Right to Withdraw, Confidentiality and Debriefing.

Table 2: Ethical Issues:

| Ethical Issue | Steps taken to deal with ethical issue |
|----------------------|---|
| Informed Consent | PHASE 1 & Phase 2: Each of the six participants who completed an OCDQ-RM and who were interviewed signed an informed consent form (See Appendix 25, Page 218) to state that they were happy to engage in the research study. |
| Right to Withdraw | Phase 1 & 2: Each of the participants were informed at the beginning and at the end of the interview and the questionnaire that they were able to withdraw from the research process at any time. |
| Confidentiality | PHASE 1: Each participant was allocated a number to ensure their responses were confidential. Participants were informed their questionnaires would be located in a locked/secure filing cabinet for the duration of the research. Once the research process had ceased questionnaires would be destroyed. PHASE 2: The participants were informed that the responses gained from the interview would remain confidential, as each participant would be allocated a number and the school would be allocated a letter as to ensure anonymity. |
| Debrief | PHASE 1: Once each participant had completed a questionnaire they were debriefed regarding the aims of the research and the research questions. PHASE 2: At the end of the interview all of the participants were debriefed about the initial aims of the research, the research questions and the implications of the research. |

3.6 Reliability & Validity/Trustworthiness and Credibility:

To ensure the questionnaires had been scored reliability, inter-rater reliability was measured. This was achieved by the researcher scoring 40 questionnaires and a colleague from the Educational Psychology Service scoring 20% of the questionnaires. The percentage of questionnaires that were scored correctly was 97.5%

Please see the reliability and validity scores for the OCDQ-RM in, Appendix 14, Pages 178-183).

Validity and Reliability in qualitative research:

For a detailed description of trustworthiness and credibility see Appendix 22, Pages 199-201.

Chapter 4 - Results

Quantitative Analysis of the OCDQ-RM Results:

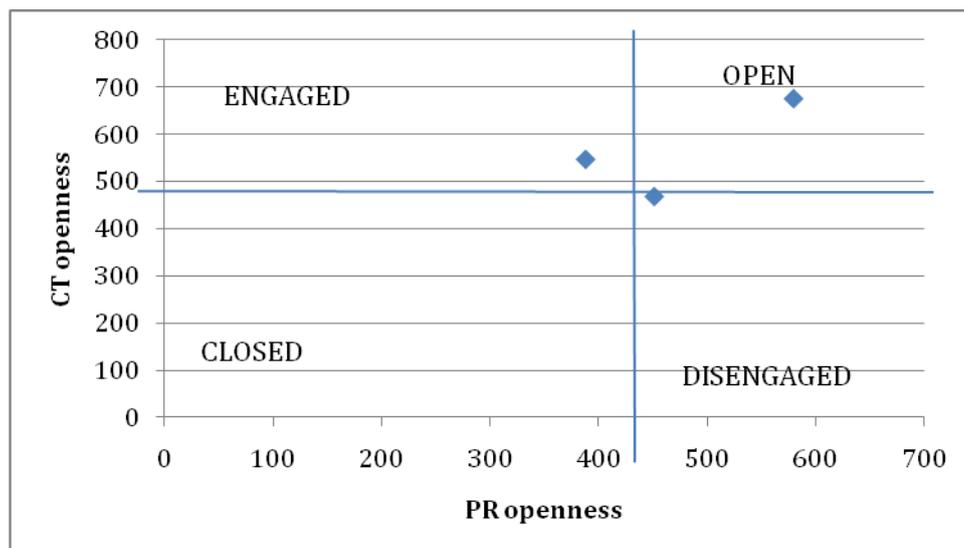
Research Question 2: What are staff perceptions of school climate once SEAL has been introduced to the school?

The raw data of the 40 participants on the Organisational Climate Description Questionnaire – RM (OCDQ-RM) was analysed to answer research question 2 of this study. Raw data compiled for the purpose of this study can be found in Appendix 13, Pages 175-177.

Table 2: Open/ Closed Climate Types for Schools X,Y and Z.

| School climate types derived from the combination of 'open/ or closed' Principal Openness (PO) and Teacher Openness (TO) classification. A school climate type for each school is identified from the Typology of School Climates listed in Figure 1 | | | | | |
|--|-----------------------------------|--------|---------------------------------|--------|---------------------|
| | Principal Openness Dimension (PO) | | Teacher Openness Dimension (TO) | | School climate type |
| Z | 451.0 | Closed | 468.5 | Closed | Closed |
| X | 388.36 | Closed | 547.09 | Open | Engaged |
| Y | 579.47 | Open | 676.90 | Open | Open |

Graph 1: Typology of schools from research study:

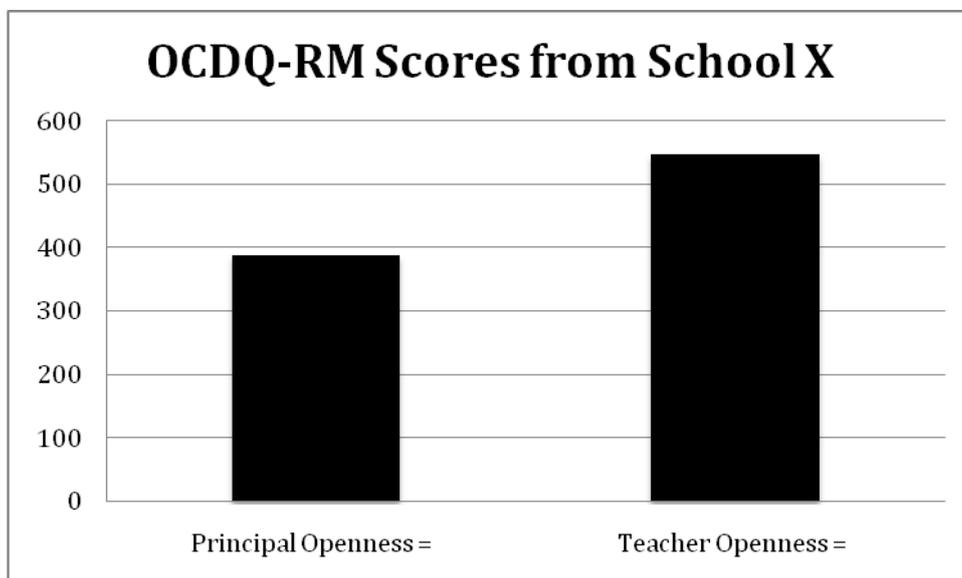


Graph 1 illustrates the results from the OCDQ-RM questionnaire regarding the type of school climate for each of the three secondary schools in the East Midlands.

Staff perceptions of School Climate on the OCDQ-RM for School X

The perceptions of staff at School X on openness of Principal Behaviour were closed and the perceptions of staff were open (see Graph 3).

Graph 3: OCDQ-RM Scores from School X:



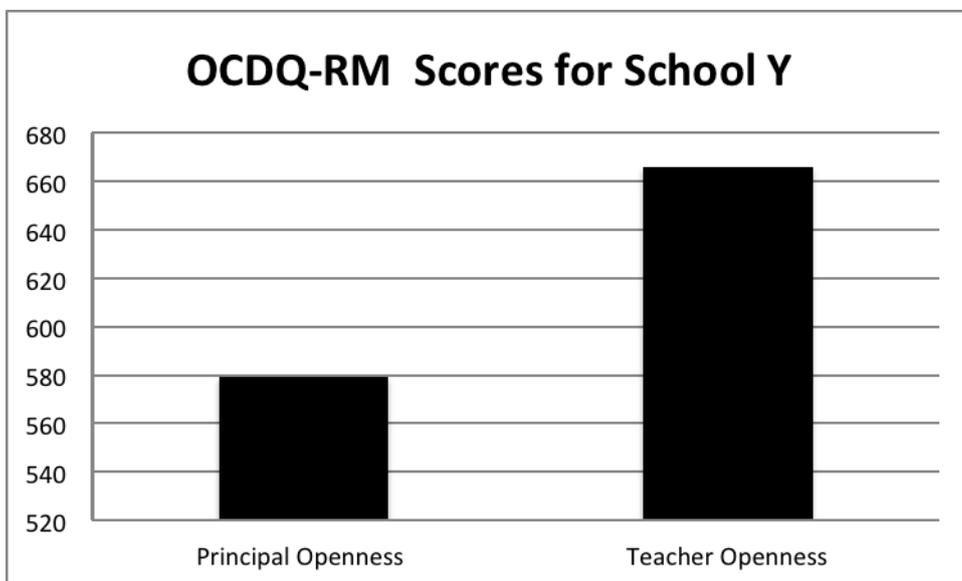
From the climate prototypes, suggested by Hoy and Forsyth (1986) School X reflected an Engaged Climate. In brief, the teachers are productive in spite of weak principal leadership; the faculty is cohesive, committed and supportive and open (Hoy et al., 1991).

Staff perceptions of school climate at School Y:

The perceptions of staff at School Y on Openness of principal behaviour were open and of staff behaviour were open.

From the climate prototypes, suggested by Hoy and Forsyth (1986), School Y reflected an Open Climate. In brief, the behaviour of both the principal and the staff are open, supportive and authentic (Hoy & Miskel, 1987).

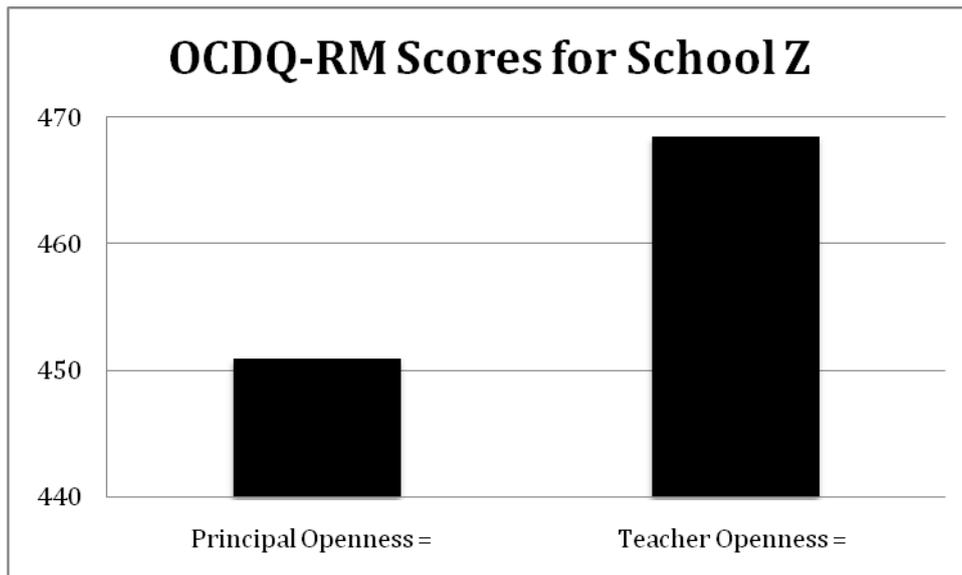
Graph 4: OCDQ-RM results for School Y:



School Z OCDQ-RM Scores:

The perceptions of staff at School Z on openness of Principal Behaviour were closed and the perceptions of staff were Closed (see Graph 2).

Graph 2: OCDQ-RM Scores from School Z



From the school climate prototypes, as suggested by Hoy & Forsyth (1986), it could be derived from this study that School Z reflected a *Closed Climate*.

A characteristic of a closed climate is that they have principals who are non-supportive, inflexible, hindering and controlling and a faculty that is divided, apathetic, intolerant and uncommitted (Hoy & Miskel, 1987, p. 234).

Analysis of interviews:

Careful consideration was made in regard to the potential methods of data analysis. Four methods of analysis were considered including Discourse Analysis,

Interpretive-Phonological Analysis, Grounded Theory and Thematic Analysis

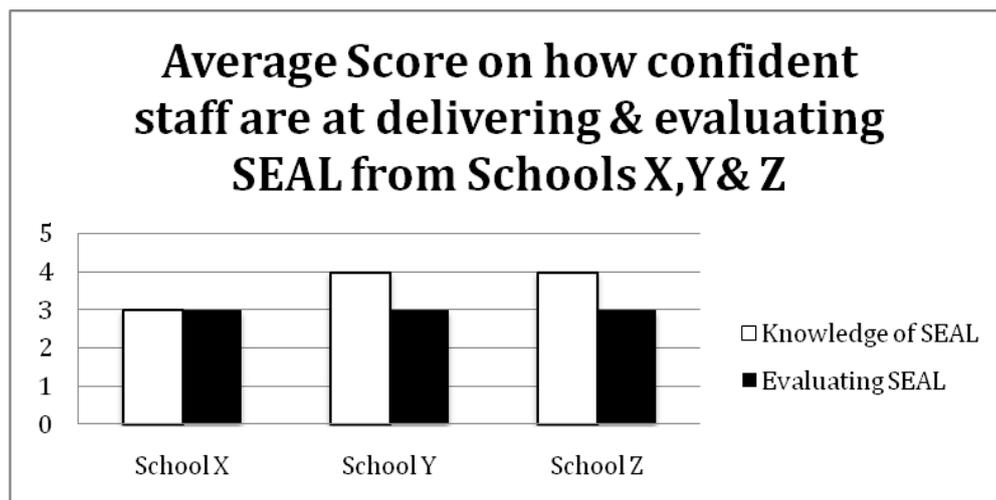
(See Appendix 21, Page 198).

Thematic analysis was chosen as the most appropriate method of data analysis because it was compatible with the epistemological stance, the research questions and the methods of data collection. An inductive thematic analysis was chosen using Braun & Clarke's (2006) six stage model.

Staff Confidence:

Staff confidence was gained from the semi-structured interviews using a 5-point Likert scale (1= not confident, 5 = very confident) where staff were asked how confident they felt with teaching and evaluating SEAL.

Graph 5: The average scores gained from staff about how confident teaching staff were at delivering and evaluating SSEAL.



The results in Graph 5 represent the responses gained from the questions from the semi-structured interviews. The results indicate that School X were least

confident with their knowledge of SEAL. School Y and Z were equally confident in their knowledge of SEAL and their ability to evaluate SEAL.

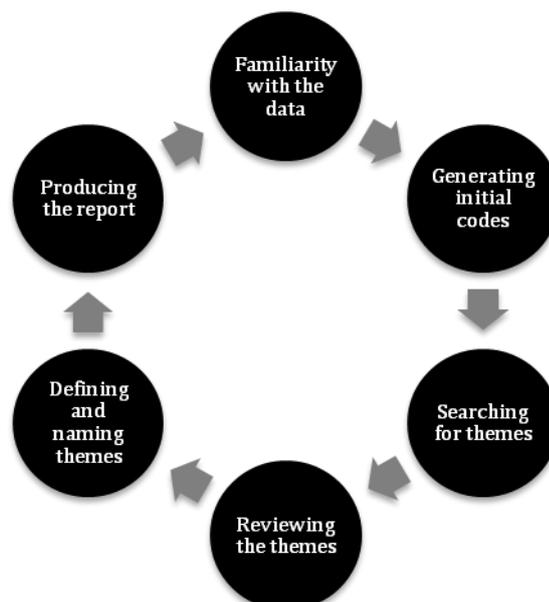
Completing a Thematic Analysis: Braun & Clarke's (2006)

model of thematic analysis:

The results gained from the Thematic Analysis will be organised in relation to the themes that emerged from the data. The process of the thematic analysis and the emergent codes can be seen in Appendix 23, Pages 202-214. The final themes reflect the nature of the interview questions, which were constructed in order to elicit information to inform the research questions. These themes were the social and emotional well being of staff and students, management of SEAL and School Climate/Ethos. The sub-themes will be explored in more detail in this section of the results.

Figure 1: A Six Step Model to completing a thematic analysis Figure (3)

To complete the thematic analysis Braun & Clarke's (2006) model was adopted, following the six steps shown below.



For a detailed description of each stage of Braun and Clarke’s (2006) model see Appendix 31, Pages 228-230.

Table 3: Themes and Sub-themes arising from Thematic Analysis

Theme 1: Management of SEAL

| Sub-themes | Main points emerged from semi-structured interviews. |
|---|---|
| Implementation of SEAL | Schools participated in the LA pilot. SEAL evolved since introduced but not seen as an add-on to the curriculum. |
| Responsibility of SEAL | Senior staff introducing SEAL adopting Top-Down approach. Pastoral staff greater understanding of SEAL than curriculum staff. |
| Implementing SEAL into the curriculum | SEAL planning undertaken by Senior member of staff. Schools implemented SEAL into PSHE curriculum (School X through CASE in all subjects; School Y Units of SEAL in PSHE and through Creative Arts and PE; School Z, Thinking Through Schools, Global Eye, English and Humanities) not seen as Tick box activity, SEAL added to lesson plans. |
| Implementation into the pastoral system | Schools introduced SEAL into their pastoral system including tutor time, assemblies, having activity days (School X, Week of community activities, School Y Well-being day, School Z No activity day) and gaining the student voice. No school reported SEAL on reports. Primary SEAL valuable. Teaching Assistants at Schools Y & Z trained in Circle of Friends and all staff a School Y trained in SEAL. |
| Resources | SEAL resources not used by staff in 3 schools. |
| Monitoring & Evaluating SEAL | No school monitored and evaluated SEAL. |
| SEF | All schools reported SEAL in their SEF, but dot not collect evidence to support it. |
| SEAL Acronym | School X used SEAL acronym with staff, School Y did not use the acronym and School Z called SEAL ‘Developing Independent Learners’. <i>“they simply don’t know the name of SEAL and I actually don’t mind that (.) because I think it’s more than a name it’s actually about (.) your philosophy and its actually about the skills that it develops amongst our students and that to me is much more important (0.5) and I think that kind of indicates that (0.5) we’re absolutely (.) on board with it.” (Participant 1, School Y, Lines 76-83).</i> |
| Future work | The future of SEAL was different in each school: School X were going to look at staff emotional literacy and resiliency; School Y were going to develop themes around SEAL (i.e., group work) and School Z were going to complete staff well-being work. |

Theme 2: Social emotional well-being of staff and students

| Sub-themes | School X | School Y | School Z |
|----------------------------------|--|----------|----------|
| Pupil Behaviour | Students are more aware of their behaviour and making choices about their behaviour. Behaviour for Learning Programme was implemented into School X. SEAL impacted on behaviour in school. | | |
| Staff well-being | Staff not aware of their emotions and how these impact on their pupils. Staff cannot always support their pupils' emotional needs. Staff need time to reflect on their behavior. Schools Y & Z gained staff views about their well-being. | | |
| Relationships (staff & students) | Relationships between staff and pupils were considered important. Staff need to build bridges with their students, staff need to know about their students (including interests outside the classroom). Respect between staff and pupils is important. | | |

Theme 3: School Climate

| Sub-themes | School X | School Y | School Z |
|-----------------------------|---|----------|----------|
| School Climate/ETHOS | SEAL needs to be embedded across the whole school. SEAL includes the curriculum, pastoral system, staff-student relationships, policies, etc. SEAL has enhanced staff awareness of school climate. SEAL has not improved school climate. School climate is important for Year 6 pupils. | | |
| The Whole Child | Parental involvement is important when introducing SEAL into a school. Outside agency involvement in delivering the SEAL programme. Wider community impacts of school climate and emotional literacy and resilience. | | |

Chapter 5 - Discussion

(5.1) Findings in relation to aim:

The aim of paper 2 focused on the processes involved in a secondary school when introducing SEAL and whether this has had an impact on the school climate.

Research question 1: How has SEAL been implemented into the school's curriculum and pastoral systems?

The results from the semi-structured interviews suggest that each of the three schools implemented SEAL into the Key Stage 3 curriculum and pastoral system quite differently. See Paper 1, Pages 34-36 for comparisons between schools.

The results from this study do not suggest that SEAL has had a direct impact on school climate or in fact that each school has fully introduced SEAL into its curriculum or pastoral system. School Y has introduced SEAL as a whole school initiative with all staff and into the curriculum (Creative Arts and PE) and pastoral system; training TAs to implement Circle Time with pupils. School Y has started to monitor and evaluate SEAL through its annual PSHE review; allowing the school to consider how SEAL will evolve over the next 12 months.

School X has made the least progress with regards to SEAL implementation into the curriculum. The school has its own set of competencies, which include some

of the SEAL themes, but these are not explicitly taught to the students. However, the school have set up a very effective pastoral system, which focuses on monitoring behaviour and have an activity week, where pupils engage in activities which promote SEAL competencies in the community.

School Z has implemented SEAL into the Humanities and English curriculum and these have proven to be successful, although not across all faculties. The school is currently involved in a national evaluation of SEAL from Manchester University and they are currently awaiting the results from this. The school has implemented SEAL into other pastoral programmes including Thinking Through Schools and Global Eye, although SEAL is not explicitly taught by itself. An area of strength of school Z is that they have trained their teaching assistants to use Circle of Friends with pupils.

Relation to previous research:

Cefai (2008) discusses the extent to which the pupils' voice was gained. School Y gained the student voice through the annual PSHE yearly evaluation, school Z gained the student voice using questionnaires about the Thinking Through Schools Programme and school X did not report that they had gathered information about the students' opinions regarding SEAL or other initiatives. However, one teacher at School Z, reported that students need a lot more time to reflect on their learning journey and need time to think about how they have learnt something successfully (or not) and how they have good relationships with some teaching staff and not others.

The qualitative analysis of the results contradict Weare's (2010) assertion that SEAL should not be a top down process. All of the participants interviewed, were clear that there needed to initially be a top down drive with SEAL from the management staff.

SEAL is often linked with work in the tutorial time, PSHE and Citizenship. Two of the schools reported that SEAL was linked to their tutorial programme (schools X and Z) and all schools reported that SEAL was implemented via PSHE (or equivalent) programmes. However, it was only School Y who explicitly taught two units of SEAL and embedded these into their PSHE curriculum (Weare, 2000).

The findings from this research go some way to support Hallam et al. (2006) in that the teachers reported that their students' social and communication skills had improved between their peers and teachers. The participants explained that staff and student relationships had improved, as had staff relationships among each other (Schools X & Y).

The findings from this research study support those of Smith et al. (2007). A similarity between the two studies were that, all the schools involved in this research initially targeted Year 7 students and none of the schools were able to definitely indicate that SEAL had a direct impact on school climate.

Rones & Hoagward (2000) and Hallam (2009) suggested that a consistent programme implementation was needed and there needed to be the inclusion of

parents, teachers and peers and the SEL programme needed to be integrated into the general curriculum. One difference that this research study found was that the school staff who were interviewed were not consistently implementing the SEAL programme, instead they were taking pockets from the programme.

Interestingly, the results gained from this research study indicated that two of the three schools (X and Z) had not involved parents with the initial introduction of SEAL, yet School Y had. However, the difficulties School Y faced were in regards to parents not wanting to be engaged with the SEAL programme.

Humphrey et al. (2010) completed a large scale national evaluation of SEAL and found many schools chose pockets of the programme at the expense of looking at the bigger picture, which was a similar case with schools X and Z. In contrast, however, Humphrey et al. (2010) found from the school climate scores that pupils trust and respect for teachers had reduced, which was not the case in this research study. In fact, staff reported that they felt relationships had improved with their pupils, and SEAL had highlighted the importance of developing respect between staff and pupils, which supports Hallam's (2009) findings where teachers reported that their confidence of SEAL had improved as well as the school climate.

The information gained by the participants in this study indicated that staff emotions can significantly impact on their pupils (Holmes, 2005). Also staff needed to receive effective training and continuing professional development on how to identify their own emotional needs.

Research question 2: What are the staff perceptions of school climate since the introduction of SEAL?

The current findings from the OCDQ-RM questionnaire indicated that school Z was identified as having a closed climate, school Y was identified as having an Open climate and School X was identified as having an engaged climate. The results found from the semi-structured interviews would support these findings, particularly as school Y has set up initiatives in school where staff have shared ideas and resources about SEAL and had set up a buddy system and work collegially.

The findings from this study indicate that SEAL has not had a direct impact on school climate but classrooms were more cohesive and some of the schools had a greater degree of warmth and a sense of belonging (Lantieri & Patti, 1996).

The three schools reported that SEAL had contributed to improving the school climate, such as improving relationships between staff and pupils, and improving a sense of belonging to a school, but school climate was much bigger than being within the school and extended to the wider community. However, each school could not say that SEAL had improved school climate, and instead identified that other factors are involved including the curriculum and the pastoral system playing a role.

In relation to the multilayered model of a school (Bronfenbrenner, 1989), staff relationships are also set to impact on pupils' behaviour in the classroom. Staff's

own sense of belonging and community has a positive impact on pupils' learning and behaviour (Camburn & Louis, 1999 as cited in Carmel Cefai, 2008, p.44). This was apparent from the interviews, particularly from School Y, where staff were sharing teaching ideas, had created a buddy system for staff and were reflecting on their relationships with pupils, and this was evident from their school climate questionnaire responses also, as it was identified as having an Open Climate and from the opinions of those interviewed.

The OCDQ-RM results indicate that school Z were engaged less with their professional development around SEAL compared to the schools identified as having an Open/Engaged climate. The results from this research study go some way to contradicting McLaughlin's (1993) findings as the results from school Z indicated that staff were committed to supporting their pupils social and curriculum needs just as much as those from school X and Y.

Lister-Sharp et al (1999) suggest that SEL programmes need to be joined together and include management, relationships, ethos, and curriculum. The findings from this research study would concur with these suggestions, as those schools which did not engage all of the staff had difficulty with for example, improving relationships among staff and students and some subjects implementing SEAL and others not.

Nwankwo (1979) reported that there was an association between climate type and behaviour; open climates had reduced behaviour problems compared to

closed climates. From the interviews with the staff, they reported that since the introduction of SEAL there have been a reduced number of behaviour incidents during break times and students were able to manage their conflicts independently of staff. Thus, the results from this research are somewhat contradictory of those found by Nwankwo (1979) as those schools who were reported as having a closed climate reported an improvement in behaviour in pupils.

The participants in this research said that they felt that SEAL was a whole school initiative and needed to be supported by staff, students and the wider community. However, it was reported by one school (Y) that parents/carers were not always willing to engage with the school and for some students there is minimal engagement with their parents when they leave school. Furthermore, school Z reported that they felt that the wider community can have an impact on the school climate, particularly with those pupils who come from dysfunctional homes.

Research Question 3: What are the most effective sources of analysis to explore how effectively SEAL has been introduced into a secondary school (including OFSTED reports, Questionnaires and semi-structured interviews) and its impact on schools climate?

In line with the pragmatic epistemological approach, this research study investigated whether the introduction of secondary SEAL had made an impact on a

school's climate by using both, qualitative (semi-structured interviews) and quantitative (OCDQ-RM and OFSTED findings) data. The results gained from the study have informed the researcher about a particular aspect of school climate (whether school staff perceive school climate as open or closed) as well as gaining a narrative about how open or closed the school is. It is clear to suggest that neither method of data collection would have been appropriate by itself and therefore, by having information about the teacher's perceptions of the school climate (via questionnaire and interviews) and the findings from the OFSTED report it allowed for a more detailed and clear understanding about a school's climate. For example, if only the results from the OCDQ-RM were used then the researcher would only be able to inform the reader of the type of school climate a school has (Open, Closed, Engaged, Disengaged). Furthermore, if the researcher had simply used the information from the semi-structured interviews they would be aware that relationships had improved in each school, but would not be able to categorise what type of school climate they had. Finally, by only using the OFSTED information, it would have provided a context about the teaching and learning standards along with the management of the school, but would not have provided evidence about the climate type. Thus, these assessment tools were valuable in providing an informed picture of the school.

(5.2) Evaluation of methods:

In line with Weare & Gray's (2003) suggestion that all staff need to be involved in the introduction of a SEL programme, two members of staff were interviewed in this research study to check the validity of their responses.

The schools chose the individuals who were interviewed. One difficulty with this is that the person may have provided biased responses to the questions being asked and not represent the opinions of all staff at the school.

Another difficulty with this research was that the student voice was not gained. In future it would be useful to interview pupils from each year group and elicit their views about school climate, how SEAL is taught in school and compare these against staff responses.

One limitation is that school climate factors have often been operationalised as perceptions of people (Anderson, 1982). Thus, teachers perceptions lack objectivity because they are based on the teacher's experiences within the school and these may differ according to how long the staff were employed into the school and whether they have received support.

A difficulty using the OCDQ-RM questionnaire is there are issues with the population validity. The original sample was from New Jersey and therefore the generalisability to the teaching staff in the UK may be questioned as there may be cultural differences between the way in which schools and their staff perceive school climate.

(5.3)Future research:

If this research was carried out again, one of the factors that needs to be considered is for the researcher to immerse themselves further into the systems within each school and make direct observations of the lessons, read through the school's policy documents and be involved in the staff training on. Thus, completing a piece of ethnographic research where the researcher submerges into the active processes being undertaken by staff in the schools would be more appropriate for this research.

Furthermore, it would have been useful to compare the results from the OCDQ-RM questionnaire to schools who had not introduced SEAL into their pastoral system or Key Stage 3 curriculum so that comparisons could be made with regard to whether SEAL had a direct impact on SEAL or not.

Additionally, more of the teaching staff needed to be engaged with the research and this would be better done through the use of focus groups. By doing this, a range of teachers (i.e., from differing roles in the school) could be interviewed and a broader response could be gained about the impact SEAL has had on school climate. By gaining a greater number of staff from the school it would increase the trustworthiness of the results about how open the school climate is and to what effect SEAL has had an impact on the school climate.

(5.4) Contribution to Educational Psychology (theory & Practice):

In terms of the original contributions to theory and practice development within the field of Educational Psychology this research study has added to the growing wealth of studies evaluating Secondary SEAL.

As Humphrey et al. (2010) suggest, there are approximately 5 evaluation studies into secondary SEAL. The results from this research study are unique, in comparison to the previous research studies as this research study used the OCDQ-RM questionnaire to measure how open/closed the school climate is and previous research studies have used alternative methods.

The questions which formed the semi-structured interview asked questions about relationships between pupils and staff and specific questions regarding how each school had implemented SEAL into the school curriculum and pastoral system. This type of information has been gained in previous studies including OFSTED (2007) and Smith et al. (2007).

Educational Psychologists (EPs) have the advantage of working within school systems and an understanding of consultation and Soft Systems. Thus, the EP would be able to work with the whole staff and implement a whole school approach like SEAL more effectively than a piecemeal approach many schools have adopted.

Furthermore, the EP could facilitate a piece of action research with staff in each school about how open or closed their school climate is and work towards improving one of the 6 areas discussed by Haplin et al. (1963). By doing this the schools would be actively engaged in the research process and would be able to make decisions about the most effective ways to improve school climate using a bottom up approach.

Each of the schools discussed the well-being of their staff and how staff need to be aware of their own social and emotional well-being and as an EP we might be able to provide supervision to individual or groups of staff to discuss issues/concerns they have about school and improving these to support a more supportive/open climate.

(5.5) Link findings to previous paper:

Ultimately, the two research papers have one clear message. That is, if a school wants to effectively introduce SEAL into their curriculum and pastoral system they need to adopt a whole-school approach along with having a long-term goal, allocating adequate time and resources and ensuring that the headteacher and the leadership team are part of this process. If, on the other hand, the approach is adopted piecemeal and without enthusiastic support from 'the top', the outcomes will be minimal, or even somewhat destabilising to the school climate.

The results gained from this research paper found that each of the three schools implemented SEAL differently into their Key Stage 3 curriculum and pastoral

system and the climate types differed significantly. The results from paper 1 were used to measure the outcomes of implementing SEAL on pupils' emotional literacy and resiliency and paper 2 explored the processes each school undertook to implement SEAL. Unfortunately, the results from both papers are not solely due to the introduction of SEAL and other factors need to be considered, including the school philosophy, the key stage three curriculum and the pastoral system.

Chapter 6 - Conclusion

In conclusion, it can be suggested that each of the three schools has been identified as having either an open, engaged or closed climate. Furthermore, each school introduced SEAL differently into their Key Stage Three curriculum, ranging from the Humanities curriculum to the creative arts curriculum. Each school however, has not taught SEAL as a separate subject and instead has generally included it into a PSHE curriculum. By adopting this approach none of the schools have fully implemented the whole SEAL curriculum into all subjects at Key Stage 3.

There were differences between how the schools implemented SEAL into their pastoral system. School X had an activity week where all of the Yr 7 and Yr 8 students engaged in community based activities, the students engaged in CASE (a PSHE equivalent) during tutor times. School Y taught two of the SEAL modules in the PSHE curriculum, during tutor time the teacher engages in an activity called 'Thought of the week', the school do not provide students with an end of year report on SEAL, during assemblies the school have 'Thought of the week', which can be based on SEAL themes. The school has invested a lot of time and resources with the teaching assistants training them to use Circle of Friends, along with a stress management strategies and counselling techniques. School Z have assemblies, which have SEAL themes, and during tutor time students engage in Thinking Through Schools Programme and Global Eye. The school has invested

time and resources into the teaching assistants where they have received some training in the Circle of Friends Programme.

Each school was identified as being either Open, Engaged or Closed according to Hoy et al (1991) Typology of School. Interestingly, School X was identified as having an Engaged climate, school Y as being an Open climate and school Z as a closed climate. It would be fair to suggest that School Y has actively engaged all of the teaching staff with the introduction of SEAL and this has clearly impacted on how open the school is in support each other. However, regardless of this, neither school would suggest that SEAL has increased the school climate.

The role of the EP is crucial in working with schools when implementing a whole schools social and emotional learning programme, like SEAL and can support schools by either providing a systemic approach to working with schools, including Soft Systems or consultation. This could be achieved through the process of offering training to a school with regard to sharing resources/teaching ideas, eliciting staff opinions about how programmes are implemented into the school and by offering supervision the staff in schools allowing them to 'spring board' ideas with the EP in a joint problem solving approach.

Despite the results from this research study, there are further questions which need to be explored including:

1. Why did schools X and Z not introduce SEAL as effectively as school Y?

2. Does the socio-economic area in which the school is located have an impact on school climate?
3. How would parents and pupils perceive the school climate?

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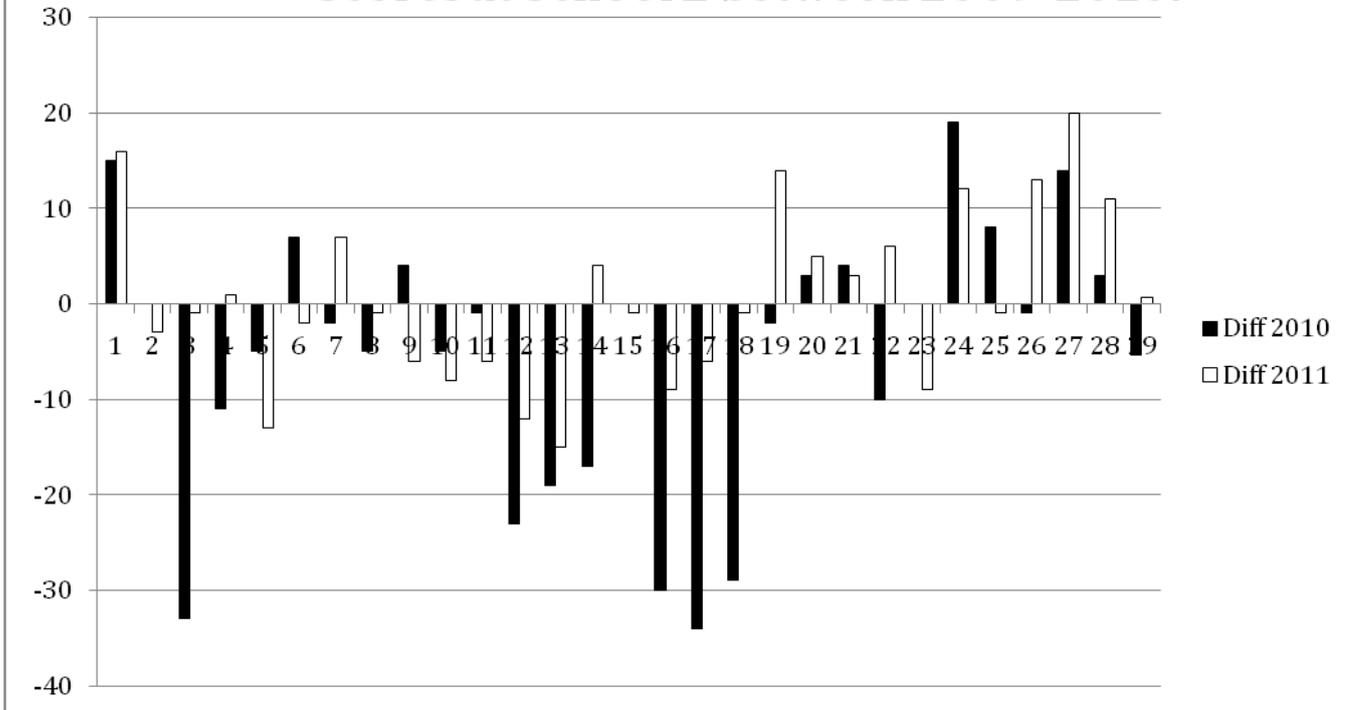
Paper 1: Appendices

Appendix 1: Raw Data from pupil and teacher emotional literacy

| Sc h | P pt | Gender | Age | FS M | SEN | KS2 Eng | KS2 Maths | KS2 Sci | ELC 09 | ELC 10 | ELT 09 | ELT 10 | RES 10 | VUL 10 | DI FF | RES 11 | VUL 11 | DI FF |
|------|------|--------|-----|------|------------|---------|-----------|---------|--------|--------|--------|--------|--------|--------|-------|--------|--------|-------|
| Z | 1 | FEMALE | 12 | | | 4 | 4 | 4 | 70 | 80 | 64 | 74 | 57 | 42 | 15 | 60 | 38 | -16 |
| Z | 2 | MAL E | 12 | | | 4 | 4 | 4 | 80 | 76 | 77 | 63 | 47 | 47 | 0 | 46 | 49 | -3 |
| Z | 3 | MAL E | 12 | Y | STATE MENT | 3 | 3 | 3 | 76 | 72 | 68 | 60 | 25 | 58 | 33 | 48 | 49 | -1 |
| Z | 4 | MAL E | 12 | | | 4 | 4 | 4 | 78 | 78 | 67 | 68 | 41 | 52 | 11 | 47 | 46 | 1 |
| Z | 5 | MAL E | 12 | | | 5 | 5 | 5 | 62 | 72 | 72 | 56 | 46 | 51 | -5 | 41 | 54 | -13 |
| Z | 6 | FEMALE | 12 | | | 5 | 4 | 4 | 70 | 79 | 70 | 77 | 53 | 46 | 7 | 49 | 51 | -2 |
| Z | 7 | MAL E | 12 | | | 5 | 4 | 4 | 70 | 73 | 67 | 69 | 53 | 55 | -2 | 51 | 44 | 7 |
| Z | 8 | FEMALE | 12 | | | 4 | 4 | 4 | 85 | 80 | 61 | 61 | 47 | 52 | -5 | 51 | 52 | -1 |
| Z | 9 | FEMALE | 12 | | | 5 | 5 | 5 | 85 | 83 | 67 | 76 | 53 | 49 | 4 | 49 | 55 | -6 |
| Z | 10 | FEMALE | 12 | | | 5 | 4 | 4 | 81 | 79 | 47 | 61 | 46 | 51 | -5 | 46 | 54 | -8 |
| Z | 11 | FEMALE | 12 | | | 4 | 4 | 4 | 90 | 78 | 74 | 78 | 50 | 51 | -1 | 49 | 55 | -6 |
| Z | 12 | FEMALE | 12 | | | 4 | 4 | 4 | 71 | 65 | 60 | 76 | 42 | 65 | 23 | 46 | 58 | 12 |
| Z | 13 | MAL E | 12 | | | 3 | 4 | 4 | 75 | 72 | 65 | 66 | 40 | 59 | 19 | 41 | 56 | 15 |
| Z | 14 | MAL E | 12 | | | 4 | 4 | 4 | 66 | 68 | 64 | 72 | 40 | 57 | 17 | 49 | 45 | 4 |
| Z | 15 | FEMALE | 12 | | | 5 | 5 | 5 | 79 | 84 | 69 | 71 | 46 | 46 | 0 | 51 | 52 | -1 |
| Z | 16 | MAL E | 12 | | | 5 | 4 | 4 | 70 | 62 | 64 | 49 | 37 | 67 | 30 | 48 | 57 | -9 |
| Z | 17 | MAL E | 12 | | SA | 3 | 4 | 4 | 61 | 57 | 58 | 46 | 36 | 70 | 34 | 35 | 41 | -6 |
| Z | 18 | FEMALE | 12 | | | 5 | 5 | 5 | 66 | 63 | 63 | 56 | 35 | 64 | 29 | 31 | 32 | -1 |
| Z | 19 | MAL E | 12 | | | 4 | 3 | 4 | 83 | 80 | 79 | 75 | 55 | 57 | -2 | 55 | 41 | 14 |
| Z | 20 | FEMALE | 12 | | | 5 | 5 | 5 | 74 | 75 | 65 | 60 | 55 | 52 | 3 | 55 | 50 | 5 |
| Z | 21 | FEMALE | 12 | | | 4 | 4 | 4 | 74 | 78 | 64 | 59 | 47 | 43 | 4 | 49 | 46 | 3 |
| Z | 22 | MAL E | 12 | | | 4 | 4 | 4 | 80 | 68 | 66 | 70 | 48 | 58 | 10 | 55 | 49 | 6 |
| Z | 23 | FEMALE | 12 | | | 4 | 4 | 3 | 73 | 74 | 64 | 62 | 45 | 45 | 0 | 42 | 51 | -9 |
| Z | 24 | FEMALE | 12 | | | 4 | 4 | 4 | 77 | 77 | 73 | 75 | 58 | 39 | 19 | 54 | 42 | 12 |
| Z | 25 | MAL E | 12 | | | 4 | 4 | 4 | 71 | 77 | 63 | 73 | 57 | 49 | 8 | 48 | 49 | -1 |
| Z | 26 | FEMALE | 12 | | | 5 | 4 | 5 | 82 | 90 | 66 | 63 | 51 | 52 | -1 | 58 | 45 | 13 |
| Z | 27 | MAL E | 12 | | | 5 | 4 | 5 | 77 | 82 | 62 | 79 | 57 | 43 | 14 | 59 | 39 | 20 |
| Z | 28 | MAL E | 12 | | | 4 | 4 | 4 | 73 | 81 | 65 | 67 | 47 | 44 | 3 | 54 | 43 | 11 |
| X | 29 | FEMALE | 12 | Y | | 4 | 4 | 4 | 79 | 80 | 67 | 68 | 45 | 49 | -4 | 41 | 51 | 10 |

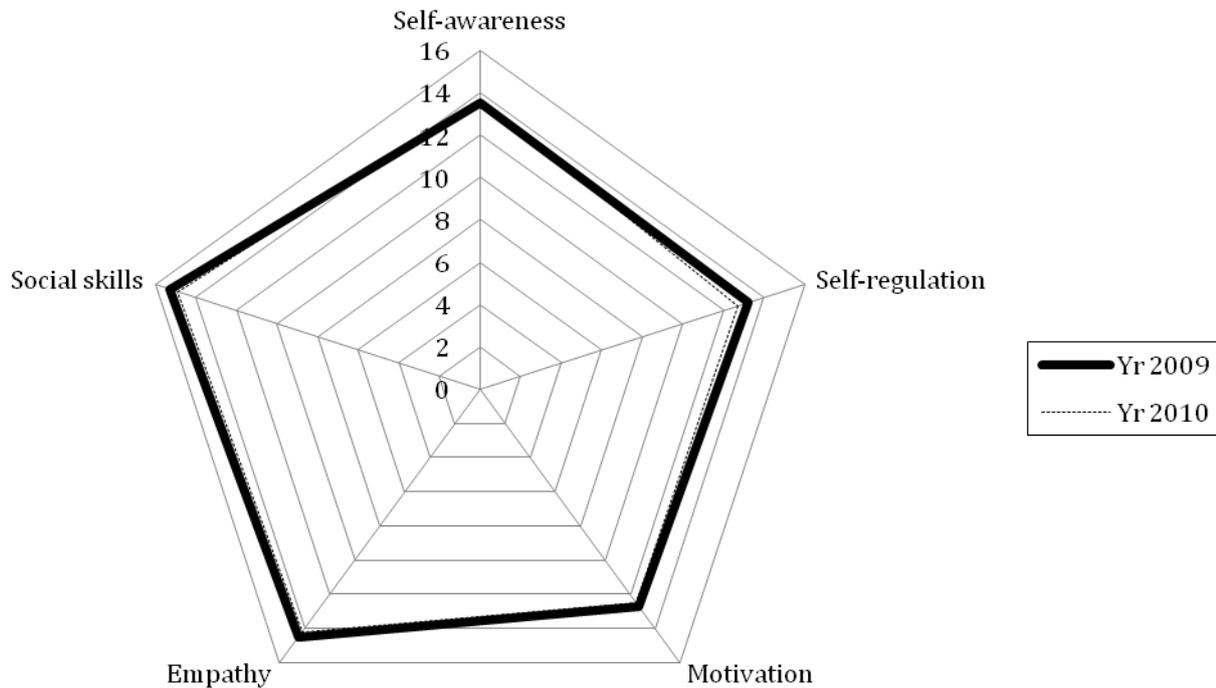
| | | | | | | | | | | | | | | | | | | |
|---|---|-----|----|---|---------------|---|---|---|----|----|----|----|----|----|----|----|----|----|
| X | 3 | MAL | 12 | | | 4 | 5 | 5 | 87 | 75 | 65 | 66 | 40 | 57 | - | 21 | 74 | - |
| X | 3 | FEM | 12 | | | 4 | 4 | 4 | 82 | 77 | 80 | 79 | 48 | 54 | -6 | 38 | 60 | - |
| X | 3 | FEM | 12 | | | 5 | 4 | 4 | 76 | 68 | 65 | 74 | 45 | 67 | 22 | 29 | 71 | - |
| X | 3 | FEM | 12 | | | 5 | 5 | 5 | 69 | 75 | 75 | 79 | 47 | 52 | -5 | 38 | 66 | - |
| X | 3 | MAL | 12 | | | 5 | 5 | 5 | 77 | 80 | 65 | 66 | 51 | 43 | 8 | 43 | 36 | 7 |
| X | 3 | FEM | 12 | | | 4 | 4 | 5 | 73 | 77 | 80 | 75 | 51 | 54 | -3 | 47 | 53 | -6 |
| X | 3 | FEM | 12 | | | 4 | 4 | 5 | 78 | 72 | 78 | 68 | 46 | 48 | -2 | 42 | 51 | -9 |
| X | 3 | FEM | 12 | | | 4 | 4 | 4 | 73 | 82 | 79 | 74 | 54 | 54 | 0 | 48 | 49 | -1 |
| X | 3 | MAL | 12 | | | 4 | 4 | 4 | 66 | 71 | 76 | 70 | 45 | 55 | 10 | 43 | 59 | - |
| X | 3 | MAL | 12 | | | 4 | 3 | 4 | 87 | 80 | 80 | 76 | 52 | 42 | 10 | 50 | 46 | 4 |
| X | 4 | MAL | 12 | | | 4 | 5 | 5 | 75 | 72 | 61 | 67 | 59 | 48 | 11 | 48 | 48 | 0 |
| X | 4 | FEM | 12 | | | 5 | 5 | 5 | 60 | 62 | 65 | 63 | 40 | 61 | 21 | 31 | 67 | - |
| X | 4 | MAL | 12 | | | 5 | 4 | 5 | 64 | 69 | 73 | 65 | 42 | 58 | 16 | 39 | 57 | - |
| X | 4 | MAL | 12 | | | 4 | 5 | 4 | 72 | 71 | 72 | 65 | 49 | 45 | 4 | 42 | 55 | - |
| X | 4 | MAL | 12 | | | 4 | 5 | 4 | 76 | 76 | 54 | 57 | 58 | 41 | 17 | 45 | 58 | -4 |
| X | 4 | MAL | 12 | | SA | 4 | 3 | 4 | 64 | 71 | 80 | 71 | 48 | 46 | 2 | 40 | 37 | 3 |
| X | 4 | FEM | 12 | | | 5 | 4 | 5 | 56 | 66 | 51 | 61 | 53 | 62 | -9 | 50 | 41 | 9 |
| Y | 4 | MAL | 12 | | | 5 | 5 | 5 | 64 | 71 | 53 | 63 | 51 | 47 | 4 | 55 | 41 | 14 |
| Y | 4 | MAL | 12 | | | 4 | 5 | 5 | 73 | 70 | 66 | 37 | 46 | 55 | -9 | 48 | 58 | - |
| Y | 4 | FEM | 12 | | | 4 | 4 | 4 | 64 | 70 | 51 | 61 | 38 | 55 | 17 | 42 | 56 | - |
| Y | 5 | FEM | 12 | | | 5 | 5 | 5 | 61 | 59 | 79 | 79 | 39 | 68 | 29 | 47 | 59 | - |
| Y | 5 | FEM | 12 | | | 4 | 4 | 4 | 76 | 76 | 60 | 80 | 52 | 51 | 1 | 45 | 56 | - |
| Y | 5 | FEM | 12 | | | 4 | 4 | 5 | 69 | 66 | 59 | 67 | 41 | 64 | 23 | 57 | 49 | 8 |
| Y | 5 | MAL | 12 | | | 5 | 5 | 5 | 62 | 68 | 57 | 59 | 51 | 59 | -8 | 62 | 46 | 16 |
| Y | 5 | FEM | 12 | | | 4 | 4 | 4 | 81 | 72 | 61 | 73 | 55 | 52 | 3 | 49 | 52 | -3 |
| Y | 5 | MAL | 12 | | | 4 | 3 | 3 | 82 | 84 | 63 | 73 | 50 | 48 | 2 | 52 | 45 | 7 |
| Y | 5 | MAL | 12 | | SA | 3 | 3 | 3 | 65 | 82 | 61 | 70 | 43 | 55 | 12 | 45 | 54 | -9 |
| Y | 5 | FEM | 12 | | | 4 | 4 | 4 | 74 | 80 | 65 | 52 | 47 | 55 | -8 | 29 | 74 | - |
| Y | 5 | MAL | 12 | | | 4 | 5 | 4 | 76 | 73 | 56 | 68 | 43 | 50 | -7 | 51 | 39 | 12 |
| Y | 5 | FEM | 12 | Y | | 4 | 4 | 4 | 79 | 82 | 61 | 80 | 52 | 48 | 4 | 59 | 42 | 17 |
| Y | 6 | FEM | 12 | | | 4 | 4 | 4 | 79 | 78 | 68 | 76 | 52 | 46 | 6 | 51 | 54 | -3 |
| Y | 6 | MAL | 12 | Y | | 3 | 4 | 4 | 76 | 77 | 60 | 57 | 40 | 55 | 15 | 57 | 43 | 14 |
| Y | 6 | MAL | 12 | | Statem ent | 3 | 4 | 4 | 65 | 57 | 54 | 65 | 32 | 61 | 29 | 42 | 48 | -6 |
| Y | 6 | FEM | 12 | | | 3 | 4 | 3 | 65 | 67 | 61 | 70 | 50 | 65 | 15 | 40 | 63 | - |
| Y | 6 | FEM | 12 | | SA | 4 | 3 | 3 | 85 | 81 | 74 | 75 | 39 | 61 | - | 51 | 61 | - |

Graph 2: Pupils' Resourcefulness & Vulnerability Scores at School Z between 2009-2010.



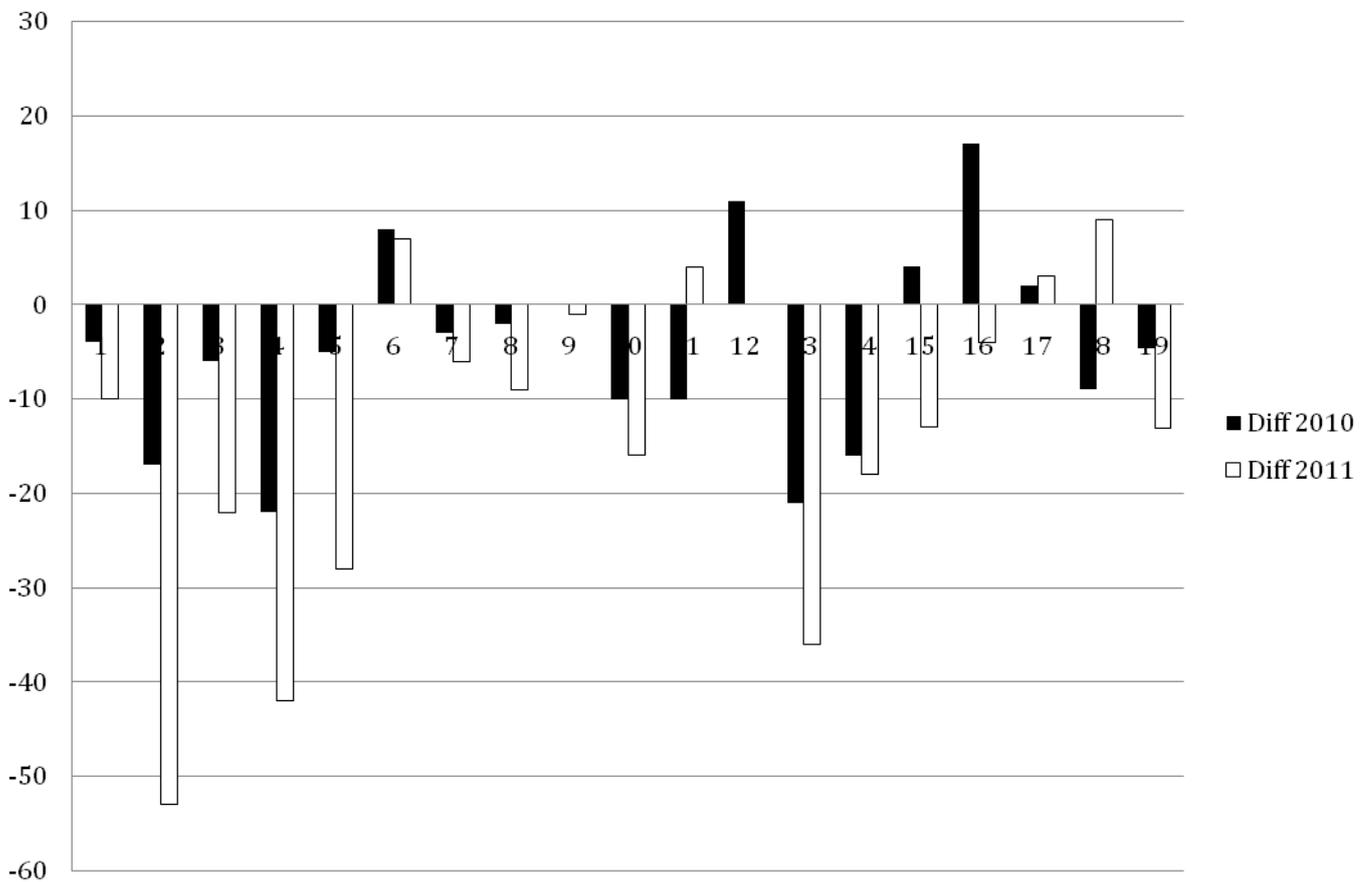
The results in Graph 2 represent the difference between each pupil's Resourcefulness and Vulnerability Score (RES-VUL). A positive score indicates that a pupil is resilient and a negative score represents the pupil being vulnerable (at risk). The results indicate that only 6 pupils at School Z achieved a positive difference score in 2010 and 2011. Furthermore, a high proportion of the students had a higher vulnerability score in 2010 than in 2011.

Graph 3: The Average Scores from the Emotional Literacy Questionnaire (teacher version) for Pupils at School Y between 2009-2010



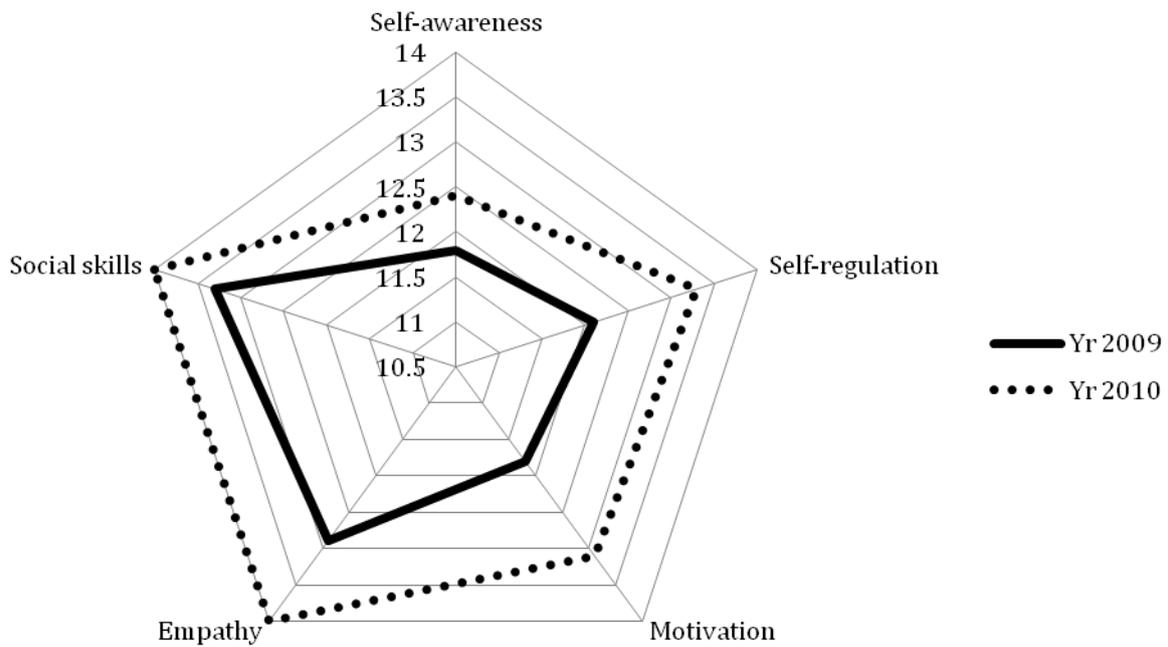
The scores in Graph 3 are the average results achieved on the NfER Emotional Literacy Questionnaire (teacher version) for pupils at School Y. In 2009 and 2010 the pupils' form tutor perceived their tutor groups' self-regulation, self-awareness, social skills empathy and motivation consistently high on the NfER emotional literacy questionnaire.

Graph 4: Pupils' Resourcefulness & Vulnerability Scores at School Y between 2009-2010



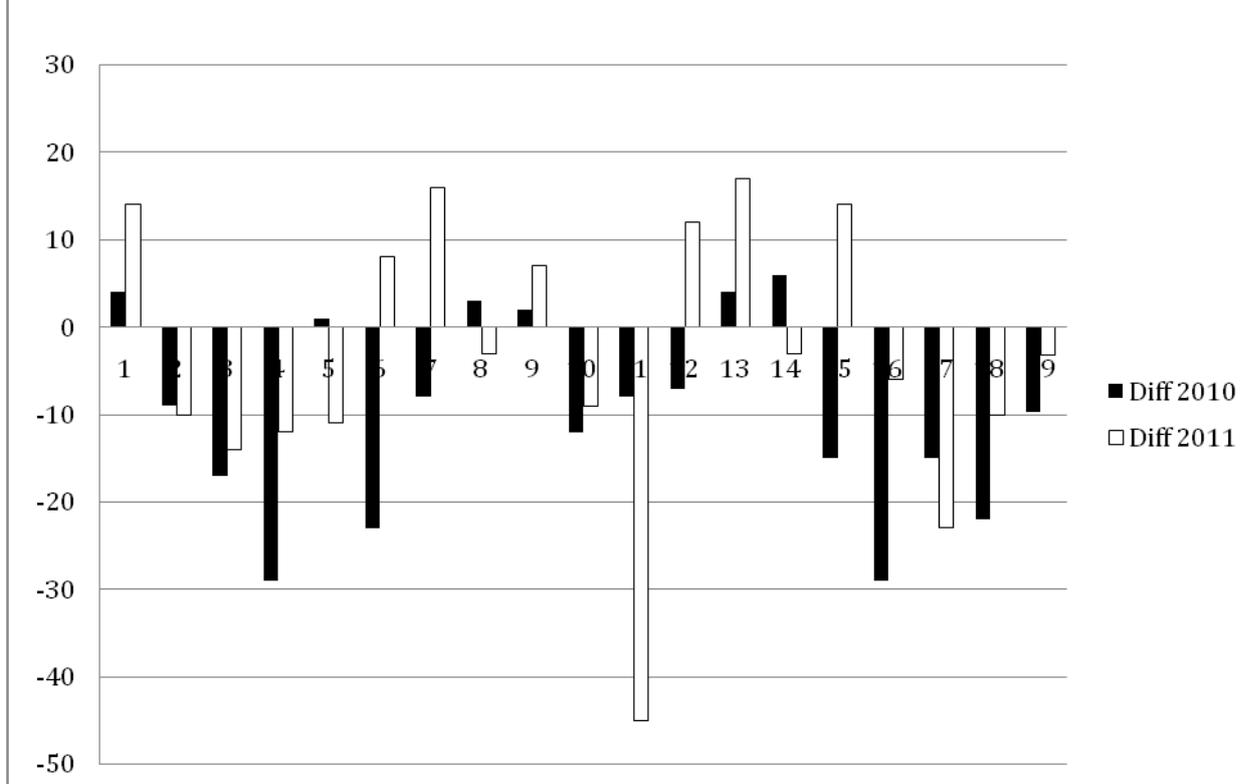
The results in Graph 4 represent the difference between each pupil's Resourcefulness and Vulnerability Score (RES-VUL). A positive score indicates that pupil to be resilient and a negative score represents the pupil being vulnerable (at risk). The results indicate that only 2 pupils at School Y achieved a positive difference score in 2010 and 2011.

Graph 5: The Average Scores from the Emotional Literacy Questionnaire (teacher version) for Pupils at School X between 2009-2010



The scores in Graph 5 are the average results achieved on the NfER Emotional Literacy Questionnaire (teacher version) for pupils at School X. The results gained, show that the form tutor's perceptions of the tutor group were higher in 2010 compared to 2009 on the NfER emotional literacy questionnaire.

Graph 6: Pupils' Resourcefulness & Vulnerability Scores at School X between 2010-2011



The results in Graph 6 represent the difference between each pupil's Resourcefulness and Vulnerability Score (RES-VUL). A positive score indicates that pupil to be resilient and a negative score represents the pupil being vulnerable (at risk). The results indicate that only 3 pupils at School X achieved a positive difference score in 2010 and 2011.

Appendix 3: Emotional Literacy band comparisons

Table 5: Emotional Literacy band comparisons:

| <u>School</u> | <u>Year</u> | <u>Well below Average (10%)</u> | <u>Below Average (15%)</u> | <u>Average (50%)</u> | <u>Above Average (15%)</u> | <u>Well above Average (10%)</u> |
|-------------------|-------------|---|--------------------------------------|--|--|--|
| X TOTAL: 18 | 2009 | ELC – (11.11%) ELT – 0 | ELC – (16.66%) ELT – 0 | ELC – (50%) ELT – 8 (44.44%) | ELC – (11.11%) ELT – 3 (16.66%) | ELC – (11.11%) ELT – 7 (38.88%) |
| | 2010 | ELC – 0 ELT – 0 | ELC – (11.11%) ELT – 0 | ELC – (66.66%) ELT – (55.55%) | ELC – (22.22%) ELT – (27.77%) | ELC – 0 ELT – (16.66%) |
| Z TOTAL: 28 | 2009 | ELC – (3.57%) ELT – | ELC – (10.7%) ELT – (3.57%) | ELC – (53.57%) ELT – (75%) | ELC – (21.42%) ELT – (14.58%) | ELC – (10.7%) ELT – (7.14%) |
| | 2010 | ELC – (3.57%) ELT – | ELC – (10.7%) ELT – (7.14%) | ELC – (50%) ELT – (50%) | ELC – (28.57%) ELT – (25%) | ELC – (7.14%) ELT – (17.85) |
| Y TOTAL: 18 | 2009 | ELC – (5.5%) ELT – | ELC – (33.33%) ELT – | ELC – (33.33%) ELT – (88.88%) | ELC – (22.22%) ELT – (5.5%) | ELC – (5.5%) ELT – (5.5%) |
| | 2010 | ELC – (11.11%) ELT – (5.5%) | ELC – (5.5%) ELT – | ELC – (55.55%) ELT – (44.44%) | ELC – (22.22%) ELT – (27.77) | ELC – (5.5%) ELT – (22.22%) |

The results in Table 5 (Appendix 3, page 115) show that at School X, more students rated themselves within the Well-below Average Range and the Below Average Range (27.77%) in 2009 compared to in 2010 (11.11%). Furthermore, more students rated themselves as Well Above Average in 2009 (11.11%) compared to (0%) in 2010. Interestingly, no teacher at School X rated a pupil within the Well Below Average Range or Below Average Range in 2009 or 2010. Moreover, more students were rated as Average and Above Average (83.32%) in 2010 compared to 61.1% in 2009 by teachers.

The scores in Table 5 also illustrate that pupils at School Z predominantly rated themselves between the Average Range through to the Well Above Average Range. The results demonstrate that teachers rated the pupils more to be in the Average Range in 2009 (75%) more than in 2010 (50%). Furthermore, teachers rated the pupils as being more emotionally literate in 2010 as they rated 42.85% of pupils to be within the Above Average and Well Above Average Range compared to only 21.72% in 2009.

Table 5 shows that the students at the School Y scored themselves within the Below Average Range more in 2009 (33.33%) compared to 5.5% in 2010. More students rated themselves to be within the Average Range in 2010 (55.55%) compared to (33.33%) in 2009. An interesting finding from Table 5 is that teachers at the School Y scored more pupils to be in the Above Average and Well Above Average Range in 2010 (49.99%) compared to 11% in 2009. Moreover, the teachers only rated one pupil to be within the Well below average range in 2009, but no pupils were rated within the Well Below Average Range or the Below Average Range in 2009 or 2010.

Thus, pupils at school X rated themselves as being well-above average in 2009 and teachers at school X rated pupils as being well-above average in 2009.

Appendix 4: SPSS Data analysis: Descriptive and Inferential statistics

SCHOOL Y

Correlations

| | | ELC09 | ELC10 | ELT09 | ELT10 | RES | VUL | RES1 | VUL1 |
|-------|---------------------|--------|--------|--------|--------|--------|--------|---------|---------|
| ELC09 | Pearson Correlation | 1 | .687** | .215 | .320 | .085 | -.394 | -.159 | .165 |
| | Sig. (2-tailed) | | .002 | .391 | .196 | .737 | .106 | .529 | .514 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELC10 | Pearson Correlation | .687** | 1 | .345 | .399 | .374 | -.568* | .318 | -.274 |
| | Sig. (2-tailed) | .002 | | .162 | .101 | .126 | .014 | .199 | .271 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELT09 | Pearson Correlation | .215 | .345 | 1 | .757** | -.234 | -.158 | .065 | -.050 |
| | Sig. (2-tailed) | .391 | .162 | | .000 | .350 | .530 | .798 | .844 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELT10 | Pearson Correlation | .320 | .399 | .757** | 1 | -.082 | .088 | -.003 | .108 |
| | Sig. (2-tailed) | .196 | .101 | .000 | | .745 | .730 | .989 | .671 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| RES | Pearson Correlation | .085 | .374 | -.234 | -.082 | 1 | -.506* | .775** | -.551* |
| | Sig. (2-tailed) | .737 | .126 | .350 | .745 | | .032 | .000 | .018 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| VUL | Pearson Correlation | -.394 | -.568* | -.158 | .088 | -.506* | 1 | -.474* | .525* |
| | Sig. (2-tailed) | .106 | .014 | .530 | .730 | .032 | | .047 | .025 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| RES1 | Pearson Correlation | -.159 | .318 | .065 | -.003 | .775** | -.474* | 1 | -.751** |
| | Sig. (2-tailed) | .529 | .199 | .798 | .989 | .000 | .047 | | .000 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| VUL1 | Pearson Correlation | .165 | -.274 | -.050 | .108 | -.551* | .525* | -.751** | 1 |
| | Sig. (2-tailed) | .514 | .271 | .844 | .671 | .018 | .025 | .000 | |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|-------|---------|----|----------------|-----------------|
| Pair 1 | ELC09 | 73.00 | 18 | 8.602 | 2.028 |
| | ELC10 | 73.56 | 18 | 5.404 | 1.274 |
| Pair 2 | ELT09 | 70.33 | 18 | 9.152 | 2.157 |
| | ELT10 | 69.11 | 18 | 6.135 | 1.446 |
| Pair 3 | RES | 48.5000 | 18 | 5.46916 | 1.28909 |
| | RES1 | 40.8333 | 18 | 7.62542 | 1.79733 |
| Pair 4 | VUL | 52.0000 | 18 | 7.34046 | 1.73016 |
| | VUL1 | 54.3889 | 18 | 10.87976 | 2.56439 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|---------------|----|-------------|------|
| Pair 1 | ELC09 & ELC10 | 18 | .687 | .002 |
| Pair 2 | ELT09 & ELT10 | 18 | .757 | .000 |
| Pair 3 | RES & RES1 | 18 | .775 | .000 |
| Pair 4 | VUL & VUL1 | 18 | .525 | .025 |

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|---------------|--------------------|----------------|-----------------|---|----------|--------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | ELC09 - ELC10 | -.556 | 6.271 | 1.478 | -3.674 | 2.563 | -376 | 17 | .712 |
| Pair 2 | ELT09 - ELT10 | 1.222 | 6.035 | 1.422 | -1.779 | 4.223 | 859 | 17 | .402 |
| Pair 3 | RES - RES1 | 7.66667 | 4.83857 | 1.14046 | 5.26050 | 10.07283 | 6.722 | 17 | .000 |
| Pair 4 | VUL - VUL1 | -2.38889 | 9.40049 | 2.21572 | -7.06364 | 2.28587 | -1.078 | 17 | .296 |

SCHOOL X

Correlations

| | | ELC09 | ELC10 | ELT09 | ELT10 | RES | VUL | RES1 | VUL1 |
|-------|---------------------|--------|---------|-------|-------|--------|---------|---------|---------|
| ELC09 | Pearson Correlation | 1 | .685** | .287 | .228 | .310 | -.496* | .134 | -.039 |
| | Sig. (2-tailed) | | .002 | .248 | .364 | .211 | .036 | .596 | .878 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELC10 | Pearson Correlation | .685** | 1 | .116 | .143 | .420 | -.635** | .074 | .005 |
| | Sig. (2-tailed) | .002 | | .648 | .571 | .082 | .005 | .770 | .984 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELT09 | Pearson Correlation | .287 | .116 | 1 | .240 | -.020 | .318 | -.091 | .494* |
| | Sig. (2-tailed) | .248 | .648 | | .338 | .936 | .199 | .720 | .037 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| ELT10 | Pearson Correlation | .228 | .143 | .240 | 1 | .173 | -.054 | .166 | -.156 |
| | Sig. (2-tailed) | .364 | .571 | .338 | | .493 | .830 | .510 | .537 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| RES | Pearson Correlation | .310 | .420 | -.020 | .173 | 1 | -.557* | .197 | -.056 |
| | Sig. (2-tailed) | .211 | .082 | .936 | .493 | | .016 | .434 | .826 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| VUL | Pearson Correlation | -.496* | -.635** | .318 | -.054 | -.557* | 1 | -.196 | .414 |
| | Sig. (2-tailed) | .036 | .005 | .199 | .830 | .016 | | .436 | .088 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| RES1 | Pearson Correlation | .134 | .074 | -.091 | .166 | .197 | -.196 | 1 | -.777** |
| | Sig. (2-tailed) | .596 | .770 | .720 | .510 | .434 | .436 | | .000 |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| VUL1 | Pearson Correlation | -.039 | .005 | .494* | -.156 | -.056 | .414 | -.777** | 1 |
| | Sig. (2-tailed) | .878 | .984 | .037 | .537 | .826 | .088 | .000 | |
| | N | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|-------|---------|----|----------------|-----------------|
| Pair 1 | ELC09 | 72.00 | 18 | 7.693 | 1.813 |
| | ELC10 | 72.94 | 18 | 7.787 | 1.836 |
| Pair 2 | ELT09 | 61.61 | 18 | 7.031 | 1.657 |
| | ELT10 | 66.94 | 18 | 11.016 | 2.596 |
| Pair 3 | RES | 45.6111 | 18 | 6.44560 | 1.51924 |
| | RES1 | 49.0000 | 18 | 7.93355 | 1.86996 |
| Pair 4 | VUL | 55.2778 | 18 | 6.55121 | 1.54413 |
| | VUL1 | 52.2222 | 18 | 9.04600 | 2.13216 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|---------------|----|-------------|------|
| Pair 1 | ELC09 & ELC10 | 18 | .685 | .002 |
| Pair 2 | ELT09 & ELT10 | 18 | .240 | .338 |
| Pair 3 | RES & RES1 | 18 | .197 | .434 |
| Pair 4 | VUL & VUL1 | 18 | .414 | .088 |

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|---------------|--------------------|----------------|-----------------|---|---------|--------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | ELC09 - ELC10 | -.944 | 6.140 | 1.447 | -3.998 | 2.109 | -.653 | 17 | .523 |
| Pair 2 | ELT09 - ELT10 | -5.333 | 11.561 | 2.725 | -11.082 | 4.16 | -1.957 | 17 | .067 |
| Pair 3 | RES - RES1 | -3.38889 | 9.18528 | 2.16499 | -7.95662 | 1.17884 | -1.565 | 17 | .136 |
| Pair 4 | VUL - VUL1 | 3.05556 | 8.70072 | 2.05078 | -1.27121 | 7.38232 | 1.490 | 17 | .155 |

SCHOOL Z

Correlations

| | | ELC09 | ELC10 | ELT09 | ELT10 | RES | VUL | RES1 | VUL1 |
|-------|---------------------|--------|---------|-------|--------|---------|---------|---------|-------|
| ELC09 | Pearson Correlation | 1 | .635** | .230 | .416* | .298 | -.313 | .455* | .268 |
| | Sig. (2-tailed) | | .000 | .239 | .028 | .123 | .105 | .015 | .167 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| ELC10 | Pearson Correlation | .635** | 1 | .222 | .507** | .606** | -.770** | .647** | .000 |
| | Sig. (2-tailed) | .000 | | .256 | .006 | .001 | .000 | .000 | 1.000 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| ELT09 | Pearson Correlation | .230 | .222 | 1 | .314 | .230 | -.232 | .200 | -.056 |
| | Sig. (2-tailed) | .239 | .256 | | .103 | .239 | .235 | .309 | .778 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| ELT10 | Pearson Correlation | .416* | .507** | .314 | 1 | .601** | -.476* | .546** | -.005 |
| | Sig. (2-tailed) | .028 | .006 | .103 | | .001 | .010 | .003 | .980 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| RES | Pearson Correlation | .298 | .606** | .230 | .601** | 1 | -.651** | .639** | -.130 |
| | Sig. (2-tailed) | .123 | .001 | .239 | .001 | | .000 | .000 | .511 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| VUL | Pearson Correlation | -.313 | -.770** | -.232 | -.476* | -.651** | 1 | -.524** | .116 |
| | Sig. (2-tailed) | .105 | .000 | .235 | .010 | .000 | | .004 | .557 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| RES1 | Pearson Correlation | .455* | .647** | .200 | .546** | .639** | -.524** | 1 | -.089 |
| | Sig. (2-tailed) | .015 | .000 | .309 | .003 | .000 | .004 | | .651 |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| VUL1 | Pearson Correlation | .268 | .000 | -.056 | -.005 | -.130 | .116 | -.089 | 1 |
| | Sig. (2-tailed) | .167 | 1.000 | .778 | .980 | .511 | .557 | .651 | |
| | N | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|---------------|--------------------|----------------|-----------------|---|---------|--------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | ELC09 - ELC10 | -.143 | 6.151 | 1.162 | -2.528 | 2.242 | -.123 | 27 | .903 |
| Pair 2 | ELT09 - ELT10 | -.643 | 8.999 | 1.701 | -4.132 | 2.847 | -.378 | 27 | .708 |
| Pair 3 | RES- RES1 | -1.89286 | 6.30895 | 1.19228 | -4.33921 | .55350 | -1.588 | 27 | .124 |
| Pair 4 | VUL- VUL1 | 4.32143 | 9.61116 | 1.81634 | .59461 | 8.04825 | 2.379 | 27 | .025 |

Test of Homogeneity of Variances

| | Levene Statistic | df1 | df2 | Sig. |
|-------|------------------|-----|-----|------|
| ELC09 | .554 | 2 | 61 | .577 |
| ELC10 | .983 | 2 | 61 | .380 |
| ELT09 | 3.446 | 2 | 61 | .038 |
| ELT10 | 1.979 | 2 | 61 | .147 |
| RES | .944 | 2 | 61 | .395 |
| VUL | .354 | 2 | 61 | .703 |
| RES1 | .374 | 2 | 61 | .689 |
| VUL1 | 2.680 | 2 | 61 | .077 |

ANOVA

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|----------------|----------------|----|-------------|-------|------|
| ELC09 | Between Groups | 104.645 | 2 | 52.323 | .889 | .416 |
| | Within Groups | 3590.964 | 61 | 58.868 | | |
| | Total | 3695.609 | 63 | | | |
| ELC10 | Between Groups | 57.683 | 2 | 28.841 | .588 | .559 |
| | Within Groups | 2992.067 | 61 | 49.050 | | |
| | Total | 3049.750 | 63 | | | |
| ELT09 | Between Groups | 684.903 | 2 | 342.452 | 6.373 | .003 |
| | Within Groups | 3277.706 | 61 | 53.733 | | |
| | Total | 3962.609 | 63 | | | |
| ELT10 | Between Groups | 79.012 | 2 | 39.506 | .503 | .607 |
| | Within Groups | 4789.722 | 61 | 78.520 | | |
| | Total | 4868.734 | 63 | | | |
| RES | Between Groups | 75.365 | 2 | 37.683 | .789 | .459 |
| | Within Groups | 2912.635 | 61 | 47.748 | | |
| | Total | 2988.000 | 63 | | | |

| | | | | | | |
|------|----------------|----------|----|---------|-------|------|
| VUL | Between Groups | 125.534 | 2 | 62.767 | 1.144 | .325 |
| | Within Groups | 3347.325 | 61 | 54.874 | | |
| | Total | 3472.859 | 63 | | | |
| RES1 | Between Groups | 840.393 | 2 | 420.196 | 7.861 | .001 |
| | Within Groups | 3260.607 | 61 | 53.453 | | |
| | Total | 4101.000 | 63 | | | |
| VUL1 | Between Groups | 491.584 | 2 | 245.792 | 3.321 | .043 |
| | Within Groups | 4514.353 | 61 | 74.006 | | |
| | Total | 5005.938 | 63 | | | |

Multiple Comparisons

Dependent Variable: VUL1

Gabriel

| (I) SCHOOL | (J) SCHOOL | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|------------|------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| WP | Fer | -4.25794 | 2.59894 | .279 | -10.5936 | 2.0777 |
| | Camp | -6.42460* | 2.59894 | .046 | -12.7603 | -.0889 |
| Fer | WP | 4.25794 | 2.59894 | .279 | -2.0777 | 10.5936 |
| | Camp | -2.16667 | 2.86755 | .833 | -9.1993 | 4.8660 |
| Camp | WP | 6.42460* | 2.59894 | .046 | .0889 | 12.7603 |
| | Fer | 2.16667 | 2.86755 | .833 | -4.8660 | 9.1993 |

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Dependent Variable: RES1

Gabriel

| (I) SCHOOL | (J) SCHOOL | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|------------|------------|-----------------------|------------|-------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| WP | Fer | -.17857 | 2.20876 | 1.000 | -5.5630 | 5.2059 |
| | Camp | 7.98810* | 2.20876 | .002 | 2.6036 | 13.3726 |
| Fer | WP | .17857 | 2.20876 | 1.000 | -5.2059 | 5.5630 |
| | Camp | 8.16667* | 2.43704 | .004 | 2.1898 | 14.1435 |
| Camp | WP | -7.98810* | 2.20876 | .002 | -13.3726 | -2.6036 |
| | Fer | -8.16667* | 2.43704 | .004 | -14.1435 | -2.1898 |

*. The mean difference is significant at the .05 level.

Tests of Normality

| SCHOOL | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | | |
|--------|---------------------------------|------|------|--------------|------|------|------|
| | Statistic | df | Sig. | Statistic | df | Sig. | |
| ELC09 | WP | .097 | 28 | .200* | .987 | 28 | .973 |
| | Fer | .207 | 18 | .039 | .921 | 18 | .133 |
| | Camp | .120 | 18 | .200* | .971 | 18 | .810 |
| ELC10 | WP | .137 | 28 | .191 | .958 | 28 | .307 |
| | Fer | .097 | 18 | .200* | .951 | 18 | .439 |
| | Camp | .113 | 18 | .200* | .966 | 18 | .729 |
| ELT09 | WP | .142 | 28 | .156 | .927 | 28 | .053 |
| | Fer | .201 | 18 | .052 | .933 | 18 | .216 |
| | Camp | .145 | 18 | .200* | .892 | 18 | .041 |
| ELT10 | WP | .092 | 28 | .200* | .949 | 28 | .191 |
| | Fer | .118 | 18 | .200* | .915 | 18 | .106 |
| | Camp | .127 | 18 | .200* | .969 | 18 | .786 |
| RES | WP | .132 | 28 | .200* | .944 | 28 | .142 |
| | Fer | .196 | 18 | .064 | .931 | 18 | .199 |
| | Camp | .094 | 18 | .200* | .967 | 18 | .734 |
| VUL | WP | .157 | 28 | .074 | .962 | 28 | .379 |
| | Fer | .184 | 18 | .111 | .946 | 18 | .370 |
| | Camp | .107 | 18 | .200* | .970 | 18 | .792 |
| RES1 | WP | .158 | 28 | .073 | .947 | 28 | .170 |
| | Fer | .100 | 18 | .200* | .964 | 18 | .676 |
| | Camp | .188 | 18 | .091 | .902 | 18 | .062 |
| VUL1 | WP | .136 | 28 | .200* | .969 | 28 | .545 |
| | Fer | .088 | 18 | .200* | .961 | 18 | .617 |
| | Camp | .081 | 18 | .200* | .977 | 18 | .910 |

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Pre and Post comparisons for EL, RE & Vul between schools

General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

| Time | Dependent Variable |
|------|--------------------|
| 1 | ELT09 |
| 2 | ELT10 |

Between-Subjects Factors

| SCHOOL | Value Label | N |
|--------|-------------|----|
| 1 | WP | 28 |
| 2 | Fer | 18 |
| 3 | Camp | 18 |

Multivariate Tests^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------------|--------------------|-------|--------------------|---------------|----------|------|
| Time | Pillai's Trace | .029 | 1.849 ^a | 1.000 | 61.000 | .179 |
| | Wilks' Lambda | .971 | 1.849 ^a | 1.000 | 61.000 | .179 |
| | Hotelling's Trace | .030 | 1.849 ^a | 1.000 | 61.000 | .179 |
| | Roy's Largest Root | .030 | 1.849 ^a | 1.000 | 61.000 | .179 |
| Time * SCHOOL | Pillai's Trace | .076 | 2.512 ^a | 2.000 | 61.000 | .089 |
| | Wilks' Lambda | .924 | 2.512 ^a | 2.000 | 61.000 | .089 |
| | Hotelling's Trace | .082 | 2.512 ^a | 2.000 | 61.000 | .089 |
| | Roy's Largest Root | .082 | 2.512 ^a | 2.000 | 61.000 | .089 |

a. Exact statistic

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| Time | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------------------|-------------------------|--------|-------------|-------|------|
| Time | Sphericity Assumed | 76.963 | 1 | 76.963 | 1.849 | .179 |
| | Greenhouse-Geisser | 76.963 | 1.000 | 76.963 | 1.849 | .179 |
| | Huynh-Feldt | 76.963 | 1.000 | 76.963 | 1.849 | .179 |
| | Lower-bound | 76.963 | 1.000 | 76.963 | 1.849 | .179 |
| Time * SCHOOL | Sphericity Assumed | 209.105 | 2 | 104.553 | 2.512 | .089 |
| | Greenhouse-Geisser | 209.105 | 2.000 | 104.553 | 2.512 | .089 |
| | Huynh-Feldt | 209.105 | 2.000 | 104.553 | 2.512 | .089 |
| | Lower-bound | 209.105 | 2.000 | 104.553 | 2.512 | .089 |
| Error(Time) | Sphericity Assumed | 2538.770 | 61 | 41.619 | | |
| | Greenhouse-Geisser | 2538.770 | 61.000 | 41.619 | | |
| | Huynh-Feldt | 2538.770 | 61.000 | 41.619 | | |
| | Lower-bound | 2538.770 | 61.000 | 41.619 | | |

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | Time | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------|-------------------------|----|-------------|-------|------|
| Time | Linear | 76.963 | 1 | 76.963 | 1.849 | .179 |
| Time * SCHOOL | Linear | 209.105 | 2 | 104.553 | 2.512 | .089 |
| Error(Time) | Linear | 2538.770 | 61 | 41.619 | | |

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|----------|------|
| Intercept | 545838.272 | 1 | 545838.272 | 6022.462 | .000 |
| SCHOOL | 554.810 | 2 | 277.405 | 3.061 | .054 |
| Error | 5528.659 | 61 | 90.634 | | |

General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

| Time | Dependent Variable |
|------|--------------------|
| 1 | RES |
| 2 | RES1 |

Between-Subjects Factors

| | Value Label | N |
|--------|-------------|----|
| SCHOOL | 1 WP | 28 |
| | 2 Fer | 18 |
| | 3 Camp | 18 |

Multivariate Tests^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------------|--------------------|-------|---------------------|---------------|----------|------|
| Time | Pillai's Trace | .013 | .813 ^a | 1.000 | 61.000 | .371 |
| | Wilks' Lambda | .987 | .813 ^a | 1.000 | 61.000 | .371 |
| | Hotelling's Trace | .013 | .813 ^a | 1.000 | 61.000 | .371 |
| | Roy's Largest Root | .013 | .813 ^a | 1.000 | 61.000 | .371 |
| Time * SCHOOL | Pillai's Trace | .318 | 14.228 ^a | 2.000 | 61.000 | .000 |
| | Wilks' Lambda | .682 | 14.228 ^a | 2.000 | 61.000 | .000 |
| | Hotelling's Trace | .466 | 14.228 ^a | 2.000 | 61.000 | .000 |
| | Roy's Largest Root | .466 | 14.228 ^a | 2.000 | 61.000 | .000 |

a. Exact statistic

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| Time | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------------------|-------------------------|--------|-------------|--------|------|
| Time | Sphericity Assumed | 19.369 | 1 | 19.369 | .813 | .371 |
| | Greenhouse-Geisser | 19.369 | 1.000 | 19.369 | .813 | .371 |
| | Huynh-Feldt | 19.369 | 1.000 | 19.369 | .813 | .371 |
| | Lower-bound | 19.369 | 1.000 | 19.369 | .813 | .371 |
| Time * SCHOOL | Sphericity Assumed | 678.022 | 2 | 339.011 | 14.228 | .000 |
| | Greenhouse-Geisser | 678.022 | 2.000 | 339.011 | 14.228 | .000 |
| | Huynh-Feldt | 678.022 | 2.000 | 339.011 | 14.228 | .000 |
| | Lower-bound | 678.022 | 2.000 | 339.011 | 14.228 | .000 |
| Error(Time) | Sphericity Assumed | 1453.478 | 61 | 23.828 | | |
| | Greenhouse-Geisser | 1453.478 | 61.000 | 23.828 | | |
| | Huynh-Feldt | 1453.478 | 61.000 | 23.828 | | |
| | Lower-bound | 1453.478 | 61.000 | 23.828 | | |

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | Time | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------|-------------------------|----|-------------|--------|------|
| Time | Linear | 19.369 | 1 | 19.369 | .813 | .371 |
| Time * SCHOOL | Linear | 678.022 | 2 | 339.011 | 14.228 | .000 |
| Error(Time) | Linear | 1453.478 | 61 | 23.828 | | |

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|----------|------|
| Intercept | 266401.399 | 1 | 266401.399 | 3443.072 | .000 |
| SCHOOL | 237.736 | 2 | 118.868 | 1.536 | .223 |
| Error | 4719.764 | 61 | 77.373 | | |

General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

| Time | Dependent Variable |
|------|--------------------|
| 1 | VUL |
| 2 | VUL1 |

Between-Subjects Factors

| | Value Label | N | |
|--------|-------------|------|----|
| SCHOOL | 1 | WP | 28 |
| | 2 | Fer | 18 |
| | 3 | Camp | 18 |

Multivariate Tests^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------------|--------------------|-------|--------------------|---------------|----------|------|
| Time | Pillai's Trace | .031 | 1.957 ^a | 1.000 | 61.000 | .167 |
| | Wilks' Lambda | .969 | 1.957 ^a | 1.000 | 61.000 | .167 |
| | Hotelling's Trace | .032 | 1.957 ^a | 1.000 | 61.000 | .167 |
| | Roy's Largest Root | .032 | 1.957 ^a | 1.000 | 61.000 | .167 |
| Time * SCHOOL | Pillai's Trace | .089 | 2.986 ^a | 2.000 | 61.000 | .058 |
| | Wilks' Lambda | .911 | 2.986 ^a | 2.000 | 61.000 | .058 |
| | Hotelling's Trace | .098 | 2.986 ^a | 2.000 | 61.000 | .058 |
| | Roy's Largest Root | .098 | 2.986 ^a | 2.000 | 61.000 | .058 |

a. Exact statistic

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Mauchly's Test of Sphericity^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| Time | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept+SCHOOL
Within Subjects Design: Time

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------------------|-------------------------|--------|-------------|-------|------|
| Time | Sphericity Assumed | 84.730 | 1 | 84.730 | 1.957 | .167 |
| | Greenhouse-Geisser | 84.730 | 1.000 | 84.730 | 1.957 | .167 |
| | Huynh-Feldt | 84.730 | 1.000 | 84.730 | 1.957 | .167 |
| | Lower-bound | 84.730 | 1.000 | 84.730 | 1.957 | .167 |
| Time * SCHOOL | Sphericity Assumed | 258.640 | 2 | 129.320 | 2.986 | .058 |
| | Greenhouse-Geisser | 258.640 | 2.000 | 129.320 | 2.986 | .058 |
| | Huynh-Feldt | 258.640 | 2.000 | 129.320 | 2.986 | .058 |
| | Lower-bound | 258.640 | 2.000 | 129.320 | 2.986 | .058 |
| Error(Time) | Sphericity Assumed | 2641.665 | 61 | 43.306 | | |
| | Greenhouse-Geisser | 2641.665 | 61.000 | 43.306 | | |
| | Huynh-Feldt | 2641.665 | 61.000 | 43.306 | | |
| | Lower-bound | 2641.665 | 61.000 | 43.306 | | |

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | Time | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---------------|--------|-------------------------|----|-------------|-------|------|
| Time | Linear | 84.730 | 1 | 84.730 | 1.957 | .167 |
| Time * SCHOOL | Linear | 258.640 | 2 | 129.320 | 2.986 | .058 |
| Error(Time) | Linear | 2641.665 | 61 | 43.306 | | |

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|----------|------|
| Intercept | 336056.444 | 1 | 336056.444 | 3927.086 | .000 |
| SCHOOL | 358.478 | 2 | 179.239 | 2.095 | .132 |
| Error | 5220.014 | 61 | 85.574 | | |

Pre and post EL, RES & VIL Scores for above and below average

Univariate Analysis of Variance

Between-Subjects Factors

| | Value Label | N |
|-----------|-------------|----|
| new ELC09 | 1.00 | 16 |
| | 2.00 | 30 |
| | 3.00 | 18 |
| SCHOOL | 1 WP | 28 |
| | 2 Fer | 18 |
| | 3 Camp | 18 |

Descriptive Statistics

Dependent Variable: DIFFELC09ELC10

| new ELC09 | SCHOOL | Mean | Std. Deviation | N |
|-----------|--------|---------|----------------|----|
| 1.00 | WP | 1.2500 | 6.39661 | 4 |
| | Fer | 4.0000 | 7.85281 | 7 |
| | Camp | 5.8000 | 2.94958 | 5 |
| | Total | 3.8750 | 6.18466 | 16 |
| 2.00 | WP | 1.7333 | 5.43095 | 15 |
| | Fer | -.3333 | 3.55903 | 6 |
| | Camp | .4444 | 5.59265 | 9 |
| | Total | .9333 | 5.07824 | 30 |
| 3.00 | WP | -3.0000 | 6.65207 | 9 |
| | Fer | -1.8000 | 4.86826 | 5 |
| | Camp | -5.7500 | 5.37742 | 4 |
| | Total | -3.2778 | 5.79864 | 18 |
| Total | WP | .1429 | 6.15067 | 28 |
| | Fer | .9444 | 6.14025 | 18 |
| | Camp | .5556 | 6.27059 | 18 |
| | Total | .4844 | 6.09187 | 64 |

Tests of Between-Subjects Effects

Dependent Variable: DIFFELC09ELC10

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 548.395 ^a | 8 | 68.549 | 2.107 | .051 |
| Intercept | 3.668 | 1 | 3.668 | .113 | .738 |
| nELC09 | 409.964 | 2 | 204.982 | 6.300 | .003 |
| SCHOOL | 3.937 | 2 | 1.969 | .061 | .941 |
| nELC09 * SCHOOL | 101.810 | 4 | 25.452 | .782 | .542 |
| Error | 1789.589 | 55 | 32.538 | | |
| Total | 2353.000 | 64 | | | |
| Corrected Total | 2337.984 | 63 | | | |

a. R Squared = .235 (Adjusted R Squared = .123)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: DIFFELC09ELC10

| Mean | Std. Error | 95% Confidence Interval | |
|------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| .260 | .776 | -1.294 | 1.815 |

2. new ELC09

Dependent Variable: DIFFELC09ELC10

| new ELC09 | Mean | Std. Error | 95% Confidence Interval | |
|-----------|--------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| 1.00 | 3.683 | 1.464 | .749 | 6.617 |
| 2.00 | .615 | 1.116 | -1.622 | 2.851 |
| 3.00 | -3.517 | 1.424 | -6.371 | -.662 |

3. SCHOOL

Dependent Variable: DIFFELC09ELC10

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|-------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | -.006 | 1.244 | -2.498 | 2.487 |
| Fer | .622 | 1.357 | -2.098 | 3.342 |
| Camp | .165 | 1.424 | -2.690 | 3.019 |

4. new ELC09 * SCHOOL

Dependent Variable: DIFFELC09ELC10

| new ELC09 | SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|-----------|--------|--------|------------|-------------------------|-------------|
| | | | | Lower Bound | Upper Bound |
| 1.00 | WP | 1.250 | 2.852 | -4.466 | 6.966 |
| | Fer | 4.000 | 2.156 | -.321 | 8.321 |
| | Camp | 5.800 | 2.551 | .688 | 10.912 |
| 2.00 | WP | 1.733 | 1.473 | -1.218 | 4.685 |
| | Fer | -.333 | 2.329 | -5.000 | 4.334 |
| | Camp | .444 | 1.901 | -3.366 | 4.255 |
| 3.00 | WP | -3.000 | 1.901 | -6.810 | .810 |
| | Fer | -1.800 | 2.551 | -6.912 | 3.312 |
| | Camp | -5.750 | 2.852 | -11.466 | -.034 |

Univariate Analysis of Variance

Between-Subjects Factors

| | | Value Label | N |
|--------|------|-------------|----|
| SCHOOL | 1 | WP | 28 |
| | 2 | Fer | 18 |
| | 3 | Camp | 18 |
| new | 1.00 | | 9 |
| ELC10 | 2.00 | | 36 |
| | 3.00 | | 19 |

Tests of Between-Subjects Effects

Dependent Variable: DIFFELC09ELC10

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 470.172 ^a | 8 | 58.772 | 1.731 | .112 |
| Intercept | 15.322 | 1 | 15.322 | .451 | .505 |
| SCHOOL | 69.962 | 2 | 34.981 | 1.030 | .364 |
| nELC10 | 160.683 | 2 | 80.341 | 2.366 | .103 |
| SCHOOL * nELC10 | 203.460 | 4 | 50.865 | 1.498 | .216 |
| Error | 1867.812 | 55 | 33.960 | | |
| Total | 2353.000 | 64 | | | |
| Corrected Total | 2337.984 | 63 | | | |

a. R Squared = .201 (Adjusted R Squared = .085)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: DIFFELC09ELC10

| Mean | Std. Error | 95% Confidence Interval | |
|------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| .598 | .890 | -1.185 | 2.381 |

2. SCHOOL

Dependent Variable: DIFFELC09ELC10

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|-------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | -.840 | 1.261 | -3.368 | 1.687 |
| Fer | .356 | 1.546 | -2.742 | 3.454 |
| Camp | 2.278 | 1.773 | -1.276 | 5.831 |

Univariate Analysis of Variance

Between-Subjects Factors

| | | Value Label | N |
|--------|------|-------------|----|
| SCHOOL | 1 | WP | 28 |
| | 2 | Fer | 18 |
| | 3 | Camp | 18 |
| newres | 1.00 | | 58 |
| | 2.00 | | 6 |

Descriptive Statistics

Dependent Variable: dif f res1011

| SCHOOL | newres | Mean | Std. Deviation | N |
|--------|--------|---------|----------------|----|
| WP | 1.00 | -2.5417 | 6.28994 | 24 |
| | 2.00 | 2.0000 | 5.59762 | 4 |
| | Total | -1.8929 | 6.30895 | 28 |
| Fer | 1.00 | -3.3889 | 9.18528 | 18 |
| | Total | -3.3889 | 9.18528 | 18 |
| Camp | 1.00 | 7.1250 | 4.85627 | 16 |
| | 2.00 | 12.0000 | 1.41421 | 2 |
| | Total | 7.6667 | 4.83857 | 18 |
| Total | 1.00 | -.1379 | 8.24078 | 58 |
| | 2.00 | 5.3333 | 6.77249 | 6 |
| | Total | .3750 | 8.22598 | 64 |

Tests of Between-Subjects Effects

Dependent Variable: dif f res1011

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 1469.014 ^a | 4 | 367.253 | 7.755 | .000 |
| Intercept | 197.859 | 1 | 197.859 | 4.178 | .045 |
| SCHOOL | 816.153 | 2 | 408.077 | 8.617 | .001 |
| newres | 103.813 | 1 | 103.813 | 2.192 | .144 |
| SCHOOL * newres | .130 | 1 | .130 | .003 | .958 |
| Error | 2793.986 | 59 | 47.356 | | |
| Total | 4272.000 | 64 | | | |
| Corrected Total | 4263.000 | 63 | | | |

a. R Squared = .345 (Adjusted R Squared = .300)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: diff res1011

| Mean | Std. Error | 95% Confidence Interval | |
|--------------------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 3.039 ^a | 1.313 | .412 | 5.666 |

a. Based on modified population marginal mean.

2. SCHOOL

Dependent Variable: diff res1011

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|---------------------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | -.271 | 1.858 | -3.989 | 3.447 |
| Fer | -3.389 ^a | 1.622 | -6.634 | -.143 |
| Camp | 9.562 | 2.581 | 4.399 | 14.726 |

a. Based on modified population marginal mean.

Univariate Analysis of Variance

Between-Subjects Factors

| SCHOOL | Value Label | N |
|---------|-------------|----|
| 1 | WP | 28 |
| | Fer | 18 |
| | Camp | 18 |
| newres1 | 1.00 | 24 |
| | 2.00 | 40 |

Descriptive Statistics

Dependent Variable: diff res1011

| SCHOOL | newres1 | Mean | Std. Deviation | N |
|--------|---------|---------|----------------|----|
| WP | 1.00 | 2.4000 | 2.40832 | 5 |
| | 2.00 | -2.8261 | 6.53419 | 23 |
| | Total | -1.8929 | 6.30895 | 28 |
| Fer | 1.00 | 3.1667 | 10.32311 | 6 |
| | 2.00 | -6.6667 | 6.84017 | 12 |
| | Total | -3.3889 | 9.18528 | 18 |
| Camp | 1.00 | 8.6154 | 5.04213 | 13 |
| | 2.00 | 5.2000 | 3.56371 | 5 |
| | Total | 7.6667 | 4.83857 | 18 |
| Total | 1.00 | 5.9583 | 6.79820 | 24 |
| | 2.00 | -2.9750 | 7.16647 | 40 |
| | Total | .3750 | 8.22598 | 64 |

Tests of Between-Subjects Effects

Dependent Variable: diff res1011

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|------------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 1897.119 ^a | 5 | 379.424 | 9.302 | .000 |
| Intercept | 126.944 | 1 | 126.944 | 3.112 | .083 |
| SCHOOL | 639.523 | 2 | 319.761 | 7.839 | .001 |
| newres1 | 443.040 | 1 | 443.040 | 10.861 | .002 |
| SCHOOL * newres1 | 84.681 | 2 | 42.341 | 1.038 | .361 |
| Error | 2365.881 | 58 | 40.791 | | |
| Total | 4272.000 | 64 | | | |
| Corrected Total | 4263.000 | 63 | | | |

a. R Squared = .445 (Adjusted R Squared = .397)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: diff res1011

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 1.648 | .934 | -.222 | 3.518 |

2. SCHOOL

Dependent Variable: diff res1011

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|--------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | -.213 | 1.576 | -3.367 | 2.941 |
| Fer | -1.750 | 1.597 | -4.946 | 1.446 |
| Camp | 6.908 | 1.680 | 3.544 | 10.272 |

Univariate Analysis of Variance

Between-Subjects Factors

| | Value Label | N |
|--------|-------------|----|
| SCHOOL | 1 WP | 28 |
| | 2 Fer | 18 |
| | 3 Camp | 18 |
| new ul | 1.00 | 44 |
| | 2.00 | 20 |

Descriptive Statistics

Dependent Variable: DIFFVUL10VUL11

| SCHOOL | new ul | Mean | Std. Deviation | N |
|--------|--------|---------|----------------|----|
| WP | 1.00 | -.3158 | 4.88822 | 19 |
| | 2.00 | 14.1111 | 9.95546 | 9 |
| | Total | 4.3214 | 9.61116 | 28 |
| Fer | 1.00 | .2500 | 8.56128 | 12 |
| | 2.00 | 8.6667 | 6.28225 | 6 |
| | Total | 3.0556 | 8.70072 | 18 |
| Camp | 1.00 | -2.9231 | 7.69699 | 13 |
| | 2.00 | -1.0000 | 13.94633 | 5 |
| | Total | -2.3889 | 9.40049 | 18 |
| Total | 1.00 | -.9318 | 6.85870 | 44 |
| | 2.00 | 8.7000 | 11.47583 | 20 |
| | Total | 2.0781 | 9.59548 | 64 |

Tests of Between-Subjects Effects

Dependent Variable: DIFFVUL10VUL11

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 2085.109 ^a | 5 | 417.022 | 6.510 | .000 |
| Intercept | 511.135 | 1 | 511.135 | 7.979 | .006 |
| SCHOOL | 720.665 | 2 | 360.332 | 5.625 | .006 |
| new ul | 888.109 | 1 | 888.109 | 13.864 | .000 |
| SCHOOL * new ul | 360.067 | 2 | 180.033 | 2.810 | .068 |
| Error | 3715.501 | 58 | 64.060 | | |
| Total | 6077.000 | 64 | | | |
| Corrected Total | 5800.609 | 63 | | | |

a. R Squared = .359 (Adjusted R Squared = .304)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: DIFFVUL10VUL11

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 3.131 | 1.109 | .912 | 5.351 |

2. SCHOOL

Dependent Variable: DIFFVUL10VUL11

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|--------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | 6.898 | 1.619 | 3.656 | 10.139 |
| Fer | 4.458 | 2.001 | .453 | 8.464 |
| Camp | -1.962 | 2.106 | -6.177 | 2.254 |

Univariate Analysis of Variance

Between-Subjects Factors

| | Value Label | N |
|---------|-------------|----|
| SCHOOL | 1 WP | 28 |
| | 2 Fer | 18 |
| | 3 Camp | 18 |
| new ul1 | 1.00 | 46 |
| | 2.00 | 18 |

Descriptive Statistics

Dependent Variable: DIFFVUL10VUL11

| SCHOOL | new ul1 | Mean | Std. Deviation | N |
|--------|---------|---------|----------------|----|
| WP | 1.00 | 4.0400 | 10.10561 | 25 |
| | 2.00 | 6.6667 | 3.51188 | 3 |
| | Total | 4.3214 | 9.61116 | 28 |
| Fer | 1.00 | 6.5455 | 7.09033 | 11 |
| | 2.00 | -2.4286 | 8.56071 | 7 |
| | Total | 3.0556 | 8.70072 | 18 |
| Camp | 1.00 | 2.4000 | 8.61781 | 10 |
| | 2.00 | -8.3750 | 6.73875 | 8 |
| | Total | -2.3889 | 9.40049 | 18 |
| Total | 1.00 | 4.2826 | 9.08641 | 46 |
| | 2.00 | -3.5556 | 8.71255 | 18 |
| | Total | 2.0781 | 9.59548 | 64 |

Tests of Between-Subjects Effects

Dependent Variable: DIFFVUL10VUL11

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|------------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 1396.266 ^a | 5 | 279.253 | 3.677 | .006 |
| Intercept | 94.096 | 1 | 94.096 | 1.239 | .270 |
| SCHOOL | 504.066 | 2 | 252.033 | 3.319 | .043 |
| new ul1 | 352.332 | 1 | 352.332 | 4.640 | .035 |
| SCHOOL * new ul1 | 328.208 | 2 | 164.104 | 2.161 | .124 |
| Error | 4404.343 | 58 | 75.937 | | |
| Total | 6077.000 | 64 | | | |
| Corrected Total | 5800.609 | 63 | | | |

a. R Squared = .241 (Adjusted R Squared = .175)

Estimated Marginal Means

1. Grand Mean

Dependent Variable: DIFFVUL10VUL11

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 1.475 | 1.325 | -1.177 | 4.127 |

2. SCHOOL

Dependent Variable: DIFFVUL10VUL11

| SCHOOL | Mean | Std. Error | 95% Confidence Interval | |
|--------|--------|------------|-------------------------|-------------|
| | | | Lower Bound | Upper Bound |
| WP | 5.353 | 2.662 | .024 | 10.682 |
| Fer | 2.058 | 2.107 | -2.158 | 6.275 |
| Camp | -2.987 | 2.067 | -7.125 | 1.150 |

Gender Differences

Tests of Between-Subjects Effects

Dependent Variable: ELC09

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 277.595 ^a | 5 | 55.519 | .942 | .461 |
| Intercept | 327500.522 | 1 | 327500.522 | 5557.328 | .000 |
| SCHOOL | 113.578 | 2 | 56.789 | .964 | .388 |
| GENDER | 32.945 | 1 | 32.945 | .559 | .458 |
| SCHOOL * GENDER | 118.369 | 2 | 59.185 | 1.004 | .373 |
| Error | 3418.015 | 58 | 58.931 | | |
| Total | 350175.000 | 64 | | | |
| Corrected Total | 3695.609 | 63 | | | |

a. R Squared = .075 (Adjusted R Squared = -.005)

Tests of Between-Subjects Effects

Dependent Variable: ELC10

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 220.548 ^a | 5 | 44.110 | .904 | .485 |
| Intercept | 332844.095 | 1 | 332844.095 | 6823.465 | .000 |
| SCHOOL | 58.184 | 2 | 29.092 | .596 | .554 |
| GENDER | 33.847 | 1 | 33.847 | .694 | .408 |
| SCHOOL * GENDER | 98.420 | 2 | 49.210 | 1.009 | .371 |
| Error | 2829.202 | 58 | 48.779 | | |
| Total | 354106.000 | 64 | | | |
| Corrected Total | 3049.750 | 63 | | | |

a. R Squared = .072 (Adjusted R Squared = -.008)

Tests of Between-Subjects Effects

Dependent Variable: RES

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 217.643 ^a | 5 | 43.529 | .911 | .480 |
| Intercept | 134631.803 | 1 | 134631.803 | 2818.642 | .000 |
| SCHOOL | 80.599 | 2 | 40.300 | .844 | .435 |
| GENDER | 31.822 | 1 | 31.822 | .666 | .418 |
| SCHOOL * GENDER | 88.108 | 2 | 44.054 | .922 | .403 |
| Error | 2770.357 | 58 | 47.765 | | |
| Total | 144364.000 | 64 | | | |
| Corrected Total | 2988.000 | 63 | | | |

a. R Squared = .073 (Adjusted R Squared = -.007)

Tests of Between-Subjects Effects

Dependent Variable: RES1

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 939.151 ^a | 5 | 187.830 | 3.445 | .009 |
| Intercept | 130792.799 | 1 | 130792.799 | 2399.223 | .000 |
| SCHOOL | 861.121 | 2 | 430.561 | 7.898 | .001 |
| GENDER | 32.056 | 1 | 32.056 | .588 | .446 |
| SCHOOL * GENDER | 80.633 | 2 | 40.316 | .740 | .482 |
| Error | 3161.849 | 58 | 54.515 | | |
| Total | 143230.000 | 64 | | | |
| Corrected Total | 4101.000 | 63 | | | |

a. R Squared = .229 (Adjusted R Squared = .163)

Tests of Between-Subjects Effects

Dependent Variable: VUL

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 576.145 ^a | 5 | 115.229 | 2.307 | .056 |
| Intercept | 172260.054 | 1 | 172260.054 | 3449.109 | .000 |
| SCHOOL | 112.563 | 2 | 56.281 | 1.127 | .331 |
| GENDER | 43.791 | 1 | 43.791 | .877 | .353 |
| SCHOOL * GENDER | 444.057 | 2 | 222.029 | 4.446 | .016 |
| Error | 2896.714 | 58 | 49.943 | | |
| Total | 183567.000 | 64 | | | |
| Corrected Total | 3472.859 | 63 | | | |

a. R Squared = .166 (Adjusted R Squared = .094)

Tests of Between-Subjects Effects

Dependent Variable: VUL1

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|----------|------|
| Corrected Model | 1020.188 ^a | 5 | 204.038 | 2.969 | .019 |
| Intercept | 160823.645 | 1 | 160823.645 | 2340.281 | .000 |
| SCHOOL | 470.600 | 2 | 235.300 | 3.424 | .039 |
| GENDER | 409.278 | 1 | 409.278 | 5.956 | .018 |
| SCHOOL * GENDER | 196.413 | 2 | 98.206 | 1.429 | .248 |
| Error | 3985.749 | 58 | 68.720 | | |
| Total | 171266.000 | 64 | | | |
| Corrected Total | 5005.938 | 63 | | | |

a. R Squared = .204 (Adjusted R Squared = .135)

T-Test: Independent T-test

[DataSet1] C:\Users\Staples\Documents\Mark's Docs\RESEARCH\SPSS\ELANDRESPAPER1.sav

Group Statistics

| | GENDER | N | Mean | Std. Deviation | Std. Error Mean |
|----------------|--------|----|---------|----------------|-----------------|
| ELC09 | 1 | 31 | 72.68 | 7.409 | 1.331 |
| | 2 | 33 | 74.42 | 7.906 | 1.376 |
| ELC10 | 1 | 31 | 73.06 | 6.648 | 1.194 |
| | 2 | 33 | 75.00 | 7.211 | 1.255 |
| RES | 1 | 31 | 46.0968 | 7.85856 | 1.41144 |
| | 2 | 33 | 47.8485 | 5.82624 | 1.01422 |
| VUL | 1 | 31 | 52.6452 | 7.23670 | 1.29975 |
| | 2 | 33 | 53.4242 | 7.68940 | 1.33855 |
| RES1 | 1 | 31 | 47.0968 | 7.91772 | 1.42206 |
| | 2 | 33 | 46.1818 | 8.30457 | 1.44564 |
| VUL1 | 1 | 31 | 48.5806 | 8.18036 | 1.46924 |
| | 2 | 33 | 53.2121 | 9.10960 | 1.58578 |
| diffres1011 | 1 | 31 | -1.0000 | 8.94054 | 1.60577 |
| | 2 | 33 | 1.6667 | 7.39792 | 1.28781 |
| DIFFVUL10VUL11 | 1 | 31 | 4.0645 | 9.46198 | 1.69942 |
| | 2 | 33 | .2121 | 9.48274 | 1.65073 |
| DIFFELC09ELC10 | 1 | 31 | .3871 | 6.53033 | 1.17288 |
| | 2 | 33 | .5758 | 5.75016 | 1.00098 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|----------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| ELC09 | Equal variances assumed | .008 | .931 | -911 | 62 | .366 | -1.747 | 1.918 | -5.581 | 2.088 |
| | Equal variances not assumed | | | -912 | 62.000 | .365 | -1.747 | 1.914 | -5.574 | 2.080 |
| ELC10 | Equal variances assumed | .550 | .461 | -1.114 | 62 | .269 | -1.935 | 1.737 | -5.408 | 1.537 |
| | Equal variances not assumed | | | -1.117 | 61.980 | .268 | -1.935 | 1.732 | -5.399 | 1.528 |
| RES | Equal variances assumed | 1.923 | .171 | -1.017 | 62 | .313 | -1.75171 | 1.72208 | -5.19409 | 1.69067 |
| | Equal variances not assumed | | | -1.008 | 55.185 | .318 | -1.75171 | 1.73804 | -5.23457 | 1.73115 |
| VUL | Equal variances assumed | .006 | .939 | -.417 | 62 | .678 | -.77908 | 1.86936 | -4.51587 | 2.95771 |
| | Equal variances not assumed | | | -.418 | 61.999 | .678 | -.77908 | 1.86576 | -4.50869 | 2.95053 |
| RES1 | Equal variances assumed | .283 | .597 | .451 | 62 | .654 | .91496 | 2.03091 | -3.14478 | 4.97470 |
| | Equal variances not assumed | | | .451 | 61.984 | .653 | .91496 | 2.02784 | -3.13866 | 4.96858 |
| VUL1 | Equal variances assumed | .083 | .775 | -2.135 | 62 | .037 | -4.63148 | 2.16916 | -8.96757 | -2.9538 |
| | Equal variances not assumed | | | -2.142 | 61.880 | .036 | -4.63148 | 2.16179 | -8.95300 | -3.0995 |
| diffres 1011 | Equal variances assumed | .721 | .399 | -1.303 | 62 | .197 | -2.66667 | 2.04619 | -6.75694 | 1.42360 |
| | Equal variances not assumed | | | -1.296 | 58.366 | .200 | -2.66667 | 2.05839 | -6.78642 | 1.45309 |
| DIFFVUL10VUL11 | Equal variances assumed | .169 | .683 | 1.626 | 62 | .109 | 3.85239 | 2.36933 | -.88383 | 8.58862 |
| | Equal variances not assumed | | | 1.626 | 61.768 | .109 | 3.85239 | 2.36917 | -.88386 | 8.58865 |
| DIFFELC09ELC10 | Equal variances assumed | .405 | .527 | -.123 | 62 | .903 | -.18866 | 1.53576 | -3.25861 | 2.88129 |
| | Equal variances not assumed | | | -.122 | 59.850 | .903 | -.18866 | 1.54195 | -3.27317 | 2.89585 |

Paired T-Test (Females)

[DataSet1] C:\Users\Staples\Documents\Mark's Docs\RESEARCH\SPSS\ELANDRESPAPER1.sav

Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|-------|---------|----|----------------|-----------------|
| Pair 1 | ELC09 | 74.42 | 33 | 7.906 | 1.376 |
| | ELC10 | 75.00 | 33 | 7.211 | 1.255 |
| Pair 2 | RES | 47.8485 | 33 | 5.82624 | 1.01422 |
| | RES1 | 46.1818 | 33 | 8.30457 | 1.44564 |
| Pair 3 | VUL | 53.4242 | 33 | 7.68940 | 1.33855 |
| | VUL1 | 53.2121 | 33 | 9.10960 | 1.58578 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|---------------|----|-------------|------|
| Pair 1 | ELC09 & ELC10 | 33 | .714 | .000 |
| Pair 2 | RES & RES1 | 33 | .498 | .003 |
| Pair 3 | VUL & VUL1 | 33 | .373 | .033 |

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|---------------|--------------------|----------------|-----------------|---|---------|-------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | ELC09 - ELC10 | -.576 | 5.750 | 1.001 | -2.615 | 1.463 | -.575 | 32 | .569 |
| Pair 2 | RES - RES1 | 1.66667 | 7.39792 | 1.28781 | -.95652 | 4.28985 | 1.294 | 32 | .205 |
| Pair 3 | VUL - VUL1 | .21212 | 9.48274 | 1.65073 | -3.15031 | 3.57455 | .129 | 32 | .899 |

Paired T-Test (Males)

[DataSet1] C:\Users\Staples\Documents\Mark's Docs\RESEARCH\SPSS\ELANDRESPAPER1.sav

Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|-------|---------|----|----------------|-----------------|
| Pair 1 | ELC09 | 72.68 | 31 | 7.409 | 1.331 |
| | ELC10 | 73.06 | 31 | 6.648 | 1.194 |
| Pair 2 | RES | 46.0968 | 31 | 7.85856 | 1.41144 |
| | RES1 | 47.0968 | 31 | 7.91772 | 1.42206 |
| Pair 3 | VUL | 52.6452 | 31 | 7.23670 | 1.29975 |
| | VUL1 | 48.5806 | 31 | 8.18036 | 1.46924 |

Paired Samples Correlations

| | | N | Correlation | Sig. |
|--------|---------------|----|-------------|------|
| Pair 1 | ELC09 & ELC10 | 31 | .573 | .001 |
| Pair 2 | RES & RES1 | 31 | .358 | .048 |
| Pair 3 | VUL & VUL1 | 31 | .251 | .173 |

Paired Samples Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|--------|---------------|--------------------|----------------|-----------------|---|---------|-------|----|-----------------|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | ELC09 - ELC10 | -.387 | 6.530 | 1.173 | -2.782 | 2.008 | -.330 | 30 | .744 |
| Pair 2 | RES - RES1 | -1.00000 | 8.94054 | 1.60577 | -4.27942 | 2.27942 | -.623 | 30 | .538 |
| Pair 3 | VUL - VUL1 | 4.06452 | 9.46198 | 1.69942 | -.59383 | 7.53520 | 2.392 | 30 | .023 |

| Outcome measure | DATA ENTRY | | | | | | RAW DIFFERENCE | | | | | | STANDARDISED EFFECT SIZE | | | | |
|-----------------|-----------------|----|------|---------------|----|------|---------------------------|-------------------------------|-----------------|---|------------------------------------|-------|--------------------------|---------------------------------|-------------------------------------|-------|------------------------------------|
| | Treatment group | | | Control group | | | pooled standard deviation | p-value for difference in SDs | Mean Difference | p-value for mean diff (2-tailed T-test) | Confidence Interval for Difference | | Bias corrected (Hedges) | Standard Error of E.S. estimate | Confidence Interval for Effect Size | | Effect Size based on control gp SD |
| | mean | n | SD | mean | n | SD | | | | | lower | upper | | | lower | upper | |
| VULF | 51 | 18 | 8.90 | 52 | 18 | 7.10 | 8.05 | 0.18 | 1.00 | #### | -6.45 | 4.45 | 0.12 | 0.33 | -0.78 | 0.53 | 0.14 |
| VULWP | 47 | 28 | 6.40 | 52 | 28 | 7.90 | 7.19 | 0.14 | 5.00 | #### | -8.85 | -1.15 | 0.70 | 0.28 | -1.22 | -0.15 | 0.63 |
| ELC CAMP | 72.9 | 18 | 7.80 | 72 | 18 | 7.70 | 7.75 | 0.48 | 0.90 | 0.73 | -4.35 | 6.15 | 0.12 | 0.33 | -0.54 | 0.77 | 0.12 |
| ELC WP | 75 | 28 | 7.10 | 75.5 | 28 | 7.10 | 7.10 | 0.50 | 0.50 | #### | -4.30 | 3.30 | 0.07 | 0.27 | -0.59 | 0.45 | 0.07 |
| ELC F | 72.8 | 18 | 6.4 | 72.7 | 18 | 8.5 | 7.52 | 0.13 | 0.10 | 0.97 | -5.00 | 5.20 | 0.01 | 0.33 | -0.64 | 0.67 | 0.01 |
| ELTCAMP | 66.9 | 18 | 11 | 61.6 | 18 | 7.03 | 9.23 | 0.04 | 5.30 | 0.09 | -0.95 | 11.55 | 0.57 | 0.34 | -0.10 | 1.23 | 0.75 |
| ELTWP | 66.2 | 28 | 8.6 | 65.6 | 28 | 6.3 | 7.54 | 0.06 | 0.60 | 0.77 | -3.44 | 4.64 | 0.08 | 0.27 | -0.45 | 0.60 | 0.10 |
| ELTF | 67.9 | 18 | 7.1 | 69.5 | 18 | 9 | 8.11 | 0.17 | 1.60 | #### | -7.09 | 3.89 | 0.20 | 0.33 | -0.85 | 0.46 | 0.18 |
| RESCAMP | 49 | 18 | 7.9 | 45.6 | 18 | 6.4 | 7.19 | 0.20 | 3.40 | 0.17 | -1.47 | 8.27 | 0.47 | 0.34 | -0.20 | 1.12 | 0.53 |
| RESWP | 49 | 28 | 6.7 | 46.2 | 28 | 8.6 | 7.71 | 0.10 | 2.80 | 0.18 | -1.33 | 6.93 | 0.36 | 0.27 | -0.17 | 0.89 | 0.33 |
| RESF | 40.8 | 18 | 7.6 | 47.4 | 18 | 5.8 | 6.76 | 0.14 | -6.6 | #### | #### | -2.02 | 0.98 | 0.35 | -1.64 | -0.27 | 1.14 |
| VULCAMP | 52 | 18 | 9 | 55 | 18 | 6.6 | 7.89 | 0.11 | -3 | #### | -8.35 | 2.35 | 0.38 | 0.34 | -1.03 | 0.29 | 0.45 |

Appendix 5: Correlational Tables and scattergraphs

Table: 9 School X Pearson Product moment correlation co-efficient

| Variable | Cases | Pearson r |
|--|--------|---------------|
| Pupil emotional literacy (2009) and vulnerability (2010) | n = 18 | r = -0.496 * |
| Pupil emotional literacy (2010) and vulnerability (2010) | n = 18 | r = -0.635 ** |
| * - Correlation is significant at the 0.05 level (2-tailed) | | |
| ** - Correlation is significant at the 0.01 level (2-tailed) | | |

School Z Correlational data:

Table 7: School Z Pearson Product moment correlational analysis

| Variable | Cases | Pearson r |
|---|--------|---------------|
| Pupil emotional literacy (2009) and resourcefulness (2011) | n = 28 | r = 0.455 * |
| Pupil emotional literacy (2010) and resourcefulness (2010) | n = 28 | r = 0.606 ** |
| Pupil emotional literacy (2010) and vulnerability (2010) | n = 28 | r = -0.770 ** |
| Pupil emotional literacy (2010) and resourcefulness (2011) | n = 28 | r = 0.647 ** |
| Pupil emotional literacy (2010) and Teachers' emotional literacy (2010) | n=28 | r=0.507 ** |
| Pupil emotional literacy (2009) and teachers' emotional literacy (2010) | n=28 | r=0.416 * |
| * - Correlation is significant at the 0.05 level (2-tailed) | | |
| ** - Correlation is significant at the 0.01 level (2-tailed) | | |

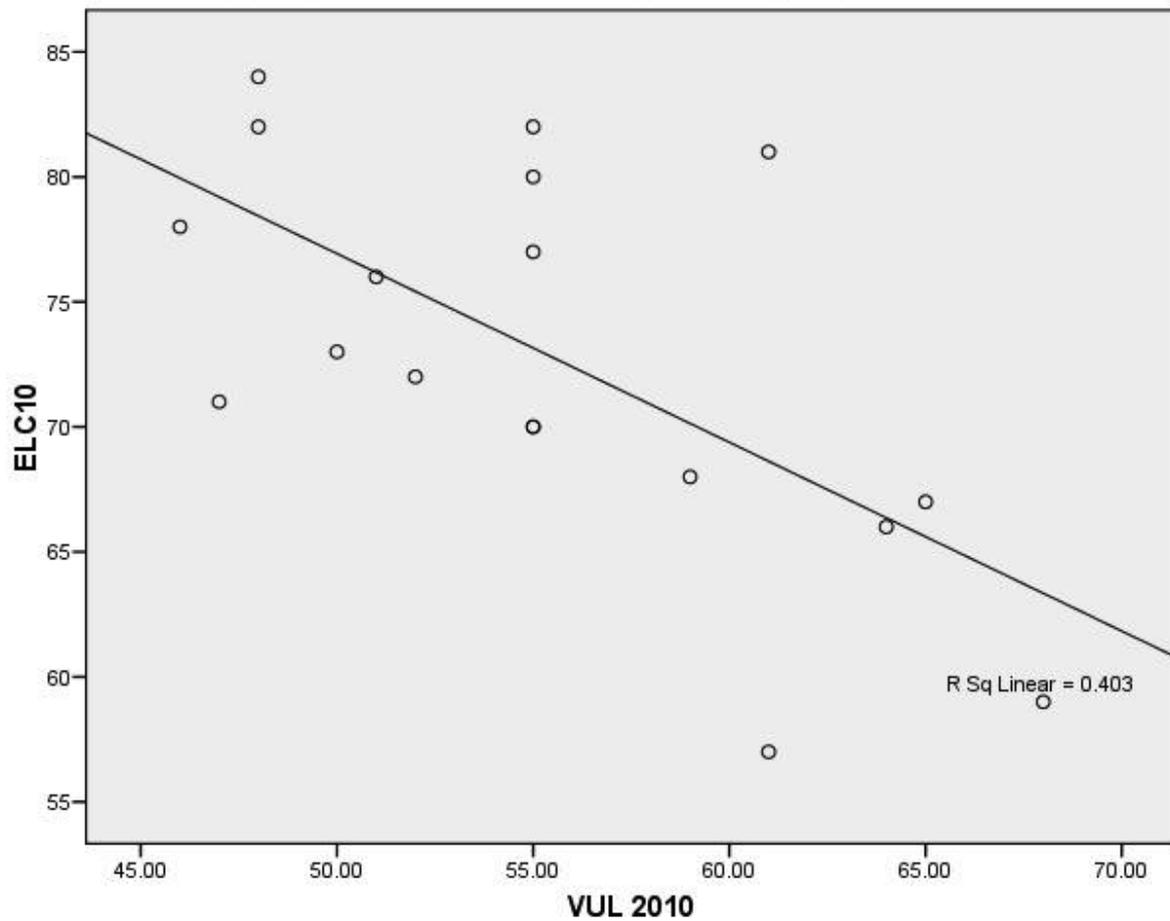
School Y School

Table 8: School Y Pearson Product moment correlational analysis

| Variable | Cases | Pearson r |
|--|--------|------------|
| Pupil emotional literacy (2010) and vulnerability (2010) | n = 18 | r = -0.568 |
| * - Correlation is significant at the 0.05 level (2-tailed) | | |
| ** - Correlation is significant at the 0.01 level (2-tailed) | | |

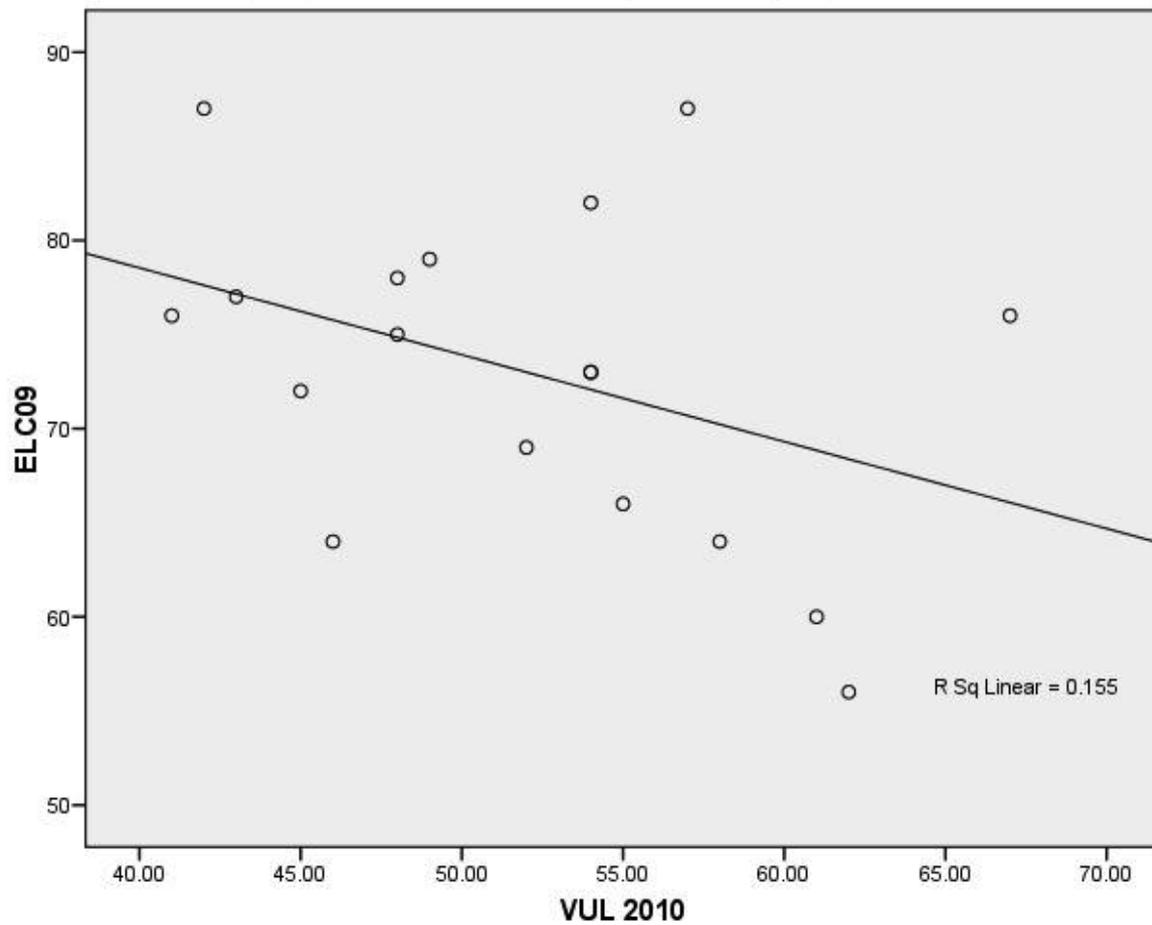
Graph 7

Scattergraph representing a correlation between pupils' emotional literacy scores (2010) and their vulnerability scores (2010) for School Y



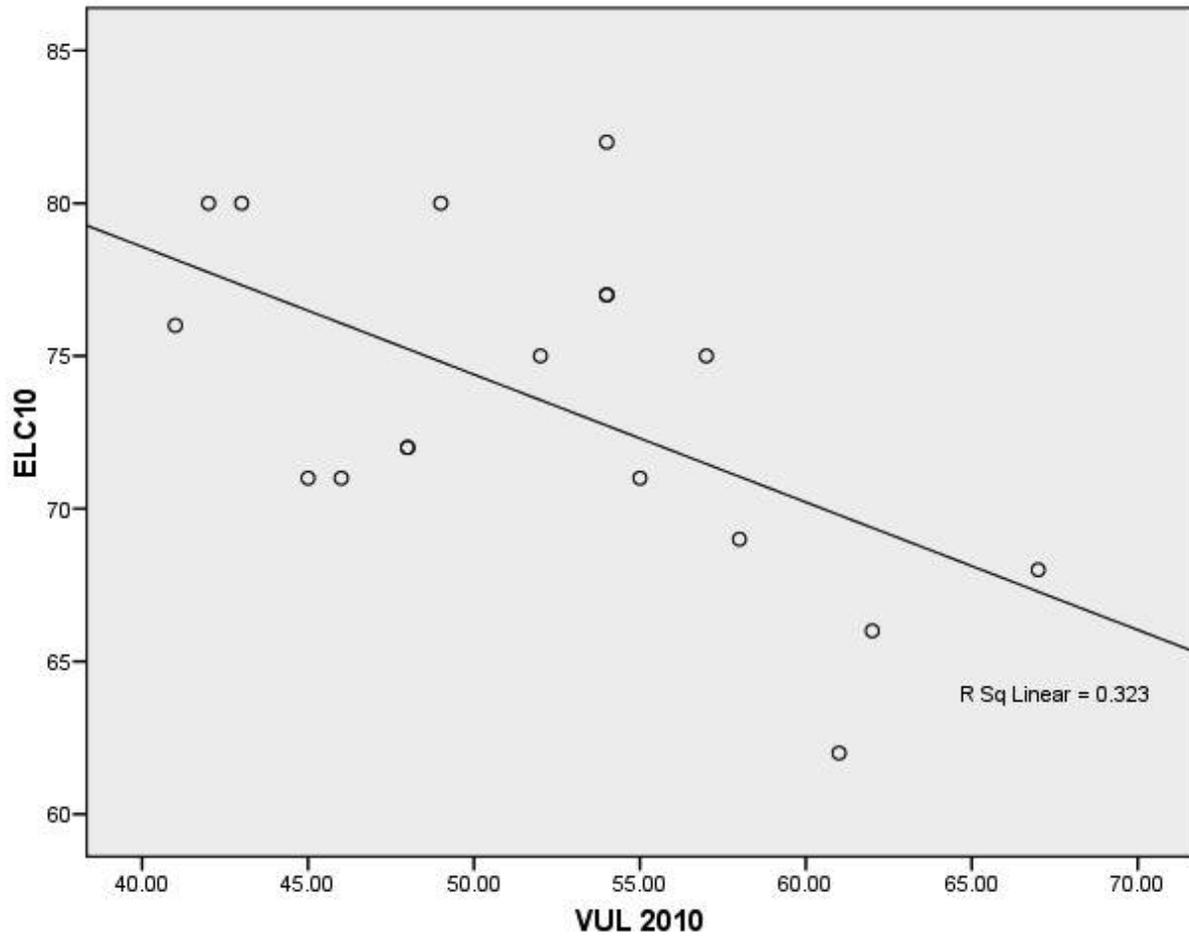
Graph 8

Scattergraph representing a correlation between pupils' emotional literacy scores (2009) and their vulnerability scores (2010) for School X



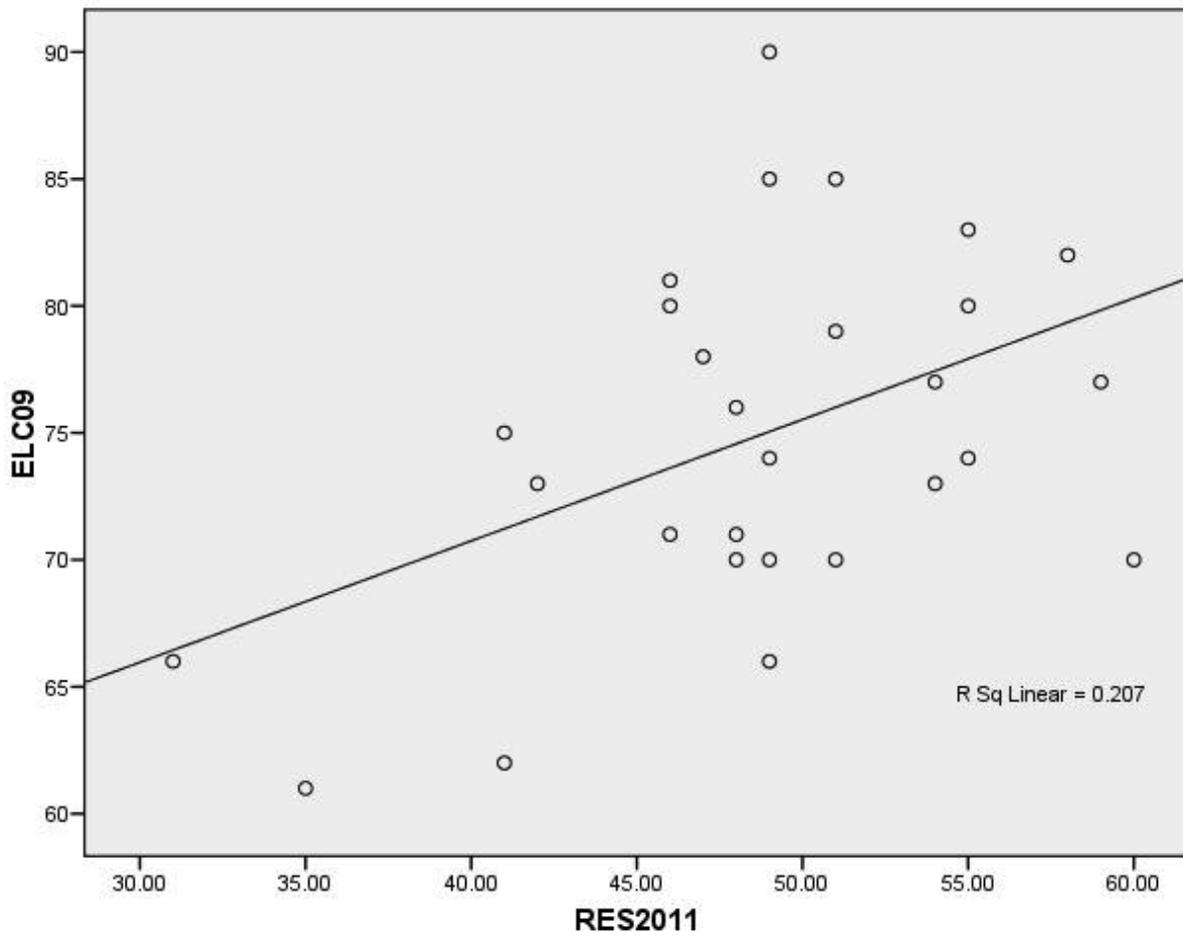
Graph 9

Scattergraph representing a correlation between pupils' emotional literacy (2010) and their vulnerability scores (2010) for School X



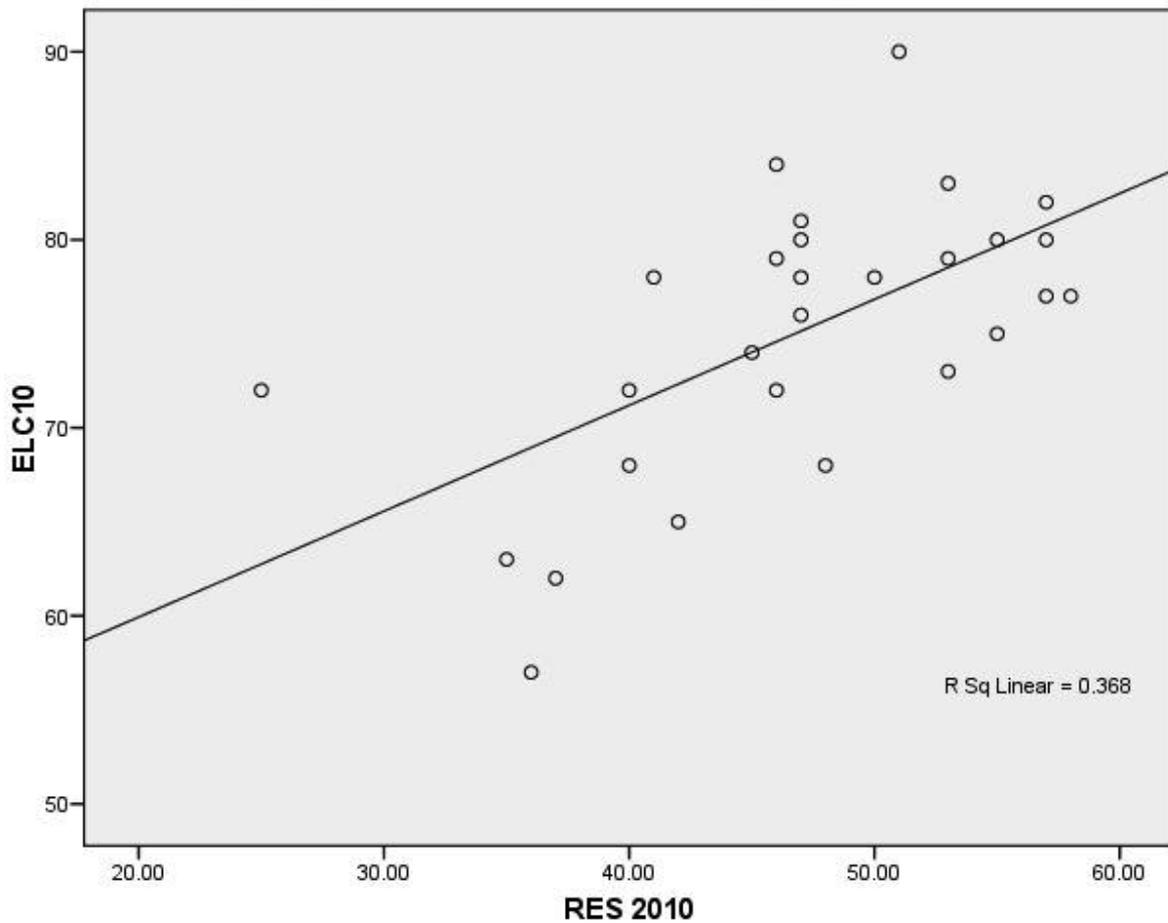
Graph 10

Scattergraph representing a correlation between pupils' emotional literacy (2009) and their resourcefulness scores (2011) for School Z



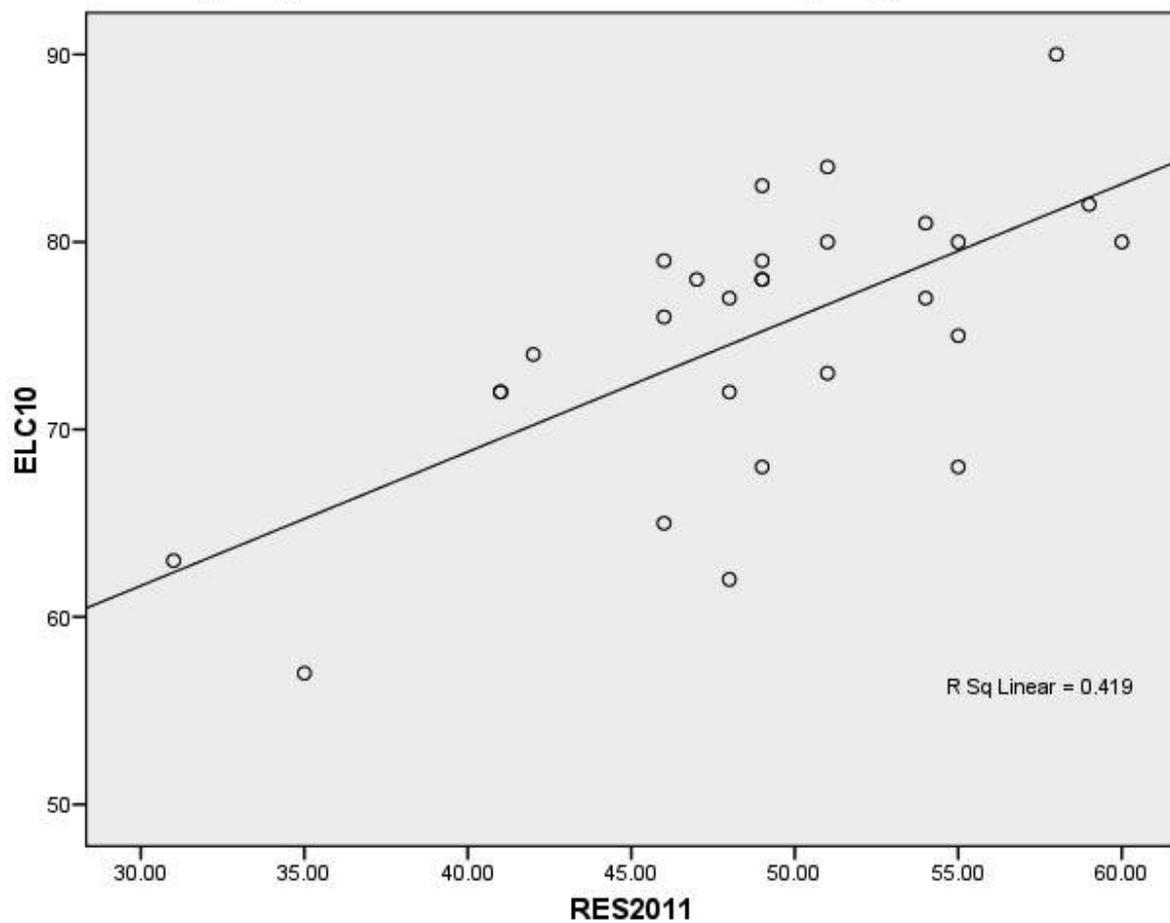
Graph 11

Scattergraph representing a correlation between pupils' emotional literacy scores (2010) and resourcefulness scores (2010) for School Z



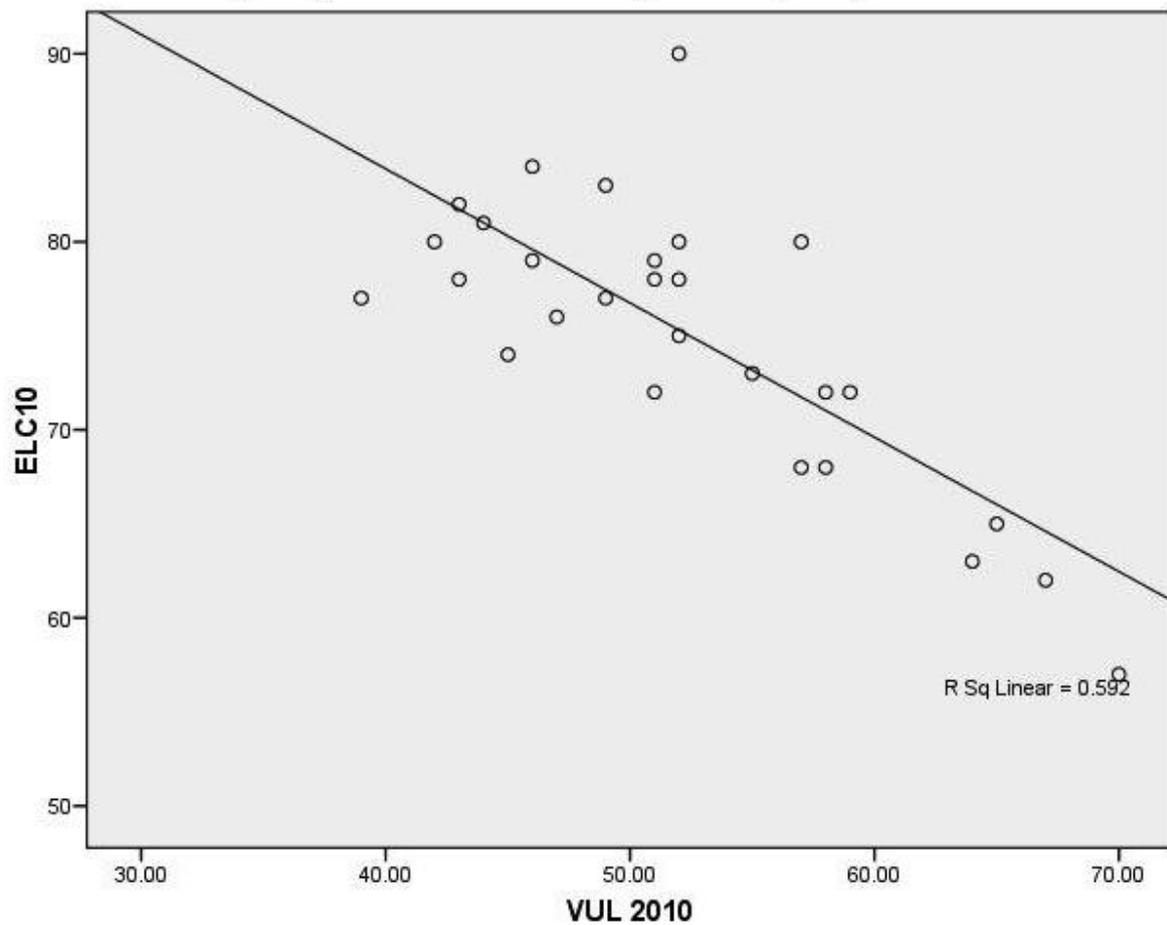
Graph 12

Scattergraph representing a correlation between pupils' emotional literacy scores (2010) and their resourcefulness scores (2011) for School Z



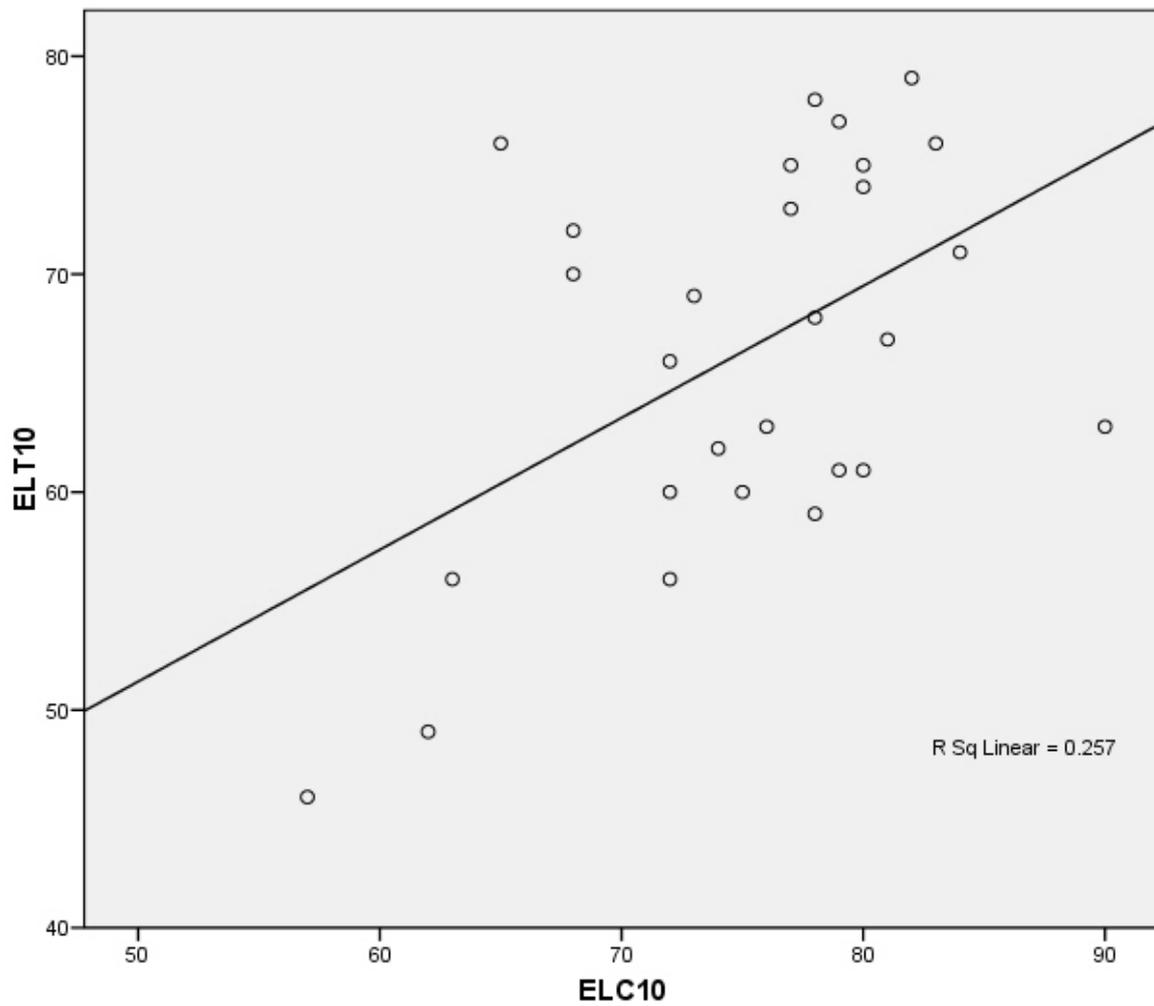
Graph 13

Scattergraph representing a correlation between pupils' emotional literacy scores (2010) and their vulnerability scores (2010) for School Z



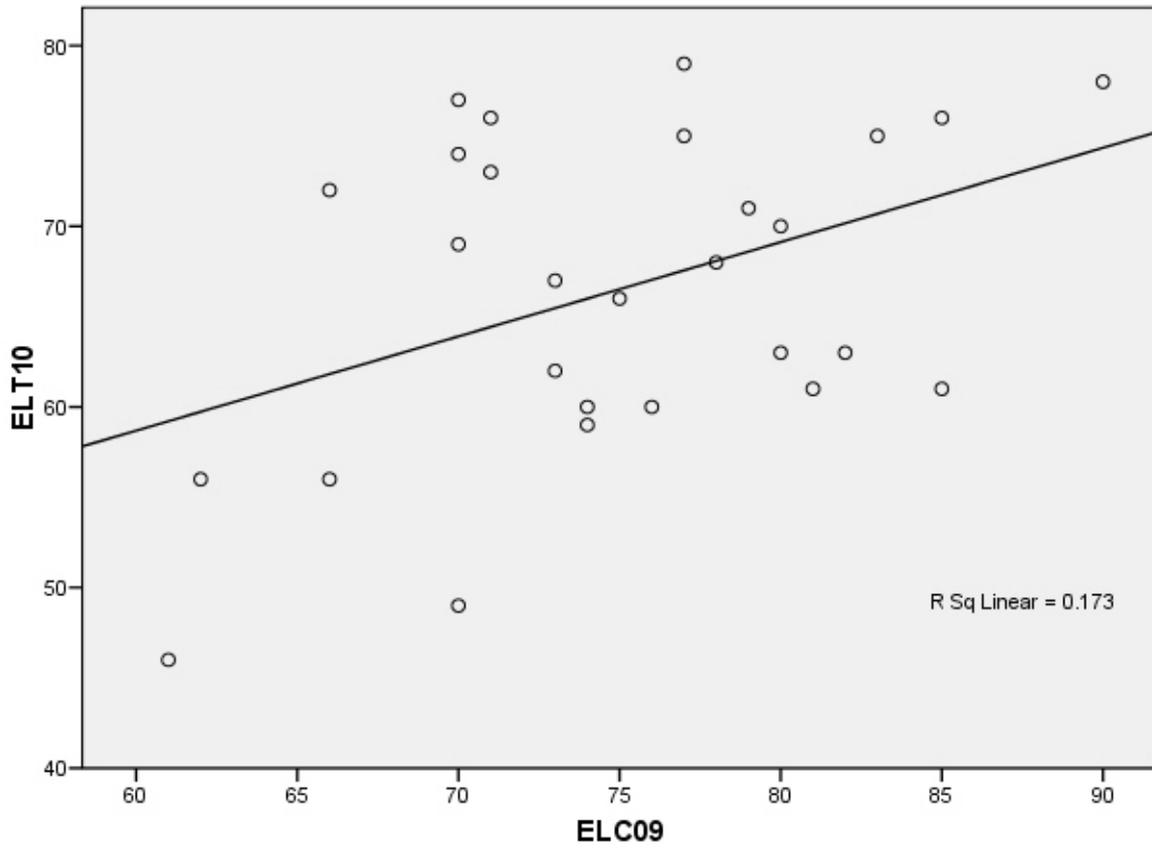
Graph 14

Scattergraph representing a correlation between Pupils' emotional literacy scores in 2010 and Teachers' emotional literacy score in 2010 for School Z



Graph 15

Scattergraph representing a correlation between Pupils' emotional literacy (2009) score and Teachers' emotional literacy scores (2010)



Appendix 6: Emotional Literacy Questionnaires

09

Emotional Literacy Student Checklist

Ages 11 to 16

First name [REDACTED] Surname [REDACTED]

Date 7/1/09 Year group 7 Male Female

Here are some questions about you. Please try to answer them as honestly as you can. Read each question and then put a tick in one of the boxes. Make sure you do each question.

Here is an example of how to answer the questions. If you do not think you are good at many things, you would tick the box 'not like me at all'.

| | Very like me | Quite like me | Only a bit like me | Not like me at all |
|---------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| I am good at many things. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Now please answer the rest of the questions.

| | Very like me | Quite like me | Only a bit like me | Not like me at all | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| 1 I try to listen to other people's views even when I think they are wrong. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 |
| 2 I often forget what I should be doing. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 |
| 3 I am aware of my own strengths and weaknesses. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 |
| 4 I often lose my temper. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 |
| 5 A lot of people seem to like me. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 |
| 6 I know when people are starting to get upset. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 |
| 7 I tend to leave things to the last minute. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4 |
| 8 When I'm sad, I usually know the reason why. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 |
| 9 I get upset if I do badly at something. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 |
| 10 I can make new friends easily. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 |
| 11 I get annoyed when other people get things wrong. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 |

Please turn over

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nferNelson
understanding potential

125 ●

| | Very like me | Quite like me | Only a bit like me | Not like me at all | |
|--|--------------|---------------|--------------------|--------------------|---|
| 12 I carry on trying even if I find the work difficult. | | ✓ | | | 3 |
| 13 I am easily hurt by what others say about me. | ✓ | | | | 1 |
| 14 I calm down quickly after I have got upset. | | | ✓ | | 2 |
| 15 I am rather a shy person. | | ✗ | ✓ | | 3 |
| 16 When I notice people getting upset, I try to help them feel better. | ✓ | | | | 4 |
| 17 I make a good effort with most of my school work. | ✓ | | | | 4 |
| 18 I tend to put myself down even when I have done something well. | | ✓ | | | 2 |
| 19 I am usually a calm person. | | ✓ | | | 3 |
| 20 I spend too much time alone. | | | | ✓ | 4 |
| 21 I try to help someone who is being bullied. | ✓ | | | | 4 |
| 22 I get distracted easily from what I'm supposed to be doing. | | | ✓ | | 3 |
| 23 I worry a lot about the things I'm not good at. | ✓ | | | | 1 |
| 24 I can wait patiently for my turn. | | ✓ | | | 3 |
| 25 I can make friends again after a row. | ✓ | | | | 4 |

Thank you for filling in this checklist.

76

100



2

57.
09

Emotional Literacy Teacher Checklist

Ages 11 to 16

Student's name [redacted] Completed by E. Mills

Date 27/07/09 Year group 57 Male Female

Please look at each statement and put a tick in the box that best describes how this student generally is. There are no right or wrong answers. Please ensure you answer all the questions.

60
80

| | Very true | Somewhat true | Not really true | Not at all true | |
|--|-----------|---------------|-----------------|-----------------|---|
| 1 Listens to other people's point of view in a discussion or argument. | ✓ | | ✓ | | 4 |
| 2 Gives up easily when faced with something difficult. | | | ✓ | | 3 |
| 3 Is aware of his/her own strengths and qualities. | | ✓ | | | 3 |
| 4 Loses temper when loses at a game or in a competition. | | | | ✓ | 4 |
| 5 Laughs and smiles when it is appropriate to do so. | | ✓ | | | 3 |
| 6 Is intolerant of people who are different from him/her. | | | ✓ | | 3 |
| 7 When starts a task or assignment, usually follows it through to completion. | | ✓ | | | 3 |
| 8 Finds it hard to accept constructive criticism and feedback. | | | ✓ | | 2 |
| 9 Is liable to sulk if doesn't get his/her own way. | | | ✓ | | 3 |
| 10 Makes the right kind of eye contact when interacting with others. | ✓ | | | | 4 |
| 11 Is insensitive to the feelings of others. | | ✓ | | | 2 |
| 12 Leaves things to the last minute. | | | ✓ | | 3 |
| 13 Can recognise the early signs of becoming angry. | | ✓ | | | 3 |
| 14 Remains calm and composed when loses or 'fails' at something. | | | | int | 1 |
| 15 Is disliked by many of his/her peers. | | | | ✓ | 4 |
| 16 Is very critical of others' shortcomings. | | | ✓ | | 3 |
| 17 Does things when they need to be done. | | ✓ | | | 3 |
| 18 Can name or label his/her feelings. | | ✓ | | | 3 |
| 19 When things go wrong, immediately denies that it is his/her fault or blames others. | | | ✓ | | 3 |
| 20 Has a sense of humour and fun that is used appropriately. | | ✓ | | | 3 |

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nferNelson

Appendix 7: Resiliency questionnaire

W

RESILIENCY Scales

FOR CHILDREN & ADOLESCENTS™

A Profile of Personal Strengths

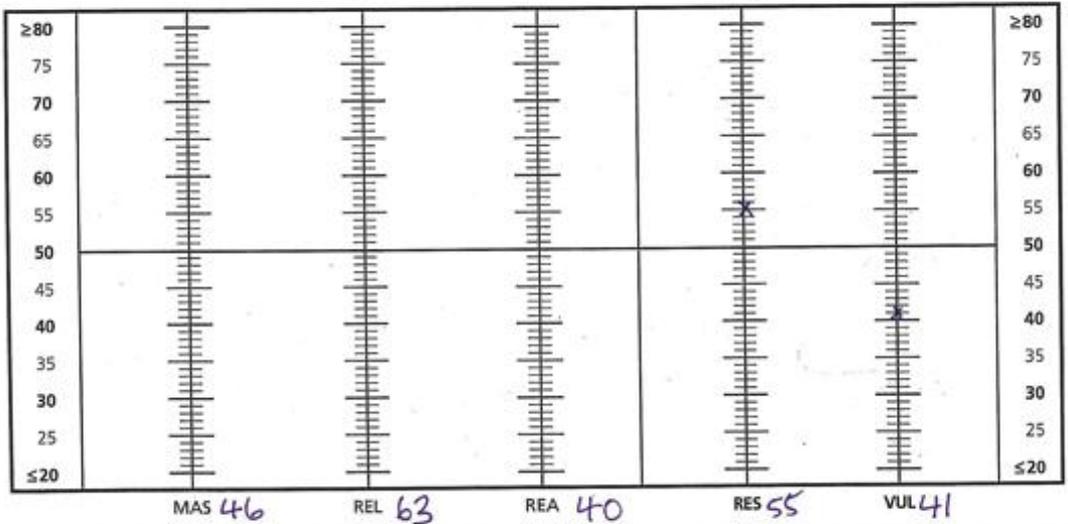
Combination Booklet

Detach this page before administration.

Name: [REDACTED] Sex: Male Female
 Date: 15/12/10 Age: 13 Grade: 9D
 Referral Question: _____
 Academic Status: _____ Disability Status: _____ Classification Status: _____
 Placement Status: _____ Diagnostic Status: _____

Resiliency Profile

Index Scores



$46 + 63 = 109 / 2 = 54.5$
RES Raw Score = (MAS T + REL T) / 2
 For RES T scores, see Table C.1. $T = 55$

$40 - 55 = -15$
VUL = REA T - RES T
 For VUL T scores, see Table D.1. $T = 4$

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 2 3 4 5 6 7 8 9 10 11 12 A B C D E

ISBN 015-4234-64-8

 9 780154 234643

MAS

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

| | 0 | 1 | 2 | 3 | 4 |
|---|-------|--------|-----------|-------|-----------------|
| 1. Life is fair. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 2. I can make good things happen. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 3. I can get the things I need. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 4. I can control what happens to me. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 5. I do things well. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 6. I am good at fixing things. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 7. I am good at figuring things out. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 8. I make good decisions. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 9. I can adjust when plans change. | Never | Rarely | Sometimes | Often | Almost Always 1 |
| 0. I can get past problems in my way. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 1. If I have a problem, I can solve it. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 2. If I try hard, it makes a difference. | Never | Rarely | Sometimes | Often | Almost Always 4 |
| 3. If at first I don't succeed, I will keep on trying. | Never | Rarely | Sometimes | Often | Almost Always 4 |
| 4. I can think of more than one way to solve a problem. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 5. I can learn from my mistakes. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 6. I can ask for help when I need to. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 7. I can let others help me when I need to. | Never | Rarely | Sometimes | Often | Almost Always 2 |
| 8. Good things will happen to me. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 9. My life will be happy. | Never | Rarely | Sometimes | Often | Almost Always 3 |
| 0. No matter what happens, things will be all right. | Never | Rarely | Sometimes | Often | Almost Always 4 |

For T scores, see Table A.1.

TS 46 RS 53

REL

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

| | 0 | 1 | 2 | 3 | 4 | |
|---|-------|--------|-----------|-------|---------------|---|
| | Never | Rarely | Sometimes | Often | Almost Always | |
| 1. I can meet new people easily. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 2. I can make friends easily. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 3. People like me. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 4. I feel calm with people. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 5. I have a good friend. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 6. I like people. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 7. I spend time with my friends. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 8. Other people treat me well. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 9. I can trust others. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 10. I can let others see my real feelings. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 11. I can calmly tell others that I don't agree with them. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 12. I can make up with friends after a fight. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 13. I can forgive my parent(s) if they upset me. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 14. If people let me down, I can forgive them. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 15. I can depend on people to treat me fairly. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 16. I can depend on those closest to me to do the right thing. | Never | Rarely | Sometimes | Often | Almost Always | 3 |
| 17. I can calmly tell a friend if he or she does something that hurts me. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 18. If something bad happens, I can ask my friends for help. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 19. If something bad happens, I can ask my parent(s) for help. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 20. There are people who will help me if something bad happens. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 21. If I get upset or angry, there is someone I can talk to. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 22. There are people who love and care about me. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 23. People know who I really am. | Never | Rarely | Sometimes | Often | Almost Always | 4 |
| 24. People accept me for who I really am. | Never | Rarely | Sometimes | Often | Almost Always | 4 |

For T scores, see Table A.1.

TS 63

RS 90

REA

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

| | 0 | 1 | 2 | 3 | 4 |
|---|-------|--------|-----------|-------|---------------|
| 1. It is easy for me to get upset. | Never | Rarely | Sometimes | Often | Almost Always |
| 2. People say that I am easy to upset. | Never | Rarely | Sometimes | Often | Almost Always |
| 3. I strike back when someone upsets me. | Never | Rarely | Sometimes | Often | Almost Always |
| 4. I get very upset when things don't go my way. | Never | Rarely | Sometimes | Often | Almost Always |
| 5. I get very upset when people don't like me. | Never | Rarely | Sometimes | Often | Almost Always |
| 6. I can get so upset that I can't stand how I feel. | Never | Rarely | Sometimes | Often | Almost Always |
| 7. I get so upset that I lose control. | Never | Rarely | Sometimes | Often | Almost Always |
| 8. When I get upset, I don't think clearly. | Never | Rarely | Sometimes | Often | Almost Always |
| 9. When I get upset, I react without thinking. | Never | Rarely | Sometimes | Often | Almost Always |
| 10. When I get upset, I stay upset for about one hour. | Never | Rarely | Sometimes | Often | Almost Always |
| 11. When I get upset, I stay upset for several hours. | Never | Rarely | Sometimes | Often | Almost Always |
| 12. When I get upset, I stay upset for the whole day. | Never | Rarely | Sometimes | Often | Almost Always |
| 13. When I get upset, I stay upset for several days. | Never | Rarely | Sometimes | Often | Almost Always |
| 14. When I am upset, I make mistakes. | Never | Rarely | Sometimes | Often | Almost Always |
| 15. When I am upset, I do the wrong thing. | Never | Rarely | Sometimes | Often | Almost Always |
| 16. When I am upset, I get into trouble. | Never | Rarely | Sometimes | Often | Almost Always |
| 17. When I am upset, I do things that I later feel bad about. | Never | Rarely | Sometimes | Often | Almost Always |
| 18. When I am upset, I hurt myself. | Never | Rarely | Sometimes | Often | Almost Always |
| 19. When I am upset, I hurt someone. | Never | Rarely | Sometimes | Often | Almost Always |
| 20. When I am upset, I get mixed-up. | Never | Rarely | Sometimes | Often | Almost Always |

For T scores, see Table A.1.

TS 40 RS 14

Appendix 8: General Difficulties with Questionnaires:

Marsh (1982) identified surveys as generating large amounts of data often of dubious value. Surveys are falsely prestigious because of their quantitative nature, the findings are seen as a product of largely uninvolved respondents whose answers owe more to some unknown mixture of politeness, boredom and a desire to be seen in a better light than to their true feelings, beliefs or behaviour. As is often the case, such caricatures are not without foundation. Surveys have also suffered from being viewed as necessarily positivistic, a view demolished by (Marsh, 1982 cited in Robson, 2002 p. 231).

The reliability and validity of survey data depend on the proficiency of those running the questionnaire. If the questions are incomprehensible or ambiguous, the exercise is obviously redundant. This is a problem with the internal validity, where we are not obtaining valid information about the respondents and what they are thinking, feeling, doing, etc.

There can be a problem of high degree involvement of participants, particularly those who complete face to face surveys. One reason for this is because the researcher needs to develop a sense of rapport between themselves and the participant in a short period of time.

If the sampling is faulty, this produces a generalisability/external validity problem, such that the results cannot be generalised to the wider population. Another type of external validity problem occurs if the researcher attempts to generalise from what people say in a survey to what they actually do and therefore respond to demand characteristics. Reliability is more straightforward – by presenting all respondents with the same standardised questions it is possible to obtain high reliability of response. (Robson, 2002, p.231).

Lindblom & Cohen (1979) make a strong case that, of the various forms of knowledge, those carrying out social enquiry might provide, the survey may be the most influential (Robson, 2002 p. 231).

Appendix 9: Reliability and Validity

The NfER Emotional Literacy Assessment and Intervention (Ages 11-16) document identifies the reliability and validity of the assessment. The information provided within this research project is from Faupal(2003) p. 33-40.

Reliability: The Emotional Literacy questionnaires given to pupils and staff have been measured for their reliability.

Student checklist reliability scores:

| Scales | Number of items | Cronbach's Alpha |
|----------------------------|-----------------|------------------|
| Self awareness | 5 | 0.47 |
| Self regulation | 5 | 0.58 |
| Motivation | 5 | 0.68 |
| Empathy | 5 | 0.56 |
| Social skills | 5 | 0.58 |
| Overall emotional literacy | 25 | 0.75 |

Teacher checklist reliability scores

| Scales | Number of items | Cronbach's Alpha |
|----------------------------|-----------------|------------------|
| Self awareness | 4 | 0.70 |
| Self regulation | 4 | 0.88 |
| Motivation | 4 | 0.87 |
| Empathy | 4 | 0.82 |
| Social skills | 4 | 0.82 |
| Overall emotional literacy | 20 | 0.94 |

Validity: Correlations between items and total scale scores

For a detailed analysis of the validity scores see (Faupal, 2003) Tables 11-14, pages 34-3

Validity – Principle components factor analysis:

The results of the factor analysis are presented in the form of factor loadings that measure the extent to which the variance in each item is explained by each factor. An important test of the analysis is interpretability: factor structure is most interpretable when certain conditions are met. These are when each variable loads strongly on one, and only one, factor and when most loadings are high and low. The results show that the data fit well with the five underlying dimensions proposed by Goleman (1996), particularly the Teacher Checklist where just one item in the self awareness subscale loads highly on a different factor from the other items in the scale. In addition just one item in the empathy subscale does not load above 0.40 on any factor.

The patterns of results found in the correlation tables and in the results of the factor analysis support the validity of Goleman's five-dimensional structure of emotional literacy (1996). This evidence provided the rationale for calculating subscale scores for the Teacher checklist.

The Child & Adolescent Resiliency Questionnaire:

The MAS comprises of 20 items, the REL 24 items and the REA 20 items. The Sense of Mastery Scale and Subscales are divided into three personal characteristics that make up the youth's sense of mastery comprising of: optimism, self-efficacy and adaptability. The Sense of Relatedness Scale and Subscales are comprised of sense of trust, perceived access to support, comfort with others and tolerance of differences. The Emotional Reactivity Scale and Subscales comprises of sensitivity, recovery, impairment and the vulnerability index. Calculating the Resource and Vulnerability Indexes require that all three scales be administered and scored. The Resource Index score requires both the Sense of Mastery and the Sense of Relatedness scales have been completed. The Resource Index is the standardised average of the Sense of Mastery T Score and the Sense of Relatedness T Score. The Vulnerability Index may be computed only if all three Resiliency scales have been completed (MAS, REL and REA). To calculate the Vulnerability Index raw score, subtract the Resources Index T Score from the Emotional Reactivity T Score.

Reliability: Internal consistency using Cronbach's alpha is reported for each scale, subscale, and index score within each age, band, and gender group. For example, the internal consistency estimates of the main scales (MAS, REL, and REA) and indexes (RES and VUL) for the child sample (9-11 years old) were all high at .85, .89, .90, .93, and .93, respectively. The internal consistency for the subscales ranged from high (.88, Impairment) to moderate (.76, Comfort) to adequate (.56, Adaptability). For the adolescent sample, all the Resiliency Scales and indexes demonstrated high internal consistency: .95 (MAS), .95 (REL), .94 (REA), .97 (RES), and .97 (VUL). Furthermore, the subscales for the adolescent sample were also good, for example: .92 (Impairment), .88 (Comfort), the lowest estimate being .82 (Adaptability).

Test-retest stability was examined for both the child and the adolescent standardization samples. Children ($n = 49$) completed the Resiliency Scales twice. The mean interval between the first and second testing was 12 days, with the interval ranging from 5 to 61 days. The test-retest stability coefficients (corrected using Fisher's z transformation) were moderate to high, indicating reasonable stability over time (.79 for MAS, .84 for REL, .88 for REA, .90 for RES, and .83 for VUL). In addition, coefficients for the subscale scores were moderate to high, ranging from .62 (Adaptability) to .83 (Impairment). Test-retest stability was also measured for adolescents ($n = 65$) with a mean interval between testing of 8 days (range was 3-23 days). Coefficients for the scales and indexes were all high: MAS .86, REL .86, REA .88, RES .77, and VUL .90. The subscale coefficients ranged from .85 (Impairment) to .74 (Support).

Validity:

In terms of construct validity, a confirmatory factor analysis revealed a three-factor model of resiliency representing the three scales, MAS, REL, and REA and their associated subscales. Second, several correlational studies of various measures with the Resiliency Scales provide evidence of convergent and divergent validity. For example, correlations between the Resiliency Scales and the Reynolds Bully Victimization Scale (BVS; Reynolds, 2004) from a small pilot study that consisted of 47 children, showed moderate correlations between the two tests. For example, individuals who experienced higher levels of bullying on the BVS had high levels on the REA ($r = .49$), whereas, youth who reported high levels of bullying on the BVS, reported lower levels on the MAS and REL ($-.44$ and $-.40$, respectively).

Last, the Resiliency Scales also demonstrate adequate evidence of criterion validity. A number of studies described in the test manual demonstrated that the Resiliency Scales have reasonable sensitivity in distinguishing clinical groups (i.e., ADHD, bipolar, CD, anxiety, and depression) from each other and from nonclinical groups.

What is reliability?

The following are three prominent factors involved when considering whether a measure is reliable:

Stability – this entails whether a measure is stable over time, so that researchers can be confident that the results relating to that measure for a sample of participants do not change. This means that, if the same test is administered to the same group of participants, then the variability should not change over time (Bryman, 2008, p.151). The most effective way of testing for stability is to use the test-retest method.

Test-retest reliability is adopted when the same test is administered to the same sample on two different occasions. This approach assumes that there is no substantial change in the construct being measured between the two occasions (i.e., emotional literacy and resiliency). The amount of time allowed between measures is critical. We know that if we measure the same thing twice that the correlation between the two observations will depend in part by how much time elapses between the two measurement occasions. The shorter the time gap, the higher the correlation; the longer the time gap, the lower the correlation. This is because the two observations are related over time -- the closer in time we get the more similar the factors that contribute to error. Since this correlation is the test-retest estimate of reliability, you can obtain considerably different estimates depending on the interval.

Internal reliability:

The key issue is whether the indicators that make up the scale or index are consistent, thus the scores on any one indicator tends to be related to their scores on the other indicators. For example, when a questionnaire has multiple-item measures in which each participant's answers to each question are aggregated to form an overall score, the possibility is raised

that the indicators do not relate to the same thing; in other words, they lack coherence (Bryman, 2008 p. 150). Therefore, to be sure that the indicators are related to each other the split-half technique can be used.

The split-half technique involves splitting the questions or items on a test either randomly or by odd numbers of even numbers, into two sets comprising half the complete test each. If the test is reliable then people's scores on each half should be similar and the extent of similarity is assessed using correlation. Positive correlations (0.8-0.9) would suggest that the results are reliable. An alternative version of the split half technique is to develop two parallel forms of the same test by selecting two sets of items from what is known as the same 'item universe'. Rust & Golombok (1989) see the use of parallel forms as a way of speeding up the test-retest procedures used to check for external reliability (Coolican, 2001 , p.171)

Inter-rater reliability:

The index of inter-rater reliability gives the degree of consistency between raters. There are a number of popular procedures for inter-rater reliability known as Kendall's coefficient of concordance, which is often used for ranked or ordinal data, Cohen's Kappa is similar but is used for nominal data and Person's Product-Moment Correlation which is suitable for interval/ratio data (Coolican, 2001).

An alternative way to ascertain inter-rater reliability is to calculate the percent of agreement between the raters. It is a crude measure, but it does give an idea of how much agreement exists, and it works no matter how many categories are used for each observation (Coolican, 2001).

What is Validity?

Validity refers to the extent that something is measuring what it is suppose to measure. On an assessment with high validity the items will be closely linked to the tests intended focus. There are several ways to estimate the validity of a test including content validity, concurrent validity and predictive validity.

Face validity:

The crudest method of checking a test's validity is to inspect the contents to see whether it measures what it is supposed to. Face validity might be established by asking other people whether the measure seems to be getting at the concept that is the focus of attention. Kline (1993) argues that a strength of face validity is its potential for motivating test takers who can clearly see that the test is worthwhile, but a weakness is that the test becomes quite easy to fake (Coolican, 2001, p.173).

Concurrent validity:

Concurrent Validity refers to a measurement device's ability to vary directly with a measure of the same construct or indirectly with a measure of an opposite construct. It allows the researcher to show that the test is valid by comparing it with an already valid test. A new test of resilience would have concurrent validity if it had a high positive correlation with the Child and Adolescent Resiliency Questionnaire as an accepted measure of the construct we call resilience (Bryman, 2008 , p.152).

Content validity:

A researcher may ask a colleague to evaluate the content of a test to ensure that it is representative of the area it is intended to cover. They would use their expertise in the area to judge whether the collection of items has failed to test certain skills or is weighted towards some aspects of knowledge compared with others. This is in fact a more sophisticated version of face validity (Coolican, 2001, p.173).

Predictive validity:

This is where a researcher may use a future criterion measure rather than a contemporary one, as in the case of concurrent validity. With predictive validity, the researcher would take future levels of for example, absenteeism as the criterion against which the validity of a new measure of job satisfaction would be examined. The difference from concurrent validity is that a future rather than a simultaneous criterion measure is used.

Construct Validity:

Construct validity examines the validity of a construct rather than of individual methods of measuring that construct, which the previous validity types focus on (Cronbach & Meehl, 1955 as cited in Coolican, 2001, p.174). It asks whether the pattern of relationships

between measure of that construct and measures of other constructs is consistent with theoretical expectations: how it fits with the 'nomological net'. Construct validity is established by accumulating studies, which test predictions about how the construct in question should relate to other constructs and measures.

Appendix 10: Informed Consent Form



South Northamptonshire Educational Psychology Service



GRADUATE SCHOOL OF EDUCATION

CONSENT FORM FOR PARTICIPANTS

The Introduction of Secondary SEAL and its impact on School Climate, Emotional Literacy and Resilience levels in Year 8 Pupils.

I have been fully informed about the aims and purposes of the project.

I understand that:

- There is no compulsion for me to participate in this research project and, if I do choose to participate, I may at any stage withdraw my participation
- I have the right to refuse permission for the publication of any information about me
- Any information which I give will be used solely for the purposes of this research project, which may include publications
- All information I give will be treated as confidential
- The researcher will make every effort to preserve my anonymity

.....
(Signature of participant)

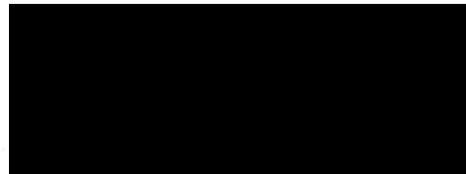
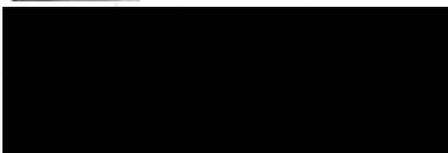
.....
(Date)

.....
(Printed name of participant)

If you have any concerns about the project that you would like to discuss, please contact:

Mark Snape

or



Data Protection Act: The University of Exeter is a data collector and is registered with the Office of the Data Protection Commissioner as required to do under the Data Protection Act 1998. The information you provide will be used for research purposes and will be processed in accordance with the University's registration and current data protection legislation. Data will be confidential to the researcher(s) and will not be disclosed to any unauthorised third parties without further agreement by the participant. Reports based on the data will be in anonymised form.

Appendix 11: Parental Consent form:

CFg/df

To Parents/Carers of «First_Name» «Surname»

«Address_Line_1»

«Address_Line_2»

«Address_Line_3»

«Address_Line_4»

«Post_code»

19th May 2010

Dear Parents/Carers

Last year your son/daughter was asked to take part in a questionnaire run by a Trainee Educational Psychologist based upon our effectiveness at delivering SEAL approaches. SEAL is a strand of the Government's National Strategy aimed at improving student achievement. SEAL stands for Social and Emotional Aspects of Learning and consists of threads such as emotional intelligence and resilience which are also skills required for lifelong learning.

As a follow up to the questionnaire last year, we would like to repeat the process again in order to see how effective our curriculum and pastoral support programme has been. All results are confidential and anonymous. The questionnaire will only take 30 minutes to complete.

I am therefore writing to ask your permission for your son/daughter to take part in the research next Thursday, 27th May 2010. Please complete the consent form below and return to myself at the School by Tuesday, 25th May 2010.

Should you have any questions or concerns please do not hesitate to contact me.

Yours faithfully

C***** F*****

Assistant Head

✂-----

Reply Slip

I/We give permission for (Student's name) _____ to take part in the questionnaire run by the Trainee Educational Psychologist on Thursday, 27th May 2010.

Parent/Carer _____

Signed _____

Date _____

18 May 2010

Dear

**Introduction of Secondary SEAL and its impact on school climate,
emotional literacy and resilience levels in Year 8 pupils – (Student Name)**

I am writing to request your permission for **(Student Name)** response to an anonymous questionnaire to be used as part of a research project for ***** School. On Friday 7th May a number of Year 8 students were selected at random to complete a questionnaire. There were 20 questions measuring self-awareness, self-regulation, motivation, empathy and social skills.

The students completed this as a group. The results were not seen by any member of staff, but collected in by the researcher who will provide feedback about patterns and trends by studying 3 schools. On occasion individual responses may be referred to, e.g. student M, but no school will be given for this student.

During the week beginning 24th May we will be asking **(Student Name)** to sign the attached form. If you would prefer not to include **(Student Name)** response in the sample please complete the reply slip below and we will not ask **(Student Name)** to sign the form.

Yours sincerely

Mrs K *****
Director of Humanities College

REPLY SLIP

Please return to Mrs B*****, Humanities Administrator, in the Hums Hub (opposite HM3) by no later than Monday 24th May, 2010.

I have received the letter and I do not want «Forename»'s response to be handed in to the researcher.

SignedParent/Carer

Date.....

Appendix 12: Debrief Forms

Debrief Form for pupils

Dear: _____

The aim of this research study was to investigate whether the SEAL programme has had an impact on your Emotional Literacy and Resiliency levels. You were asked to complete two Emotional Literacy Questionnaires and two Resiliency Questionnaires to see if the scores achieved on these were associated with your ability to be aware of your emotions, the emotions of those around you and the ability to be resilient during times of difficulty.

The responses that you have provided on these questionnaires will remain confidential and will be not identifiable as your responses. If you have a any further questions regarding this research or you would like to withdraw your responses from this research study then please do not hesitate to contact me on: *****@*****.gov.uk before April 2011.

Thank you for your time and effort.

Many thanks

Mark Snape
(Trainee Educational Psychologist)

Debrief Form: teachers

The aim of this research study was to investigate whether the SEAL programme has had an impact on pupils' Emotional Literacy and Resiliency levels. You were asked to complete two Emotional Literacy Questionnaires about your tutees to see if the scores achieved on these were associated with their ability to be aware of their emotions, the emotions of others.

The responses that you have provided on these questionnaires will remain confidential and will be not identifiable as your responses. If you have a any further questions regarding this research or you would like to withdraw your responses from this research study then please do not hesitate to contact me on: *****@*****.gov.uk before April 2011.

Thank you for your time and effort.

Many thanks

Mark Snape
(Trainee Educational Psychologist)

Paper 2: Appendices

Appendix 13: Raw data from OCDQ-RM Questionnaire

| School Participant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
|--------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| Y 1 | 3 | 1 | 2 | 2 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 3 |
| Y 2 | 3 | 2 | 3 | 2 | 4 | 4 | 4 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 1 | 2 | 2 |
| Y 3 | 4 | 2 | 3 | 2 | 4 | 4 | 4 | 2 | 2 | 4 | 3 | 2 | 2 | 2 | 4 | 3 | 4 | 3 | 2 | 3 | 4 | 3 | 1 | 3 | 2 | |
| Y 4 | 2 | 3 | 4 | 3 | 4 | 4 | 4 | 1 | 1 | 3 | 2 | 3 | 3 | 3 | 1 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 1 | 4 | 4 | |
| Y 5 | 4 | 3 | 2 | 1 | 4 | 4 | 4 | 1 | 1 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 4 | 3 | |
| Y 6 | 3 | 4 | 3 | 2 | 4 | 4 | 4 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | |
| Y 7 | 4 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 3 | 3 | |
| Y 8 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 4 | 1 | 1 | 1 | 2 | |
| Y 9 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 2 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | |
| Y 10 | 3 | 2 | 4 | 1 | 4 | 4 | 4 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 2 | 2 | 4 | 3 | 1 | 3 | 3 | |
| Y 11 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | |
| Y 12 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 3 | 3 | |
| Y 13 | 2 | 2 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 4 | 3 | 2 | 1 | 3 | 2 | 1 | 2 | 1 | |
| Y 14 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 1 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 4 | 3 | 2 | 2 | 3 | |
| Y 15 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 4 | |
| 26 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | |
| 27 | 1 | 2 | 1 | 1 | 1 | 3 | 2 | 4 | 4 | 2 | 2 | 1 | 2 | 4 | 1 | 2 | 4 | 2 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | |
| 28 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 2 | |
| 29 | 1 | 1 | 1 | 2 | 2 | 4 | 2 | 3 | 4 | 4 | 1 | 2 | 3 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | |
| 30 | 1 | 1 | 1 | 1 | 1 | 4 | 2 | 4 | 4 | 4 | 4 | 2 | 1 | 4 | 3 | 1 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | |
| 31 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 1 | |
| 32 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | |
| 33 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | |
| 34 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | |
| 35 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 3 | 2 | |
| 36 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | |
| 37 | 1 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 4 | 3 | 2 | 3 | 1 | |
| 38 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | |
| 39 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | |
| 40 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | |
| 41 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 3 | 2 | |
| 42 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | |
| 43 | 1 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 4 | 3 | 2 | 3 | 1 | |
| 44 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 4 | 4 | 4 | 2 | 1 | |
| 45 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 3 | 1 | |
| 46 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 3 | 1 | |
| 47 | 2 | 1 | 2 | 1 | 1 | 4 | 1 | 4 | 4 | 4 | 1 | 1 | 2 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | |
| 48 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 1 | 1 | 2 | 4 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | |
| 49 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 3 | 4 | |
| 50 | 2 | 1 | 2 | 1 | 1 | 4 | 1 | 4 | 4 | 4 | 1 | 1 | 2 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | |

| School Participant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|--------------------|----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| X | 1 | 3 | 1 | 3 | 2 | 4 | 4 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 4 | 2 | 2 | 3 | 4 | 2 | 2 | 4 | 1 | 1 |
| X | 2 | 3 | 3 | 2 | 4 | 4 | 4 | 1 | 1 | 3 | 4 | 4 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 3 | 3 | 1 |
| X | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 |
| X | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 |
| X | 5 | 2 | 1 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 3 | 2 | 1 | 4 | 2 | 1 | 2 | 2 | 1 |
| X | 6 | 2 | 1 | 4 | 4 | 4 | 4 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 1 | 2 | 4 | 3 | 4 | 2 | 2 | 1 |
| X | 7 | 2 | 1 | 3 | 3 | 4 | 4 | 1 | 4 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 1 | 1 |
| X | 8 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 3 | 4 | 1 | 1 | 2 | 2 | 2 |
| X | 9 | 2 | 1 | 4 | 4 | 4 | 3 | 2 | 4 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 4 | 1 | 1 | 4 | 3 | 1 | 1 | 1 | 1 | 1 |
| X | 10 | 3 | 1 | 4 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 3 | 1 | 3 | 2 | 3 | 1 | 1 | 1 | 2 |
| | 26 | 16 | 3 | 28 | 36 | 37 | 36 | 15 | 23 | 18 | 23 | 24 | 2 | 2 | 24 | 27 | 36 | 3 | 19 | 29 | 35 | 22 | 16 | 21 | 17 | 14 |

| | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | | |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| 2 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 3 | |
| 1 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 1 | 4 | 3 | 1 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 1 | |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | |
| 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 1 | |
| 1 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 4 | 1 | 1 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | |
| 1 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 4 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 2 | 2 | |
| 1 | 1 | 1 | 1 | 3 | 2 | 1 | 4 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 1 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | |
| 1 | 2 | 1 | 1 | 1 | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 4 | 3 | 1 | |
| 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | |
| 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 4 | 3 | 1 | 3 | 2 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 |
| | 14 | 18 | 13 | 17 | 22 | 24 | 27 | 24 | 3 | 25 | 27 | 26 | 26 | 3 | 26 | 22 | 35 | 2 | 29 | 37 | 34 | 36 | 32 | 32 | 17 | |

Appendix 14: OCDQ-RM Questionnaire (And Scoring)

OCDQ-RM

Directions: The following are statements about your school, Please indicate the extent to which each statement characterizes your school.

| | Rarely Occurs | Sometimes Occurs | Often Occurs | Very Frequently Occurs |
|---|---------------|------------------|--------------|------------------------|
| 1. The principal compliments teachers. | 1 | 2 | 3 | 4 |
| 2. Teachers have parties for each other. | 1 | 2 | 3 | 4 |
| 3. Teachers are burdened with busywork. | 1 | 2 | 3 | 4 |
| 4. Routine duties interfere with the job of teaching. | 1 | 2 | 3 | 4 |
| 5. Teachers "go the extra mile" with their students. | 1 | 2 | 3 | 4 |
| 6. Teachers are committed to helping their students. | 1 | 2 | 3 | 4 |
| 7. Teachers help students on their own time. | 1 | 2 | 3 | 4 |
| 8. Teachers interrupt other teachers who are talking in staff meetings. | 1 | 2 | 3 | 4 |
| 9. The principal rules with an iron fist. | 1 | 2 | 3 | 4 |
| 10. The principal encourages teacher autonomy. | 1 | 2 | 3 | 4 |
| 11. The principal goes out of his/her way to help teachers. | 1 | 2 | 3 | 4 |
| 12. The principal is available after school to help teachers when assistance is needed. | 1 | 2 | 3 | 4 |
| 13. Teachers invite other faculty members to visit them at home. | 1 | 2 | 3 | 4 |
| 14. Teachers socialize with each other on a regular basis. | 1 | 2 | 3 | 4 |
| 15. The principal uses constructive criticism. | 1 | 2 | 3 | 4 |
| 16. Teachers who have personal problems receive support from other staff members. | 1 | 2 | 3 | 4 |
| 17. Teachers stay after school to tutor students who need help. | 1 | 2 | 3 | 4 |
| 18. Teachers accept additional duties if students will benefit. | 1 | 2 | 3 | 4 |
| 19. The principal looks out for the personal welfare of the faculty. | 1 | 2 | 3 | 4 |
| 20. The principal supervises teachers closely. | 1 | 2 | 3 | 4 |
| 21. Teachers leave school immediately after school is over. | 1 | 2 | 3 | 4 |
| 22. Most of the teachers here accept the faults of their colleagues. | 1 | 2 | 3 | 4 |
| 23. Teachers exert group pressure on non-conforming faculty members. | 1 | 2 | 3 | 4 |
| 24. The principal listens to and accepts teachers' suggestions. | 1 | 2 | 3 | 4 |
| 25. Teachers have fun socializing together during school time. | 1 | 2 | 3 | 4 |
| 26. Teachers ramble when they talk at faculty meetings. | 1 | 2 | 3 | 4 |
| 27. Teachers are rude to other staff members. | 1 | 2 | 3 | 4 |
| 28. Teachers make "wise cracks" to each other during meetings. | 1 | 2 | 3 | 4 |
| 29. Teachers mock teachers who are different. | 1 | 2 | 3 | 4 |
| 30. Teachers don't listen to other teachers. | 1 | 2 | 3 | 4 |
| 31. Teachers like to hear gossip about other staff members. | 1 | 2 | 3 | 4 |
| 32. The principal treats teachers as equals. | 1 | 2 | 3 | 4 |
| 33. The principal corrects teachers' mistakes. | 1 | 2 | 3 | 4 |
| 34. Teachers provide strong social support for colleagues. | 1 | 2 | 3 | 4 |
| 35. Teachers respect the professional competence of their colleagues. | 1 | 2 | 3 | 4 |
| 36. The principal goes out of his/her way to show appreciation to teachers. | 1 | 2 | 3 | 4 |
| 37. The principal keeps a close check on sign-in times. | 1 | 2 | 3 | 4 |
| 38. The principal monitors everything teachers do. | 1 | 2 | 3 | 4 |
| 39. Administrative paperwork is burdensome at this school. | 1 | 2 | 3 | 4 |
| 40. Teachers help and support each other. | 1 | 2 | 3 | 4 |
| 41. The principal closely checks teacher activities. | 1 | 2 | 3 | 4 |
| 42. Assigned non-teaching duties are excessive. | 1 | 2 | 3 | 4 |
| 43. The interactions between team/unit members are cooperative. | 1 | 2 | 3 | 4 |
| 44. The principal accepts and implements ideas suggested by faculty members. | 1 | 2 | 3 | 4 |
| 45. Members of teams/units consider other members to be their friends. | 1 | 2 | 3 | 4 |
| 46. Extra help is available to students who need help. | 1 | 2 | 3 | 4 |
| 47. Teachers volunteer to sponsor after school activities. | 1 | 2 | 3 | 4 |
| 48. Teachers spend time after school with students who have individual problems. | 1 | 2 | 3 | 4 |
| 49. The principal sets an example by working hard himself/herself. | 1 | 2 | 3 | 4 |
| 50. Teachers are polite to one another. | 1 | 2 | 3 | 4 |

Sub-tests of the OCDQ-RM:

The 6 sub-tests of the OCDQ-RM are:

Supportive principal behavior is directed toward both the social needs and task achievement of faculty. The principal is helpful, genuinely concerned with teachers, and attempts to motivate by using constructive criticism and by setting an example through hard work.

Directive principal behavior is rigid domineering behavior. The principal maintains close and constant monitoring over virtually all aspects of teacher behavior in the school.

Restrictive principal behavior is behavior that hinders rather than facilitates teacher work. The principal burdens teachers with paperwork, committee requirements, and other demands that interfere with their teaching responsibilities.

Collegial teacher behavior supports open and professional interactions among teachers. Teachers like, respect, and help one another both professionally and personally.

Committed teacher behavior behaviour is directed toward helping students to develop both socially and intellectually. Teachers work extra hard to insure student success in school.

Disengaged teacher behavior signifies a lack of meaning and focus to professional activities. Teachers simply are putting in their time; in fact, they are critical and unaccepting of their colleagues.

Reliability

Each of these dimensions was measured by a subtest of the OCDQ-RM. The reliability scores for the scales were relatively high: Supportive (.96), Directive (.88), Restrictive (.89), Collegial (.90), Committed (.93) and Disengaged (.87).

Construct Validity

A factor analysis of the instrument supports the construct validity of the concept of organizational climate (Hoy & Sabo, 1998; Hoy & Tarter, 1997). In addition, the predictive validity has been supported. See Hoy & Sabo (1998) for a review of that literature.

Administering the Instrument

The OCDQ-RM is best administered as part of a faculty meeting. It is important to ensure

the anonymity of the teacher respondent; teachers are not asked to sign the questionnaire. It is recommended to have someone other than the principal in charge of collecting the data. What is important is to create a relaxed atmosphere where teachers give honest responses.

Scoring

The items are scored by assigning 1 to "rarely occurs," 2 to "sometimes occurs," 3 to "often occurs," and 4 to "very frequently occurs." When an item is reversed scored, it is scored "rarely occurs" receives a 4, "sometimes occurs" a 3, and so on. Each item is scored for each respondent, and then an average school score for each item is computed by averaging the item responses across the school; remember the school is the unit of analysis.

For example, if school A has 25 teachers responding to the OCDQ-RM, each individual questionnaire is scored and then an average score for all respondents is computed for each item. Thus, the average score for the 25 teachers is calculated for item 1, and then item 2, and so on. The average school scores for the items defining each subtest are added to yield school subtest scores. The six subtest scores represent the climate profile for the school.

Step 1: Score each item for each respondent with the appropriate number (1, 2, 3, or 4). Be sure to reverse score items 21, 50.

Step 2: Calculate an average school score for each item. Add all the teacher scores for each school on each item and then divide by the number of teachers in the school. Round the scores to the nearest hundredth. This score represents the average school item score. You should have 50 average school item scores before proceeding. **(See data tables from Schools X, Y and Z).**

Step 3: Sum the average school item scores as follows:

Supportive Behavior – (Sup)=1+10+11+12+15+19+24+32+36+44+49

Committed Behavior (Com)=5+6+7+17+18+21+46+47+48

Directive Behavior (Dir)=9+20+33+37+38+41

Collegial Behavior (Col)=2+13+14+16+22+25+34+35+40+43+45

Disengaged Behavior (Dis)=8+23+26+27+28+29+30+31+50

Restrictive Behavior (Res)=3+4+39+42

These six scores represent the climate profile of the school. If the scores are being compared against other schools it is recommend that each score is converted to a standardised score. The current database on middle schools is drawn from a large, diverse sample of schools from New Jersey. The average scores and standard deviations for each climate dimension are summarized below:

| | Mean (M) | Std. Deviation (SD) |
|-----------------------------------|-----------------|----------------------------|
| Supportive Behavior (Sup) | 29.39 | 4.61 |
| Directive Behavior (Dir) | 12.09 | 2.40 |
| Restrictive Behavior (Res) | 9.11 | 1.52 |
| Collegial Behavior (Col) | 29.30 | 3.01 |
| Committed Behavior (Com) | 26.76 | 2.74 |
| Disengaged Behavior (Dis) | 15.56 | 2.18 |

The results from the three secondary schools can be seen below for the 6 sub-scales:

| | School X | School Y | School Z |
|-------------|----------|----------|----------|
| Supportive | 25.6 | 33 | 25.4 |
| Directive | 15.8 | 10 | 11.5 |
| Restrictive | 10.6 | 8 | 10.4 |
| Collegial | 26.8 | 39 | 26 |
| Committed | 31.7 | 28 | 26.6 |
| Disengaged | 14.6 | 12 | 15.1 |

Computing Standardised Scores of the OCDQ-RM:

First: Convert the school subtest scores to standardised scores with a mean of 500 and a standard deviation of 100, which are called SdS scores. Use the following formulas:

$$\text{SdS for Sup} = 100 \times (\text{Sup} - 29.39) / 4.61 + 500$$

Then compute the difference between the school score on Sup and the mean of 29.39 for the normative sample (Sup-29.39). Then multiply the difference by 100 [100 X (S-29.39)]. Next divide the product by standard deviation of the normative sample (4.61). Then add

500 to the result. You have computed a standardized score (SdS) for the supportive behavior subscale (Sup).

Next: Repeat the process for each dimension as follows:

$$\text{SdS for Dir} = 100 \times (\text{Dir} - 12.09) / 2.40 + 500$$

$$\text{SdS for Res} = 100 \times (\text{Res} - 9.11) / 1.52 + 500$$

$$\text{SdS for Col} = 100 \times (\text{Col} - 29.30) / 3.01 + 500$$

$$\text{SdS for Com} = 100 \times (\text{Com} - 26.76) / 2.74 + 500$$

$$\text{SdS for Dis} = 100 \times (\text{Dis} - 15.56) / 2.18 + 500$$

Data from the three schools can be seen below:

| | School X | School Y | School Z |
|--------------------|---|--|---|
| Supportive | $(25.6 - 29.39) = -3.79 \times$ $100 = -379 / 4.61 = 82.2$ $+ 500 = 417.7$ | $(33 - 29.39) = 3.61 \times 100$ $= 361 / 4.61 = 78.3 +$ $500 = 578.3$ | $(25.4 - 29.39) = -3.99 \times$ $100 = -399 / 4.61 = -$ $86.5 + 500 = 413.4$ |
| Directive | $(15.8 - 12.09) = 3.71 \times$ $100 = 371 / 2.40 =$ $154.58 + 500 = 654.58$ | $(10 - 12.09) = -2.09 \times$ $100 = -209 / 2.40 = -$ $87.08 + 500 = 412.9$ | $(11.5 - 12.09) = -0.69 \times$ $100 = -69 / 2.40 = -$ $24.58 + 500 = 475.41$ |
| Restrictive | $(10.6 - 9.11) = 1.49 \times$ $100 = 149 / 1.52 = 98.02$ $+ 500 = 598.02$ | $(8 - 9.11) = -1.11 \times 100$ $= -111 / 1.52 = -73.02 +$ $500 = 426.97$ | $(10.4 - 9.11) = 1.29 \times$ $100 = 129 / 1.52 =$ $84.86 + 500 = 584.86$ |
| Collegial | $(26.8 - 29.30) = -2.5 \times$ $100 = -250 / 3.01 = -$ $83.0 + 500 = 416.94$ | $(39 - 29.30) = 9.7 \times 100 =$ $970 / 3.01 = 322.25 +$ $500 = 822.25$ | $(26 - 29.30) = -3.3 \times 100$ $= -330 / 3.01 = -109.6 +$ $500 = 390.3$ |
| Committed | $(31.7 - 26.76) = 4.94 \times$ $100 = 494 / 2.74 =$ $180.29 + 500 = 680.29$ | $(28 - 26.76) = 1.24 \times 100$ $= 124 / 2.74 = 45.2 +$ $500 = 545.2$ | $(22.6 - 26.76) = -0.16 \times$ $100 = -16 / 2.74 = -5.83$ $+ 500 = 494.16$ |
| Disengaged | $(14.6 - 15.56) = -0.96 \times$ $100 = -96 / 2.18 = -$ $44.03 + 500 = 455.96$ | $(12 - 15.56) = -3.56 \times$ $100 = -356 / 2.18 = -$ $163.3 + 500 = 336.69$ | $(15.1 - 15.56) = -0.46 \times$ $100 = -46 / 2.18 = -$ $21.10 + 500 = 478.89$ |

You have standardised your school scores against the normative data provided in the New Jersey sample. For example, if your school score is 600 on supportive behavior, it is one

standard deviation above the average score on supportive behavior of all schools in the sample; that is, the principal is more supportive than 84% of the other principals. A score of 300 represents a school that is two standard deviations below the mean on the subtest. The range of these scores is presented below:

If the score is 200, it is lower than 99% of the schools. If the score is 300, it is lower than 97% of the schools. If the score is 400, it is lower than 84% of the schools. If the score is 500, it is average. If the score is 600, it is higher than 84% of the schools. If the score is 700, it is higher than 97% of the schools. If the score is 800, it is higher than 99% of the schools.

There are two other scores that can be easily computed and are of interest to teachers and principals. Recall that two openness dimensions were determined in the second-order factor analysis of the OCDQ-RM. Accordingly, the two openness measures can be computed as follows:

$$\text{Principal Openness} = ((\text{SdS for Sup}) + (1000 - \text{SdS for Dir}) + (1000 - \text{SdS for Res})) / 3$$

$$\text{Teacher Openness} = ((\text{SdS for Col}) + (\text{SdS for Com}) + (1000 - \text{SdS for Dis})) / 3$$

The results from the three schools can be seen below:

| | School X | School Y | School Z |
|--------------------|--|---|---|
| Principal Openness | $417.7 + (1000 - 654.58) + (1000 - 598.02) / 3 = 388.36$ | $578.3 + (1000 - 412) + (1000 - 426.97) / 3 = 579.47$ | $413.4 + (1000 - 475.4) + (1000 - 584.8) / 3 = 451.0$ |
| Teacher Openness | $416.94 + 680.29 + (1000 - 455.96) / 3 = 547.09$ | $822.25 + 545.2 + (1000 - 336.69) / 3 = 676.90$ | $390.3 + 494.1 + (1000 - 478.8) / 3 = 468.5$ |

These openness indices are interpreted the same way as the subtest scores, that is, the mean of the "average" school is 500. Thus, a score of 650 on teacher openness represents a highly open faculty. We have changed the numbers into categories ranging from high to low by using the following conversion table:

Above 600 VERY HIGH 551-600 HIGH 525-550 ABOVE AVERAGE 511-524 SLIGHTLY

**ABOVE AVERAGE 490-510 AVERAGE 476-489 SLIGHTLY BELOW AVERAGE 450-475
BELOW AVERAGE 400-449 LOW Below 400 VERY LOW**

We recommend using all the dimensions of OCDQ-RM to gain a finely tuned picture of school climate.

Appendix 15: Interviews

There are three main types of interviews, structured, unstructured and semi-structured. In qualitative interviewing there is a greater interest in the interviewee's point of view. The qualitative interview allows the interviewee to go off on a tangent and depart from the schedule. They can ask new questions that follow up interviewees' replies and can vary the order of the questions and even the wording of the questions. As a result, qualitative interviewing tends to be flexible, responding to the direction in which interviewees take the interview and perhaps adjusting the emphasis in the research as a result of the issues that emerged from the interviews.

During the semi-structured interview the researcher has a list of questions or fairly specific topics to be covered, often referred to as an interview schedule, but the interviewee has a great deal of leeway on how to reply. Questions may not follow on exactly in the way outlined on the schedule. Questions that are not included in the guide may be asked as they pick up on things said by the interviewers; although, all of the questions will be asked and a similar wording will be used from interviewee to interviewee. From the semi-structured interview, the emphasis is on how the interviewee frames and understands issues and events – that is, what the interviewee views as important in explaining and understanding events, patterns and forms of behaviour. During the semi-structured interviews the interviewee does follow a script to a certain extent. The choice of whether to veer towards one type rather than the other is likely to be affected by a variety of factors. If the researcher is beginning the investigation with a fairly clear focus, rather than a very general notion of wanting to do research on a topic, it is likely that the interviews will be semi-structured ones, so that the more specific issues can be addressed.

Preparing the interview guide:

The idea of an interview guide is much less specific than the notion of a structured interview schedule. The guide can act as a number of memory prompts for the interview. What is crucial is that the questioning allows interviewers to glean the ways in which research participants view their social world and that there is flexibility in the conduct of the interviews.

Lofland & Lofland (1995) suggest asking yourself the question “just what about this thing is puzzling me?” This can be applied to each of the research questions. They suggest that your puzzlement can be stimulated by various activities: random thoughts in different contexts when are then written down and discussed with colleagues and related to the existing literature on the topic. Gradually an order and structure will begin to emerge in your meandering around your research questions and will form the basis of your research guide.

You should also consider “what do I need to know in order to answer each of these research questions I am interested in?” This means trying to appreciate what the interviewee sees as significant and important in relation each of your topic areas. Thus, the questions will need to cover the areas that you need but from the perspective of your interviewees.

Some basic elements in the preparation of your interview guide will be:

1. Create a certain amount of order on the topic areas so that your questions about them follow reasonably well, but be prepared to alter the order of the questions during the actual interview.
2. Formulate interview questions or topics in a way that will help you to answer your research questions (ut try not to be too specific).
3. Try to use a language that is comprehensible and relevant to the people you are interviewing.
4. Avoid using leading questions.

5. Remember to ensure that you ask or record information of a general kind (name, school etc) because the information gained can be contextualized in relation to their position.

There are some practical details to attend to before the interview:

- Make sure you are familiar with the setting in which the interviewee works or lives or engages in the behaviour of interest to you. This will help you understand what they are saying in their own terms.
- Use a good tape recorder and microphone. This procedure is important for detailed analysis required in qualitative research and to ensure that the interviewees answers are captured in their own terms. As the interviewee is not using a formulated structures schedule the interviewer will need to respond to the interviewees responses so that they can be followed up.
- Make sure that the interview takes place in a quiet setting without any distractions or being over heard.
- Prepare yourself before the interview (Kvale, 1996)

Types of interview questions:

Kvale (1996) has suggested a number of different questions that most interviews will contain:

- Introducing questions: "Please tell me about when your interest in x first began?"
- Follow up questions "Could you say some more about that please?"
- Probing questions: "follow up what has been said through direct questioning.
- Specifying questions: "what did you do then?"
- Direct questions: "Are you happy with the way SEAL has been introduced into the school?"
- Indirect questions: "What do most teaching staff think of how SEAL was introduced into the school?"
- Structuring questions: "I would now like to move onto a different topic."

- Silence: pauses to give the interviewee a non-verbal cue that they can elaborate on a response.
- Interpreting questions: “Do you mean that SEAL has not been effectively introduced into the year 8 curriculum?”

| Prior to the interview | During the interview | What happens after the interview? |
|---|--|-----------------------------------|
| Research conceptualization and development | Recording the interview | Support for the interviewer |
| Preparation of the interview guide (interview schedule) | Orientation stage of the interview | Data protection and management |
| Suitability of the sample for in-depth interviewing | What qualitative interviewers do when interviewing | Data transcription |
| Interview trialling (pilot) | Bringing the interview to a conclusion. | |
| Inter interview comparison | | |
| Communication between interviewers | | |
| Sample recruitment and selection | | |
| Participant management | | |
| Preparation/ selection of the interview location | | |

Appendix 16: Data transcription methods

The Jefferson Transcription System 2004 (as cited in Howitt, 2010 p.150-159)

The transcription system uses standard punctuation marks (comma, stop, question mark); however, in the system they mark intonation rather than syntax. Arrows are used for more extreme intonational contours and should be used sparingly. The system marks noticeable emphasis, volume shifts, and so on. A generally loud speaker should not be rendered in capitals throughout.

The Jefferson (2004) technique was used to transcribe the data from the semi-structured interviews. The process this entailed consisted of:

| Step 1: tuning into the recorded interaction | Step 2: Rough transcription | Step 3: Adding Jefferson Symbols and transcribing sequencing accurately |
|---|---|--|
| Listening to the recording several times | Names of speakers for each segment of conversation | Add the fine detail of the transcription symbols taking special care with overlaps |
| Decide whether all of the materials needs transcribing | The words said written down as pronounced typically | Make sure that the transcription is in its clearest form for readers. |
| If not, decide which parts need to be transcribed. | Put any non-transcribable features in brackets, e.g., ((gun fired)) | |
| | Only use continuous capitals for loud passages and nowhere else | |
| | Indicate pauses, etc. for later more precise measurement | |

There are a number of advantages and disadvantages of using the Jefferson (2004) system including:

| Advantages of the Jefferson system | Disadvantages of the Jefferson system |
|---|---|
| It records talk as experienced by participants in the conversation and so keeps the analysis focused on this rather than merely the words used. | Some of the symbols are less carefully designed such as: |
| Analysis of conversational interaction is facilitated by the system compared with a secretarial transcript. | It is restrictive in terms of what aspects of interactions it deals with. For example, it is not good at coding emotion |
| Even if the words are the focus of their analysis, it allows other researchers to more adequately check the original analysis, as the transcript is closer to what is on the recording. | Although the system may be modified, it tends to set the format of and the parameters of what is transcribed. |
| It has gained dominance over other methods so can be regarded as a standard system of notation. | It does not capitalize on the use of up-to-date ICT to use colour, fonts, etc. |
| By forcing the researcher to spend time in transcribing, it encourages a more thorough approach to analysis. | It is very time consuming to the researcher |
| It requires skilled transcribers and cannot be carried out by someone not trained in the system. | |
| One can use the line numbers rapidly to refer to a particular part of the transcript. | |

(as cited in Howitt, 2010).

Appendix 17: Additional Questionnaire information:

A qualitative design is flexible and allows the researcher to gain more detailed information by asking questions for clarification. Questions can develop and modify whilst in the field. Researchers may set topics that must be covered, though the exact order in which questions are asked and the wording of the questions can vary (Bloch, 2004). This method is more practical for doing research in the field, especially when researching sensitive topics such as school climate and in particular, how open the principal and staff are.

Qualitative interviews allow the researcher to get more in-depth data because it allows the perspectives and priorities of the individuals to be revealed without imposition of the pre-

conceptions of the researcher (Seale, 2004). The researcher may start with an open natural discussion and end up with interviewing for clarification on the information the respondent provided. The researcher can gain more detailed information and understand the participant's point of view.

Qualitative interviews are more flexible and useful for adding insight to the results obtained from quantitative methods. Qualitative interviews give an opportunity for the researchers to encourage the respondent to speak, to probe for more information and clarify meaning and observe non-verbal behaviour to assess the validity of the respondent's answer (Seale, 2004; Bailey, 1994). The researcher can modify, re-arrange questions and ask for information in different ways. The researcher can ask questions to conform his/her understanding of a response. The researcher can see the respondent's non-verbal behaviour such as avoiding eye contact or laughing whilst answering about something. Using qualitative interviews can reveal some information that the researcher does not ask in the questionnaire. Answers from interviewing can be added, expanded and explained further and can confirm or elaborate on the results gained from the questionnaire.

Qualitative interviews, which range from one to one interviewing to group interviewing provide the researcher with the opportunity to inform the respondent about topics to discuss and use techniques to make the respondent feel more comfortable to talk. This allows the researcher to approach the respondent, minimize false understanding and encourage the respondent to be actively involved in the research process. In addition, the researcher can use skills, techniques, and tools in the interviewing process.

Robson (2002) states that a flexible design sees the 'researcher as instrument' rather than relying on specialist tools and questionnaires (Chesney, 2001). There are certain skills and qualities of a good qualitative researcher including having an open, enquiring mind, being a good listener, general sensitivity and responsiveness to contradictory evidence are needed.

King (1994) suggests that the best circumstances in which a qualitative research interview is most appropriate is: where a study focuses on the meaning of particular phenomena to the participants; where individual perceptions of process within an organisation are to be

studied prospectively, using a series of interviews; where a quantitative study has been carried out, and qualitative data are required to validate particular measures.

Robson (2002) suggests that a commonly used sequence of an interview is:

1. Introduction: introduce yourself and purpose of the interview, asks permission to record, reinforces ethical issues including confidentiality, consent, right to withdraw
2. Warm up: easy, non-threatening questions
3. Main body of the interview: Covering main points of the interview
4. Cool off: usually a few straightforward questions at the end of the interview to diffuse any tensions
5. Closure: Thank you and goodbye.

Appendix 18: Pilot Interview Schedule:

Interview Questions

The main focus is to look at what factors impede/support the introduction of initiatives of SEAL

Research Questions for Paper 2:

- * What has been the impact of introducing Secondary SEAL into the School's Pastoral system and Year 8 Curriculum?
 - * Is there an effective assessment method that can assess the school climate once SEAL has been introduced into the school?
-

Introductions...hello, how are you? Thank you for taking your time to participate in the research.....

When was SEAL introduced into your school?

- Why was it decided to introduce SEAL at this time?
 - Were there any initiatives that encouraged the school to introduce SEAL?
 - Would you say (**Leading question, needs reframing**) that SEAL is fully implemented across the school?

Who has responsibility for teaching SEAL?

- How confident are staff in their knowledge of SEAL?
- How confident are staff in teaching the programme?
- How confident are staff in evaluating the programme?
- ***(You may need to give some guidance here eg a rating scale \ salmon line etc)***

How is SEAL implemented into the Year 8 curriculum?

- Is SEAL taught as a discrete subject?
- Is SEAL taught through the PSHE programme or an alternative subject?
- How much time is allocated to teaching SEAL?
- How is SEAL integrated into the wider curriculum?
 - How is it integrated into other subjects or activities or aspects of school life?

(tell me about / how is are good open questions – use of ‘Is’ tends to lead and is a closed question which will give you a yes or no answer)

How is SEAL monitored and assessed in your school?

- How are pupil's (***pupils plural should be pupils' or a pupils singular is pupil's***) social and emotional development assessed?
- How is the teaching of SEAL monitored and assessed?
- How are these assessments used?

How is SEAL implemented into the pastoral system in the school?

- Is SEAL identified on pupil's (***Is'***)end of year report?
- How do you use SEAL in year 8 Assemblies?
 - Can you provide an example?
 - How are SEAL themes chosen for assembly?
- Is SEAL taught during tutor time?
 - How is SEAL taught in a tutor group?
 - Who has responsibility for planning the tutor time programme?
 - Is the SEAL programme taught every tutor time?
- Does the school have activity days which promotes SEAL?
 - Can you provide an example of a recent activity day that promoted/focused on SEAL
- Are any aspects of SEAL incorporated into whole school policies?

Has SEAL had an impact on pupils' emotional literacy?

- How does the school monitor and assess the impact SEAL has on pupils' (*correct Is'*) emotional literacy (*this is a very open question, does emotional literacy require defining*)?
- Has SEAL impacted on pupils' well-being? – how do you know this?

Has SEAL had an impact on pupil resiliency levels?

- How does the school monitor and assess the impact SEAL has on pupils' resiliency (*again explain resilience*)levels?
- Has SEAL impacted on pupils' resiliency levels? – how do you know this?

Has SEAL had an impact on staff in the school?

- Are teaching staff more aware of their pupils' emotional needs?
- Are teacher's (*s'*) aware of the resiliency levels of their pupils?
- Are teachers' more emotionally literate through teaching SEAL?
- (*again use of 'are' questions may lead to just yes and no answers, is this what you want, if not use 'tell me' type questions*)

Has SEAL had an impact on the school ethos and climate?

- How has SEAL impacted on your school?
- Has the introduction of SEAL improved staff/student relationships
- Has the introduction of SEAL
- Have there been any changes in school policy due to the introduction of SEAL? (*tell me about the changes etc*)
- Have there been any changes in school practice due to the introduction of SEAL?
- Have there been any changes in classroom activities and relationships due to the introduction of SEAL?
- Have there been any changes in outside classroom behaviour and relationships due to the introduction of SEAL?

Reference in Self evaluation form (SEF)

- Has there been any reference to SEAL in SEF?
- Give details of how SEAL is used in your SEF.

How has SEAL evolved since it was introduced into your school?

How do you see SEAL developing in the future in your school

Appendix 19: Interview Schedule:

Interview Questions

The main focus is to look at what factors impede/support the introduction of initiatives of SEAL

Research Questions for Paper 2:

- * What has been the impact of introducing Secondary SEAL into the School's Pastoral system and Year 8 Curriculum?
- * Is there an effective assessment method that can assess the school climate once SEAL has been introduced into the school?

Introductions...hello, how are you? Thank you for taking your time to participate in the research.....

When was SEAL introduced into your school?

- Tell me about why it was decided to introduce SEAL at this time?
 - Were there any initiatives that encouraged the school to introduce SEAL?
 - Tell me about how SEAL has been fully implemented across the school?

Tell me about who has responsibility for teaching SEAL?

- On a scale of 1-5 how confident are staff in their knowledge of SEAL? (5 being very confident and 1 being not at all confident)
- How confident are staff in teaching the programme? (5 being very confident and 1 being not at all confident)
- How confident are staff in evaluating the programme? (5 being very confident and 1 being not at all confident)

Tell me about how is SEAL implemented into the Year 8 curriculum?

- Is SEAL taught as a discrete subject?
- Is SEAL taught through the PSHE programme or an alternative subject?
- How much time is allocated to teaching SEAL?
- How is SEAL integrated into the wider curriculum?
 - How is it integrated into other subjects or activities or aspects of school life?

Tell me about how is SEAL monitored and assessed in your school?

- How are pupils' social and emotional development assessed?
- How is the teaching of SEAL monitored and assessed?
- How are these assessments used?

How is SEAL implemented into the pastoral system in the school?

- Is SEAL identified on pupils' end of year report?
- How do you use SEAL in year 8 Assemblies?
 - Can you provide an example?
 - How are SEAL themes chosen for assembly?
- Is SEAL taught during tutor time?
 - How is SEAL taught in a tutor group?
 - Who has responsibility for planning the tutor time programme?
 - Is the SEAL programme taught every tutor time?
- Does the school have activity days which promotes SEAL?
 - Can you provide an example of a recent activity day that promoted/focused on SEAL
- Are any aspects of SEAL incorporated into whole school policies?

How has SEAL had an impact on pupils' emotional literacy?

- How would you define emotional literacy?
- How does the school monitor and assess the impact SEAL has on pupils' emotional literacy?
- Has SEAL impacted on pupils' well-being? – how do you know this?

How has SEAL had an impact on pupil resiliency levels?

- How would you define resiliency?
- How does the school monitor and assess the impact SEAL has on pupils' resiliency levels?
- Has SEAL impacted on pupils' resiliency levels? – how do you know this?

Tell me about how SEAL has had an impact on staff in the school?

- How are do you know if teaching staff have become more aware of their pupils' emotional needs?
- How do you know if teachers' have become more aware of the resiliency levels of their pupils?
- Tell me if teachers' are more emotionally literate through teaching SEAL?

Tell me about how SEAL has had an impact on the school ethos and climate?

- How has SEAL impacted on your school?
- How has the introduction of SEAL improved staff/student relationships
- How has the introduction of SEAL improved student/student relationships?
- Tell me about any changes in your school policy due to the introduction of SEAL?
- Tell me about any changes in school practice due to the introduction of SEAL?
- Tell me about any changes in classroom activities and relationships due to the introduction of SEAL?
- Tell me about any changes in outside classroom behaviour and relationships due to the introduction of SEAL?

How has SEAL been reference in the school's Self evaluation form (SEF)?

- Has there been any reference to SEAL in SEF?
- Tell me about what evidence has been collected from staff and students to contribute as evidence in your SEF.

Tell me about how SEAL has evolved since it was introduced into your school.

Tell me about how do you see SEAL developing in the future in your school?

Appendix 20: 6 Stage Model of introducing SEAL into a school:

| Stage | Description |
|-------|---|
| 1 | The first step that a school needs to take is establishing where SEAL fits with the current aims, ethos, culture and climate of the school. It is also recommended that for SEAL to become fully embedded into a school's ethos and climate it is the responsibility of the head teacher and a member of the senior management team who should lead this. Sometimes, schools will identify and develop a team of staff who become the school's SEAL working group so that the embedding of SEAL occurs on many levels. |
| 2 | The second step when introducing SEAL into the school is to identify the starting points. Once the vision has been established and school leaders are clear where it fits with the school's vision and values the staff then need to decide what is already happening in the school that has the potential to enhance social and emotional skills development. At this stage, the school would generally carry out an audit of its current related work so that new ideas are consistent with established ideas and practices. The audit involves finding out skills among staff and students and providing a baseline to measure progress. |
| 3 | The third stage is the development phase 1. This consists of initial leaders of SEAL building capacity and commitment from their fellow colleagues in order to create a sustainable approach. This includes continuing professional development for all school staff to support the model of implementation. |
| 4 | The fourth stage is the 'Review Stage', where activities need to be reviewed and monitored and evaluated to track the effectiveness and to identify areas for further development. This can include who emotional literacy was being talked about by staff and students, more positive feedback from staff, improved relationships between staff and students, staff being more aware of their emotional skills and behaviour in the classroom and students talking more openly about their feelings. |
| 5 | Stage 5 is 'Development Phase 2' where new developments are introduced as a result of the review and often need supporting by another phase of continuing professional development for staff. |
| 6 | The final stage, is to ensure that practice becomes embedded so that it is 'the way we do things round here'. The only secure route to embedding any practice in schools is to ensure it is part of the school review cycle and self-evaluation framework. Adequate time and personnel resource needs to be allocated. |

Appendix 21: Alternative Qualitative Approaches:

| Name | Description of technique | Evaluation (Appropriateness to current study) |
|--|---|---|
| Grounded Theory | <ul style="list-style-type: none"> Grounded theory is used to analyse textual data and maximize the fit of emerging theory (categories) to the data and additional data or relevance The aim is to produce 'middle range' theories which, are closely fitting qualitative categories rather than cause/effect or predictive theories. Grounded theory is inductive rather than deductive. Coding occurs where lines of the data are given short descriptions to identify their nature of the content. Categorisation occurs and helps to find categories which fit the codings in their entirety – not only a few pragmatic ideas which partially represent the codes <p>In grounded theory research it is suggested that the literature review should be carried out once the research process is completed as opposed to completed it before the research has taken place, thus allowing the researcher to observe the grounded theory emerging from new data rather than previous theory. Grounded theory is particularly useful when researching areas where there is minimal research evidence or if qualitative methods have not been previously used.</p> <p>In grounded theory sampling is usually determined on the basis of the theories one builds up to interpret the data over the period of the grounded theory analysis (theoretical sampling) – thus, the researcher would decide on what further data should be collected on the basis of their evaluation of what additional data would help them in their interpretations</p> | <p>One reason grounded theory was not chosen to be used with this research study is because:</p> <ol style="list-style-type: none"> A literature review was completed prior to completing the research. The sample has been chosen for the research prior to completing the interviews The current research study was not explicitly developing a new theory about school climate and SEAL. The codes completed were not carried out line by line, instead the bigger picture was look at. Due to the time restrictions with this research study, I would have not been able to allocate the amount of time that would have been needed to complete a piece of grounded theory research. |
| Discourse Analysis | <p>Refers to a variety of ways of studying and understanding language as part of social interaction. It sees discourse as being constructed in interaction as well as constructive of interaction. Discourse analysis involves the analysis of language at a level beyond individual words. A number of theoretical themes are common in discourse analysis including: rhetoric, voice, footing, discursive repertoires and the dialogical nature of talk. Analysis is discourse analysis is steered by its theoretical underpinnings.</p> | <p>Reasons why discourse analysis was not chosen to be used in this research study is because:</p> <ol style="list-style-type: none"> the interest of the researcher was to focus on the themes, which emerged from the interviews and not view the language as action and look beyond the semantic level of the interviews. |
| Interpretative Phenomenological analysis (IPA) | <p>IPA is concerned with how individuals experience phenomena and the psychological interpretations of these experiences. Like social interactionism, IPA assumes that people attempt to make sense of their experiences. The preferred data for IPA is from in depth semi-</p> | <p>Reasons why IPA was not chosen to be used in this research study is because:</p> <ol style="list-style-type: none"> IPA is about exploring personally experienced |

| | | |
|--|--|--|
| | structured interviews, where participants are asked to freely discuss their life experiences in a great level of depth. IPA tends to deal with life-changing events for the as opposed to the casual research fellow students. | significant phenomena, which I did not feel was appropriate for SEAL research. |
|--|--|--|

Appendix 22: Trustworthiness:

Trustworthiness is made up of four criteria, each of which has an equivalent criterion in quantitative research:

Credibility, which parallels with internal validity

Transferability, which parallels external validity

Dependability, which parallels reliability

Confirmability, which parallels objectivity

Guba & Lincoln (1994) are skeptical of using the terms reliability and validity to qualitative data because the criteria presuppose that a single absolute account of social reality is feasible. Thus, they are critical of the view that there are absolute truths about the social world that it is the job of the EP to reveal. Instead, they suggest that there can be a multitude of realities (as cited in Coolican, 2001).

Credibility:

The significance of this stress on multiple accounts of social reality is especially evident in the trustworthiness of criterion or credibility. If there can be several possible accounts of an aspect of social reality, it is the feasibility or credibility of the account that a researcher arrives at that is going to determine its acceptability to others. The establishment of credibility of findings entails both ensuring that research is carried out according to the canons of good practice and submitting research findings to the members of the social world who were studied for confirmation that the investigator has correctly understood that social world. This latter technique is called respondent validation (as cited in Bryman, 2008).

Transferability

Because qualitative research typically entails the intensive study of a small group or of individuals sharing certain characteristics (depth rather than the breadth that is a preoccupation in quantitative research), qualitative findings tend to be oriented to the contextual uniqueness and significance of the aspect of the social world being studied. Instead, qualitative researchers are encouraged to produce what Geertz (1973a) calls thick description – that is, rich accounts of the details of a culture. Lincoln and Guba (1985) argue that a thick description provides others with what they refer to as a database for making judgements about the possible transferability of findings to other milieu (as cited in Coolican, 2001)..

Dependability

As a parallel to reliability in quantitative research, Lincoln & Guba propose the idea of dependability and argue that, to establish the merit of research in terms of this criterion of trustworthiness, researchers should adopt an ‘auditing’ approach. This entails ensuring that complete records are kept of all phases of the research process – problem formulation, selection of research participants, fieldwork notes, interview transcripts, data analysis, etc. in an accessible manner. Peers would then act as auditors, possibly during the course of the research and certainly at the end to establish how far proper procedures are being and have been followed. This would include assessing the degree to which theoretical influences can be justified. Auditing has not become a popular approach to enhancing the dependability of qualitative research (as cited in Coolican, 2001)..

Confirmability

Confirmability is concerned with ensuring that, while recognizing that complete objectivity is impossible in social research, the researcher can be shown to have acted in good faith; in other words, it should be apparent that he or she has not overtly allowed personal values or theoretical inclinations manifestly to sway the conduct of the research and findings deriving from it (as cited in Coolican, 2001)..

Authenticity

In addition to these four trustworthiness criteria, Lincoln & Guba suggest criteria of authenticity. These criteria raise a wider set of issues concerning the wider political impact of research. The criteria are:

- Fairness – does the research fairly represent different viewpoints among members of the social setting?
- Ontological authenticity – does the research help members to arrive at a better understanding of their social milieu?
- Educative authority – does the research help members to appreciate better the perspectives of other members of their social setting?
- Catalytic authenticity – has the research acted as an impetus to members to engage in action to change their circumstances?
- Tactical authenticity – has the research empowered members to take the steps necessary for engaging in action? (as cited in Bryman, 2008).

Appendix 23: Themes, sub-themes and codes

| Themes arising from Thematic Analysis of semi-structured interviews | |
|---|---|
| Theme | Sub-theme |
| Management of SEAL | <p>1. Implementation of SEAL:</p> <ul style="list-style-type: none"> • <i>How & When SEAL implemented?</i> • Code 3 – Introducing SEAL is down to the school’s context • Code 192 – Changed so much since introduced • Code 201 – working with children with SEN to subject areas • Code 9 – How SEAL introduced with students, staff, parents • Code 2 – LAE pilot scheme of SEAL • Code 17 – Who initially implemented SEAL into the school? • Code 1 – how many years been introduced into school? • Code 25 – SPD Team • <i>School philosophy</i> • Code 5 – SEAL already part of philosophy • Code 8 – SEAL more than a name, implicitly embedded into whole school • <i>Scepticism of SEAL</i> • Code 14 – Scepticism of experienced staff • Code 219 – Tick-box activity • <i>Government initiatives</i> • Code 175 – SEAL too big a vortex • Code 123 – SEAL had to be whole school initiative an forget everything else • Code 129 – Tick box activity |

- Code 4 – Government initiatives

2. Responsibility:

- **Management Style**
- Code 179 – Top down implementation of SEAL
- Code 180 – Leadership style
- **Involving SMT**
- Code 16 – Benefits of having SMT with SEAL
- **Responsibility for SEAL**
- Code 190 – New set of eyes on whole school SEAL
- Code 124 – Employ a person to be in charge of SEAL
- Code 93 – Head of Year 7 only has a working knowledge of SEAL
- Code 31 – Pastoral teachers have responsibility for SEAL
- Code 21 – Responsibility from pastoral staff to all staff

3. Curriculum:

- **SEAL and school specialism**
- Code 132 – Self confidence and self esteem
- Code 130 – SEAL and creative arts
- Code 33 - SEAL through expressive art mark
- Code 12 – SEAL specialist school umbrella
- **SEAL used in other competencies**
- Code 89 – Thinking through schools programme and SEAL
- Code 60 – SEAL tied to CCC
- **SEAL not discretely taught**
- Code 49 – not taught discretely
- Code 44 – PE lesson have SEAL outcomes

- Code 43 – PSHE has SEAL units embedded into it
- Code 19 – SEAL embedded into Geography, History and English
- Code 186 – SEAL embedded into the English units of work
- Code 45 – SEAL across all curriculum areas
- Code 59 – Not able to explain how SEAL covered in other subjects
- ***SEAL and citizenship***
- Code 61 – Citizenship and empathy
- Code 39 – ECM and citizenship
- Code 73 – SEAL synonymous with citizenship and CCC
- ***Planning of SEAL***
- Code 18 – SMT planning of SEAL
- Code 24 – Planning of SEAL carried out through school improvement groups
- Code 79 – Year team plan PSHE curriculum
- Code 220 – Lesson plan has SEAL focus
- ***SEAL 2nd Nature***
- Code 194 – Second nature to staff
- Code 40 – Staff not aware teaching SEAL
- ***Time allocation***
- Code 42 – Time allocated to PSHE
- Code 57 – minimal time to key stage 4
- Code 41 – Change in PSHE time allocation
- Code 58 – Time allocation to SEAL
- ***Subject leaders***
- Code 27 – subject leaders and subject teachers

- Code 22 – subject leaders promote SEAL
- **Student voice**
- Code 63 – student voice through work sample
- Code 101 – Student council
- Code 214 – Student voice is greater

4. Pastoral:

- **Primary SEAL – transition**
- Code 91 – Primary SEAL does a good job
- Code 94 – Yr6-7 transition
- **Student evidence of SEAL**
- Code 212 – Student planner competencies
- Code 187 – PACE success folders
- Code 144 – Social/emotional support system underpins academic work
- **School reports**
- Code 78 – PSHE reported on students report card
- Code 76 – SEAL not recorded on school reports
- **Assembly**
- Code 100 – Whole school approach to SEAL: Assembly, tutorial, classroom behaviour
- Code 82 – Thought of the week
- Code 80 – SEAL themes in assembly
- **Tutor time**
- Code 90 – Global eye focus
- Code 216 – Consolidating what already done in tutor time
- Code 105 – Lack of time in tutor time
- Code 96 – SEAL not explicitly taught in tutor time

- Code 221 – Assistant heads plan for tutor time
- Code 87 – SPD tutor based SEAL activities
- Code 82 – Thought of the week in tutor time
- Code 88 – Role play SEAL activities
- **Activity days**
- Code 222 – Activity days not linked to SEAL
- Code 106 – Creativity week

5. Staff Training:

- **New staff**
- Code 23 – NQT training on SEAL
- Code 38 – Review SEAL work with new staff
- **Staff SEAL**
- Code 122 – Reflect on implementation with staff before students
- Code 211- Develop staff EL
- Code 95 – Training staff in SEAL
- Code 154 – Providing training for staff about their pupils’ EL and resilience
- Code 36 – Keeping SEAL fresh
- **Teaching Assistants**
- Code 84 – Developing circle time training
- Code 99 – Circle time training
- Code 29 – Importance of TAs
- Code 97 – training TAs in small group intervention activities
- Code 10 – Training TAs to support pupils with social and emotional difficulties.

6. Resources:

- **Limited SEAL resources to access**
- Code 55 – Not use SEAL resources

- Code 174 – Too much information
- Code 98 – SEAL web-site not accessible
- Code 173 – Not receive nice SEAL pack primary schools did

7. Monitor/Evaluate:

- ***Student self-assessment***
- Code 70 – Students self assessment
- Code 77 – students complete self-assessment document after PSHE module
- ***Ways of monitoring SEAL***
- Code 64 – Lesson observations
- Code 74 – SEAL not explicitly monitored and assessed
- Code 65 – Work sample
- ***Evaluating and auditing SEAL***
- Code 50 - Teacher and student evaluations of Thinking through Schools and SEAL type activities
- Code 62 – SEAL monitored through whole school PSHE evaluation
- Code 34 – School audit of SEAL
- Code 68 – SEAL audit and thinking through schools evaluation
- Code 66 SEAL reviewed through PSHE faculty annual reviews
- Code 69 – Manchester university evaluation
- Code 67 – Not built in enough time to evaluate SEAL
- Code 71 - Staff not good at evaluating the programme
- ***SEAL and SEF***

- Code 188 – SEAL referenced as a specialist whole school and humanities in SEF
- Code 185 – Not aware of SEAL in school SEF
- Code 183 – SEF focusing on climate for learning
- **OFSTED & SEAL**
- Code 13 – OFSTED and priorities of SEAL
- **SEAL and school policy**
- Code 108 – Changes in behaviour policy
- Code 158 – SEAL not implemented into school policy

8. SEAL Acronym:

- **Student awareness**
- Code 151 – Students not aware taught SEAL
- Code 196 – staff and student unaware being taught SEAL
- Code 7 – Students may not know SEAL acronym, but are using skills
- Code 198 – For pupils to see full potential of SEAL and relevance to life
- **Staff awareness**
- Code 195 – Staff aware of acronym
- Code 197 – Staff embedding into SEAL school

9. Future:

- **Small group/pastoral work**
- Code 169 – Student action groups
- Code 200 - New social and emotional group of pupils
- Code 83 - Self esteem groups for pupils with social/emotional difficulties
- **Reflection time**
- Code 205 – More opportunity for pupils to

reflect on how they learn

- ***New curriculum***
- Code 189 – New SEAL programme through themes
- Code 46 – The Learning Bus group work
- Code 35 – School Y Group work bus
- Code 202 – New Curriculum Yr7-9 taught, Yr10-11 practical
-

Social-Emotional Well-being of staff and students

1. Staff well-being:

- ***Staff voice***
- Code 170 – Staff voice questionnaire
- Code 207 – Staff given time to off-load
- ***Awareness of SEAL***
- Code 164 – Staff more comfortable with SEAL
- Code 181 – Staff taking more risks in their work
- ***Staff emotional literacy***
- Code 145 – staff aware of their emotional strengths to support students
- Code 153 – Staff not always aware of the impact of their emotions on pupils
- Code 209 – Staff aware of their own emotions
- Code 210 – Staff emotional literacy development
- Code 206 – Staff need to be aware of their own EL

2. Definitions of EL:

- ***Managing Emotions***
- Code 110 – Managing emotions
- Code 120 – Students more intuitive
- Code 115 – EL, thoughts & behaviour

- ***EL Vocabulary***
- Code 51 – Difficulty labelling emotions
- Code 111 – Emotional vocabulary
- Code 142 – SEAL provided emotional vocabulary
- ***Awareness of other's emotional responses***
- Code 117 – Reading body language
- Code 218 – Identifying students with social and emotional needs
- Code 112 – Being aware of other people's emotions

3. SEAL impact on EL:

- Code 199 – Students awareness of SEAL strategies
- Code 167 – Students read others' emotions better
- Code 166 – Issues not prolonged between students
- Code 165 – Less conflicts between students
- Code 32 – Difficult to say SEAL had direct impact on pupils' EL
- Code 113 – Untangling SEAL's impact on pupils EL
- Code 114 – Whole experience of school increases EL not just SEAL
- Code 72 – SEAL needs to be measured with other factors – independence, CCC.

4. Resilience and impact of SEAL:

- ***Awareness of resilience and SEAL***
- Code 136 – SEAL not increased resilience
- Code 129 – SEAL highlighted issues with resilience
- ***Defining resilience***
- Code 127 – Not give up on an issue
- Code 134 – Students aware of resilience during exams
- Code 128 – Bounce back from situations
- Code 133 – Tackling social issues and resilience
- ***Understanding impact of resilience***
- Code 150 – Teachers not aware of resilience in pupils
- Code 135 – Students not understand word 'resilience'

5. Pupil Behaviour:

- ***Behaviour policy***
- Code 213 - The behaviour policy has been refined
- Code 108 – Changes in behaviour policy
- Code 172 - Students came up with their own classroom expectations
- ***Reflecting on behaviour***
- Code 86 SPD anti-bullying planning and SEAL
- Code 104 – Reduction in bullying
- Code 182 – Students reflect on their behaviour
- Code 118 – Choice about behaviour
- Code 217 – Focus groups for students
- ***Monitoring behaviour***
- Code 75 – Behaviour records, detentions, behaviour stamp
- Code 184 – Behaviour for learning
- Code 138 – Protective behaviours
- Code 137 - SEAL raises awareness of what is already done
-

6. Relationships (staff & students):

- ***Staff-student relationships***
- Code 157 - Staff need to know who they are teaching and what their needs are
- Code 103 – Student’s perceptions of staff
- Code 147 – Staff building bridges between pupils
- Code 208 – Staff perceptive of students’ emotions
- Code 167 – Staff taking personal interest in pupils

- Code 26 – Teachers not aware of pupils’ emotional needs
- **Modelling a message**
- Code 146 – Students model teacher’s social/emotional skills
- Code 102 – Consistent message from staff about pupils’ expectations
- **Respect**
- Code 109 – Letting the school down
- Code 177 – Climate- respect and relationships
- Code 56 – School Z competencies
- **Staff relationships**
- Code 148 – Teaching staff learn from support staff
- Code 47 – Bring them bags
- Code 116 – Staff-staff relationships improved
- Code 161 - Teacher-teacher relationships improve
- **Importance of relationships**
- Code 131 – Students more open about their relationships
- Code 156 - Relationships underpin everything in the school

School climate/ethos

1. School climate:

- **School climate & other initiatives**
- Code 155 – SEAL has enhanced the school climate
- Code 178 – Nurturing, safe environment
- Code 149 – Improve School climate
- Code 37 - SEAL impacts on Climate for learning

- **School ethos**
- Code 176 – Divide ethos into achievement and caring
- Code 48 – positive sharing ethos
- **Whole school approach**
- Code 107 - SEAL not just on its own – encapsulated in all parts of the school
- Code 203 - SEAL part of whole school, not an add on.
- Code 171 - School climate not just SEAL but other school initiatives
- Code – 6 SEAL embedded as a whole school initiative.
- Code 159 - Students are aware of what is happening in regards to SEAL.
- **Whole Child/young person**
- Code 143 – Staff look at child holistically
- Code 54 – Raise attainment for the whole child

2. Stakeholders/wider community:

- **Parental involvement**
- Code 204 - Family difficulties (divorce)
- Code 119 – Social interaction at home
- Code 85 - Parents seeking support about SEAL
- **External agency support**
- Code 215 - Outside speakers coming into school
- Code 28 - Outside agencies coming into school to contribute to SEAL programme:
- **Community issues and resilience**
- Code 121 – Wider community issues with SEAL
- Code 139 - Community issues and resilience

- ***Belonging to a school community***
- Code: 92 - Yr 6 – 7 Connection to school community using SEAL
- Code 126 – Staff/ school community

Appendix 24: Interview transcript with codes

Participant ①

1 MS: Mark Snape

2 ~~MS: ...~~

3

4 MS: 'I'll put it over there' (0.5) and then your

5 not thinking about it too much (1.0) thank you very

6 much

7 P: that's ok your welcome

8 MS: there's about ten questions [if that's]

9 P: [ok that's] fine

10 MS: alright?

11 P: yeah

12 MS: so (.) um: starting of with um: (.) when was

13 seal introduced into the school?

14 P: this is our (.) um third year (1.0) with (.) *SEAL introduced*

15 with seal (0.5) um: and it obviously started of um *3 years ago*

16 in a very small way as part of the pilot

17 MS: mm hm

18 P: so we we were part of um (.) the pilot for two

19 years this is the first year (.) that we've really

20 moved away (0.5) from that pilot project (.) um: so *Part of the*

21 initially we worked as part of the original (.) *secondary pilot*

22 secondary pilot group with seal *Project*

23 MS: mm

24 P: which was actually really useful to work with a *Good to*

25 small group of other schools (.) all with very *initially work*

26 different contexts (1.0) because I think (0.5) what *with a group of*

27 it taught us (.) most of all was that although *schools*

28 (1.0) there were common philosophies (.) actually

29 introducing something like s (.) like seal is *Introducing*

30 really really down to the the school context *SEAL down to*

31 MS: mm *the school's*

32 P: and it's not a one size fits all *context.*

1

33 MS: mm
34 : scenario
35 MS: yeah
36 : and I think that was fantastic (.) f for the
37 learning [we]
38 MS: [yeah]
39 : did have some areas of common ground (.) but we
40 are actually very different schools
41 MS: yeah (.) yeah (0.5) where there any initiatives
42 or government initiatives which (0.5) forced you
43 (.) to introduce seal?
44 : no we weren't (.) we weren't forced to though
45 obviously (.) it was very very clear (.) that um
46 secondary seal was being introduced as part of a
47 MS: yeah
48 : um a government initiative and that was
49 building on the successes that were being perceived
50 (.) at a primary level
51 MS: mm
52 : but (.) in a sense (.) I don't think as a
53 school (.) we'd we've ever been a school that would
54 jump on (.) bandwagons simply because they were
55 government initiatives I think the re the thing
56 that attracted us to seal .hhh was we felt (.) that
57 rather than being an initiative it was actually
58 something that was part of our school philosophy
59 anyway
60 MS: right
61 : and upon which we felt we wanted (.) to build
62 MS: mm hm
63 : and I think that whole issue is something
64 that's really pertinent (.) to how seal has
65 developed here (.) for instances um (1.0) last year
66 we actually had an npqh candidate who did some work

Sec. Seal
introduced @
a government
level.

School not jump
on the band
wagon of
government
initiatives.

Seal already
part of school's
philosophy

Seal embedded as
a whole school
initiative

67 on seal (.) um: within the school how it was
68 developing in the school (.) and one of the things
69 that she funded as part of her research was that
70 some of the students actually don't know what seal
71 means

Students don't
know what
SEITE means.

72 MS: "oh right"

73 : but when (0.5) she actually dug down (.) they
74 actually know the skills and attitudes

Students
But, do know
the skills +
attitudes of SEITE.

75 MS: yeah

76 : they simply don't know the name of seal and I
77 actually don't mind that (.) because I think it's
78 more than a name it's actually about (.) your
79 philosophy and its actually about the skills that
80 it develops amongst our students and that to me is
81 much more important (0.5) and I think that kind of
82 indicates that (0.5) we're absolutely (.) on board
83 with it but not as part of an initiative [and]

implicitly embedded
into the school.

84 MS: [yeah]

85 : and it certainly wasn't () on us

86 MS: and then (.) so that then fits in with your
87 philosophy (.) your [school]

88 : [absolutely]

89 MS: philosophy

90 : absolutely

91 MS: doesn't it

92 : yeah

93 (2.5)

94 MS: so can you tell me about (.) who has
95 responsibility for seal (.) in the school?

96 : at lead (.) at senior level um: it's me

The Deputy has
responsibility for
SEITE.

97 MS: ok

Appendix 25: Informed Consent form

Consent Form:

Informed Consent Form

My name is Mark Snape. I am doing a research project entitled: The Introduction of Secondary SEAL and its impact on School Climate, Emotional Literacy and Resilience levels in Year 8 Pupils.

I am directing the research and can be contacted at: Children and Young People's Services- Inclusion, ***** should you have any questions.

Thank you for agreeing to take part in the project. Before we start I would like to emphasise that that:

- Your participation is entirely voluntarily
- You are free to refuse to answer any question
- You are free to withdraw at any time

The questionnaire results will be kept strictly confidential and will be available only to myself. Individual results may be made part of the final research report, but under no circumstances will your name or any identifying characteristics be included in the report.

Please sign this for to show that I have read the contents to you

_____ (Signed)

_____ (Printed)

_____ (Date)

Appendix 26: Debrief form

Debrief form for teachers

Debrief Form:

The aim of this research study was to investigate whether the SEAL programme has had an impact on school climate. You were asked to complete the OCDQ-RM Questionnaire about how you perceive the openness of your fellow teaching colleagues and Principal/Headteacher.

The responses that you have provided on the questionnaire will remain confidential and will be not identifiable as your responses. If you have a any further questions regarding this research or you would like to withdraw your responses from this research study then please do not hesitate to contact me on: *****@*****.gov.uk before April 2011.

Thank you for your time and effort.

Many thanks

Mark Snape(Trainee Educational Psychologist)

Appendix 27: Literature Search: Methods of Searching

(This literature review has been marked and examined separately from the examination of this thesis. It is appended here for the completeness and to give coherence to the whole thesis.)

For the purposes of paper one the literature searches were completed using an electronic database (Exeter university library catalogue). Within this catalogue, I used EBSCO, PsychArticles and Education Research Complete, which provided me with electronic and hard copies of the literature. For research paper 1 two parallel searches were completed looking for terms such as 'Emotional Literacy', 'Emotional Intelligence' (Ability Emotional Intelligence, Trait Emotional Intelligence) 'Emotional well-being' 'Resilience', 'Resiliency'. The second search comprised of searching for terms including 'social, emotional aspects of learning (SEAL)' and 'Social, Emotional Learning Programmes (SEL)'. A range of articles emerged from journals including 'Pastoral Care in Education' and 'Children and Society' using the methods described above. Other information was gathered from Government reports and conference papers by searching the World Wide Web (WWW), using the key words search phrases above.

For the purposes of paper one the literature searches were completed using an electronic database (Exeter university library catalogue). Within this catalogue, I used EBSCO, PsychArticles and Education Research Complete, which provided me with electronic and hard copies of the literature. For research paper 2 searches were completed looking for terms such as 'school climate', 'OCDQ', 'School culture' and 'school ethos'. A range of articles emerged from journals including 'Educational Administration Quarterly' and 'Review of Educational Research' using the methods described above. Other information was gathered from Government reports and conference papers by searching the World Wide Web (WWW), using the key word search phrases above.

Appendix 28: Ethical Approval

STUDENT HIGHER-LEVEL RESEARCH



Graduate School of Education

Certificate of ethical research approval

STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

You will need to complete this certificate when you undertake a piece of higher-level research (e.g. Masters, PhD, EdD level).

To activate this certificate you need to first sign it yourself, then have it signed by your supervisor and by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: <http://www.bera.ac.uk/publications/guides.php> and view the School's statement in your handbooks.

Your name: Mark Snape

Your student no: 580030343

Degree/Programme of Study: Doctorate in Educational, Child and Community Psychology

Project Supervisor(s): Tim Maxwell & Andrew Richards

Your email address: mas223@ex.ac.uk and masnape@ymail.com

Tel: 07738115069

Title of your project:

The Introduction of Secondary SEAL and its impact on School Climate, Emotional Literacy and Resilience levels in Year 8 Pupils.

Brief description of your research project:

The Secondary Social Emotional Aspects of Learning (SSEAL) Programme was introduced into four secondary schools in the East Midlands in 2007, and evaluated in 2008. The evaluation was undertaken by the Educational Psychology Service (EPS), measuring the Emotional Literacy of Pupils and School climate. It was found that the four secondary schools had introduced SEAL differently into their school's curriculum and pastoral system and that emotional literacy levels were within the average range for each student. The current research project will build upon the first wave evaluation and measure additional constructs, including resilience.

Phase one of the research aims to measure the impact that SSEAL has had on a sample of Year 8 students. It seeks to identify the outcome of introducing SSEAL into the school, with a focus on pupils' emotional literacy and resiliency levels. This phase will adopt a quantitative survey method for collecting pupil's emotional literacy and resiliency levels.

Chair of the School's Ethics Committee
last updated: September 2007

Phase two will focus on the processes involved within the school when introducing Secondary SEAL (for example, factors that may impede/support the introduction of the initiatives of SEAL). This phase will adopt a quantitative method for collecting staff views about the school climate (surveys) and qualitative methods through semi-structured interviews from staff working in each of the four schools.

The information gained from the research will inform the school's Development Plan and Self Evaluation Form to set new objectives for the upcoming year in monitoring and evaluating SEAL.

Give details of the participants in this research (giving ages of any children and/or young people involved):

Phase 1 participants:

- ***Pupil's emotional Literacy Questionnaires will be completed by Year 8 pupils (aged between 12-13 years).**
- ***Pupils Resiliency Questionnaires will be completed by Year 8 pupils (aged 12-13 years)**
- **Teaching staff will complete Emotional Literacy Questionnaires for a class of Year 8 pupils (approximately 25 pupils per class)**

*** There will be approximately 100 pupils in total who will complete the emotional literacy and resiliency questionnaires.**

Phase 2 participants:

- **All teaching staff in each secondary school will complete:**
 - **A SEAL School Climate & SEAL Questionnaire**
 - **An OCDQ Questionnaire**
 - **Two teaching staff will participate in a semi-structured interview for approximately 30-40 minutes.**

The information gathered from Phase 1 and the responses from the school climate questionnaires will inform the questions for the semi-structured interviews. At this stage of the research two members of teaching staff from each secondary school will be identified for interviewing. The selection of these teaching staff will be based on their role in the school (Special Educational Needs-Co-ordinator, Head Teacher, Head of Year, SEAL Co-ordinator, Newly Qualified Teacher, etc) and their knowledge of SEAL and how it has been introduced into the school.

Give details regarding the ethical issues of informed consent, anonymity and confidentiality (with special reference to any children or those with special needs) a blank consent form can be downloaded from the SELL student access on-line documents:

I will be following the Code of Ethics and Conduct set out by the British Psychological Society (BPS, 2009). Issues regarding respect, confidentiality, informed consent, debriefing and safe guarding will be outlined below.

Respect: During the completion of the Emotional Literacy Questionnaires, Resiliency Questionnaires and School Climate Questionnaires I will ensure that each child and adult's responses are listened to and respected. I will respect individual differences, including age, gender, disability, sexuality, race, religion, family or marital status and socio-economic status.

Confidentiality: Data gained from the questionnaire responses, transcripts and any audio recordings will be securely stored. Electronic information will only be accessed by the researcher which will be password protected. Both electronic and paper information will be locked in a secure

building. Information will also be coded/numbered to ensure anonymity of both children and teaching staff. This will remain anonymous in the write up of the research. Collected written and audio information will be disposed of accordingly once it is no longer required.

Informed Consent: It will be essential to obtain informed consent from parents/carers for their children to participate in phase 1 of the study. Pupils involved in the research will also provide written informed consent to ensure they are aware of the research that they will be involved in. Written informed consent will also be gained from all of the teaching staff prior to completing the school climate questionnaires. Participants will be reminded that they have the right to withdraw from the research at any given time and that their data will be destroyed accordingly.

Debrief: To ensure that there is a full understanding of the research a full debrief will be offered to parents/carers, children and teaching staff once the research project is completed.

Safe guarding: It will be made clear to participants and their parents/carers that if evidence is provided regarding the welfare of a child or other people, information will be passed onto the relevant bodies in accordance with the Child Protection Act 1989.

Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

Data Collection

Phase One:

- Quantitative: Pupils and staff will complete:
 - A sample of Year 8 pupils and Year 8 teachers will complete the Emotional Literacy Questionnaire from the NFER Emotional Literacy Checklist Faupal (2003). The pupil checklist comprises of 20 items made up from five scales: self-awareness, self-regulation, motivation, empathy and social skills. Each item on the checklist is rated from 1-4, and the pupil's total emotional literacy score is obtained by summing up the total scores for each item.
 - Each pupil will also achieve a resiliency score from the Resiliency Scales for Children and Adolescents: A Profile of Personal Strengths by Prince-Embury (2007). The Resiliency Scales are drawn from three core theoretical areas: Sense of Mastery Subscale Scoring (MAS), Sense of Relatedness Subscale Scoring (REL) and Emotional Reactivity Subscale Scoring (REA). The MAS comprises of 20 items, the REL 24 items and the REA 20 items. The Sense of Mastery Scale and Subscales are divided into three personal characteristics that make up the youth's sense of mastery comprising of: optimism, self-efficacy and adaptability. The Sense of Relatedness Scale and Subscales are comprised of sense of trust, perceived access to support, comfort with

others and tolerance of differences. The Emotional Reactivity Scale and Subscales comprises of sensitivity, recovery, impairment and the vulnerability index.

Phase Two:

- Quantitative: Teaching staff will complete:

The Organizational Climate Description Questionnaire for Middle Schools (OCDQ-RM) is a 50-item questionnaire that describes particular aspects of principal and teacher behaviour in middle schools. There is no copyright restriction on the instrument (Hoy & Sabo, 1998). The questionnaire is designed to be completed in fewer than 10 minutes. The 50 items of the instrument define the six dimensions of the OCDQ-RM. Principal behaviour is divided into three dimensions: supportive behaviour, directive behaviour, and restrictive behaviour. In addition, teacher behaviour is divided into

- three dimensions: collegial behaviour, committed behaviour, and disengaged behaviour. Specific items on the questionnaire provide the operational scales for each dimension. Participants used a 4-point scale (1 = rarely occurs, 2 = sometimes occurs, 3 = often occurs, and 4 = very frequently occurs) to describe the extent to which certain behaviour patterns occur in the school. Each item was scored for each participant, and then an average school score for each item was computed by averaging the item responses across the total school. Average subtest scores determined the climate profile of the school.
- The class teachers will complete a questionnaire from the Social and Emotional Aspects of Learning for Secondary Schools (SEAL): Tools for profiling, monitoring and evaluation, consisting of questions about social and emotional skills, pupils' self awareness, managing feelings, motivation, empathy, social skills, behaviour, attendance, learning and emotional well-being DCFS (2007 p. 80-82). There are a total of 27 questions and they are rated on a Likert scale from 1-5.
- All the teaching staff will complete the SEAL: Tools for profiling, monitoring and evaluation (2007) document p.10-13. The questionnaires focus on a whole school audit of SEAL as well as measuring the school's climate and SEAL, with a focus on three areas: the learning climate, the social climate and the physical climate. There are 38 questions in total, which are rated on a scale of 1-5.

- Qualitative:

Information to determine how the secondary schools have introduced Secondary SEAL will be obtained through semi-structured interviews. The interviews will be carried out with two members of staff from each school; one member of the senior management team and one from another member of staff). With the consent of participants, interviews will be recorded and transcribed. This will then be coded thematically.

Data Analysis for Phase One:

- Quantitative data will be input into the SPSS-15 statistical package to allow for statistical analysis of the emotional literacy, resiliency and school climate results. Both descriptive and inferential analyses will be completed, including the mean, standard deviation, t-tests and Pearson correlations.

- Qualitative information will be transcribed and uploaded to NVivo 8 for thematic coding and further analysis. Differences will be explored across the four secondary schools regarding the processes that the schools have undertaken in introducing SSEAL.

Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):

During the data collection, data analysis and write up, data (questionnaires, audio recordings, consultation meeting records, observation records, interview data and individual data) will be securely stored in a locked cabinet in a secure building. As previously stated above, electronic information will only be accessed by the researcher with their username and password. Written and audio information will be destroyed when it is no longer required.

Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

I believe that the relevant ethical issues have been discussed above.

This form should now be printed out, signed by you below and sent to your supervisor to sign. Your supervisor will forward this document to the School's Research Support Office for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your dissertation/thesis.

I hereby certify that I will abide by the details given above and that I undertake in my dissertation / thesis (delete whichever is inappropriate) to respect the dignity and privacy of those participating in this research.

I confirm that if my research should change radically, I will complete a further form.

Signed: M. A. Snapedate: 18.3.2010

N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor

This project has been approved for the period:until: 30/09/11

By (above mentioned supervisor's signature):
Tim S. Maxwelldate: 23 March 2010

N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occurs a further form is completed.

SELL unique approval reference: D/09/10/68

Signed: [Signature]date: 26/03/2010
Chair of the School's Ethics Committee

Appendix 29: Additional Procedure Information

The three remaining schools were involved with the Local Authority's evaluative pilot study which focused on the outcomes and the implementation of SEAL across a wide range of school processes, i.e., small group implementation, curriculum implementation, school policies on pupil support and behaviour and wider whole school implementation. Each school was provided with a set of evaluation tools to measure pre and post implementation data. Schools were also asked to identify how they were implementing SEAL across the different areas of the school. The primary aims of the initial study were to evaluate the impact/effectiveness of SEAL on a range of measures including skill competency, wider aspects of behaviour and attendance, teaching and learning, school policy on behaviour and pastoral support and school ethos/climate.

Pririor to my involvement with research, each school was initially offered three meetings: the first meeting was to establish strategies/processes and programmes to put into place in each school, to carry out pre-measures including the NfER Emotional Literacy Questionnaires for pupils and teachers. The second meeting consisted of the EP using a self-organised learning record model to identify areas for reflection/discussion/investigation, facilitation of school development through consultation, a check of pre-data gathered from questionnaires and a review of key areas for development. The final meeting was used to carry out post-test questionnaires, collate areas identified on the school's development plan, collate data about the school's attendance and behaviour as well as focus groups with the EP and interview key staff.

Appendix 30: Additional literature about EL and resilience

Further evidence from Connor & Slear (2009) explored how academic achievement improves or deteriorates due to emotional intelligence, anxiety and resilience in graduate students. Four different graduate classes were asked to volunteer to complete three self-report inventories. In one semester 35 students completed the Mehrabian's (2001) General Emotional Intelligence Scale (GEIS) and Spielberg's State Anxiety Inventory. In the second semester 39 participants completed the GEIS and the Resiliency Scale (As cited in Connor & Slear, 2009). For the purpose of this research study the emotional intelligence and resilience scores will be discussed.

A statistically significant correlation was found between emotional intelligence and resiliency scores ($p < 0.05$). A second sub group, Relational Awareness and Competency were correlated to the GEIS. A high moderate relationship resulted in Pearson $r = 0.48$ ($p = 0.002$). The conclusion drawn from the data therefore indicates that a positive and significant relationship exists between emotional intelligence and resilience.

Appendix 31: Braun & Clarke's Stages of Thematic Analysis in detail

STAGE 1: FAMILIARITY WITH THE DATA:

As suggested by Braun and Clarke (2006), the first phase of the thematic analysis involves the researcher immersing themselves into the data so they become familiar with the depth and breadth of the content. To engage in this process I carried out the initial data transcriptions and read through the transcripts three times to become familiar with the potential codes. During this phase I made brief notes about interesting ideas within each data set.

STAGE 2: GENERATING INITIAL CODES:

During this phase of the analysis I began to identify a feature of the transcript that was interesting and "assessed it in a meaningful way" (Boyatzis, 1998 as cited in Braun & Clarke, 2006). At this phase of the analysis I was beginning to organise the data into meaningful groups (Tuckett, 2005 as cited in Braun & Clarke, 2006) and worked through each data set individually and gave 'full and equal attention to each data item.' (Braun & Clarke, 2006). I made annotations in the margin of each transcript. After three cycles of this process, I had built an initial list of codes. From these codes I then began to match the codes to the data extracts, which were colour coded according to the interviewee/participant. I have tried to ensure that, during this process, that I have retained as much as the context around the data extracts for interpretation for the reader (Bryman, 2008).

STAGE 3: SEARCHING FOR THEMES:

During this stage I had 239 codes which were identified across the whole data set. At this stage, it was necessary to look for a broader level of themes. To do this I typed up each code and physically manipulated them so I could fit them into the appropriate theme. By doing this, it allowed me to move codes and allocate and then re-allocate to the appropriate themes.

STAGE 4: REVIEWING THE THEMES:

Braun & Clarke (2006) suggest that Phase 4 entails refining the initial themes from Phase 3. At this stage, the data within the themes should cohere together meaningfully, and there should be clear distinctions between the themes. Braun & Clarke (2006) identify two levels of reviewing and refining the themes. Level 1 involves reviewing all of the coded data extracts for each theme and consider if they form a coherent pattern. Once the candidate 'theme map' is established move onto Phase 2. During Phase 2, refinement is in relation to the whole data set and where the candidate thematic map accurately reflects the meanings in the whole data set. During this phase I refined the number of themes and sub themes.

STAGE 5: DEFINING AND NAMING THEMES:

During this stage I defined and refined the themes by going back over the original data extracts for each theme and organising them into an internal consistent account with the accompanying narrative. As Braun and Clarke (2006) suggest, this phase is not about paraphrasing the content of the data extracts, but what is interesting about them and why. Another important part of this phase of the research process is that how each theme fits the 'broader story' that I am telling about the data in relation to my research questions. The names of the themes need to be concise, punchy and give the reader a sense of what the

theme is about. The three broad themes that were finally decided upon from this research: the management and evaluation of SEAL, Social and Emotional well-being of staff and students and School climate.

THEME 6: PRODUCING THE REPORT:

The data needs to tell the complicated story of my data which communicates to the reader what it all means. Extracts need to be embedded within an analytical narrative that illustrates the story that I am trying to tell about the data and needs to make an argument for my research questions, which will be reflected in the following section.

Appendix 32: OFSTED Descriptions of the three SEAL Schools

Table 1: OFSTED descriptions of each of the three schools involved in the research study:

| Categories | School Z (OFSTED Inspection report: (Cragg, 2009) | School X (OFSTED inspection report: (Kadodwala, 2009) | School Y (OFSTED inspection report: (Taylor, 2007) |
|-------------------|--|--|--|
| Type of School | •A Comprehensive school category | • A Comprehensive School category | • A Comprehensive School category |
| Age Range | •Community age range of pupils 11-16 | • Community Age range of pupils 11–19 | • Community Age range of pupils 11–18 |
| Gender | •The gender of pupils Mixed | • Gender of pupils Mixed | • Gender of pupils Mixed |
| Number on roll | •Number on roll School (total) 937 | • Number on roll School (total) 1466 Sixth form 294 | • Number on roll (school) 1071 Number on roll (6th form) 147 |
| Free School Meals | •The proportion of students eligible for free school meals is below average. | • This large school serves a rural area in which socio-economic disadvantage rates are lower than average. | • The proportion of learners in receipt of free school meals is below the national average although a high proportion of sixth form students are in receipt of an education maintenance allowance. |
| SEN | •The proportions of students with learning difficulties and/or disabilities and those with a statement of special educational needs are broadly average. | • The proportion of students who have learning difficulties and/or disabilities is below average, and the proportion eligible for free school meals is well below average. | • The proportion of students who have learning difficulties and/or disabilities is below average. |
| EAL | •Fewer than average numbers of students come from minority ethnic backgrounds or speak English as an additional language, although the numbers are rising. | • The majority of students are from White British backgrounds. The proportions of students from minority ethnic groups and of those who are at an early stage of learning to speak English as an additional language are much lower than found nationally. | • Very few students are of minority ethnic heritage |
| | •The school became a specialist humanities college in September | | |

| | |
|------------------------|--|
| Specialism | 2007. |
| Additional Information | <ul style="list-style-type: none"> • It has achieved the Healthy Schools Award, Careers Mark and Sportsmark. It is part of the D***** Learning Partnership, developing post-16 education locally. • The school has been awarded specialist status for modern foreign languages. • At its last inspection the school was given a notice to improve as significant improvement was needed to students' achievement. • The school is an oversubscribed with specialist status in the performing arts. |

Appendix 33: Literature Review

This literature review has been marked and examined separately from the examination of this thesis.

It is included as a separate document, for the purpose of completeness and to give coherence to the whole thesis.

The Introduction of Secondary SEAL and its impact on School Climate, Emotional Literacy and Resilience levels in Year 8 Pupils

A Literature Review:

Emotional Literacy, Emotional Intelligence, Resilience and School
Climate Research

Student Number: 580030343

Introduction

This is an exploration of the literature regarding the Secondary Social Emotional Aspects of Learning (SSEAL) programme and its relationship with Emotional Literacy, Emotional Intelligence (EI), Resilience and School Climate. The literature review will be organised into five key themes. The first theme will be a discussion of what SSEAL is comprised of and how it can be delivered in a school, and how the programme fits with other initiatives such as the Every Child Matters (ECM) agenda, the Healthy Schools Initiative and how it can be delivered through Personal, Social and Health Education (PSHE) lessons and what the Year 7 SSEAL materials comprise of. The SSEAL research will be evaluated predominantly by Craig (2007, 2009) and the impact that teaching social and emotional programmes can have on pupils' self-esteem and academic performance.

The second theme will introduce the concept of Emotional Literacy using Steiner & Perry (1997) and Weare's (2004) definition and then drawing a comparison with definitions of emotional intelligence. Weare's (2004) whole school approach to implementing SSEAL will be described and evaluated regarding inconsistent findings in the area of emotional literacy research and the lack of predictive validity that emotional literacy has regarding pupils' academic outcomes.

The NfER Emotional Literacy Assessment and Intervention Questionnaire will be considered focusing on the constructs that it measures.

The third theme to be discussed comprises of theories of Emotional Intelligence (EI). Both ability and mixed models of EI will be described, including Salovey & Mayer (1990), Bar-On (1997), Goleman (1995) and neurobiological explanations. The three psychological models of EI will be explored, focusing on the main principles of each model and the preferred method of assessment. The models will be compared and contrasted against each other and evaluated, with a focus on the validity of operationalising EI, using self-report measures, issues with cause-effect and concerns with the reliability and validity of the models.

The fourth theme will explore the research into resilience, initially focusing on definitions of resilience (Luther, Cicchetti & Becker, 2000 and Call et al., 2002) and the paradigm shift from deficit models to focusing on triumphs in the face of adversity. Bronfenbrenner's (1979) Ecosystemic model is provided as an initial model of resilience with further empirical support from Feinstein et al. (2009) who looked at resilience in an American sample. Knight's (2007) Three Dimension Framework is described, focusing on resilience as a condition, state and practice and evaluated using psychological

evidence. Three theories are described to explore resilience including Frederickson's (2004) Broaden and Build Theory, Richardson et al's. (1990) biological model and Plomin's (1977) gene-environment (G-E) interaction model. The research is critically considered in relation to the subjective nature of defining resilience, the validity of the samples used in resilience research, methodological considerations including reliability and validity issues and the culturally relative norms associated with resilience in Western society. The final part of the theme will discuss the impact of social and emotional programmes on resilience.

The final theme will consider research into school climate, making comparisons with school culture and methods of measuring school climate (as suggested by Frieberg, 1999). Bronfenbrenner's Ecosystemic (1979) model will be used to describe the impact that different systems can have on a young person in a school environment. Tagiuri's (1968) taxonomy of an organisation is described (including ecology, milieu, social system and culture) and how it relates to theories of school climate (including the Input-Output theory, the Sociological Theory and the Ecological Theory). The theories will be evaluated and compared against each other, considering individual differences between schools, measuring pupil attainment and looking at research from Haddon et al. (2006) and the School Emotional Environment Learning Survey (SEELS). The

theme will finish by discussing Haplin & Croft's (1963) Organisational Climate Description Questionnaire (OCDQ).

Secondary SEAL in the Context of Government Initiatives:

The Secondary Social Emotional Aspects of Learning (SSEAL) Programme is a comprehensive, whole-school approach to promote the social and emotional skills that are thought to underpin effective learning, positive behaviour, regular attendance, and emotional well-being of young people (DfES, 2005). Schools have the flexibility in how they deliver the Secondary SEAL programme (SSEAL), although learning opportunities during tutor time, in focus groups and both, in and outside the classroom are generally the preferred approaches (DCSF, 2007 p.4).

SEAL is based on the five domains proposed in Goleman (1995) in his model of emotional Intelligence, which consists of self-awareness, self-regulation, motivation, empathy and social skills (as cited in Goleman, 1998 pg. 318).

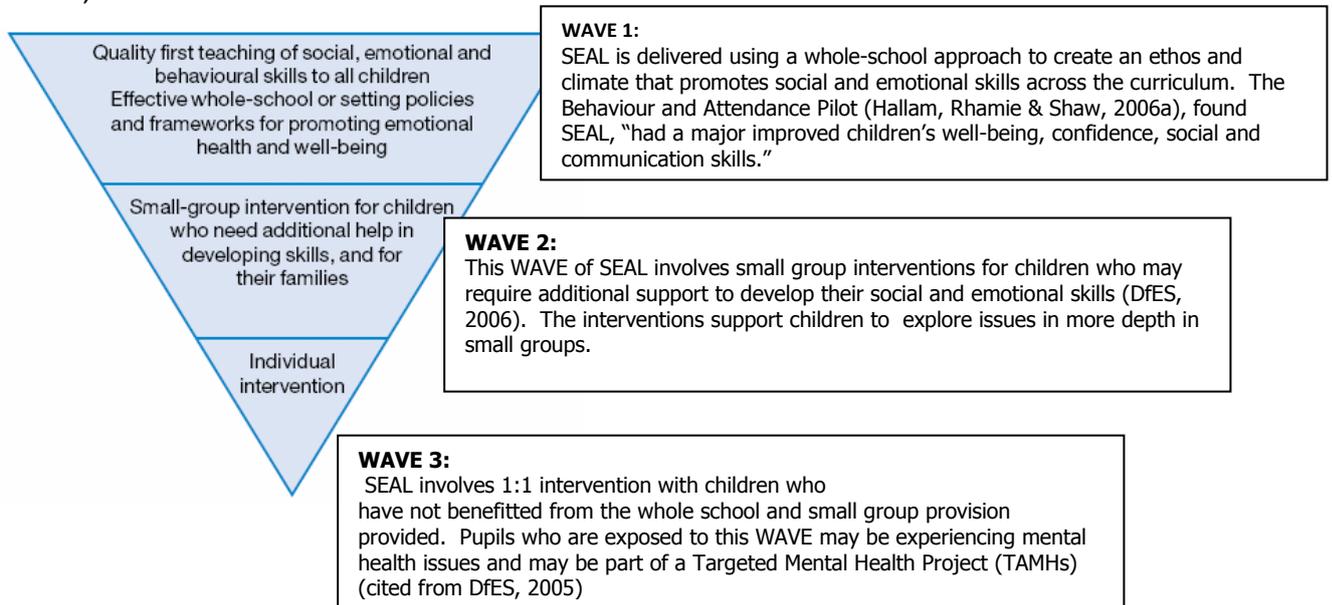
The definitions of the five social and emotional skills promoted through SEAL are:

| Skill | Definition |
|-------------------------------------|--|
| Self-awareness | Knowing and valuing myself and understanding how I think and feel. When we can identify and describe our beliefs, values, and feelings, and feel good about ourselves, our strengths and our limitations, we can learn more effectively and engage in positive interactions with others. |
| Self-regulation (managing feelings) | Managing how we express emotions, coping with and changing difficult and uncomfortable feelings, and increasing and enhancing positive and pleasant feelings. When we have strategies for expressing our feelings in a positive way and for helping us to cope with difficult feelings and feel more positive and comfortable, we can concentrate better, behave more appropriately, make better relationships, and work more cooperatively and productively |

| | |
|---------------|---|
| | With those around us. |
| Motivation | Working towards goals, and being more persistent, resilient and optimistic. When we can set ourselves goals, work out effective strategies for reaching those goals, and respond effectively to setbacks and difficulties, we can approach learning situations in a positive way and maximise our ability to achieve our potential. |
| Empathy | Understanding others' thoughts and feelings and valuing and supporting others. When we can understand, respect, and value other people's beliefs, values, and feelings, we can be more effective in making relationships, working with, and learning from, people from diverse backgrounds. |
| Social skills | Building and maintaining relationships and solving problems, including interpersonal ones. When we have strategies for forming and maintaining relationships, and for solving problem and conflicts with other people, we have the skills that can help us achieve all of these learning outcomes, for example by reducing negative feelings and distraction while in learning situations, and using our interactions with others as an important way of improving our learning experience. |

(as cited from the DfES, 2007, p.5-6).

EAL is delivered in schools using the Secondary National Strategy 'waves of intervention' model, as seen below:



(as cited in DfES, 2007a).

Recent Labour government policy reflects a change in focus towards the development and well-being of children and young people. One way that this shift has occurred is through The Every Child Matters Agenda (DfES, 2003) which recognises the need for every child to be healthy, stay safe, enjoy and achieve, make a positive contribution and achieve economic well-being. Parallel to the five ECM outcomes are the five SEAL objectives, Self awareness, Managing Feelings, Motivation, Empathy and Social Skills. Therefore, it is crucial to look at the 5-ECM outcomes and the SSEAL skills in partnership, as they promote the development of social and emotional skills that are essential for young people to have now and for their future lives (DCSF, 2007).

There is evidence that if SSEAL is implemented as a whole school initiative then it can have a positive impact on the whole school population (including staff and students) and help to increase levels of emotional literacy and resiliency and reduce mental and emotional health problems such as anxiety, depression and reduce risk factors such as aggression (as cited in Weare & Gray, 2003). Weare (2004) suggests that by increasing the whole school's

awareness of 'Being Healthy' it allows staff and pupils to become more aware of their health related choices and resist social pressures and to become more assertive. Therefore, SSEAL helps pupils to understand and manage difficult emotions and know how to act in challenging situations. If a whole school approach is taken to implement SSEAL then the school's ethos and culture should make for an environment that reduces bullying and promotes a sense of feeling safe and secure (DCSF, 2007).

SEAL can support schools in meeting the criteria for delivering the Emotional Health and Well-being theme of the National Healthy Schools Programme. It provides a whole-curriculum framework for promoting the social and emotional skills that are necessary for positive emotional health and well-being now, and in the future. It also encourages a whole-school approach to creating an emotionally safe environment where these skills can be learnt and practised (DCSF, 2007).

SEAL provides a framework and some ideas for teaching social and emotional skills that are important in PSHE, within discrete lessons, across subjects and outside the classroom. SEAL emphasises that if pupils are to learn social and emotional skills they need to be promoted at all times and learned, reinforced and consolidated across school subjects and across the school day (DCSF, 2007).

The Year 7 SEAL resource is designed to be used as part of a whole-school approach to promoting the five social and emotional aspects

of learning (Self-awareness, Managing feelings, Motivation, Empathy and Social skills). Within each of these five aspects, a detailed set of learning outcomes can be identified, which is made up of four themes:

Theme 1: A place to learn (setting the context for learning) emphasising self-awareness.

Theme 2: Learning to be together (social skills and empathy).

Theme 3: Keep on learning (motivation).

Theme 4: Learning about me (understanding and managing feelings) and specific opportunities for reviewing all four themes. (DfES, 2007b).

A criticism regarding the whole SEAL programme comes from Baumeister et al. (2003) who found that there was no link between self-esteem and academic performance; he only found that those individuals with high self-esteem were happier and showed more initiative (as cited in Craig, 2009). Moreover, Emler (2001) found that low self-esteem was not a risk factor for educational problems or bullying (as cited in Craig, 2009).

Seligman (1995) states that it is not always beneficial to avoid negative feelings (as the SEAL programme advocates) in children, and

if this type of avoidance behaviour is persistent then it may backfire. He claims that “strong emotions such as anxiety and depression exist for a purpose: they galvanise you into action to change yourself or your world, and by doing so to terminate the negative emotion” (as cited in Craig, 2007). Therefore they act as an alarm system which warns us of loss, danger, etc and by trying to artificially protect children from these negative feelings undermines their emotional and social development (as cited in Craig, 2009).

Sykes (1995) maintains that by artificially boosting self-esteem it reduces academic performance, removes challenge, restricts useful feedback, lowers teachers expectations and gives children approving feedback for very little effort or achievement. Thus, it is no surprise that academic scores have dropped as self-esteem boosting has increased in children. However, caution is needed when considering Syke’s findings as his assumptions are based on correlational data and therefore cause-effect relationships cannot be clearly established (as cited in Craig, 2009).

Schools have a part to play in improving young people’s well being but only a part – not the main one. The SEAL programme assumes that all young people need to be exposed to the year on year intense exposure of the programme but schools should be able to decide what level of social/emotional need is necessary and enforce it in

their own way and not through central government programme (as cited in Craig, 2009).

A further point made by Craig (2007) is that children should not be taught how to feel and by using a whole school SEAL approach, pupils do not only have to identify their feelings but then express them, which is difficult for many children, especially boys. Furthermore, Craig (2007) states that if a school goes ahead with implementing SEAL then they are suggesting that all of their pupils need support with their social and emotional needs, and this is not the case, as some pupils are very good at managing their own emotions.

Research into Emotional Literacy: Intelligence or Literacy?

Steiner and Perry (1979) first coined the term 'emotional literacy' to refer to the ability to identify and communicate how we feel. Weare (2004) has described emotional literacy as:

"The ability to understand ourselves and other people, in particular to be aware of, understand, and use information about the emotional states of ourselves and others with competence. It includes the ability to understand, express and manage our own emotions, and respond to the emotions of others, in ways that are helpful to ourselves and others." (2004, p2).

Park (1999) claims that there is an uncertainty as to whether emotional literacy and emotional intelligence are the same thing or

different and which is the preferred term used in education. Steiner & Paul (1997) claim that there is no obvious distinction between emotional intelligence and emotional literacy. Both Goleman (advocating EI) and Steiner (Advocating EL) emphasise the ability to recognise one's own feelings, to read the emotional responses of others and to use both of these to develop positive relationships (as cited in Park, 1999). While the terms 'literacy' and 'intelligence' are currently used interchangeably, there is a tendency for the two approaches to be subsumed under the same terms. When used together, they can ensure that children and young people are in an emotional state that enables them to learn, and then they are able to get the most out of their learning (as cited in Park, 1999).

The recognition of emotional literacy as an important preventative strategy in the promotion of mentally healthy children and young people has significant implications for schools. According to Antidote (2002), schools promote emotional literacy by supporting staff to develop emotional resources they require to help young people develop their potential; secondly, creating opportunities for students to learn from and with each other through collaborative work that addresses both the emotional and intellectual aspects of learning and thirdly motivating staff, teachers, pupils and parents by exploring with them what they should be studying, how learning is

best encouraged and how schools might be managed (as cited in Coppock, 2007).

A model used to promote emotional literacy and skills in some secondary schools can be peer mentoring programmes. These programmes encourage pupils to support each other with their anxieties using different forms such as drop-in sessions and homework clubs. Evidence to support the use of peer mentoring programmes comes from Cowie & Hutson (2005) who found that pupils had an increase in self-confidence, self-esteem, and greater problem solving skills and with a reduction in incidents of bullying the school ethos allowed pupils to feel safer (as cited in Coppock, 2007).

Weare (2004) suggests that the most effective way to appropriately measure emotional literacy is through a whole school approach. For example, focusing on the totality of the school as an organisation in its community, including the school ethos, relationships, communication, management, physical environment, learning strategies, curriculum, special needs, procedures and responses, relationships with parents and the surrounding community, which allows for a more holistic stance to be taken when studying pupils and staff. This is supported by Lister-Sharpe et al., (2000) who concluded that whole school approaches are essential when

attempting to tackle emotional and social issues in schools (as cited in Weare, 2004,p. 55).

One of the key reasons for the exponential increase in the interest in emotional literacy within education are the purported benefits for pupils, both in terms of academic performance and of prevention, health and well-being (Romasz, Kantor & Elias, 2004 as cited in Perry, Lennie, & Humphrey, 2008). However, the research base supporting such claims for academic performance is inconsistent as Petrides, Frederickson and Furnham (2004) found using a structural equation modelling approach, that emotional literacy only moderated the relationship between cognitive ability and performance (as cited in Perry, et al., 2008). Moreover, Barchard (2003) found that measures of emotional literacy were unable to add to predictive validity of academic performance over and above the contribution made by cognitive and personality variables (as cited in Perry, et al., 2008).

Although there is a large body of research on emotional literacy in education, much of the current evidence base comprises of context-neutral experimental and quasi-experimental studies. Whilst useful and methodologically rigorous, such research tells us little about the contexts in which emotional literacy is promoted, or the processes that can be undertaken to improve initiatives in schools (Perry, et al., 2008).

There is however, evidence provided by Matthews et al. (2004) which suggests that there is no clear understanding on how or why emotional intelligence programmes work for pupils. One reason, he claims for this, is because much of the evaluations completed into SEAL have suffered methodological problems such as, having small sample sizes and no control groups.

There are limited tools that have been used to measure the emotional literacy of children and young people. For the purpose of this research the Emotional Literacy Assessment and Intervention Questionnaire will be discussed (Faupal, 2003). The questionnaire is based around Goleman's (1996) model of emotional intelligence. The Emotional Literacy questionnaire is based on two main areas, personal competence and social competence. Personal competence is divided into three constructs: self-awareness, self-regulation and motivation. Social competence is divided into Empathy and Social Skills. NFER Pupil Emotional Literacy Checklist comprises of 20 items made up from five scales: self-awareness, self-regulation, motivation, empathy and social skills. Each item on the checklist is rated from 1-4, and the pupil's total emotional literacy score is obtained by summing up the total scores for each item.

Research into Emotional Intelligence:

Salovey and Mayer (1990) termed the word 'Emotional Intelligence' (EI) integrating the ideas of emotion and intelligence and formed one of the first ability models of EI. From intelligence theory, Salovey & Mayer adopted the principles of abstract reasoning and adopted the idea that emotions are signals that convey regular meanings about relationships. They claim that individual differences account for how people process information of an emotional nature and their ability to relate emotional processing to a wider cognition (as cited in Mayer, Salovey & Caruso, 2000).

Mayer, Salovey, & Caruso (2000) state that emotional intelligence is comprised of two areas: experiential (the ability to perceive, respond and manipulate emotional information without necessarily understanding it) and strategic (the ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them). These two branches are further divided into four areas consisting of:

Emotional Perception: This is the ability of individuals to be self-aware of their own emotions and to accurately identify the emotional needs of others.

Emotional Assimilation: This is the ability of individuals to distinguish between different feelings they are experiencing and influencing their thought processes.

Emotional Understanding: This is the ability that individuals have to understand multiple, complex emotions and to recognise the transition from one emotion to the next.

Emotion Management: This is the ability to connect or disconnect to an emotion depending on how useful it is in a given situation.

The current measure of Mayer & Salovey's model of emotional intelligence is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). The test is comprised of 141 items and the scale yields six scores: an overall emotional intelligence score (expressed as an emotional quotient EIQ), two area scores (Experiential Emotional Intelligence and Strategic Emotional Intelligence) and four branch scores corresponding to the four branches of emotional intelligence (see above). (Brackett & Mayer, 2003).

Bar-On's Mixed Model of Emotional Intelligence

A further model of emotional intelligence comes from Bar-On (1997) who coined the term "Emotion Quotient" (EQ). Bar-On's model is process-oriented rather than outcome-oriented (as Mayer & Salovey) and focuses on an arrangement of emotional and social abilities, including the ability to be aware of, understand, and express oneself,

the ability to be aware of, understand, and relate to others, the ability to deal with strong emotions, and the ability to adapt to change and solve problems of a social or personal nature (as cited in Bar-On, 2006).

In his model, Bar-On outlines 5 components of emotional intelligence: intrapersonal, interpersonal, adaptability, stress management, and general mood. Bar-On (1997) posits that emotional intelligence develops over time and that it can improve through training (as cited in Bar-On, 2006). Bar-On claimed that individuals with higher than average E.Q.'s are generally more successful in meeting environmental pressures. Bar-on (2006) felt that those individuals lacking in the subscales of reality testing, problem solving, stress tolerance, and impulse control had difficulty in managing their emotions in challenging situations.

| Emotional Intelligence Components | Sub-Components |
|-----------------------------------|--|
| Intrapersonal | Self Regard Emotional Self-Awareness Assertiveness Independence Self-Actualization |
| Interpersonal | Empathy |

| | |
|-------------------------|----------------------------|
| | Social Responsibility |
| | Interpersonal Relationship |
| Adaptability | Reality Testing |
| | Flexibility |
| | Problem Solving |
| Stress Management | Stress Tolerance |
| | Impulse Control |
| General Mood Components | Optimism |
| | Happiness |

(as cited in Bar-On, 2006)

Bar-On's Emotion Quotient Inventory (EQ-i), is a self-report measure of emotional intelligence developed as an Emotion Quotient Inventory, which measures one's ability to successfully deal with environmental pressures (Bar-On, 2002). One hundred and thirty three items are used to obtain a Total EQ (Total Emotion Quotient) and to produce five composite scales corresponding to the 5 main components of the Bar-On model (as above) (Bar-On, 2006).

Goleman's Mixed Model of Emotional Intelligence:

Goleman's (1995) model of emotional intelligence outlines four emotional intelligence constructs. The first, self-awareness, is the ability to read one's emotions and recognise their impact while using gut feelings to guide decisions. Self-management, the second

construct, involves controlling one's emotions and impulses and adapting to changing circumstances. The third construct, social awareness, includes the ability to sense, understand, and react to other's emotions while comprehending social networks. Finally, relationship management, the fourth construct, entails the ability to inspire, influence, and develop others while managing conflict (as cited in Goleman, 1998 pg. 318).

Goleman (1998) includes a set of emotional competencies within each construct of emotional intelligence. Emotional competencies are not innate talents, but rather learned capabilities that must be worked on and developed to achieve outstanding performance (which is reinforced in the SEAL documentation). He claims that the organisation of the competencies under the various constructs is not random; they appear in synergistic groupings that support and facilitate each other (as cited in Boyatzis, Goleman, & Rhee, 2000). Goleman’s self-competences can be seen below:

| Emotional Intelligence Competencies SELF Personal Competence | OTHER Social Competence | |
|---|---|---|
| RECOGNITION | <u>Self-Awareness</u> Emotional Self-Awareness Accurate Self-Assessment Self-Confidence | <u>Social Awareness</u> Empathy Service Orientation Organizational Awareness |
| REGULATION | <u>Self-Management</u> Self-Control Trustworthiness Conscientiousness Adaptability Achievement Drive Initiative | <u>Relationship Management</u> Developing Others Influence Communication Conflict Management Leadership Change Catalyst |

| | | |
|--|--|--|
| | | Building Bonds Teamwork and Collaboration |
|--|--|--|

(as cited in Goleman, 1998).

Daniel Goleman developed the Emotional Competency Inventory (ECI) as a measure of emotional intelligence based on his emotional intelligence competencies. It measures 20 competencies, organised into the four constructs outlined by Goleman's model: self awareness, social awareness, self management, and social skills. Each respondent is asked to describe themselves or the other person on a scale from 1 (the behaviour is only slightly characteristic of the individual) to 7 (the behaviour is very characteristic of the individual) for each item, and in turn these items are composed into ratings for each of the competencies. The respondent is left with two ratings for each competency: a self rating and a total other rating (as cited in Boyatzis, et al., 2000).

Evaluation of the Models of Emotional Intelligence:

Despite the existence of three distinct models of emotional intelligence, there are theoretical and statistical similarities between the various conceptions. On a global level, all of the models aim to understand and measure the elements involved in the recognition and regulation of one's own emotions and the emotions of others (Matthews, et al., 2004). All models agree that there are certain key components to emotional intelligence, and there is even some consensus on what those components are. For example, all three models of emotional intelligence implicate the awareness (or perception) of emotions and the

management of emotions as being key elements in being an emotionally intelligent individual (as cited in Brackett & Mayer, 2003).

Contradictory evidence of Goleman's research and his impact on the development of the SEAL programme derives from Paul McHugh an American Psychiatrist who claimed that it was disgusting that the use of Goleman's research is so wide spread, especially when using children. He claimed that children should not be taught how to feel in certain situations, when adults cannot even do that. Therefore, how are teachers going to teach 30 children in a classroom what feelings are appropriate? (as cited in Craig, 2009).

A number of limitations have arisen from Craig (2007) who states that Goleman's definition of emotional intelligence is spurious and distorted the original work of Mayer et al. (2000). Matthews, Zeidner & Roberts (2002) concluded that "there are major problems with validating emotional intelligence as a scientific construct". Thus, Goleman has taken the concept of emotional intelligence and added to it certain positive personality characteristics, such as empathy and warmth which are not supported by Mayer & Salovey's original research.

The second and related criticism is that the work is based on shaky evidence. Le Doux (1998) argued that is very hard to gain conscious

control over our emotions and thus Goleman's claim that emotional control can easily be taught can be seen as ill-founded (as cited in Craig, 2009).

One criticism of the mixed-models of emotional intelligence is that they use self-report methodologies. According to Barrett, Miguel, Tan & Hurd (2001) self-report measures of ability have low reliability, low criterion-related validity, limited construct validity and can be easily faked (as cited in Zeidner, Matthews, & Roberts, 2004). There are also questions about whether students should be asked to self-appraise their intellectual ability (e.g., I am an extremely intelligent student) as this may not be the most valid way of measuring any intelligence.

Furthermore, Matthews et al., (2002) claims that tests of emotional intelligence that assess non-cognitive traits (such as, assertiveness, impulse control) seem to be tapping dimensions of individual differences that relate to established personality constructs rather than 'intelligence' per se (Zeidner, et al., 2004). Due to the problems of using self-report methods Mayer & Salovey et al (2000a) have advocated the use of objective, performance based ability indicators of emotional intelligence. Conversely, Roberts et al. (2001) states that it is difficult to determine objectively correct responses to stimuli involving emotional content and in applying truly veridical

criteria in scoring tasks of emotional ability (as cited in Zeidner, et al., 2004).

A further criticism of Mayer & Salovey's (2004) research into their model of emotional intelligence is that their model is predominantly descriptive; they describe the abilities that should be included in a model of emotional intelligence without developing an in depth analysis of what processes might be involved to produce them; their emphasis on general qualities such as the ability to regulate emotions says little about the specific functions that differentiate high and low emotionally intelligence individuals (as cited in Fiori, 2008).

A further limitation with Mayer & Salovey's assumption about EI is that they deem it to be an entirely conscious experience in terms of how they measure EI. Most items on the MSCEIT represent performance in hypothetical situations, therefore lacking ecological validity by observing individuals within their natural environment. For example, emotionally intelligent individuals are those who are able to identify the best strategy to cope with a situation characterised by high emotional involvement. Yet, some individuals may be good at mindfully thinking and describing how they should behave in a hypothetical situation but may respond differently if actually experiencing the situation firsthand (as cited in Fiori, 2008).

Furthermore, Sun, Merrill & Peterson (2001) claim that some individuals may be very good at performing a task but not at describing how they performed it or how it made them feel (as cited in Zeidner, et al., 2004).

There are potential problems regarding how the definition of emotional intelligence is conceptually coherent. Roberts (2001) claims that there is no clear, consensual definition of emotional intelligence and that conceptualisations can vary from an ability for processing information that is applied to emotions to a complex interaction of qualities of emotions applied in both interpersonal and intrapersonal situations (as cited in Matthews, et al., 2004).

Further differences are evidently clear when the researchers attempt to define how people reason about their emotions. For example, Mayer & Salovey (1997) believe that individuals with high emotional intelligence have the ability to accurately perceive and express their emotions and to generate feelings that facilitate their thoughts. In contrast, Goleman (1995) defined EI by claiming that EI represents all those positive qualities that are not IQ. On the other hand, Bar-on (1997) characterised EI as “an array of non-cognitive competencies and skills that influence one’s ability to succeed in coping with environmental demands and pressures. Therefore, there is no agreement over a true definition of emotional intelligence, as the

proponent argues it is a cognitive aptitude to process emotional stimuli and to facilitate the adaptation when confronted with challenging situations (as cited in Matthews, et al., 2004).

Also, the causal status of emotional intelligence as an influence on behaviour is often unclear. However, Bar-on (1997) and Goleman (1995) do not distinguish between cause and effect clearly. For example, Bar-on (1997) referred to happiness and positive mood as components of emotional intelligence whereas positive emotions could be better seen as outcomes, dependent on successful resolution. Also, it is assumed that emotional intelligence generalises across qualitatively different kinds of event and challenge this contrasts with theories of emotion that propose that each emotion is supported by a distinct neuropsychological system (Panksepp, 1998 cited in Matthews, et al., 2004).

In contrast to the psychological models of EI, are the neurobiological explanations, which propose that EI and IQ are separate and can be objectively measured. Affective neuroscience researchers state that their findings endorse the existence of a set of emotional abilities that are separate from standard intelligence (IQ) (Bechara, Tranel, & Damasio, 2000). Intellectual abilities (including spatial logic, abstract reasoning, etc) are based in the neocortex and EI has been found to exist in the neurological circuitry that links the limbic areas for

emotions (connecting the amygdale to the prefrontal cortex). Research using case studies have found that patients who have suffered ventromedial prefrontal lesions have difficulty processing emotional signals yet have intact intellectual capabilities (as cited in Bechara, Tranel and Damasio, 2000). Further empirical support for Bechara et al. (2000) comes from Davidson, Jackson & Kalin (2000) who used Positron-emission tomography scans (PET) and found that heightened activity in the amygdala increased negative emotions, although this activity is mediated by the medial pre-frontal cortex which produces neurons that inhibit the amygdala. Therefore, it appears that the circuit between the amygdala and the medial pre-frontal cortex regulates negative affect (Davidson, Jackson, & Kalin, 2000).

Research into Resilience:

A definition of resilience comes from Luthar, Cicchetti & Becker (2000) who suggest resilience to be “a dynamic process encompassing positive adaptation within the context of significant diversity.”

Call et al.,(2002) suggests that the concept of resilience has particular implications for adolescents. Adolescence is a significant period of biological, cognitive and social transition between stress and vulnerability, which can lead to high levels of risk and low levels of resilience.

Much of the research previously carried out into resilience has focused on children who had come from disadvantaged families. Thus, Ming-Hui (2008) states that there is a gap in the literature regarding resilience in a healthy population. There is also very little evidence that investigates whether there is a relationship between resilience and the introduction of SSEAL into schools. Historically, resilience research began with foci not on academic resilience, but rather psychosocial resilience (Ming-Hui, 2008). Psychosocial resilience research studied populations that were exposed to highly adverse environment, but who emerged relatively emotionally healthy. From this basis, a focus more exclusively to academic resilience has emerged and will be discussed later.

Resilience is a dynamic process that occurs in a context that is the result of the person in interaction with their environment (Rutter, 1991 as cited in Cefi, 2007). Contexts such as home, community, schools and classrooms have been shown to provide protection to children and young people at risk and to direct their development towards positive healthy pathways (Crosnoe & Elder, 2004 cited in Carmel Cefai, 2008 p.22).

Bronfenbrenner's (1979) ecological systems theory, with its representation of the developing individual embedded in a series of nested systems, provides a useful framework for analysing the

dynamics of resilience-promoting contexts such as schools. Schools provide a major and continuing context for cognitive and socio-emotional development. They have significant and sustained contact with most children and young people during the formative years of personality development, and thus they can be ideal places for cognitive and socio-emotional development to be nurtured and supported (as cited in Woolfolk, Malcolm, & Walkup, 2008 p. 92-93).

Evidence to support Bronfenbrenner's model comes from (Feinstein, Driving-Hawk, & Baartman, 2009) who completed a mixed-method study on an Indian reservation in the USA. The community had a high level of poverty and the majority of the population were Native American. The first half of the research consisted of 9 students who were identified as resilient (by their class teacher) being interviewed using the Circle of Courage and Bronfenbrenner's Ecological sub-systems model. The second part of the study consisted of 53 students completing a 10-item questionnaire. The most significant findings from the research were that those students who were identified as being resilient, 89% wanted to continue with their education and were highly involved with extracurricular activities. Furthermore, the findings showed that the resilient students had positive relationships with at least one adult. Moreover, there were several trends in the Mesosystem; in particular the resilient students'

parents participated more in school activities compared to the 'non-resilient' pupils.

Knight (2007) put forward a three dimensional framework for resilience, consisting of three main areas; resilience as a condition, as a practice and as a state. Resilience as a state is identified as "what resilience looks like". Bernard, Wolin & Wolin (1993) described the following categories of resilience as a competence: Emotional Competence, Social Competence and Futures Oriented (as cited in Knight, 2007).

Emotional competence consists of a sense of humour, positive self-concept, internal locus of control and autonomous. Evidence to support the concept of emotional competence comes from Masten et al. (1995) who completed a longitudinal research study and found that children who succeed in spite of adversity had more internal resources, were good problem solvers and had high self-esteem (as cited in Knight, 2007). In contrast, however, Twenge, Zhang & Charles (2004) found that when pupils are exposed to the SEAL programme there has been a shift from internal to external locus of control in pupils (as cited in Craig, 2007).

The Social Competence element of the three dimensional framework is comprised of communication, relationships and empathy.

Evidence to support this concept comes from Masten et al. (1995) who indicated that children who had supportive relationships with people in their lives, they were more resilient when faced with adversity (as cited in Knight, 2007).

Futures Oriented consists of optimism, problem solving, sense of purpose, critical thinking, being flexible and adaptive and pro-active. Evidence to support this component comes from Brissett et al. (2002) who found that there was a definite association between greater optimism and better adjustment to stressful life events for young people of both genders (as cited in Knight, 2007).

Resilience as a condition is to do with focusing on opportunities to minimise risk factors and enhance protective factors. Rutter (1993) emphasises the role of the family and social contexts over personal attributes and perceive family and community resilience as more important than individual resilience (as cited in Knight, 2007) and can be related to Bronfenbrenner's ecosystemic model described above. Howard & Johnson (2000) report an Australian study that looked at how resilient and non-resilient adolescents dealt with life events. They found that resilient students had a greater sense of belonging and autonomy and had a more positive attitude to their future than non-resilient students. They found that connectedness to at least

one adult was vital in developing resilient behaviour (as cited in Knight, 2007), which supports (Feinstein, et al., 2009) research.

One psychological model of resilience comes from Frederickson (2004) who suggests that resilience as a psychological construct can be best described as the 'broaden and build' theory of positive emotions. Frederickson (2004) observes that a sub-set of positive emotions; joy, happiness, etc can promote the discovery of novel actions and social bonds, which seem to build individual's personal resources. These personal resources, ranging from physical to intellectual to social and psychological function as reserves that can be drawn on later to improve the odds of successful coping and survival. In other words...positive emotions fuel resilience (as cited in Gu & Day, 2007).

Evidence suggests therefore, that positive emotions may fuel individual differences in resilience. Psychological resilience is a personal resource; the broaden and build theory makes a bolder prediction that experiences of positive emotions, might, over time, build resilience, not just reflect it. This is because positive emotions broaden the scopes of attention and cognition, enabling flexible and creative thinking and alignment of people's enduring coping resources (Frederickson & Jowner, 2002). More importantly, Frederickson (2004) identifies that the personal resources occurred

during states of positive emotions are durable, the transient emotional states that lead to their acquisition and through experiences of positive emotions people transform themselves, becoming more creative, resilient, socially integrated and healthy individuals (as cited in Gu & Day, 2007).

In contrast, there have been a number of studies into the biological components of resilience, focusing on the area of neuroscience. The Social and Emotional Aspects of Learning programme (DfES 2007) refers to Goleman and Le Doux's work on emotion and the brain. The research by Le Doux (1998) focused on the working of the brain and the amygdala in particular, showing that emotion rather than reason was often the determinant of action and that the emotional influence was frequently unconscious (as cited in McLaughlin, 2008).

Richardson et al. (1990) proposed a biological resiliency model, beginning at the point of homeostasis, where a person adapts their mind, body and spirit to a current life circumstance. Internal and external stressors are ever present and one's ability to cope with these events is influenced by both successful and unsuccessful adaptations and previous disruptions. Some factors can be ineffective therefore disrupting the homeostasis. In time, this response becomes reintegrated leading to one of four outcomes: the disruption represents the opportunity for growth and increased

resilience, whereby adaption to the disruption leads to a new, higher homeostasis. The return of baseline homeostasis in an effort to just get passed or beyond the disruption; recovering with loss, establishing a lower level of homeostasis. A dysfunctional state, where maladaptive behaviours are used to cope with stresses (K. Connor & Davidson, 2003).

One way of combining the research into resilience from biological and environmental explanations is the gene-environment interaction. The question to ask now is, how do genes and the environment work together to produce resilient children. Through gene environment interaction the effect of a gene on an outcome is conditioned by an environmental factor, or vice-versa. Accordingly, children who have genetic risks for maladaptive outcomes will show fewer and less severe symptoms if certain environmental factors are present that functionally reduce the genetic effect. Furthermore, children who have more environmental risks for disturbances in development will have fewer adjustment problems if they also have forms of particular genes that reduce or eliminate the environment risk effect (as cited in Deater-Deckard, Ivy, & Smith, 2006 p. 54).

Plomin, DeFries, & Loehlin (1977) has suggested three types of gene-environment (G-E) relationships passive, evocative and active. Passive (G-E) interactions may occur because parents transmit genes

that promote a certain resiliency trait. E.g., if we assume that resilience is genetic, then resilient children may assume to have parents who are resilient and who provide genes and the environment that promote resilient type behaviours. Evocative G-E may occur because genetically distinct individuals may evoke different reactions from those around them. E.g., resilient children may be chosen for specific programmes by their teachers. Active relationships between genes and the environment may occur because individuals actively select experiences that fit in with their genetically influenced preferences. E.g., resilient children may seek to engage in more emotionally demanding roles such as engaging in peer mentoring programmes (Plomin, et al., 1977).

Evidence to support the gene-environment interactions comes from a range of studies looking at resilience. For example the Copenhagen High Risk Study (Parnass et al., 1993) reported findings that adverse environments, including serious pre-and perinatal stress, have the most negative impact on individuals who are genetically vulnerable, among them the offspring of alcoholic and schizophrenic mothers (Werner & Smith, 2001 as cited in Werner, 2006 p.101).

Regarding the issue of subjective perceptions of risk in resilience research, Gordon & Song (1994) note that the meaning of a particular adverse event to the individual experiencing it can differ

substantially from that of the resilience researcher. Some individuals may see themselves as being relatively well off, even though scientists may define their life circumstances as being highly stressful (as cited in Gordon & Song, 1994).

There are two major issues when considering the instability of statistical findings of resilience. For example, if relatively stringent criteria are used (e.g., plus one standard deviation on both adversity and competence), then the researcher may end up with a small number of resilient individuals (Luther & Cushing, 1999 cited in Luthar, et al., 2000). In contrast, when competence criteria are operationalised less stringently when dealing with harsh life adversities the number of resilient children in a particular sample could be far from trivial (Cicchetti & Rogosch, 1997). Thus, research findings on resilience are not inevitably unstable because they involve small samples. In any study, the number of individuals classified as resilient will depend on the criteria used to define high stress and high competence. Moreover, a low frequency of occurrence should not disqualify any phenomenon from being the focus of scientific inquiry (Luthar, et al., 2000).

Pianta & Walsh (1998) point out that the science of resilience is immature and the ability to replicate experiences that cause or predict the success in the context of adversity have been lacking.

However, there has been some success in using naturalistic longitudinal studies to identify factors associated with success in high risk children (Pianta, Steinberg & Rollins, 1995). The knowledge of resilience is a long way off having the utility of experimental effects to promote success among high risk children in off the shelf school based programmes (as cited in Pianta & Walsh, 1998).

Furthermore, as noted by Doll & Lyon (1998) the construct of resilience grew from research in risk within the emerging field of developmental psychopathology. Unfortunately, therefore it is difficult to generalise many of the research findings to samples of students who are not classified as being developmentally psychopathic (as cited in Pianta & Walsh, 1998). Moreover, it is critical that efforts to promote resilience do not fall into the trap of single-factor explanations for success under conditions of risk. As Egeland, Carlson & Sroufe (1993) argue, success under conditions of adversity is clearly not reducible to a single set of circumstances, and it is clearly not only located in children. This suggests therefore that a reductionist approach to studying risk and resilience is not effective and therefore when focusing on SEL programmes they need to encompass a range of factors including, emotional literacy, well-being, self-esteem, etc (as cited in Pianta & Walsh, 1998).

Rigsby (1994) suggests that the term 'resilience' is bound in American cultural norms and cannot be divorced from the context of individualism. He suggests that American political and economic structures support the individualistic approach and believe it is always possible to overcome adversity by your own efforts and those who are overwhelmed by their circumstances are deemed to be lacking moral fibre (as cited in Lewis, 1999). Evidence to support Rigsby comes from Bartelt (1994) who states that a behavioural reaction labelled as 'resilient' conforms to dominant cultural values. For example a Hispanic community in the USA may have a strong pro-family ideology and the reality of poverty could lead to the young person seeking full time employment...would this act be defined as being resilient? By what criteria can we distinguish academic success as resilience from dropping out? (as cited in Lewis, 1999).

Bartelt (1994) criticises the methodological issues with the resilience research and its use in educational policy. He raises questions about the face validity, content validity and construct validity of the concept. He was asking whether the indicators of resilience measure what they purport to measure whether the concept is/can be empirically specified and whether the construct offers consistent relationships with other variables to which it is supposed to be related or unrelated (as cited in Lewis, 1999).

Resilience and SEAL:

Rutter (1993) claims that it is important to pay attention to those features that indirectly enhance resistance to psychosocial adversities. It has been argued that resilience is not an inborn trait or fixed attribute, but rather a set of alterable characteristics and skills that can be developed (Padron et al., 1999 cited in Poulou, 2007).

Resilience is discussed throughout the SSEAL guidance, and in particular, motivating students to bounce back from disappointment or failure. Werner & Smith (1988) suggest that schools are invaluable in providing external protective factors, which can be characterised by caring, attentive and stable environments and are success-orientated and acknowledge achievement (as cited in C Cefai, 2007). Rutter (1990) states that, schools and classrooms are a major arena for the social, emotional and cognitive development of students and designed to support, nurture and encourage optimal academic and social development in children (as cited in C Cefai, 2007).

Crosnoe & Elder (2004) claim that schools should strive to implement resilient-building strategies as part of their curriculum (in Poulou, 2007). Carter & Doyle (2006) emphasise a shift from clinical therapy

models to a more social curriculum of classroom management (an extension of the national curriculum) which promotes social, emotional and personal growth. They recommend that the social curriculum needs to include skills such as, solving conflicts, cultivating self-talk and self-monitoring abilities, developing resilience, empathy and character. The development of self-talk and self-monitoring abilities would act as a method of counterbalancing risk factors by increasing resilience. The resilient child would therefore be ably aware of affect in a range of contexts and cope with personal treats and have a positive attitude to life (as cited in Poulou, 2007).

Cefai (2007) states that resilience building can be done by schools through common contextual processes that promote positive social and academic behaviours amongst children and young people. Schools are therefore described as social systems protecting and supporting the growth and well-being of all the pupils, including children who are exposed to adverse life events.

Evidence from the DCSF (2007) identified that SEAL improves resilience levels in pupils, although there is limited further empirical support within this document to support that SEAL raises resilience levels. However, Connor & Slear (2009) correlated students' responses to emotional intelligence, anxiety and resilience and found

that those students with higher levels of emotional intelligence had higher levels of resilience and lower levels of anxiety.

Evidence to support the importance of having a positive school ethos in a school derives from Rutter et al. (1979). They studied 12 inner city comprehensive schools in London and found that students who came from problematic families were more likely to demonstrate resilient characteristics if they attended schools with a positive ethos such as academic pressure and high expectations and good student-teacher relationships (as cited in C Cefai, 2007). Further empirical evidence comes from Padron, Waxman and Huang (1999) who carried out a number of studies on the achievement of elementary and middle school pupils coming from low socio-economic urban minorities in the USA. They found that, in contrast, to their low achieving-peers, high achieving pupils reported more positive views of their educational experiences, involvement and aspirations, were more engaged in the classroom activities, and viewed their teachers as supportive and encouraging (as cited in Cefai, 2008 p.29).

One problem when distinguishing resilient from non-resilient pupils is the method of categorising these students. For example, many studies have used academic achievement as the criterion for identifying resilient students. There are however, reliability and validity concerns when measuring resilience using academic

achievement. Other studies have used teacher criteria for resilience. However, those pupils deemed to be resilient may simply fit into the teacher's expectations of the pupil. Thus, the use of teacher nomination to identify resilient children could be considered a limitation because teachers identifying a pupil as non-resilient could impact on their success – also, their judgement could be made by a biased decision about the student (C Cefai, 2007) .

Research into School Climate:

The terms 'school culture' and 'school climate' describe the environment that affects the behaviour of teachers and students alike. School culture is the shared beliefs and attitudes that characterise the organisation and establish boundaries for its staff and students. School climate characterises the organisation at the school building and classroom level and refers to the 'feel' of a school can vary from school to school (as cited in Freiberg, 1999, p.13-14).

Frieberg (1999) identified that the school climate reflects the physical and psychological aspects of the school that are more susceptible to change and provide the preconditions necessary for teaching and learning to take place and improve academic performance in pupils. There are a number of physical and social factors that can make up school climate ranging from the students

interactions to the leadership and decision making. A school identified as having a positive school climate generally has a physical environment that is welcoming and conducive to learning, have a social environment that promotes communication and interaction, have an effective environment that promotes a sense of belonging and self-esteem and an academic environment that promotes effective teaching and learning.

Feiberg (1999) measures school climate by direct and indirect measures. Direct measures include direct interaction with the pupils or teachers, gathering data through a range of methods, including diaries, observations, interviews and questionnaires. Indirect measures can include pupil attainment data.

Bronfenbrenner and Evans's (2000) Bio-Ecological Model can go some way to explaining the systems that are involved in a young person's life and their interaction with their school and wider community. Bronfenbrenner & Evans (2000) look at the broader social and cultural issues influencing the child (micro-system, mesosystem, exosystem and macro-system) which moves the focus away from the child and explores the social and cultural influences of the child's environment. Therefore, as a child grows it is their environment, which either helps or hinders their development (as cited in Woolfolk, et al., 2008, p. 92-93).

Using Tagiuri's (1968) taxonomy, one can categorise the environmental quality of an organization in four dimensions: ecology, milieu, social system, and culture. Applied to schools, the ecological dimension would refer to the physical and material aspects, such as the school building and school library. The milieu would be the average characteristics of the individuals in school, such as teachers' morale, staff stability, and students' background. The social system would be the formal and informal structures or rules that govern individuals and groups' interactions in school. They include principal-teacher communication, participation of staff in decision making, students' involvement in decision-making, collegiality, and teacher-student relationships. Finally, the cultural dimension is concerned with values and belief systems, such as student peer norms, expectation for success, and discipline in school (Gallay & Pong, 2004).

One way to account for differences in the climate dimensions is to look at their respective theoretical perspectives. The Input-Output theory sees the school as converting inputs into outputs. Each input is assumed in a linear fashion to contribute somewhat to output; inadequate output calls for more of the input variable (money, time, materials and teaching techniques) or a shift in the allocation of the resource. The variables focused on fall almost exclusively into the

ecology dimension in the taxonomy. In this economic view of schools, some combination of school inputs is thought to create a climate in which positive school inputs are produced. However, no direct means of measuring climate are involved. As a result, the input-output theory is criticised as being oversimplistic which does not adequately deal with the complexities of school influences on outcomes or with interactions of school or student inputs (as cited in Anderson, 1982).

In contrast, the Sociological theory is used to designate those research perspectives that present the school as a cultural system of social relationships among family, teachers, students and peers (Brooker & Erickson, 1975). Research considers how these relationships act to meet educational goals. Student behaviour is seen as a function of the social processes of the school: its norms, expectations, evaluations and relationships. In contrast to the input-output theory, the sociological theory emphasises the taxonomic categories of social system and culture. In early sociological climate studies, climate was defined in terms of 'milieu' by using objective characteristics such as ability, socio-economic status or race. Meyers & Rigby (1967) has led researchers to measure climate by social system and culture variables, separate from personal characteristics of the participants (as cited in Anderson, 1982).

The Ecological theory shares with the sociological theory a concern for social pressures and culture of an environment and a view of en masse behaviour as extra-individual. However, it also attempts to embrace the ecological elements of the input-output model in its concern for the criterion, maintenance and distribution of resources and the temporal and physical aspects of the environment. The Ecological theory claims to explore the 'functioning of the entire system' (Goodlad, 1975) and views all variables as potentially modifiable for the benefit of student outcomes. This model is the most inclusive out of the three models and is used both within schools and non-school environments (Eggleston, 1977 cited in Anderson, 1982).

Coleman (1975) claimed that there are problems when measuring school climate by using individual input variables. He states that school populations differ between schools and therefore it is not possible to make generalisations about the quality of a school by the achievements of the students, as other factors such as a low socio-economic status, parental educational level, differences in management structures need to be considered. Instead, it is necessary to control in some way for the variations in student input...in some way it is the increment in achievement that the school provides which should measure the school's quality (as cited in Anderson, 1982). Furthermore, Schneider, Glasheen and Hadley

(1979) concluded from their findings that “research that uses only one measure of outcomes, such as achievement scores may underestimate the treatment effects of the school (as cited in Anderson, 1982). However, even truly objective measures of climate such as ability and social composition are inadequate proxies for climate. Whether data comes from participants or outside observers, it is likely to be inadequate to some extent because as Sarson (1977) points out that “By virtue the fact that the observer is part of the structure his perceptions are distorted and biased” (as cited in Anderson, 1982).

Previous studies have found school climate to exert significant influence over children and youth. The most studied educational outcome of school climate is children's learning and academic achievement. A review of 40 major studies between 1964 and 1980, Anderson (1982) found over half of these studies reported effects of school climate on student achievement. High students' achievement is associated with high teacher commitment or engagement, positive peer norms, an emphasis on group or team cooperation, high level of expectation held by teachers and administrators, consistency in administering rewards and punishments, consensus over curriculum and discipline, and clearly defined goals and objectives. Some of these relationships between school climate and student achievement remain significant after students' background characteristics are

controlled (Anderson 1982). In fact, much of the observed variance in achievement that has been attributed to the school's socio-economic status (SES) composition may even be a result of school climate (McDill, Rigsby, and Myers 1969). (Gallay & Pong, 2004).

Thus it is important to examine how school climate is related to school children and youth's non-academic outcomes.

Among many social correlates of youth's health risk, school climate is found to be important. The first Health Behaviour in School-Age Children (HBSC) Study, conducted by the World Health Organization in 1983, examined youth's health behaviours, lifestyles and their social contexts in 28 countries. The study reported that students' perceptions of their decision-making role in school, and their feeling about being supported by their teachers or by other students, are correlated with smoking, physical activity, perceived health and quality of life. If students perceive dissatisfying and unsupportive school climate, they tend to smoke more, report a lower quality of life, and feel less healthy or physically active (Currie et al. 2000). (Gallay & Pong, 2004).

Evidence to support the evaluation of whole school Social Emotional Aspects of Learning (SEAL) in secondary schools comes from further empirical support comes from Haddon, Goodman, Park & Crick

(2005) who developed the School Emotional Environment Learning Survey (SEELS). The scale was developed to measure/evaluate the emotional literacy of a school as an organisation by eliciting staff and student experiences of being part of a community. It allowed schools to look at the emotions of individuals and whole schools. The SEELS project distinguished between an individual's personal ability to understand and process emotional information and the capacity that an individual has, in particular settings, to make use of relationships with others to better understand and process emotional information (therefore, something that develops between the organisation and the individual belonging to it, rather than belonging to either). As with this research paper, Haddon et al., (2005) focus on the organisation and not just the young person. Haddon et al's (2005) question was to explore those organisational factors in a school that facilitate or inhibit the practice of emotional literacy, and develop a means of evaluating the experience of emotional literacy.

In Haddon et al's (2005) research two schools were used in London, given open ended questionnaires, a draw and write exercise and an in-depth semi-structured interview. Pupils who were involved in the research were from both Primary and Secondary schools. A grounded theory was undertaken to generate theory through the identification of underlying phenomena that emerged in the data –

this therefore led to the development of the SEELS. From the interviews a thematic analysis was carried out where core themes emerged: people's emotional experiences, how people were communicating with each other and to what extent the organisation was supporting them through its structures and systems. The conclusions drawn from the data were that the SEELS data was effective for the school's self evaluation in relation to the school ethos and learning environment.

Anderson (1982) claims that because there is little empirical information about how to manipulate school climate, it is not, according to this position, a useful focus of research. Haller & Strike (1979) clearly articulated this criticism: "it is unclear, for example, why (much less how) an administrator or policy-maker might go about changing an organization's climate (as cited in Craig, 2007). Dreeben (1968) further noted that much of what is learned in school is an unplanned consequence of school or class structure and not the product of administrative decision or instruction. Similarly, Bloom (1976) distinguished between the manifest curriculum and latent curriculum. Policymakers tend to be concerned with the manifest curriculum, manipulated with money and resources, rather than with the latent curriculum created by school climate (as cited in Anderson, 1982).

Haplin & Croft (1963) developed the Organizational Climate Description Questionnaire (OCDQ) The 64-item climate assessment tool is comprised of 8 sub-scales relating teacher's behaviour to the principal; disengagement, hindrance, spirit, intimacy, aloofness, production emphasis, trust and consideration. After examining the questionnaires with 71 schools they found that they formed 6 clusters: open, autonomous, controlled, familiar, paternal and closed. There are however, limitations with Haplin & Croft's OCDQ, for example, the individual sub-tests are more predictive than the overall climate categories (Andrews, 1965). Also, the middle climate classifications (between totally open and totally closed) are of questionable validity – the proposed distribution does not hold up (Watkin, 1968). Furthermore, studies relating student achievement to the OCDQ climate continuum have generally shown inconsistent and theoretically meaningless findings (Flagg, 1964). Brown & House (1967) and Thomas (1976) concluded that the OCDQ has little consistent association with student achievement, suggesting that either the theory or the measurement device may be flawed. Despite the apparent inadequacy of the OCDQ to predict student achievement consistently, the instrument has had tremendous heuristic value and has promoted a broad-based interest in school climate within elementary and secondary education (as cited in Anderson, 1982).

The contribution of the research study to the current literature:

The contribution of this study to the work already carried out into the area of SEAL is that:

- The previous research into SEAL has not explicitly focused on Emotional Literacy and Resilience together,
- The previous research has not focused on the impact of school climate on emotional literacy and resilience,
- The instruments to measure emotional literacy, resilience and school climate have not been used together in one piece of research,
- Much of the resilience research is based on samples that have experienced negative life events,
- Much of the research into Emotional Literacy has been carried out in Primary schools, not secondary schools,

In light of the literature review, this research study will explore the processes that take place in a school when introducing a programme, like SSEAL and whether it is simply rolled out into the school as a 1 hour lesson in PSHE/Citizenship or whether it is fully embedded into the curriculum and pastoral system. More importantly, it is hoped that discussions with members of staff in the school will provide an insight into how SSEAL has developed since being introduced and the

impact that it has had on pupils' emotional literacy, resiliency levels and whole school climate.

Aims

Hypotheses

The aim of the current research project is to evaluate the impact and effectiveness of Secondary SEAL on a range of measures including emotional literacy, resilience and school climate.

HYPOTHESES/RESEARCH QUESTIONS

Paper 1: Paper on will explore the emotional literacy and resiliency levels after the introduction of Secondary SEAL into the school since 2007. In particular, whether the SSEAL programme is associated with relevant pupil skills to bounce back from a difficult situation and be more in tune with their emotions and the emotions of those around them.

Question 1: Is there an association between the introduction of Secondary SEAL into the secondary school and an increase in Year 8 Pupils' Emotional Literacy Levels?

Question 2: Is there an association between the introduction of Secondary SEAL into the secondary school and an increase in Year 8 pupils' resilience levels.

Paper 2: The second paper will focus on the processes involved within the secondary school when introducing Secondary SEAL (For example, factors that may impede/support the introduction of the initiatives of SEAL)

Question 1: This paper will explore the impact of introducing Secondary SEAL into the schools' pastoral system and Year 8 curriculum?

Question 2: Is there an effective assessment method that can assess the school climate once Secondary SEAL has been introduced into the school?

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