A comparative and exploratory study of the Nfer-Nelson Emotional Literacy Scale in an Irish context

Submitted by

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Declaration

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other university.

Signed ..... Date.....

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Acknowledgements

I wish to dedicate this thesis to my mother, Kathleen Flynn who taught me "When life gives you lemons, make lemonade".

I wish to extend many thanks to my family and friends who helped me through the celebrations and dark days while writing this thesis.

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Overview of research

Cross cultural differences and contested conceptual issues with the construct Emotional Literacy (EL) determine a need to explore the tools available for its measurement. It is this rationale that underpins this thesis' focus on the Nfer-Nelson Emotional Literacy scale which was developed and standardised in the UK by Faupel (2003). The Nfer-Nelson scale comprises three individual measures and provides three different perspectives on the student's emotional development. These are (i) a self report measure completed by the student themselves, (ii) an observational measure completed by the student's teacher and (iii) an observational completed by the student's parent. As psychometric tests standardised on one population can only be deemed valid and reliable for that population, the purpose of the present research is to provide comparative and exploratory data on the use of the Nfer-Nelson scale for 7-11 year olds using an Irish population of primary school children. This comparison and exploration is completed over two papers.

The purpose of paper 1 is to describe how an Irish sample of primary school children was identified and compiled and, secondly, to draw comparisons between the sample scores obtained from this Irish sample and those obtained by Faupel using his UK sample as reported in the test manual. Paper 1 presents comparisons and explores them at whole sample and subsample levels and the significance of the finding are discussed in terms of cultural differences in the development of EL. Also presented and explored in paper 1 are (i) the analysis of the inter-correlations between the 5 subscale scores for each of the 3 data sources (student, teacher and parent) and (ii) the inter-correlations within each subsample of the 3 data sources (student, teacher and parent). The significance of these

findings is discussed in terms of support or not for the conceptual model of EL that underpins the scale. This discussion is extended in paper 2.

Paper 2 explores the reliability and validity of the three scales. Internal consistency measures of the Nfer-Nelson scores are presented and compared to the UK sample. The significance of these findings is discussed in terms of the reliability and validity of the Nfer-Nelson scale. Relationships between (i) EL and academic achievement and (ii) EL and self esteem are presented and the significance of these results is discussed in terms of their support for the predictive validity of the Nfer-Nelson scale. The items in the scale are explored for face and construct validity and these findings are discussed in terms of the discrete difference between EL components and other constructs.

Findings and patterns from the statistical analysis of the data suggest the scale is appropriate to use cross culturally, however, the face validity of some of the items in the scale is questionable as they appear to measure competencies other than those related to EL.

PAPER 1/2

COMPARISON AND EXPLORATION OF IRISH AND UK SCORES FOR THE NFER-NELSON EMOTIONAL LITERACY SCALE

Abstract

Culturally specific development of Emotional Literacy (EL) skills suggest that self report and observer ratings on EL scales would differ across cultures. This study is the first of two which explores and compares the Nfer-Nelson Emotional Literacy scale (Faupel, 2003) scores reported in the manual with those found in an Irish sample with a view to demonstrating its appropriateness as a cross cultural measure of EL. The three part scale comprise student (N=188), teacher (N=163) and parent (N=175) scales. The scales were completed in schools with a disadvantaged (74% of sample) or non-disadvantaged status (26%). Irish scores were organised into categories using percentile ranges to allow for comparative analysis with the original UK sample. Overall patterns of scores were similar but the cut off point for children in need of intervention was higher in the Irish sample. Within sample differences were explored using t-tests and children from disadvantaged backgrounds rated themselves with statistically lower EL than their non-disadvantaged counterparts. Inter-correlations were run to explore the relationships between and within the three scales. A mixed pattern of correlations was found and some evidence supporting Goleman's construct of EL came from strong consistent relationships (correlation range 0.41-0.77) between the empathy and self-regulation subscales in the three scales. Differences between teacher scores suggests cultural differences in perception of EL and strong relationships between parent and student scales suggests a qualitatively stronger understanding of emotions shared between Irish children and parents compared with their counterparts in the UK. A major limitation of this study is that the Irish sample was largely disadvantaged (74%), whereas the UK sample was nationally representative.

Chapter 1: The study

1.1 Introduction

This research will explore and compare the Nfer-Nelson Emotional Literacy scale in an Irish context and compares an original Irish sample with the original standardised UK sample to test the scale's appropriateness as a measurement tool across cultures. The three part scale was administered to students, parents and teachers to obtain three data sources on a child's level of Emotional Literacy. This paper deals with potential differences in the development of Emotional Literacy across cultures and how these differences manifest in the scores of instruments which measure Emotional Literacy. Within-group differences in Emotional Literacy development relating to gender and economic disadvantage are explored within the Irish sample. The contested construct of Emotional Literacy is explored through analysis of the scores and relationships between the scales. This paper is the first of two which explores the Nfer-Nelson scale in an Irish context and the findings from this paper are extended in paper two which itself explores the reliability and validity of the scale.

1.2 Study Outline

The first chapter outlines the reasons why this research is important and states the motivations behind it. The rationale addresses cultural and gender differences in emotional development as a means to explore the Nfer-Nelson Emotional Literacy scale, henceforth known as the Nfer-Nelson scale, which is the subject of this study. Aspects of disadvantage are also addressed. Chapter two presents different definitions of Emotional

Literacy, henceforth known as EL. The theories and measurement tools associated with EL are then reviewed, especially those in relation to Trait theory, which underlies the Nfer-Nelson scale. A description of the scale is presented in chapter three along with the methodology used in this study. Chapter four presents the findings from the original Irish data collected here. The results of the original Irish data samples are presented in chapter five and are compared to the standardised UK sample. Furthermore, relationships between the Nfer-Nelson scales within the Irish sample are used to discuss the construct of EL.

1.3 Rationale for Study

There are two main rationales behind this study. The first is based on theoretical research and relates to the aspects of EL development which are culturally specific. These culturally specific aspects may affect how children are scored on associated instruments. Should this be the case, the use of standardised norms across cultures is brought into question. I chose to explore and use this instrument for my doctoral thesis as I have a strong professional interest in the social-emotional development of children. My background research in this area yielded no previous studies on the EL of children in Ireland. Psychometric tests are widely used in Ireland and the Nfer-Nelson scale is used for establishing Irish children's EL. The Nfer-Nelson scale is one of a few addressing the EL of children and background research suggests it is the only one which is partly school based. My motivation for completing this study developed from the lack of research in Ireland in this area and I used the Nfer-Nelson scale as it provides a holistic view of a

child's level of EL because it is completed by teachers as well as by parents and the children themselves.

1.3.1 Is Emotional Literacy Development Universal or Culturally Specific?

EL, as theorised by Goleman (1996) involves the ability to identify, understand, use, and manage emotions. It can be more definitively explained as a complex interplay of the appraisal, expression and understanding of emotional knowledge, as suggested by Saarni (1999). Whether there is a universal or culturally specific development of EL is a matter under debate (Elfenbein & Ambady, 2003) and is of particular importance in this study, as a culturally specific development of emotions would bring into the question the use of standardised EL instruments across cultures. Studies indicate that there are both similarities and differences between cultures in EL development (Cole Bruschi & Tamang, 2002; Cole Tamang, & Shrestha, 2006; Elfenbein *et al*., 2003; Joshi & McLean, 1994; Matsumoto, 1989) especially in relation to emotional appraisal and expression (Ekman, 1994; Russell, 1994) but the majority of this evidence relates to adults. It may be that some aspects of EL are universal and some learned as Elfenbein *et al*. (2003) put forward following a meta-analysis of related cross cultural studies. This meta-analysis suggested that although individuals can understand and recognise the emotional expressions of those from other cultures, they do so more readily when the individuals are from the same culture.

1.3.1.1. Appraisal of Emotional Events

The relative ease of recognising emotions within cultures may be due to differences that cultures demonstrate in the emotions they value (Harre & Parrott, 1996). This value system was illustrated by Cole *et al*. (2002) who studied how children between 8 and 12 years from three different cultures appraise emotional situations. The children were interviewed and presented with nine different emotional situations and then asked related questions. They found that the children from Tamang (Eastern Nepal) appraised them in terms of shame i.e. that they had done something wrong (also found in Cole *et al*., 2006) and those from the USA and Brahnam (Western Nepal) appraised these situations in terms of anger i.e. that someone was standing in the way of their goals. The reasons behind the different methods of appraisal become clear when understood in the context of how the children were socialised. Cole *et al.* (2006) found that Brahnam adults respond to a child who is angry and ignore those who appear ashamed whereas the Tamang adults reprimand those who display anger and respond to the shamed child. In relation to the US children's form of appraisal, Ferguson, Stegge, Miller & Olsen (1999) state that Americans feel shame is damaging to children's self esteem. These adult behaviours and opinions are implicitly teaching the children how to identify and use emotional knowledge.

Whether the children in the Cole *et al.* (2002) study naturally appraise the situations in these terms is difficult to ascertain, however Joshi *et al*. (1994) reported that all children, irrespective of their culture became angry when they did not get what they wanted or were rebuked. Anger is a universal emotion typically associated with not getting one's needs met and Whiting & Edwards (1988) claim this response is typical of most children in communities worldwide, pointing towards a universal natural response to emotional

situations. The reported different forms of appraisal suggest different cultures promote the development of different EL skills i.e. those who appraise in terms of shame are developing interpersonal EL skills, as they show concern about doing something wrong, but appraisal in terms of anger suggests a lack of these skills. It was not clarified whether the protagonist in the story used in the Cole *et al*. (2002) study was an adult or a child and this may have had a serious impact on how the children emotionally interpreted the situation. How children are expected and socialized to behave around adults is different from how they do so with other children. The relevance of this fact becomes clear through my analysis of the Joshi *et al*. (1994) study which also investigates children's understanding of the distinction between real and apparent emotion.

1.3.1.2 Expression of Emotions

The importance of the protagonist should not be overlooked and needs to be clearly identifiable in research studies on EL as children express emotions differently to adults and children in some cultures. Joshi *et al*. (1994) illustrated this in their study with children in Indian and UK schools aged 4-6.5 years to whom they gave 12 different scenarios, some involving the concealment of emotions from playmates and others from adults. The findings from this study suggest that the concealment of emotion was only apparent in situations where there was an adult-child interaction but not with child-child. All children displayed this concealment of emotion, but at different ages (Pons, Harris & de Rosnay, 2004) with girls in Indian schools concealing emotions younger than boys in Indian schools and their British counterparts.

Concealment of emotions is preceded by an ability to recognise them, which has been found to be universal (Mesquita & Frijda, 1992; Matsumoto, 1989; Scherer & Tannenbaum., 1986). The universality of emotional recognition was illustrated by Ekman *et al.* (1987) in their extensive study involving 10 different cultures having to complete a complex judgement task. The results of this study suggest there is consistency in how different cultures interpret facial expression of emotion. The participants in Ekman's study were college students but more recent studies by have extended these findings to young children (Mesquita & Frijda, 1992). However, socialisation factors affect this universal perception of emotions by means of decoding rules (Buck, 1984) which determine how one should respond. This tendency not to express what one is feeling is a form of masking emotions as was shown by Friesen, (1972, cited in Ekman *et al*., 1987) when Japanese people smiled more than Americans during a stress inducing film. Masking emotions may be viewed as a form of self-regulation, an intrapersonal EL skill which develops at different rates and ages in different cultures.

It may be that the method of testing children's EL skills affects their understanding of emotions. Russell (1990) claims this is not so yet, Tenebaum, Visscher, Pons & Harris (2004) used a picture based test with 4-7 and 8-11 year old British and Peruvian children and found similar patterns of development. Although Peruvian children were less accurate at identifying the emotions, the sequential development of skills was similar i.e. recognition of emotion followed by regulation. Both the Tenebaum *et al* (2004) and the Joshi *et al.* (1994) studies indicate similar sequences of emotional understanding albeit happening at different ages (Pons *et al.*, 2004). The picture based Test of Emotions Comprehension used in the Tenebaum *et al.* (2004) study may account for the similar results across cultures as pictorial presentation is more culturally fair than language

based one (Chae, 2003). This idea is supported by the fact that certain languages, such as English have more references to emotional states than others and social meanings of words are not universal as stated by Mesquita & Frijda (1992).

1.4. In-group Differences in Emotional Literacy

As well as cross cultural differences and similarities, differences have been found in EL development between the sexes and in those from disadvantaged backgrounds.

1.4.1 Gender Differences in Emotional Literacy

The Joshi *et al*., (1994, also Dixon, 2007) findings reflect gender differences around skills which are expected in one sex but not in the other, again within a cultural context. It is difficult to determine whether these gender differences are exclusively culturally based or if they have a biological component as proposed by Knyazev, Slobodskoj-Plusnin & Bocharov (2010). Langlois & Downs (1990) and Leppanen & Hietanen (2001) suggest that there are somewhat universal gender stereotypes that encourage females to develop more of an understanding of emotion. Females are thought to be more empathetic (Billington, Bar-On-Cohen & Wheelwright, 2007) and generally better at perceiving emotions (Ciarrochi, Chan & Chaputi., 2000; Mayer & Geher, 1996). Bar-On (1997) found that females appear to have stronger interpersonal skills, whereas males were found to have stronger intrapersonal skills, be more adaptable and tend to be better at managing their emotions.

Gender differences are allowed for and tend to be reflected in the standardised scores of psychometric instruments administered to adults (Luebbers, Downey & Stough, 2007) and children (Faupel, 2007).

1.4.2 Children from Disadvantaged Backgrounds

The development of EL skills allows children to have a stable mindset which in turn enables them to be psychologically well and to access (listen, concentrate and comprehend) academic content. This is of particular importance to children from disadvantaged areas. Bredekamp & Copple (1997, cited in Webster-Stratton & Reid, 2003) illustrated that environmental factors associated with disadvantage such as poor anger management skills mean that children from disadvantaged backgrounds are not as likely to automatically learn emotional regulation and social skills. Although risk factors associated with social disadvantage such as high levels of violence (Gilliom, Shaw, Beck, Schonberg, & Lukon, 2002), exposure to residential instability and high levels of distress in adult caregivers (Brooks-Gunn, Duncan, & Aber, 1997) may increase the chance of maladjustment, they do not necessarily lead to emotional difficulties. Whether the children are maladjusted or have diagnosable emotional difficulties, both can have an adverse affect on their overall wellbeing. Poor EL skills have been shown to lead to poor peer relations, affecting self esteem and morale (Walden & Field, 1990) whereas the ability to recognise and label emotions has been correlated with adjustment or success in academic, personal and social settings (Jordan, Aston-James & Ashkanasy, 2006; Izard, 1971).

1.5 Summary

This chapter sought to outline the rationale and motivations behind this research. The universal and culturally specific nature of EL development was discussed and support from the literature was presented for both arguments. The effect socialization has on particular aspects of EL development, such as appraisal and expression of emotion was presented. It can be concluded that EL development is governed by both universal and culturally specific factors. EL is also subject to gender differences which typically result in females having stronger interpersonal skills and males having strong intrapersonal skills. Lastly, the development of EL skills may not be automatic in children from disadvantaged backgrounds and the lack of these skills can have adverse effects in academic and personal functioning. All these factors form the rationale for this study, that cultural and within group differences in EL development may affect how students are rated on instruments which measure this construct. These differences are explored here in relation to an Irish sample.

Chapter 2: Theory and Measurement Instruments

2.1 Introduction

Chapter two addresses the theory of EL in brief. This area has been written about extensively in the literature and a thorough review of the theories is beyond the scope of this study. The two approaches to EL, Ability and Trait are briefly discussed and the main corresponding theoretical models are defined. As the Trait approach underpins the instrument under exploration, only Trait models are compared and discussed. Scales which are unrelated to EL yet measure the same competencies are briefly addressed. Different methods of measuring EL are presented and this chapter culminates with the research aims of this study.

2.2 Definition of Emotional Literacy

There is no internationally agreed definition of EL but what we refer to now has been alluded to and developed in numerous ways in the past century. In 1990, Mayer and Salovey produced the first formal model and associated definition of Emotional Intelligence (EI) which addressed the personal appraisal and expression of emotions. Daniel Goleman popularised EI in 1996 with his book *Emotional Intelligence* which presented EI as an array of social and emotional competencies that contribute to managerial performance. Since 1996, many models have been suggested in the literature and there has been a shift in the terminology from EI to EL. These two terms are used interchangeably (Claxton, 2005; Park, 1999) and Humphery, Curran, Morris, Farrell &

Woods (2007) state that a qualitative difference between them has not yet been agreed on. For the purpose of this paper, progressive emotional development is referred to as EL as the term *literacy* has connotations of being malleable whereas *intelligence* evokes, in a traditional manner, a sense of being innate and fixed.

2.3 Theoretical Approaches to Emotional Literacy: Ability and Trait Approaches and Models

Theories of EL are typically viewed from an Ability or Trait approach and there are three accepted models within these approaches. The Ability approach is most prevalent in the literature and the original model developed by Mayer and Salovey (1990) defines the construct as the ability to perceive, understand, use and manage emotions to aid thinking. It is a cognitively based model which suggests a hierarchical progression from having basic abilities to more complex ones. Alternatively, the Trait approach views EL as a dispositional affect rather than a cognitive ability and is competencies based (Pérez, Petrides & Furnham, 2005). Both Goleman (1996) and Bar-On (1997) developed Trait models of EL. Goleman's model views EL as a cluster of social and emotional competencies that contribute to managerial performance and the Bar-On model describes EL as a cross-section of interrelated emotional and social competencies, skills and facilitators that impact intelligent behavior. A three-tiered model of EL has recently been suggested by Mikolajczak (2009). It combines aspects of both the Ability and Trait approaches such as knowledge, abilities and dispositions, but no empirical evidence relating to it is yet available.

Debates abound in the literature relating to the construct of EL. Theory (O'Connor& Little., 2003) and empirical findings (Petrides & Furnham, 2000, 2001) suggest that the Ability and Trait approaches represent two separate constructs and are not varying perspectives on the same thing. The distinction between the two is thought to be determined by the method in which the construct is measured and not the facets that hypothetically make up the construct as suggested by Perez *et al*. (2005). The Ability approach is typically measured using maximal-performance whereas Trait approach is measured via self report measures. Perez *et al.* (2005) suggest this integral aspect of instrument design has not always been adhered to.

There are numerous different measures of Ability and Trait EL, but I will only explore those labelled as Trait approach measures as this corresponds to the instrument under exploration.

2.3.1 Trait Approaches and the Tests that Measure them

There is a paucity of tests that assess the EL of primary aged children (Qualter *et al*., 2007; MacDermott, Gullone, Allen, King & Tonge, 2010), but the Nfer-Nelson Scale was developed in part for use with 7-11 year olds. The Nfer-Nelson scale produces a Total EL score which is the sum of three intrapersonal subscales self-awareness, self-regulation and motivation, and two interpersonal subscales empathy and social skills. The internal consistency values for these subscales were low-medium (0.34-0.88) and were sufficient for the Total EL (0.76-0.94). There is little literature available regarding this test and it is primarily used for screening and intervention purposes in primary schools. The Bar-On

Emotional Quotient Inventory (EQi; Bar-On, 1997) measures these same competencies and additional ones in the areas of stress management, adaptability and general mood (Appendix 1) and the reliabilities for all the subscales were high (0.62-0.89) with an overall reliability value of 0.93. Reliability of the EQi was confirmed by Rottman Scholtz, Sipsma & Sipsma (2002) who found cronbach alpha values of 0.93 upon replication of internal consistency measures. The greater number of facets addressed suggests the Bar-On model to be more comprehensive or alternatively, it could be viewed as being more applicable for adults (Qualter *et al.,* 2007), as it addresses aspects of emotional awareness and interaction necessary for mature interactions.

In the same line of thought, the more basic Goleman model may be more applicable for children's EL and is reported by Faupel to be as comprehensive as is needed for this age group. Other theories, he suggests are more related to the world of adults and their work interactions. The Emotions Competency Inventory (ECI; Boyatzis *et al*., 1999) is an instrument which measures 20 dimensions which cluster into 4 competencies namely self-awareness, self-management, social awareness, and social skills, and theoretically assesses factors akin to those in the Nfer-Nelson scale. The ECI has high internal consistency (0.7-0.85) but as it is mainly used in resource management settings, it is not appropriate for young children or primary school settings. The Dulewicz & Higgs Emotional Intelligence Questionnaire (DHEIQ; 2001) is also based on the Goleman model of EL. It was developed for use in organisational settings which may account for why it measures areas such as influence, decisiveness, interpersonal sensitivity, conscientiousness and integrity. In theory, these facets are also relevant to young children but the instrument would not be appropriate for young children due to the

design intention for organisational settings and the low-moderate internal consistencies (0.54-0.71). Comparison of all these different instruments shows there is little consistency in the facets they measure and indicates little reference to underlying Trait theory. Perez *et al*. (2005) suggests that this is due to poor understanding of the underlying theory, the difference between Trait and Ability EL and subsequent poor measurement design.

2.4 Scales other than Emotional Literacy Scales which appear to Measure the Same Competencies

The competencies theorised to make up EL have also been measured in other scales. Some scales consider the individual EL competencies as their own separate constructs e.g. The Assessment of Basic Social Skills (Riggio, 1986) is a 64 item scale that addresses only social skills. However, pro-social behaviour is measured as part of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997).The Hogan Empathy scale (1969) measures just empathy and relates it to Moral development. Numerous other scales are available that relate self-regulation and motivation to aspects of human functioning and varying constructs including Social Exclusion (Mehrabian, 1994) and Overall Wellbeing (Ryan & Deci, 2000). Are these competencies aspects of EL, their own constructs or are they related to many different types of behaviour? Humans are highly complex and all so individual that empirical drives to establish psychological constructs as discrete entities may continue to no end. Aspects of cognitive and emotional functioning overlap and affect each other to varying degrees in different individuals.

2.5 Emotional Literacy as an Achievement

The dispositional nature of Goleman's theory relates to self-efficacy, where an individual has the capacity and skills to achieve a desired outcome (Bandura, 1989). This nature underpins the Nfer-Nelson scale which is designed to allow a child be assessed, develop their skills with tailored intervention supplied as part of the instrument and be re-assessed to gauge their progression. In this way, pre and post intervention measures allows EL to be viewed as an achievement of its own, where intervention can improve and develop ones skills.

2.6 Observational and Self Reports of Emotional Literacy

The Nfer-Nelson scale uses both self report and observational methods of measurement to allow for triangulation of information. Allik, Realo, Mottus, Borkenau, Kuppens & Hrebıckova (2010) state that an observer cannot provide accurate information on another's emotional interpretation as they do not see the target person in all situations. Furthermore, there is a tendency for observers to intellectualise and schematically categorise behaviour and ignore the emotional components (Nigro & Neisser, 1983). Self reports may not always be accurate due to inflated or deflated views of oneself (Sjoberg & Engelberg, 2004), however individuals have the best perspective on their own internal emotional states as reported by Beer & Watson (2008) and even elementary aged children are able report on their own emotions (Selman, 1981). However, self-awareness is required for accurate self report (Duval & Wicklund, 1972 cited in Silvia, 2002). Reliably measuring self-awareness is difficult to attain in self report and observation alike

but Strayer and Roberts' (1997) have defined emotional self-awareness as the concordance between observed and self reported emotion. Little is known about the processes contributing to self-awareness (Warren & Stifter, 2008) yet a simple 4/5 item subscale is used to measure it in the Nfer-Nelson scale. Small numbers of items can put the construct validity and reliability at risk however Cook, Hepworth, Wall, & Warr (1981) claim that internal consistency can be obtained with as few as three items. Self-awareness is not exclusively related to emotional awareness and although integral for successful social interaction (Saarni, 1999) may need to be considered in far more depth than is done in this model. Potential construct difficulties with self-awareness could lead to construct difficulties with EL.

2.7 Research Aims

This research aims to explore the Nfer-Nelson scale for cross cultural purposes and construct difficulties, and the following questions are posed. Do the Irish and UK samples have similar score patterns? Are there significant subsample differences within the Irish sample? What types of relationships are present between the subscales and between the three sources of data? Many of the results presented in this paper are comprehensively discussed in part two of the study where reliability and validity are explored.

2.8 Summary

The theory underlying EL is highly debated in the literature. There are numerous models available to measure Trait EL however; inconsistencies arise in the competencies and methods of measurement these scales use. Self-awareness is integral for EL and is one of the competencies theorised and measured in the Nfer-Nelson scale through self report and observation. The simplification of self-awareness and general difficulties with measuring it raises questions regarding its construct and therefore the construct of EL.

Chapter 3: Methodology

3.1 Introduction

This chapter introduces the Nfer-Nelson scale, the competencies it assesses and cut off points for the scores where EL intervention is deemed necessary. Features of the standardisation process are described. The design and methods employed in this study are then presented, followed by the administration and scoring of the scales. Finally an overview of the procedural analysis of the data is reported.

3.2 The Nfer-Nelson Emotional Literacy Scale

This instrument was developed and standardised in the UK in 2003. It has two tests, one for 7-11 year olds and another for 11-16 year olds. The present research deals only with the exploration of the former test.

The overall instrument comprises three individual scales namely the student, teacher and parent scales and these provide three different sources of data on the child's level of EL. A child's EL is measured through self report in the former scale and by observational report in the latter two. The student and parent versions both have 25 questions and the teacher version has 20 questions (Appendix 2).These individual questions are combined in groups of 5 (parent and student) and 4 (teacher) to form the five subscales, which are theoretically underpinned by Goleman's Trait theory of EL. Faupel, the author of the Nfer-Nelson scale, stated there was *"a practical need to keep scales short* " (pg 31) but one would presume this aspect should not compromise the primary focus of the scale, to

accurately measure EL in children. The UK sample had low to moderate correlations between the student and parent scale (r = 0.29), student and teacher (r = 0.42) and the teacher and parent (r= 0.43) scale. The subscales comprising EL can be separated into interpersonal and intrapersonal skills. The interpersonal subscales are self-awareness e.g. "*Can recognise the early signs of becoming angry"*; self-regulation e.g. *"Is a bad loser",* and motivation e.g. "*When starts a task, usually sees it through to completion*". The intrapersonal subscales are empathy e.g. *"Is tolerant of people who are different from him/her"* and social skills e.g. "*Can make friends again after a row.*

The items in the scales were originally selected by multidisciplinary teams who were involved in EL projects and initiatives in schools in Southampton, UK. Early editions of the scales were trialed, analyzed and ultimately the items making up the final scales were deemed to be adequate and appropriate measures of each of them.

The test has previously established reliability and validity from the UK standardization. These are reported and discussed in comparison to the Irish sample in the relevant sections in this paper and paper two.

The three part method of data collection allows for triangulation and distinguishing personal from other person perspective. This allows one to see if the major area of difficulty is due to a lack of personal or social competence. The manual provides five score bands i.e. sample norms with descriptive categories for interpretation of a child's EL scores. The five descriptions move through Well Below Average range up to Well Above Average range. Only those children falling in the Well Below Average range are deemed to be in need of intervention.

3.3 Design of this Study

A non-experimental fixed design was used as no situation was manipulated. The administration process had already been established by Faupel (2003) and so this research is evaluative. Although non-experimental in design, there is a distinctive purpose of replication (Robson, 2007) and evaluation through exploration of the measurement tool.

3.4 Participants

The children in this sample came from 7 schools in Northside Dublin. The children were aged 7-11 inclusive. In the total sample there were 190 individual children (N (Total) = 190, N (males) = 112 and N (Female)=78) .

188 children completed the student scale and two children were absent during the administration.

27 teachers returned 163 individual child scales and a further 27 scales were completely missing due to failure of teachers to return them.

175 parent scales were returned by individual parents. 15 parent scales were not returned.

3.5 Procedure for Compiling Sample

Initial sampling aimed to be nationally representative, to replicate the UK procedure. This resulted in a stratified sample which represented a largely disadvantaged population. No additional information was provided by the Nfer-Nelson manual on their sampling procedure and therefore cannot be critically analysed.

Twenty-one percent of the Irish primary schools are considered to be socially disadvantaged, and receive additional resourcing from the government (DES, 2008). These schools have been designated as disadvantaged, termed DEIS (Appendix 3) which is pneumonic for *Delivering Equality of opportunity In Schools* (also Gaelic for Opportunity). Schools without this status are referred to in this study as Non-DEIS. Attempts were made to obtain a representative sample of children from schools in Northside Dublin i.e. 33% DEIS and 66% Non-DEIS. Twenty schools were randomly chosen from a list of Northside Dublin schools. They were contacted (school letter, Appendix 4) and invited to take part. These letters were followed up by phone calls to ascertain the school's willingness to participate. Ultimately, seven schools agreed to take part. These schools have been anonymised and are listed in Table 1.

Table 1

Irish Schools Sample: Sex, Status, Participants and Teachers

School	Sex	Status	Number of students	Number of Teachers who completed scales
A	Female	DEIS	19	5
B	Male	DEIS	30	2
C	Male	Non-DEIS	22	3
D	Male	DEIS	32	3
E	Mixed	Non-DEIS	27	5
F	Mixed	DEIS	30	5
G	Female	DEIS	30	4
TOTAL			**190**	**27**

All schools were asked to choose four children whose birthdays fell nearest to June 30th (a random date) in each of the age groups 7-11. One school agreed and sent consent letters home to the chosen children. Through consultation, it became clear that 5/6 other schools felt this method would not yield the best response and instead sent consent letters to all children in the relevant classes. One school (School E) choose to send the consent forms to only their 3rd class (equivalent to Key stage 2, Year 4/5) students, as they had four 3rd classes.

The final sample comprised 59% boys and 41% girls and 74% of students attended DEIS schools and 26% attended Non-DEIS schools.

Following confirmation of interest, the schools were visited and the research plan was discussed. They were provided with the parent checklist (Appendix 2), attached to a brief information sheet for the parents and the consent form (Appendix 5). Information on anonymity, confidentiality and what the information would be used for was provided. The initial parent letter was deemed too comprehensive for parents, and schools requested a shorter, less formal letter (Appendix 5). Some schools wrote their own information letter for parents, using the initial parent letter as a template (Appendix 4).

3.6 Administration of the Student and Teacher Scales

Teachers were informed of the assessment procedure and a list of the participant children was given to each teacher, along with the relevant number of teacher scales to be completed.

Verbal assent was obtained from each child, who was assessed individually with no time limit imposed. The purpose of the assessment was explained to them in brief, along with their rights to confidentiality and anonymity. The questions were read to all children, to ensure 100% response rate and as a means of guarding against any possible comprehension difficulties that may have arisen, which would have rendered the test administration invalid. In that children's literacy skills/levels had not been ascertained by me, it was not safe to assume that all participants would be able to read the test material.

The children were invited to ask questions at the end and any necessary explanations and clarifications were provided.

3.7 Scoring the Scales

The three scales were scored according to the scoring keys provided by the Nfer-Nelson manual with all reverse questions already reversed. Individual subscale (five) scores were arrived at by adding the scores obtained on the questions making up the individual subscales. Total EL scores were obtained by summing the five subscale scores.

The Nfer-Nelson manual does not instruct users how to deal with unanswered items. For items left unanswered, the means were computed for individual subscales by averaging an individual's score from the available data.

3.8 Analysis of data

Descriptive statistics were computed for the Irish sample. Normative tests were run on the Irish sample. Independent T tests were run within the Irish sample for comparative gender analysis. Inter-correlations were run between the five subscales for each of the three versions of the scale and also for each subscale between the three scales.

Comparative score ranges for the Irish sample were determined using the same method employed for the UK sample. Table 2 is taken from the Nfer-Nelson manual and describes the methods used for identifying Children In Need of EL Intervention i.e. only those

students falling in the Well Below Average range. The score ranges were computed as follows. Students with scores falling in the bottom 10 per cent in the sample are considered to be Well Below Average (and therefore in need of intervention), scores falling in the middle 50 per cent lie within the Average range, and scores falling in the top 10 per cent are deemed to be Well Above Average. This use of percentiles adheres to standardised methods of categorising children in need of support in Ireland (DES, 2005). Also, it was necessary to use the same categorisation method as was used in the UK sample so the data could be comparable. Age groups for the Irish sample were formed such that if the child was 7 at the time of testing, they were grouped under age 7.

Table 2

UK Sample: Score bands, Percentile Scores and Descriptive Categories

Score band	% of students in that band	Description	In need of intervention
1	10	Well below average	Yes
2	15	Below average	NO
3	50	Average	
4	15	Above average	
5	10	Well above average	

Chapter 4: Findings

4.1 Introduction

This research explores the Nfer-Nelson scale in an Irish context and the areas under investigation include looking for similarities between the Irish and UK samples score patterns, subsample differences within the Irish sample and possible relationships between the subscales and between the three data sets. This following section contains sample demographics and patterns of unanswered scale items, descriptive statistics and normality graphs for the Irish sample. Comparative scores for the Irish sample are provided. The results of the comparative gender analysis are reported to reflect the UK sample analysis.

4.2 Sample Demographics

Table 3 lists all the children in the sample in terms of the status of the school, age and gender of participants.

Table 3

Irish Sample: Age and Gender of Participants organised by Schools Status

Demographics		DEIS Frequency	Non-DEIS Frequency	Percent
Status	DEIS	141		74.2
	Non-DEIS		49	25.8
Total		**190**		**100**
Age	7 years	22	1	12.1
	8 years	27	5	16.8
	9 years	35	25	31.6
	10 years	36	15	26.8
	11 years	21	3	12.6
Total		**141**	**49**	**100**
Gender	Male	79	33	58.9
	Female	62	16	41.1
Total		141	49	**100**

The entire sample consisted of 190 children and 74.2% of the children were from DEIS schools.

The full battery of scales comprising all three student, teacher and parent scales was not returned for all 190 children. In some cases, an entire scale e.g. parent scale, was not returned (See section 3.4) and in other cases, incomplete scales with some questions

unanswered were returned. Of those parent and teacher scales that were returned incomplete, there were some patterns of unanswered questions.

4.3 Item Attrition Patterns

Incomplete data sets had the mean derived (see section 3.7) as various questions on both parent and teacher scales were left incomplete.

On the teacher scale, there was a pattern where question thirteen "*Can recognise the early signs of becoming angry"* (self-awareness subscale) was frequently not answered; it was left unanswered in 66% of the incomplete scales. The other unanswered questions formed no pattern.

On the parent scale, question six "*Is tolerant of people who are different from him/her*" (Empathy subscale) and question sixteen "*Is very critical of others shortcomings"* (Empathy subscale) were left unanswered in 51% and 60% respectively of the incomplete scale.

4.4 Descriptive Statistics

Table 4

Student/Teacher/Parent Scales: Means (Standard Deviations) of the Irish Sample by Status, Age, Gender and Total Sample

Demographics	Mean EL(SD) Student			Mean EL(SD) Teacher			Mean EL(SD) Parent		
	DEIS	Non-DEIS	Total sample	DEIS	Non-DEIS	Total sample	DEIS	Non-DEIS	Total sample
Age 7 years (n= 23)	77.91 (9)	78 (-) *	77.91 (8.8)	66.23 (10.5)	70 (-) *	66.39 (10.3)	78.62 (8.2)	81 (-) *	78.79 (7.9)
8 years (n= 32)	78 (9.6)	80.6 (9.6)	78.41 (9.5)	64.96 (12.9)	68 (5.3)	65.48 (11.9)	74.84 (11.09)	80.6 (10.7)	75.8 (11.1)
9 years (n= 60)	77.97 (8.1)	81.17 (6.5)	79.27 (7.57)	64.87 (9.7)	67.07 (7.7)	65.74 (8.9)	73.09 (9.1)	75.28 (9.3)	74 (9.2)
10 years (n= 51)	76.69 (11.7)	81.64 (6.5)	78.08 (10.68)	64.35 (11.8)	66.87 (10)	65.12 (11.2)	73.71 (9.5)	77.43 (4.8)	74.78 (8.5)
11 years (n= 24)	75.52 (10.9)	79.67 (4.7)	76.04 (10.36)	62.29 (14.2)	69 (8.9)	63.13 (13.65)	72. 63 (9.7)	70.33 (19.5)	72.32 (10.9)
Gender Male (n=141)	76.46 (10.2)	81.6 (6.4)	77.98 (9.5)	64.05 (12.95)	67.66 (7.1)	65.18 (11.5)	74 (10)	76 (9.4)	74.58 (9.8)
Female (n=49)	78.32 (9.9)	79.79 (6.8)	78.59 (9)	65.07 (10.4)	66.4 (11.1)	65.25 (10.5)	74.27 (9.2)	76.8 (8.5)	74.89 (9)
Total sample (n= 190)	77.28 (9.9)	81.09 (6.5)	78.23 (9.3)	64.55 (11.7)	67.33 (8.1)	65.21 (11.03)	74.1 (9.6)	76.27 (9)	74.7 (9.5)

*This information relates to only one participant and therefore no standard deviation is necessary.

Table 4 shows the means and standard deviations of the Irish children's scores on the Nfer-Nelson scale. These are organised by status, age, gender and Total sample. There is a consistent pattern where the student's self report scores are the highest, followed by

parent scores and teacher's scores are the lowest. This pattern is similar to that in the UK sample, as determined from the UK norms. As means and standard deviations were not provided for the UK sample, no statistical comparison is possible between the Irish and UK samples. The data was analysed using SPSS 15 to determine if the data was normally distributed. As suggested by Tabachnick & Fidell (2007, pg 93), th**e** frequency distributions were investigated first to explore normality and this was followed by investigation of the associated plots. The parent sample (n=163) approximates a normal distribution as can be seen from the Q-Q plot (Fig 1) where the majority of scores lie close to the line. This normality is confirmed by inspection of the histogram (Fig 2) where the data can be observed to be approximately normal.

Figure 1: Normal Q-Q plot of the Overall Emotional Literacy scores from the Irish parent sample

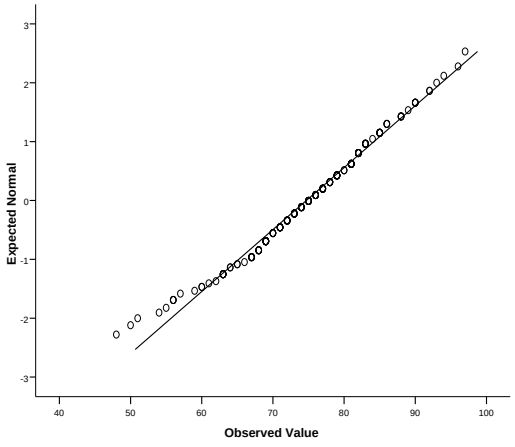
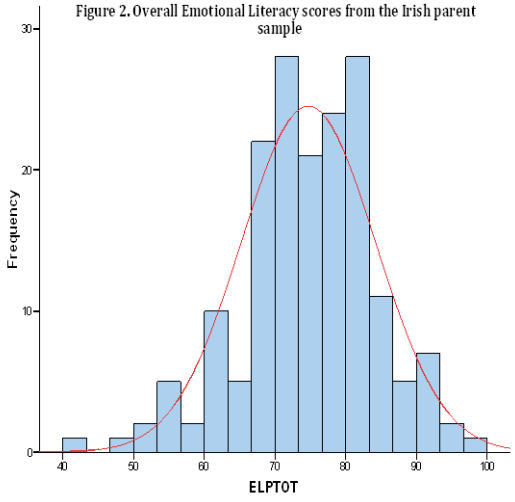


Figure 2. Overall Emotional Literacy scores from the Irish parent sample



The student sample (n=188) also approximates a normal distribution in the Q-Q plot (Fig 3) and normality is further confirmed by the corresponding histogram (Fig 4).

Figure 3: Normal Q-Q plot of the Overall Emotional Literacy scores from the Irish student sample

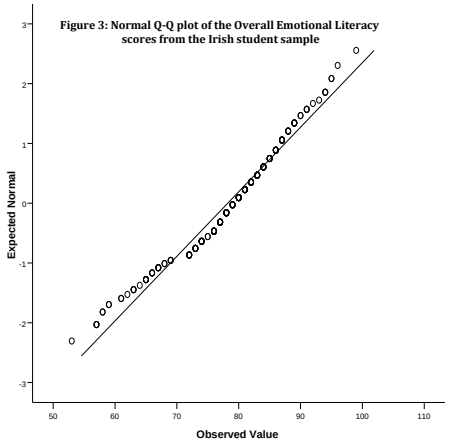
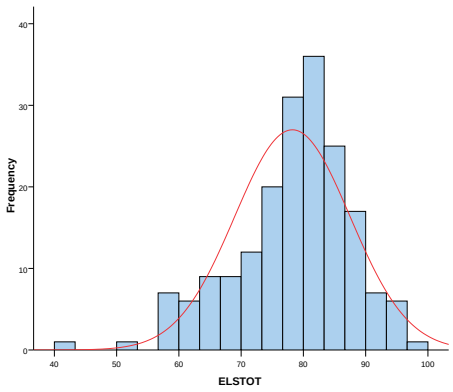


Figure 4: Overall Emotional Literacy scores from the Irish student sample



There are minor concerns with the teacher sample (n=175) where the Q-Q plot (Fig 5) indicates some scores are removed from the line, however the scores still form a relatively straight line. Inspection of the histogram shows that scores are typically clustering towards the higher end of the scale. This clustering in the teacher sample is reflected in the value for Skewness = -0.92. To allow for comparative analysis across the three data sets, the three scales are accepted as normal but findings related to the teacher sample are interpreted with caution.

Figure 5: Normal Q-Q plot for the overall Emotional Literacy scores from the Irish teacher sample

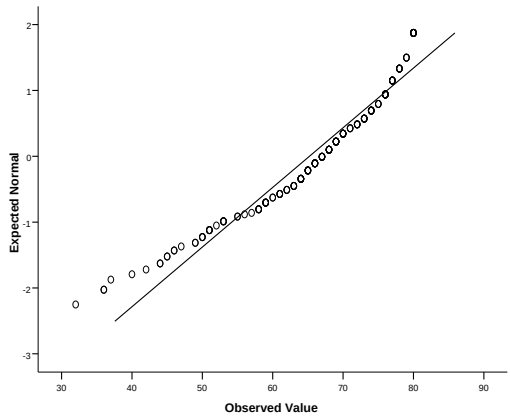
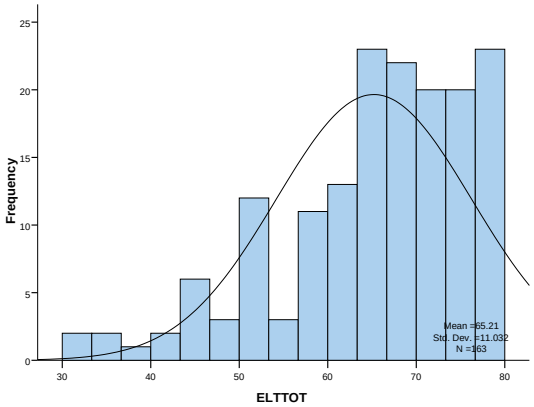


Figure 6: Overall Emotional Literacy scores for the Irish teacher sample



4.5 Irish Sample Scores

The score ranges for the Irish sample are provided in Tables 5, 6 and 7 for student, teacher and parent respectively, and the UK sample norms are also provided to allow for comparison (see section 3.8 for how the score bands were calculated).

Table 5

Scores and Descriptive Categories for Total Emotional Literacy for Irish and UK Student Scales

Score band	% of students in that band	Descriptive category	Score range Irish sample	Score range UK sample
1	10	Well below average	65 or below	62 or below
2	15	Below average	66-74	63-68
3	50	Average	75-79	69-81
4	15	Above average	80-88	82-87
5	10	Well above average	90 or above	88 or above

In the UK sample, the individual student subscales were not statistically reliable and therefore no individual subscale scores were provided. In order to replicate the UK sample procedure, no individual subscale scores were provided for the Irish sample. In addition, as found later in this research, the individual Irish student subscales were found not to be internally reliable. Table 5 shows similar patterns in the score ranges between the Irish and UK samples. The ceiling score for score band 1 i.e. Children In

Need Of Intervention, is higher for the Irish sample (65 or below) than the UK sample (62 or below). All the subsequent score bands are slightly higher in the Irish sample. Although the actual scores are different, the pattern of scores is similar.

Table 6

Irish/UK Sample Teacher Scales: Scores and Descriptive Categories for Subscales[1] and Total Emotional Literacy

Score Band	Descriptive Category	Score ranges for Total emotional literacy and subscale scores as determined by the Irish teacher scale						UK sample
		SS1	SA	SR	M	E	EL	EL
1	**Well below average**	10 or below	10 or below	7 or below	8 or below	10 or below	50 or below	42 or below
2	**Below average**	11-13	11	8-10	9-10	11-12	51-59	43-50
3	**Average**	14-15	12	11-13	11-13	13-14	60-67	51-69
4	**Above average**	16	13-15	14-16	14-15	15-16	68-77	70-75
5	**Well above average**	17 or above	16 or above	17 or above	16 or above	17 or above	78 and above	76 or Above

1 **For Tables 6, 7 and 8 the subscales are denoted Social Skills (SS) Self-awareness (SA), Self-regulation (SR), Motivation (M), Empathy (E) and; where applicable Overall Emotional Literacy (EL)**

In Table 6 the ceiling score for score band 1, is 8 points higher for the Irish teacher sample. The score ranges for both samples overlapped as EL increases e.g. Above Average score range was 70-75 in Irish sample and 68-77 the UK sample.

Table 7

Irish/UK Sample Parent Scales: Scores and Descriptive Categories for Subscales[1] and Total Emotional Literacy

Score band	Descriptive Category	Score ranges for Total emotional literacy and subscale scores as determined by the Irish parent scale						UK sample
		SS[1]	SA	SR	M	E	EL	EL
1	**Well below average**	15 or below	11 or below	8 or below	11 or below	12 or below	63 or below	60 or below
2	**Below average**	16-17	12	9-10	12	13-14	64-69	61-67
3	**Average**	18-19	13-14	11-13	13-14	15-16	70-75	68-80
4	**Above average**	20	15-16	14-16	15-16	17-18	76-85	81-86
5	**Well above average**	20	17 or above	17 or above	18 or above	19	86 or above	87 or above

In Table 7 there are similar patterns in the score ranges between the Irish and UK parent samples. The range of scores in some bands is much broader in the UK sample (68-80 for the Average range) than the Irish sample (70-75). As with the teacher scale, as EL increases, the scores range between the two samples overlap e.g. Above Average score range for the Irish sample was 76-85 and 81-86 for the UK sample.

4.6 Within Sample Comparisons

A number of t-tests were performed on subsamples of the Irish sample data set to explore within sample differences.

4.6.1 DEIS vs. Non-DEIS

A number of independent-samples t-tests were conducted to compare the Total EL between DEIS and Non-DEIS for the Irish student, teacher and parent scales. There is a significant difference in the student scale only, t (186) = -3.025, p= 0.01, indicating that the children from the DEIS schools rate themselves statistically lower than those from the Non-DEIS schools. There is a moderate difference in the means (eta= 0.046). There was no significant difference in scores for the teacher scales t(161)=-1.660, p=0.2 nor the parent scales t(173)=-1.390, p=0.18.

4.6.2 Gender Differences

A number of independent-samples t-tests were conducted to compare the Total EL for males and females in; the Total sample, the DEIS sample only and; the Non-DEIS sample only, for the student, teacher and parent scales. Gender analysis replicated analysis completed on the UK sample. There are no significant differences between student scores [t (186) = 0.442. p= 0.66], teacher scores [t (161) = 0.039, p = 0.969] or parent scores [t (173)= 0.208, p = 0.835] indicating no gender differences in the Irish sample.

4.7 Inter-correlations within and between Scales

A number of inter-correlations were run to explore the relationship between the subscales and the relationship between the three sources of data i.e. the scales.

4.7.1 Inter-correlations within Scales

Inter-correlations were run between the five subscale scores for each of the three data sets. The results are tabulated in Table 8.

Table 8

Irish Sample Student (S) Teacher (T) and Parent (P) Scales: Inter-correlations between Subscales within each Scale

		Social skills – SS			**Self-awareness -SA**			**Self-regulation-SR**			**Motivation (M)**			**Empathy E**		
		S	**T**	**P**	**S**	**T**	**P**	**S**	**T**	**P**	**S**	**T**	**P**	**S**	**T**	**P**
SS[1]	**S**	1			.27**			.32**			.28**			.26**		
	T		1			.63**			.55**			.51**			.51**	
	P			1			.33**			*.13*			.18*			.22**
SA	**S**	.27**			1			.37**			.39**			.26**		
	T		.63**			1			.57**			.60**			.48**	
	P			.33**			1			.37**			.46**			.27**
SR	**S**	.32**			.37**			1			.41**			.42**		
	T		.55**			.57**			1			.57**			.77**	
	P			.13			.37**			1			.47**			.41**
M	**S**	.28**			.39**			.41**			1			.45**		
	T		.51**			.6**			.57**			1			.51**	
	P			.18*			.27**			.47**			1			.22**
E	**S**	.26**			.26**			.42**			.45**			1		
	T		.51**			.48**			.77**			.51**			1	
	P			.22**			.27**			.41**			.22**			1

Correlation is significant at 0.05 level ** Correlation is significant at 0.01 level

There is a pattern of small to medium correlations as suggested by Cohen (1988) between the subscales in the student scale (range 0.26-0.45) and the parent scale

(range 0.13-0.47). There is a pattern of medium to large correlations between the subscales in the teacher scale (range 0.48-0.77).

The strongest correlation within the student scale is between the empathy and motivation subscales (r=0.45) .The weakest correlations (r= 0.26) are between empathy and self-awareness and between empathy and social skills.

The strongest correlation within the teacher scale is between empathy and self-regulation (r=0.77). The weakest correlation is between empathy and self-awareness (r=0.48).

The strongest correlation within the parent scale is between the motivation and self-regulation subscales (r=0.47) .The weakest yet significant correlation value is between motivation and social skills (r= 0.18).

4.7.2 Inter-correlations between Scales

Inter-correlations were run between the three data sets, student, teacher and parent for each subscale. These results are tabulated in Table 9.

Table 9

Irish Sample Student, Teacher and Parent Sets: Inter-correlations between the Data Sets for each of the Individual Subscales

	Student & Teacher	Student & Parent	Teacher & Parent
Total EL	.39**	.40**	.37**
Social skills	.27**	.34**	.23**
Self-awareness	.22**	.30**	.15
Self-regulation	.13	.17*	.22**
Motivation	.37**	.18*	.46**
Empathy	.20*	.21**	.18*

Correlation is significant at 0.05 level

****Correlation is significant at 0.01 level***

Table 9 shows the mixed pattern of correlations produced and all relationships are of small to medium strength. The strongest overall relationship is between the teacher and parent for motivation and the weakest relationship is between the student and teacher and for the self-regulation subscale. These results are influenced by different numbers of individual students (188), teachers (27) and parents (175) in each of the three data sets. Incomplete data sets were returned in the case of some of the teacher and parent sets and a mean was derived for these missing values.

Chapter 5: Discussion

5.1 Introduction

The purpose of this investigation is to explore the Nfer-Nelson scale in an Irish context and compare my findings to the original UK sample where relevant. The main findings included similar score patterns across the three data sets between the Irish and UK samples. No significant gender differences were found in the Irish sample according to this data set. Differences arose in the student's perception of their own EL, with children from DEIS schools rating themselves statistically lower than their Non-DEIS counterparts.

5.2 Between Culture Comparisons

Part of the exploration of the Nfer-Nelson scale compared the Irish and UK samples for similar score patterns. My findings indicate relatively similar patterns of scores in the three data sets across cultures. The greatest differences in scores arose between the teacher samples.

5.2.1 Student Sample Set

The patterns of scores between the Irish and UK student samples were relatively similar for Total EL suggesting no cultural differences in how the children in this study view their own EL, irrespective of the sample being mostly from disadvantaged schools. These findings are in line with previous studies by Tenebaum *et al*. (2004) where similar

patterns of recognition and regulation are seen across cultures and suggest homogeneity of young children's understanding of emotion.

5.2.2 Parent and Teacher Sample Sets

The parent samples also produced a relatively similar pattern yet the range differed for the descriptive category Average, by 5 points for the Irish sample and 12 points for the UK sample. This range is the broadest of the UK sample categories whereas the Above Average category is broadest for the Irish sample with 12 point range. The UK results adhere more to normal patterns of data distribution. The tendency of Irish parents' scores to result in a broader Above Average category may reflect a cultural difference in attitudes where Irish people are more optimistic when rating their children.

The greatest difference in the scores occurred between the teacher samples and this difference can be seen in the comparison of the descriptive categories for the lower score ranges i.e. Below and Well Below Average (Table 6). The cut off point for intervention would be 12 points higher in the Irish sample meaning the baseline for Irish children needing intervention would be higher than that of that UK sample. It must be noted that interpretation of results relating to the teacher sample should be done so with caution due to slight deviations in the normality of the sample. Also the small number of teachers (27) who completed all 163 of the children's scales may have led to a high level of consistency in teacher's answers. The tendency of Irish teachers to rate the lowest scoring children with comparatively higher scores may represent cultural differences in

how the observers rate the children. Just as the Irish parents may be more optimistic in their ratings of Irish children's EL so might the teachers be, as suggested by the higher cut off point. The tendency for both Irish parents and teachers to rate the children higher may reflect a different value system to the UK in relation to emotional expression as was found in the Cole *et al.* (2002) study. However, the negative skew produced in the Irish teacher scores (Fig 6) indicate they rated the children with disproportionately high scores and may be due to Irish teachers being more liberal than the UK teachers in their scoring. Further exploration of teacher's scoring styles may answer this.

Alternatively, the cultural difference may be due to Irish children masking their emotions in their interactions with adults, as was found in the Joshi *et al*. (1994) study. Personal observation and experience growing up in Ireland suggests that Irish children do mask their emotions especially in interactions with adults outside the immediate family and this may account for the lower teacher ratings. The strongest relationship between Irish sample scales is between parent and student (r=0.4) and supports this idea. Interestingly, this was the lowest correlation in the UK sample (r=0.29). This may represent cultural differences where the Irish parents are more in tune with their children's EL. This strong understanding between parent and child is further supported by low relationships between; the teacher and parent, r=0.37; the teacher and student, r=0.39 in the Irish sample whereas the relationships were moderate in the UK sample r= 0.43 and r= 0.42 respectively.

5.3 Within-group Differences: Irish Sample

Differences within the Irish sample were explored and a variety of findings resulted. The main finding indicate that Children from DEIS schools perceived themselves to have statistically lower EL than those from Non-DEIS schools.

5.3.1 DEIS vs. Non-DEIS

Differences were found between the students' self report from DEIS and Non-DEIS schools, with the former rating their own EL statistically lower. Does this indicate that the children from disadvantaged schools are aware of the comparatively lower level of their EL skills? Although individuals themselves are considered to be the best judge of their own EL (Beer & Watson, 2008), self-awareness is required for this (Duval & Wicklund, 1972) and it is difficult to establish the self-awareness of young children (Warren & Stifter, 2008). As we will see later in this research, the self-awareness subscale is found to be not reliable across all three groups and therefore the difference found between the DEIS and Non-DEIS groups needs to be investigated further. In addition, low EL skills are related to poor self esteem (Walden & Field, 1990). Therefore it is in fact possible that poor self esteem led the children from DEIS schools to return a low score in the data set.

5.3.2 Gender Differences

Gender differences were not found in the Irish sample, a distinct difference from the UK sample. The UK sample had 732 children whereas the Irish sample had 188 and a

comparatively bigger overall sample may have made the difference more obvious (Tabachnick & Fidell, 2007). There is a possibility that Irish males and females have equal skills in EL but the body of evidence relating to these differences would suggest not (Langlois & Downs, 1990; Leppanen & Hietanen, 2001).

5.3.3 Relationships between Subscales

There was consistency across the three data sets where the strongest subscale relationship was between empathy and self-regulation. This provides evidence for the construct validity of the scale as the ability to self regulate is one from which observable empathy skills can develop. Further evidence for the construct validity came from the inter-correlations run between the subscales of each version of the EL scale (Table 8). The majority of subscales correlated at the 0.01 significance level and an item by item breakdown for the Irish sample subscales (Appendix 6) indicate that the Cronbach alpha would be only marginally higher for the majority of the scales had they been removed. As is found later in this research the overall Cronbach Alpha coefficients for student, teacher and parent scales were all reliable and are 0.77, 0.92 and 0.8 respectively. The EL construct is discussed comprehensively in paper two of this study and these results are explored thoroughly there.

The strongest pattern of relationships between subscales was within the teacher scale, followed by the student and the then the parent scale. This may be due to teacher's understanding of the overlapping relationship between the five competencies. Parents and students may have an understanding of these relationships but it may have been

masked due to comprehension difficulties, which are common in areas of disadvantage as suggested by Dugdale & Clarke (2008). During administration, many of the children demonstrated comprehension difficulties. e.g. *"I can make friends again after a row"* (No.25) or *"I often leave it to the last minute to do my school work"* (No.7). Comprehension difficulties in the DEIS group may account for the statistically lower self report EL scores, as accurate answers cannot be given if the question has not been correctly comprehended. The questions were read to the children and any queries regarding meaning were answered, but this does not guarantee 100% comprehension. It may be that the children's level of comprehension of the questions, in particular those in the DEIS schools (74%), were higher than those of their parents due to this assistance during administration. Comprehension levels of the parents are brought into question by the fact that schools wrote their own consent letters, with the same information yet presented differently (Appendix 5).

5.4 Summary and Conclusion

This paper provided comparative Irish scores for the Nfer-Nelson scale. The Irish sample was largely disadvantaged and this is a major limitation of the study. Repetition of the study with a nationally representative sample with larger numbers may result in comparatively informative data. The overall patterns of scores across the three scales were relatively similar for both the UK and Irish samples with differences in the teacher sample for the category relating to the lowest scoring children. The tendency of the Irish teachers to rate the lowest scoring children with comparatively higher scores may be due to culturally based liberal attitudes of the Irish teachers or the tendency of the Irish

children to mask their emotions from adults outside the family. Further study of these qualitative differences may answer this. The relationships between parent and student scores were comparatively stronger in the Irish sample suggesting greater shared understanding between parent and child of the children's EL skills. Unlike the UK sample, no gender differences were observed in the Irish sample however within group differences were found where the Students from the DEIS schools rated themselves with comparatively lower EL suggesting possible low self esteem. This will be explored further in paper two. Relationships between and within the Nfer-Nelson scales provide some support for the construct validity of EL. These findings are used for a more comprehensive discussion in paper two on these aspects of the scale.

5.8 Implications

This study is one of the very few relating to the EL of young Irish children and therefore provides grounds for further psychological investigation in this area. A number of cross cultural differences were suggested in these two seemingly similar cultures. Possible different value systems relating to emotional expression and qualitatively different parent-child emotional relationships add weight to the argument for the culturally specific development of emotions.

Conclusive findings regarding the use of the Nfer-Nelson scale across cultures cannot be offered without further work on the reliability and validity of the scale in an Irish context. These aspects of the scale are the subject of paper two of research.

PAPER 2/2

EXPLORATION OF THE RELIABILITY AND VALIDITY OF THE NFER-NELSON EMOTIONAL LITERACY SCALE IN AN IRISH CONTEXT

Abstract

This is the second of two papers which explores and compares the Nfer-Nelson Emotional Literacy scale in an Irish context. Emotional Literacy (EL) Scores obtained in paper one are used to explore the reliability (Study 1) and predictive validity (study 2) of the tripartite Nfer-Nelson scale. This scale is comprised of parent, teacher and student scales. Reliability is established, using internal consistency measures for the Total EL for all three scales (α range 0.77-0.92) and also for the majority of component subscales in the teacher scale (α range 0.77-0.88). The children (n= 153) who completed the student scale for paper one were assessed for their academic achievement using a reading attainment test, the Mary Immaculate College Reading Attainment Test (MICRA-T) and also for self esteem using The Culture Fair Self Esteem Inventory (CFSEI). Bivariate regression analysis indicated that academic achievement is predicted by the majority of the components (r range 0.247-0.329) comprising EL and the Total EL (r=0.314) from the teacher scale. Self esteem is predicted by all the components (r range 0.212-0.272) and the Total EL (r=0.285) from the teacher scale and the majority of components (r range 0.2-0.361) and the Total EL (r= 0.384) from the student scale. The items which constitute the scales were investigated and overlaps between the: self-awareness subscale and self esteem items as well as: motivation subscale and aspects of academic achievement bring the discreteness of the associated EL subscales into question. Statistical findings suggest the cross cultural use of the Nfer-Nelson scale. However, difficulties with the face validity of the scale items question the appropriateness of the items used to assess the EL construct. These findings suggest the EL construct to be otherwise acceptable.

Chapter 1: The Study

1 .1 Introduction

This paper is the second of two which explores and compares the Nfer-Nelson Emotional Literacy scale in an Irish context. Paper one addressed comparisons of scores from original Irish and UK samples. The children from the Irish sample came from schools with a disadvantaged status and are referred to as DEIS and those from schools without this status are referred to as Non-DEIS. This paper builds on and uses the information gathered in paper one to investigate the reliability and validity of the three part scale. The exploration of the reliability of the Nfer-Nelson Emotional Literacy scale is the focus of study 1, and is achieved through internal consistency measures. Predictive validity measures are the focus of Study 2 and are used to explore the usefulness of the scale for forecasting academic achievement, as assessed by reading attainment, and levels of self esteem. The information gathered from these and previous analyses in paper one are used to discuss the EL construct underlying the instrument and use of the scale in cultures other than the one in which it was standardised.

1.2 The Outline of the Study

This chapter outlines the focus and rationale behind this research. Background information is provided on the reliability of the Nfer-Nelson Emotional Literacy scale, henceforth known as the Nfer-Nelson scale, and other associated scales are detailed. The relationship of Emotional Literacy, henceforth known as EL, to academic achievement and

self esteem is also presented in chapter one. Chapter two details all aspects of the enquiry into reliability (study 1), from the method through to analysis of the data and onto the results. Chapter three outlines the enquiry into validity (study 2) in the same manner. The findings from the reliability and validity studies are discussed in chapter four, and the paper culminates in chapter five with conclusions and implications.

1.3 The Rationale for the Study

Reliability and validity analysis are integral for the theoretical and practical use of any instrument, hence their exploration forms the basic rationale for this study. In this section, methods of assessing reliability are outlined, as is the justification for using the chosen method and technical information relating to it. This is followed by the rationale and background behind using predictive validity measures and the chosen factors that EL has been found to predict.

1.3.1 Reliability - Study 1

The reliability of a scale relates to the consistency or stability of an instrument (Cronbach & Shavelson, 2004) and can be assessed in a number of ways with a single administration of the scale e.g. split half and internal consistency. Internal consistency is commonly used to measure the reliability of psychological and educational instruments and does so by assessing the inter-relatedness of a set of items that make up a scale (Schmitt, 1996). This process results in a Cronbach's coefficient alpha, which according to Pallant (2005) provides an indication of the average correlation among all of the items that make up a

scale. It has been argued by Sijtsma (2009) that Cronbach's alpha grossly under-estimates reliability, and does not measure the internal structure of a test as it claims. Sijtsma (2009, p118) goes so far as to say that while it is widely used as "*top journals tend to accept articles that use statistical methods that have been around for a long time*" other measures such as the Greater lower bound (GLB; Guttman, 1945) are more accurate. GLB is positively biased in sample sets lower than 1000 and therefore more limiting than Cronbach's alpha in small studies. Cronbach's alpha is used in this study due to a sample smaller than 1000 and to allow for comparison with the original UK sample. Cronbach alpha values range from 0-1, and Pallant (2005) suggests scores around 0.7 or higher indicate adequate reliability. However, the technical information provided in the Nfer-Nelson manual indicates that, in fact, some of the subscale reliabilities fell below 0.7 (α = 0.58) but they were still used to report cut-off points with no caveat provided. Other EL instruments accept subscale values below 0.7 as reliable e.g. the Dulewicz & Higgs Emotional Intelligence Questionnaire (DHEIQ; 2001) subscales produce a low to moderate reliability range 0.54-0.71. Accepting reliability values that are below the accepted 0.7 value bring into question whether some of the items actually measure what they claim to and consequently the usefulness of these individual subscales. However, the reliability values for the Total EL in the Nfer-Nelson scale range between 0.76 - 0.94. This is only marginally lower than the reliability for Total EL (α = 0.97) in another EL instrument, the EQi (Bar-On, 1997), which Rottman, Scholtz, Sipsma & Sipsma., (2002) found to be α = 0.93 upon replication. For the purpose of this study, alpha values of 0.7 are accepted as reliable. In some cases where $\alpha < 0.7$ are considered sufficient, these will

have caveats attached. Study 1 explores whether the Total EL score and the subscale scores for the Irish sample have similar levels of reliability to the UK sample.

1.3.2 Validity- Study 2

The validity of a scale refers to the degree to which it measures what it is supposed to measure and there are various methods of establishing it. This study uses predictive validity, a form of criterion validity, which measures the relationship between one variable and another related variable (Pallant, 2005, Sommer & Sommer, 2002). Relationships between the two variables should yield a correlation of at least 0.3 and no higher than 0.7 according to Pallant (2005). Previous research suggests a relationship between EL and both self esteem and academic achievement. Predictive validity measures are used in this study to identify and confirm that these relationships are culturally valid.

Predictive validity informs construct validity. Predictive validity is used in conjunction with an exploration of the face validity of the items which comprise the scales to explore the construct validity of EL. A test is said to have face validity if it appears to measure what it is supposed to.

Study 2 explores EL as a predictor of academic achievement and self esteem. The former is assessed using the Mary Immaculate College Reading Attainment Test (MICRA-T)-Wall & Burke (2004) and the latter using The Culture Fair Self Esteem Inventory (CFSEI-3)-Battle (2002).

1.3.2.1 Academic Achievement

The link between emotional competency and academic achievement was supported by Downey, Mountstephen, Llody, Hansen & Stough (2008) who studied 12-17 year olds in Australia; Parker, Summerfeldt, Hogan & Majeski (2004) who studied university students in America; and Petrides, Frederickson & Furnham (2004) who studied British teenagers. Total EQi (Bar-On, 1997) was found to be a poor predictor of academic achievement in the Parker *et al*. (2004) and Newsome, Day & Catona (2000) studies but Parker *et al.* (2004) found several of the subscales (intrapersonal, stress management, and adaptability) to be significant predictors of it. When students of different levels of academic achievement (Parker *et al*., 2004) were compared (top 20%, middle 60% and bottom 20%), academic achievement was found to be significantly associated with most of the EL components in the EQi scale. Van Der Zee, Thijs & Schakel, (2002) also found components of EL e.g. empathy were related to academic achievement and Petrides *et al.* (2004) found total EL was related to the success of some subjects such as English but not others such as maths and science.

Inconsistent findings relating EL and academic achievement are in part due to construct difficulties relating to EL which have been interpreted as EL being a repackaged version of personality traits. Newsome *et al.* (2000) found that both cognitive ability and aspects of personality were significantly associated with academic achievement and claim that psychometric tests such as the 16PF (Cattell, Cattell & Cattell, 1993) are better predictors of academic achievement than EL measures. Saklofske, Austin & Minski (2003) analysed the results of three studies (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 1998; Dawda & Hart, 2000; Petrides & Furnham, 2001) and suggested significant findings

between EL and aspects of personality such as Openness and Agreeableness. There was, however, little consistency of measurement tools used across the three studies and even though two of these studies used the same EL measure, low correlations with personality were produced. Conversely, Bar-On (1997) found consistencies between EQi scores and other EL measures, and overlap with personality traits and cognitive intelligence to a lesser extent.

Although inconsistencies arise in the literature regarding the predictive nature of EL for academic achievement, a relationship is present which Petrides *et al.* (2004) and others such as Reiff, Hatzes, Bramel & Gibbon (2001) claim is particularly relevant for disadvantaged and vulnerable adolescents. It must be noted that while Petrides *et al.* (2004) made these claims, no measures of disadvantage were made during the study.

1.3.2.2 Self Esteem

Self esteem is defined by how much value people place on themselves (Baumeister, Campbell, Krueger & Vohs, 2003). This may manifest in accurate, balanced knowledge of oneself and their successes, or alternatively may reflect an unbalanced conceited and narcissistic view. In this way Baumeister *et al.*(2003) suggest self esteem is more of a perception rather than a reality. High self esteem is generally accepted as important for emotional well being (Goleman, 1996; Saarni, 1999; Salovey & Mayer, 1990) and has been related to high levels of EL by Schutte *et al*. (2002). Low self esteem is related to numerous emotional states including anxiety and depression (Mineka, Watson, & Clark,

1998) whereas high self esteem is related to pride and shame (Tangney & Fischer, 1995). Brown and Marshall (2001) looked at the nature of these relationships and found that self

esteem is more closely associated with self-relevant emotional states such as pride and shame than with emotional states that do not directly implicate the self. It may be extrapolated from these findings that self esteem is related to understanding and managing these emotional states i.e. being emotionally literate.

However, these self related skills are intrapersonal competencies and so may indicate that those with high self esteem have adapted more in this area of EL. This idea is supported by Nezlek & Kuppens (2008) who found aspects of EL such self-regulation and in particular the positive appraisal of emotions is related to high self esteem. In the Nezlek *et al*. study, individuals reported their method of appraisal each day for three weeks using a crude measure e.g. a choice between *"When I wanted to feel a more positive emotion (such as happiness or amusement), I changed what I was thinking about."* and "*When I wanted to feel less negative emotion, I changed what I was thinking about."* This measure was somewhat strengthened by use of a complimentary seven point likert scale on how characteristic this was of the person. Similar results were suggested in an earlier study by Smith and Petty (1995) who suggested high self esteem was related to positive thinking during a negative event and Schutte *et al*., (2002) showed that those with high EL did not show a decrease in their self esteem following a negative event. Although high self esteem can protect children from victimization by peers as they refuse to respond to aggressive behaviour (Egan & Perry, 1998), it has also been shown by Menon, Tobin, Corby, Menon & Hodges (2007)as an attribute of some bullies .

It would appear that those with high self esteem can use emotional knowledge to regulate and rationalise events more in an intrapersonal than an interpersonal manner and the results are not always pro-social.

Although typically viewed as it own entity, Qualter *et al.* (2007) states that self esteem is in fact a facet of Trait EL and may itself be considered as a component of EL. This idea is supported by the Petrides & Furnham's (2001) theoretical model of EL where self esteem is one of the components comprising EL. Discrepancies such as these bring both the EL and self esteem constructs into question regarding their discrete differences.
Irrespective of the discrepancies, self esteem is regarded as having particular importance for increasing assertiveness and school attendance young children (Faupel & Sharp, 2003) and is thought to be promoted through the development of EL.

1.4 Research Aims

This study is the second of two which explores the Nfer-Nelson scale and specifically aims to assess; the reliability of the scale from the Irish sample and compare it to the UK sample and; the predictive nature of EL for academic achievement and self esteem. Furthermore, it aims to explore the face validity of the items which comprise the scale with a view to examining the construct validity of EL.

1.5 Research Design

A non-experimental fixed design was used for Study 1 and 2, as no situation was manipulated. Study 1 is exploratory and evaluative (Robson, 2007) as it looks at the internal consistency of the scale. Study 2 involves predictive validity measures relating academic achievement and self esteem separately with EL. Establishing a predictive nature between EL and these areas would support the construct validity of EL and its usefulness in an educational environment. As predictive studies require a time lapse between collections of data (Sommer & Sommer, 2002) sources to be related, an eight month intermission was employed. This research is evaluative as the process for administration was previously established.

1.6 Summary

The rationale for the study was presented which centred on the exploration and comparison of the reliability and validity of the Nfer-Nelson scale in an Irish context. Reliability is measured using Cronbach's alpha as this measure corresponds to that used in the UK sample and therefore allows for comparative analysis. A variety of studies were presented which indicate that there is a relationship between EL and academic achievement. There is also support from the literature that EL is related to self esteem. These relationships are explored with a view to exploring the predictive and construct validity of EL.

Chapter 2: Reliability- Study 1

2.1 Introduction

This study explores and compares the Nfer-Nelson scale in an Irish context. This chapter comprises the methodology, data analysis and results of study 1, which relates to the reliability of the scale.

2.2 Participants

The Total sample of student (N= 188), teacher (N= 163) and parent (N= 175) data, collected for paper one were analysed- see Chapter 3 (paper one) for information on how the data was compiled, scored and analysed. In brief, the children were all aged between 7 and 11 and came from a largely disadvantaged population.

2.3 Data Analysis

Cronbach's coefficient alpha was computed for internal consistency measures of the subscales within each of the three scales making up the Nfer-Nelson scale. This was calculated using: the full 20/25 items for each of the three data sources, teacher/student and parent (Appendix 2) and; the five subscale values.

2.4 Results

Table 10 lists the Cronbach alphas for the individual subscales and the Total EL for the student, teacher and parent data sets. Using all the items in the scale produces higher reliabilities for all three scales than using the five subscale values. Both Irish and UK sample reliabilities are provided. These results are discussed in Chapter 4.

Table 10

Irish/UK, Student/Teacher/Parent Scales: Cronbach Alpha Coefficients for Total Emotional Literacy and Individual Subscales

Subscales / Samples	Irish student sample	UK student Sample	Irish teacher sample	UK teacher Sample	Irish parent sample	UK parent Sample
Total EL (sum of individual items)	0.77*	0.76*	0.92*	0.94*	0.80*	0.87*
Total EL (sum of 5 subscales)	0.72*		0.86*		0.67	
Self-awareness	0.40	0.34	0. 63	0.70*	0.42	0.58
Self-regulation	0.49	0.52	0.88*	0.88*	0.75*	0.74*
Motivation	0.43	0.57	0.85*	0.87*	0.61	0.74*
Empathy	0.52	0.46	0.77*	0.82*	0.57	0.58
Social skills	0.52	0.61	0.82*	0.82*	0.6	0.75*

Those denoted* indicate reliability

2.4.1 Reliability of the Student Scale

From Table 10, the individual subscales making up the Irish student scale are not reliable but the Total EL is. The Cronbach's alpha for Total EL is 0.77, and is marginally higher that that obtained in the UK sample, α= 0.76. Sample scores for the individual student subscales were not provided in paper one as they had not been provided for the UK sample, due to their being unreliable. This pattern of unreliability is confirmed here as the individual subscales of the Irish student scale are not reliable and only the Total EL score can be taken as a reliable indication of EL.

2.4.2 Reliability of the Teacher Scale

From Table 10, all of the subscales making up the Irish teacher scale, except self-awareness are reliable. However self-awareness is bordering on reliable (α = 0.63) and for the purpose of this paper is accepted as having sufficient reliability and will be interpreted with caution. The patterns of reliabilities for the subscales in the UK and Irish samples are similar, and both Irish (α = 0.94) and UK (α = 0.92) teacher samples produce high reliability for the Total EL.

2.4.3 Reliability of the Parent Scale

From Table 10, self-regulation is the only reliable subscale, α = 0.75, in the Irish parent scale and had an almost identical Cronbach alpha obtained for self-regulation in the UK sample, α = 0.74. The reliability of the Total EL in the Irish sample is higher, α = 0.8, when

all the individual items are used to compute it. This was especially relevant for the parent scale which is not technically reliable, $\alpha = 0.67$, when the Total EL is computed using the five subscale values, but would be considered as sufficient. However, the UK sample subscales for the parent scale and Total EL were all considered to have sufficient reliability ranging from 0.58-0.87 (manual pg 33, Faupel, 2003).

Chapter 3: Validity- Study 2

3.1 Introduction

This research explores and compares the Nfer-Nelson scale in an Irish context. This chapter details all aspects of the predictive validity study including the instruments used, the method employed, data analysis and presentation of the results. There was an eight month intermission between the collections of data to be related. The predictive validity of EL for: academic achievement measured using reading attainment and; self esteem are explored and addressed separately here.

3.2 Predictive Validity of EL for Academic Achievement

This aspect of the study aims to explore the predictive nature of EL for academic achievement which is accessed using a reading attainment test, namely the *Mary Immaculate College Reading Attainment Test* (MICRA-T)-Wall & Burke (2004)

3.2.1 Mary Immaculate College Reading Attainment Test (MICRA-T)-Wall & Burke (2004)

The MICRA-T series of norm-referenced reading tests provide accurate and reliable information on the reading performance of Irish primary school students. The series comprises 4 levels, applicable for children between 1st and 6th classes (Key stages 2/3) with progressively more difficult tasks at each level. Level 2 is used for 2nd and 3rd classes (8-9 years), level 3 is used for 4th class (10 years) and level 4 is used for 5th and 6th classes

(11 and 12 years) . I administered Level 3 and so information on this level is provided here (Appendix 7). Comprehensive information on this and the other levels is available in the MICRA-T manual (2004). Level 3 comprises four cloze passages which contain a total of 64 items. Total administration time is approximately one hour and fifteen minutes, including practice time. Reliability and validity measures were established separately for each of the four levels of the test.

Children were tested in groups of 15. They were seated with sufficient space between them so that they could work independently. The children were informed as to why they were being tested and what the information would be used for. The test booklets were distributed and the children completed a practice passage which was then corrected as a group (Appendix 7). Following this, the guidelines were read out (pg 8 MICRA-T manual, 2004) the test commenced and children sat for 50 minutes only. The children's engagement was monitored and encouraged throughout the allotted time.

3.2.2 Scoring of the MICRA-T

Scoring templates are provided with the manual. Correct answers are awarded 1 point and incorrect answers are scored as 0. The scores are summed together to give a Total, which is then converted into age-based standard scores using the tables provided.

3.2.3 Participants

The same participants (students) that completed the Nfer-Nelson scale in paper one participated in the study. A number of the children who had completed the first part of

the study were absent for this part of the study and the sample resulted in a total of 89 males and 63 females (N=153).

3.2.4 Method of Data Collection

Six out of seven of the schools used in collection of EL data (see Table 1, paper one) administered the MICRA-T themselves eight months after my administration of the Nfer-Nelson scale. I observed the administration in these schools to rule out researcher error and then collected the results from the students that had had their EL previously assessed. Some children had been absent for the administration of the test and therefore their test results were not available. I administered the MICRA-T in one school (see section 3.2.1 above) and followed the procedure as stated in the manual (2004).

3.2.5. Analysis of MICRA-T

Bivariate regression analysis was used with the Total EL score obtained from the Nfer-Nelson scales Irish sample (paper one) and the MICRA-T. Bivariate regressions not only provide information on the correlation between two variables, but are also a method of predicting an outcome variable from one predictor variable.

3.3 Predictive Validity of EL for Self Esteem

This part of study 2 explores whether EL is a predictor of self esteem, measured using *The Culture Fair Self Esteem Inventory* (CFSEI-3)-Battle (2002).

3.3.1 The Culture Fair Self Esteem Inventory (CFSEI-3)-Battle (2002)

The CFSEI-3 (Appendix 8) reflects the basic theoretical model of self esteem underlying the inventory, and is considered to reflect a *"presumed universal idea of what self esteem looks like"* (pg 12, Guest 2007). For comprehensive information on this construct see Battle (2002). There are three levels within the inventory, the Primary (6-8 years), Intermediate (9-12 years) and the Adolescent (13-18 years) form. The former two were used in this study. Reliability was established, α ranging from 0.81-0.93, when the tests were standardised on a normative sample of 1,727 young people from different parts of the United States and Canada. Construct and concurrent validity was established with three other self-concept scales: the Self Esteem Index (SEI; Brown & Alexander, 1991), with a correlation range of 0.5-0.61 with the overall scale and subscales; the Piers-Harris Children's Self-Concept Scale (PHCSCS; 1969) with a correlations range of 0.5-0.72 and; the Multidimensional Self Concept Scale (MSCS; Bracken, 1992) with a correlation range 0.4-0.78.

The Primary form has 29 questions and results in one Global self esteem raw score. The Intermediate form has 64 questions, making up 4 subscales, namely Academic, General, Parental/Home, and Social subscales, which are summed to give the Global self esteem score. The individual subscales are not used in this study.

3.3.2 Scoring the CFSEI-3

Circles and squares are provided in the response columns to indicate how to score each item. Raw scores are summed and then converted into standard scores using the age appropriate tables provided. The inventory allows for three omitted or multiply marked answers for the Intermediate scale, where the missing score can be estimated by computing the average of the other two items in the same scale.

3.3.3 Participants

The same participants that completed the Nfer-Nelson scale in paper one participated in this study. A number of the children who had completed the first part of the study were absent for this part of the study and the sample resulted in a total of 88 males and 63 females (N=153).

3.3.4 Method of Data Collection

The students who completed the Nfer-Nelson scales (paper one) were assessed using the CFSEI-3 eight months later. The CFSEI-3 was administered in groups and result sheets were collected and scored.

The scale was administered in groups of 15 and takes about 15 minutes. Students were informed what the test was for and what the results would be used for. The questions were all read to the children and the children ticked Yes / No in the boxes (circles/squares) provided, as appropriate to them. The individual scales were gathered

and the children were debriefed on what self esteem is. The children were invited to ask questions.

3.3.5 Analysis of CFSEI -3

Bivariate regression analysis was used with the Total EL score obtained from the Nfer-Nelson scales, Irish sample (paper one) and the CFSEI-3.

3.4 Results

This section contains the results of the bivariate regressions run on the attainment and self esteem measures.

3.4.1 Results of the bivariate regression with the MICRA-T

The mean (and standard deviation) of the MICRA-T was 100 (16), falling in the Average range.

A number of bivariate regressions were run on the subscales and the Total EL of the student, teacher and parent data sets (collected for paper one). The sample size of students is adequate, N= 153, as recommended by Tabachnich & Fidell (2007), where $N \geq 50 + 8$ (1) [1 is the number of independent variables, reading attainment]. The numbers of student, teacher and parent scales used in the analysis here differ from paper one due

to an overlap of unreturned data sets from paper one and missing MICRA-T results from this part of the study.

Table 11

Irish Sample, Student/Teacher/Parent Scales: Correlation Matrix - Bivariate Regressions - Subscales and Total Emotional Literacy with Attainment and Self Esteem

	Student Scale N=153		Teacher scale N=132		Parent Scale N=141	
	Attainment	**Self Esteem**	**Attainment**	**Self Esteem**	**Attainment**	**Self Esteem**
Total EL	0.117 *(p=.151)*	0.384** *(p= .00)*	0.314** *(p=.00)*	0.285** (p=.001)	0.156 *(p=.065)*	0.121 *(p=.155)*
Self-awareness	0.113 *(p=.166)*	0.361** *(p=.000)*	0.305** *(p=.00)*	0.212* *(p=.015)*	0.130 *(p=.125)*	0.148 *(p=.080)*
Motivation	0.126 *(p=.121)*	0.348** *(p=.000)*	0.329** *(p=.00)*	0.244** *(P= .005)*	0.153 *(p=.069)*	0.112 *(p=.187)*
Empathy	0.127 *(p=.118)*	0.2* *(p=.014)*	0.146 *(p=.1)*	0.238** *(p=.006)*	0.116 *(p=.170)*	0.073 *(p=.391)*
Social skills	-0.012 *(p=.886)*	0.304** *(p=.000)*	0.247** *(p=.005)*	0.224** *(p=.01)*	-0.038 *(p=.655)*	0.015 *(p=.862)*
Self-regulation	0.041 *(p=.618)*	0.131 *(p=.109)*	0.247** *(p=.005)*	0.272** *(p=.002)*	0.104 *(p=.218)*	0.057 *(p=.501)*

Correlation is significant at 0.05 level

****Correlation is significant at 0.01 level***

There is no statistically significant relationship between any of the subscales or the Total EL from the student scale and reading attainment. Correlation values range between 0.012- 0.127, all well below the threshold for any statistically significant relationship, indicating that no aspect of the student scale predicts reading attainment.

All of the subscales, bar empathy, and the Total EL from the teacher scale had statistically significant correlations with reading attainment indicting that they can predict reading attainment.

No statistically significant relationship was found between reading attainment and any of the parent subscales or the Total EL. Correlation scores ranged between 0.038-0.156, indicating that EL scores cannot predict reading attainment.

These results are discussed in Chapter 4.

3.4.2 Results of the bivariate regression with the CFSEI-3

The mean (and standard deviation) of the CFSEI-3 was 98 (17) and fell in the Average range.

A number of bivariate regressions were run on the subscales and the Total EL of the student, teacher and parent scales.

Table 11 lists the results of the bivariate regression analyses.

Three of the subscales and the Total EL from the student scale have statistically significant relationships at the .01 level of significance and empathy is significant at the .05 level. These indicate that total EL (r =0.384) as well as the self-awareness (r = 0.361), motivation (r = 0.348), social skills (r = 0.304) and empathy (r=0.2) subscales can predict self esteem.

There are statistically significant relationships between self esteem, all of the teacher subscales and Total EL. The range of correlation values are 0.212-0.285.

There is no statistically significant relationship between self esteem and any of the parent subscales or the Total EL, the range of correlation values are 0.015-0.148 and therefore EL scores cannot predict self esteem.

These results are discussed in chapter 4.

Chapter 4: Discussion

4.1 Introduction

This research explores and compares the Nfer-Nelson scale in an Irish context. This chapter discusses the main findings from this paper which relate to the reliability and validity of the Nfer-Nelson scale, and relevant findings from paper one. The Total EL and some of the subscale scores for the Irish sample have similar reliability to the UK sample. Predictive validity of some of the EL scales was established for academic achievement and self esteem. These principals of scientific method are discussed along with the construct validity of EL and the face validity of the scale items. Limitations are addressed in the body of the discussion.

4.2 The Reliability and Predictive Validity of the Scales

The Nfer-Nelson is a three part scale and each version of the scale has its own level of reliability and validity. These are discussed below separately and as part of a comparison of the scales as theory suggests the three should be triangulated.

4.2.1 The Student Scale

The scores from both the UK and Irish EL student sets are similar (Table 5) and the Total EL is reliable in both samples (Table 10) with almost identical alpha values. The student scale is reliable to use as one Total EL score but using the individual subscales to pinpoint

difficulties in particular areas is not statistically viable on either population. Results from paper one indicted that within the student sample, some children rated their own EL comparatively low i.e. children from disadvantaged schools rated themselves with statistically lower EL skills then their non-disadvantaged counterparts. It was interpreted that this comparatively low score may be due to low self esteem. This interpretation is supported in this paper by student scores predicting self esteem scores. In conjunction with Total EL, the student subscales self-awareness, motivation, social skills and empathy to a lesser extent had positive relationships with self esteem. However, as none of the subscales were found to be reliable, they cannot be considered valid. Even though they are not reliable it is interesting that self-awareness and motivation, both intrapersonal skills, had the highest correlations with self esteem. This finding is similar to Brown and Marshall's (2001) who found that self esteem is closely related to self relevant emotional states and tenuously suggests that self esteem is related to intrapersonal EL skills. The exact nature of this relationship requires more in-depth investigation.

4.2.2 The Parent Scale

The Irish parent sample has only one reliable subscale, self-regulation, $\alpha = 0.75$. The total EL is reliable $\alpha = 0.8$ when all the individual items were used but fell just below the threshold for reliability at $\alpha=0.69$ when computed using the five subscale scores. The higher reliability when all the items in the scale were used suggests that the individual items demonstrate more similarities and overlap then the subscales do. The unreliability of the parent subscales raises questions about the level of parental EL in the Irish sample,

or perhaps the level of general literacy and their ability to understand what was being asked of them. The Irish sample is a disadvantaged sample, and literacy and comprehension difficulties which Dugdale & Clarke (2008) suggest are common in adults from disadvantaged areas may be confounding the results as they were not controlled for. In addition, no predictive relationship was found between either reading attainment or self esteem and any of the parent subscales or the Total EL.

4.2.3 The Teacher Scale

In the teacher set, Total EL and all of the subscales are reliable in the Irish sample, except self-awareness which was bordering on reliable and should be interpreted with caution. This pattern of reliability is similar to those in the UK sample. The teacher scale is the only one which predicts academic achievement. Total EL and all of the subscales bar empathy had positive relationships with it. It is interesting that the teacher EL scores are the lowest (Table 4) of the three scales yet they are the only ones that predict reading attainment. This may be understood as the teachers having a better understanding of the relationship between EL and academic achievement and therefore answering the questions from this perspective, whereas the student and parent perspectives may be more social in nature. It is difficult to use EL exclusively as a predictor of academic achievement, due to variables such as personality and intelligence that may confound it or deem it redundant as was found by Schutte *et al*. (1998) and Petrides & Furnham (2001). Further research into the predictive validity of EL for academic achievement where many factors are controlled for e.g. Intelligence and special learning needs, may yield different findings, as children may have high EL skills but their cognitive ability

skills (IQ) as required for academic achievement may not be as developed. Students should be matched on parental education levels to ensure, as much as possible, that the children are being encouraged to develop academically.

The teacher scale is the only one where all the subscales and Total EL can predict self esteem. However, only 27 teachers completed all the 132 scales used to predict self esteem, which may have lead to consistency in how the instruments were scored and possible false positives. In comparison, each student and parent scale was completed by a different individual, allowing for more diverse answering.

Repetition of this study in 5-6 years time would allow one to see if the EL scale has longitudinal predictability. An 8 month time lapse for assessing predictability is short but time constraints for the present doctoral thesis determined these parameters.

4.2.4 Within Sample Comparisons

The score patterns from paper one and reliability values from this paper suggest little difference to the findings from the original UK sample. However, these findings suggest some sight alterations in how the scales are used. If a teacher were to think a child had a particular difficulty, they could use the teacher version of the scale to gather empirical evidence on the child's overall EL and the individual competencies that comprise it. The student version could then be administered and results amalgamated to formulate ideas on the child's perception of their own difficulties and performance in this area. The inter-correlation between the student and teacher scales (Table 9) for Total EL is strong, r = 0.387 supports the use of these scales together.

Higher reliability for the teacher subscales over the parent subscales may be related to different responses from both due to contextual differences, a phenomenon that is not unusual when both are filling out forms related to children. Teachers primarily observe children in a social context interacting with many other individuals whereas parents observe their children primarily in the home environment and socially to a lesser extent. However, the inter-correlation (Table 9) between parent and student for social skills was higher than that for teacher and student (although both were significant) suggesting a better understanding between the former two regarding these skills. Alternatively, as parents and children inhabit the same home environment, they may have a similar perspective on what is considered appropriate social interaction. This perspective may be different to someone external i.e. the teacher. Obtaining alternative perspectives is integral to forming a holistic view of an individual's functioning and the Total EL score from the parent set can be used to help with the teacher's interpretation of the teacher and student versions of the scales. High inter-correlations between the teacher and parent scales for Total EL support this.

4.3 The Construct and Face Validity of the Scales

The overall reliabilities of the three scales were very similar in the two samples supporting the construct validity of the scale. This is further supported by good inter-correlations (Tables 8&9) within and between the scales in the Irish sample. Differences occurred in the reliabilities of the subscales (Table 10) within both the student and parent Irish and UK samples but the reliability values are very similar in the teacher

samples. This pattern may represent a cultural difference in how the individual competencies are viewed and valued by students and parents i.e. as separate entities, and not as components of an overarching Emotional Literacy. In the same vein, consistency in the teacher populations may be due to a greater understanding of how the competencies are linked. However, the reliabilities in the Irish sample were higher when all the items were used than when the subscale values were used. This suggests more overlap between the individual items than between the scales and perhaps the teachers do not have as much knowledge of the discrete competencies as might appear.

There were differences in the teachers' scores across the two populations which, as discussed in paper one may be due to Irish teachers being more liberal in their scoring.

4.3.1 Self-awareness Subscale

A closer look at the self-awareness subscale however brings the construct validity of EL as previously questioned by Perez *et al*. (2005) into question. Self-awareness is the most important aspect of EL as stated by Faupel (2003) himself but it is the only subscale that is unreliable in all three scales in both samples with the exception of UK teacher scale where the value fell exactly on the threshold, α=0.7. Within the Irish teacher set, reliability values did not statistically meet the 0.7 threshold suggested by Pallant (2005). However, as the original Nfer-Nelson manual accepted values below this, the Irish teacher alpha value of 0.63 has been deemed sufficient, but should be interpreted with caution. This below threshold finding raises two questions, the first regarding the methods of assessing self-awareness i.e. self report and observation, and secondly, the face validity of the items used in the subscale. It is not uncommon for self report measures to have

inaccuracies (Sjoberg & Engelberg, 2004), due to the difficulty of being objective about oneself or a tendency to downplay or inflate ones qualities. Consequently, self–report answers may be closer to ones perception of their ideal self rather than their actual self (Higgins, 1997) and therefore reflects low self-awareness. Individuals have the best perspective on their own internal emotional states (Beer & Watson, 2008) but only once they have self-awareness which in this case is difficult to ascertain.

I feel it makes sense that the self-awareness subscale was consistently unreliable over the three scales in the Irish sample. From an objective point of view, self-awareness questions such as "*Is aware of own strengths and qualities*" (No.3 teacher scale) are very difficult to objectively answer accurately. Children may be encouraged to develop skills in a particular area but these skills may not be their personal strengths. Should this be the case, children would not be aware of their true strengths e.g. Irish children encouraged to play Gaelic football for patriotic reasons when they may have an aptitude for Tennis. The question "*Can name/label their feelings"* (No. 3, parent scale, Appendix 2) can only ever be an estimated guess as observers tend to intellectualise others emotions as Nigro & Neisser (1983) suggested and we can never know if someone is accurately describing their feelings. 66% of the Irish teachers who returned incomplete scales did not answer the self-awareness question *"Can recognise the early signs of becoming angry"* (N0.13). This may be due to an inability to answer the question themselves as anger is an emotion that is dealt with in many different ways, especially in the classroom. Irrespective of an individual's temperament, most people get angry, but not all of us express it in the same way and it can be difficult for us to know, even for ourselves, the early signs of anger. Asking another person to recognise these signs may be almost impossible. Furthermore,

Faupel (2003) stated that although teachers are usually very skilled at reliably rank-ordering students on a number of different dimensions, they have a tendency to overlook students with internalising behaviour e.g. shy and withdrawn as compared with those who have externalising behaviour e.g. aggression difficulties.

The questions making up the student self-awareness subscale relate to a number of competencies but not exclusively self-awareness e.g. *"I can describe how I am feeling most of the time"* (No. 3) will depend on the child's level of vocabulary and expressive language as well as a cultural understanding about what emotions should/should not be communicated as was found by Cole *et al.* (1998). Three of the student self-awareness questions relate to *things* I am good or bad at. These questions are very general, as knowing whether or not you are good at football is not the same skill as knowing how your behaviour affects those around you. Self-awareness was found to predict self esteem in the student scale but the child may have interpreted the questions in the two different scales as being the same thing e.g. "*I know what things I am good and bad at*"(no.3 EL scale) and "*Most boys and girls are better at doing things than I am*" (no.19, CFSEI, Appendix 8). Other questions were similar such as "*I worry a lot about the things I am not good at*" (Question 23, Student scale) and "*I worry a lot*" (Question 40, Intermediate scale). Examples such as these beg the question as to whether the items that make up the self-awareness subscale are overlapping with or indeed actually measuring self esteem. This idea fits in closely with Petrides & Furnham's (2001) theory of EL which considers self Esteem, but not self-awareness, a component of EL. The similarity in the self-awareness items to self esteem items would seem to confirm this. Faupel (2003) stated that *"There are obvious overlaps (EL) with the notion of self esteem*" (pg 5), yet he does not state where the distinction between the two lies. Self esteem is an established construct

and the CFSEI has construct and concurrent validity (Battle, 2002) with other self esteem measures. Self-awareness is a conscious process involving active awareness and reflection on our behaviour with ourselves and others and I feel the questions in the Nfer-Nelson scale do not measure this construct. It could be argued that self-awareness in young children starts with knowledge about their practical capabilities, as primarily measured in the student Nfer-Nelson scale and then, ideally progresses to something more abstract. It is difficult to know whether the other answers the children gave are an accurate representation of their EL because if one is not self-aware, it is difficult to make an accurate judgement on your own behaviour.

The unreliability of the self-awareness subscale supports theoretical debates around the exact nature of the construct of EL and the subscales perceived to comprise it. The way in which self-awareness is assessed in this scale is limiting, but the theoretical importance of self-awareness for EL as stated by Mesquita & Frijda (1992) and Faupel (2003) still holds.

4.3.2 The Motivation Subscale

Just as questions arise around the face validity of the items in the self-awareness subscale, there are similar concerns regarding the motivation subscale. Some of the items in the scale do assess students' tenacity e.g. "*Keeps trying when faced with something difficult*" (Question 22, Parent scale) yet other questions deal with very general competencies. These include memory ability *"I often forget what I should be doing"*(Question 2, student scale), concentration "*.....able to shut out distractions*"(Question 7, parent scale) and organisation skills e.g. "*Leaves things to the last minute*" (Question 12, Teacher scale). In particular, in the teacher set, these items may have been perceived as academic rather

than emotional skills, and therefore may have been answered with the former construct in mind. This ambiguous perception of motivation skills may explain the predictive relationship between motivation and academic achievement as it may be due to both measuring the very similar competencies.

The scale items were generated by multidisciplinary teams (Faupel, 2003) with a specific interest and understanding of EL. Although the scale uses mostly layman's language, comprehending the questions in terms of EL may be obvious to professionals but not to those who have to complete the test and therefore the meaning and usefulness may be lost. The scale may be useful if it is completed by a professional and teacher/parent/student *together* so that the subscales can be explained in the context of EL and not others such as Intelligence, personality traits, behaviour difficulties etc.

4.4 Summary and Conclusion

The Total EL is reliable in all scales in both the UK and Irish samples. In the Irish sample, only the subscales in the teacher set are reliable, and the self-awareness subscale should be interpreted with caution. Both the student and teacher scores predict self esteem and this link between self esteem and EL provides further evidence that the low self report EL scores produced by the children from the disadvantaged schools in paper one are due to low self esteem.

The parent scale predicted neither academic achievement nor self esteem and may be due to a lack of understanding of how EL is connected to these areas, whereas the predictive

nature of the teacher scale for both of these areas suggests the presence of this understanding.

The similarity in score patterns from paper one and established reliabilities in both the UK and Irish samples suggests that cross cultural use of the Nfer-Nelson scale is appropriate. As discussed in paper one, there were slight differences in the score ranges for the descriptive categories and in particular for children in need of intervention, as determined from the teacher sample. These differences may represent some cultural differences in attitude relating to EL development. These findings should be interpreted with caution as there were small number of teachers in the sample and some slight deviations from normality with the data set.

The similarities in reliability values in both the UK and Irish sample support the construct validity of Goleman's EL which underpins the Nfer-Nelson scale and this is further supported by good relationships within and between the scales in the Irish sample. However closer examination of the subscales, in particular self-awareness, indicates that it is mostly unreliable in both samples and observers left some of the questions unanswered. Furthermore, the face validity of the items in the self-awareness subscale is poor and inspection of these items resulted in qualitatively little difference between them and some of the items making up the self esteem inventory. Inspection of the items comprising the motivation subscale suggests they were measuring skills that overlap with other competencies and the predictive relationships between motivation and academic achievement may have been due to similar competencies being assessed. Although the statistical results suggest the scale is appropriate to use cross culturally, these findings suggest that the questions used to assess the EL construct in the Nfer-Nelson scale are not discrete from other competencies. Further research and development is required to

develop questionnaires comprising items which specifically measure EL and its components.

4.5 Implications

Overall findings from paper one and two suggest implications for the administration of the Nfer-Nelson scale. The teacher scale is the most reliable of the three scales and can be used for gathering empirical data on a child's level of EL. As the teacher score patterns were somewhat different across cultures, Irish teachers should use their own judgement and look at the individual competencies to gauge the level of intervention required. Teacher assistance is suggested during the administration of the parent scale to help bridge gaps in parental understanding of the connection between the different EL components and how they relate to academic and overall life success. The student scale is useful for gathering information on the child's perception of their own EL strengths and difficulties and the Total EL score from both the parent and student scale can be used in conjunction with the teacher scale.

The research that was conducted here over two papers serves to further psychological knowledge around the Emotional Literacy of young children. This is of particular relevance to Irish children as there are few studies in this area to date. This research also provides statistical evidence on the Nfer-Nelson scale, of which there is little available in the scientific literature. The poor face validity of the scale items in the Nfer-Nelson scale suggests that some of the items need to be redeveloped so that they measure the associated theoretical components. These findings may lead to an increased professional

awareness of these issues under research and help progress others' career development. It may also lead to further professional research in this area.

I feel I have gained extensive knowledge relating to young children's emotional development in a natural context and will use this knowledge: in practice with Irish children; as a basis to further develop my skills relating to the emotional development of children and; generally in the continued development of my practice in psychology.

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Appendix 1

Goleman's and Bar-On's Emotional Literacy scales

From Goleman, D (1998). ***Working with Emotional Intelligence***. **Bantam Books.**

Goleman elaborated an ***emotional competence framework*** that encompasses:

Self-awareness – *knowing one's internal states, preferences, resources, and intuitions:*

• Emotional awareness

• Accurate self-assessment

• Self-confidence

Self-regulation – *managing one's internal states, impulses and resources:*

• Self-control

• Trustworthiness

• Conscientiousness

• Adaptability

• Innovation

Motivation – *emotional tendencies that guide or facilitate reaching goals:*

• Achievement drive

• Commitment

• Initiative

• Optimism, persistence and resilience

Social competence *– empathy and the awareness of others' feelings, needs, and concerns:*

• Understanding others

• Developing others

• Service orientation

• Leveraging diversity

• Political awareness

Social skills *– adeptness at inducing desirable responses in other:*

• Influence

• Communication

• Conflict management

• Leadership

• Change catalyst

• Building bonds

• Collaboration and cooperation

• Team capabilities

In a school context, the emotional literacy curriculum needs to be fostered directly through using a range of knowledge, skills, experience, and feeling. This will encompass the following development areas: Conscious awareness, particularly in extending the vocabulary of feelings; Understanding thoughts, feelings, and actions as they relate to learning and achievement, decision making and relationships; Managing feelings so that

we can be more effective in meeting our needs without violating the interests of others; Promoting self-esteem so that people feel good about themselves and about each other; Managing conflict to achieve win-win outcomes through effective anger management and better interpersonal skills; Understanding groups to contribute more effectively in group settings; Communication skills to promote appropriate expression of feelings and thoughts.

From http://www.reuvenBar-On.org/bar-on-model/essay.php?i=3

Bar-On's five meta-factors comprising Emotional Intelligence are

Intrapersonal Skills (self-awareness and self-expression)

- Self regard-being aware of, understanding and accepting
- Emotional self-awareness- being aware of and understanding our emotions
- Assertiveness- expressing our feelings and ourselves non-destructively
- Independence-being self-reliant and free of emotional dependency on others
- Self actualisation- setting and achieving goals to actualise our potential

Interpersonal Skills (social awareness and interaction):

- Empathy- being aware of and understanding how others feel
- Social responsibility-identifying with and feeling part of our social groups
- Interpersonal relationship-establishing mutually satisfying relationships.

Stress management (emotional management and control).

- Stress Tolerance-effectively and constructively controlling our emotions
- Impulse control- effectively and constructively managing our emotions

Adaptability (Change management)

- Reality testing-validating our feelings and thinking with external reality
- Flexibility-coping with and adapting to change in our daily life
- Problem solving-generating effective solutions to problems of an intrapersonal and interpersonal nature

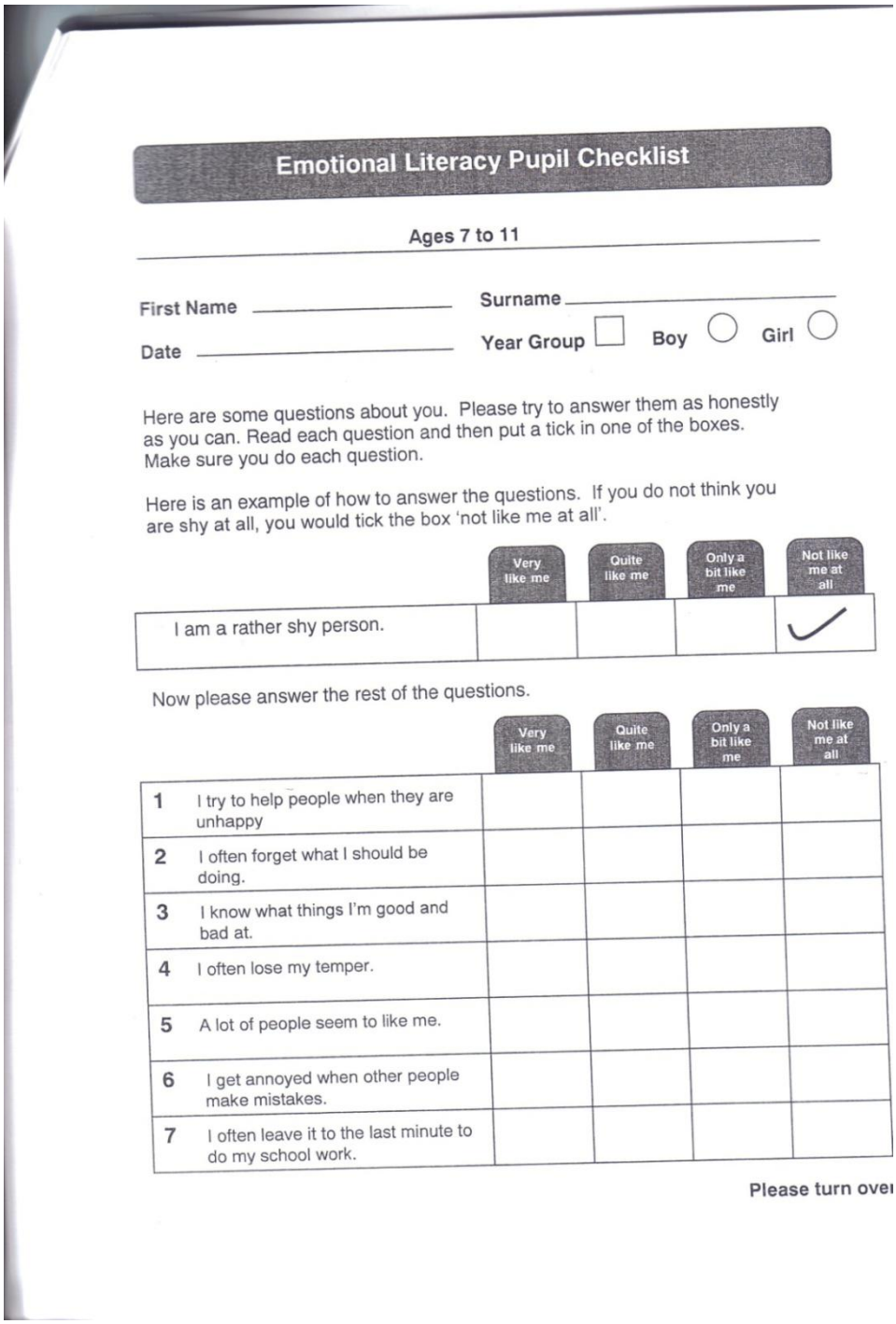
General Mood (Self-motivation)

- Optimism-having a positive outlook and looking at the brighter side of life
- Happiness-feeling content with ourselves, others and life in general

Appendix 2

Nfer-Nelson parent/child/teacher scales

Student checklist



Emotional Literacy Pupil Checklist

Ages 7 to 11

First Name _____ Surname _____

Date _____ Year Group ☐ Boy ○ Girl ○

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 shy at all, 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 a rather shy person.				✓

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 help people when they are unhappy				
2	I often forget what I should be doing.				
3	I know what things I'm good and bad at.				
4	I often lose my temper.				
5	A lot of people seem to like me.				
6	I get annoyed when other people make mistakes.				
7	I often leave it to the last minute to do my school work.				

Please turn over

		Very like me	Quite like me	Only a bit like me	Not like me at all
8	I can describe how I am feeling most of the time.				
9	I get upset if I do badly at something.				
10	I find it difficult to make new friends.				
11	I know when people are starting to get upset.				
12	I carry on trying even if I find something difficult.				
13	I am easily hurt by what others say about me.				
14	I calm down quickly after I have got upset.				
15	I am usually included in other children's games.				
16	I laugh at other children when they get something wrong.				
17	I make a good effort with most of my school work.				
18	I am good at many things.				
19	I am usually a clam person.				
20	I spend too much time on my own.				
21	I try to help someone who is being bullied				
22	I find it easy to pay attention in class				
23	I worry a lot about the things I'm not good at.				
24	I can't wait for my turn.				
25	I can make friends again after a row.				

Thank you for filling in this checklist

Teacher checklist

Emotional Literacy Teacher Checklist

Ages 7 to 11

First Name _____ **Surname** _____

Date _____ **Year Group** ☐ **Boy** ○ **Girl** ○

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

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

Parent checklist

Emotional Literacy Parent Checklist

Ages 7 to 11

First Name _____ **Surname** _____

Date _____ **Year Group** ☐ **Boy** ◯ **Girl** ◯

Please look at each statement and put a tick in the box that best describes how you think your child generally is. There are no right or wrong answers. Please make sure you answer each question. Your responses will be treated in strictest confidence.

	Very true	Some-what true	Not really true	Not at all true
1 Listens to other people's point of view in a discussion or argument				
2 Gives up easily when faced with something difficult.				
3 Can name/label his/her feelings.				
4 Is quick tempered and aggressive.				
5 Spends too much time alone.				
6 Is tolerant of people who are different from him/her.				
7 Seems able to shut out distractions when needs to focus.				
8 Tends to have feelings of self-doubt/insecurity.				
Is liable to sulk if doesn't get his/her own way.				
10 Finds it difficult to make new friends.				
11 Is insensitive to the feelings of others.				
12 When starts a task, usually follows it through to completion.				
13 Can recognise the early signs of becoming angry.				
14 When things go wrong, immediately denies that it is his/her fault or blames others.				
15 Is liked by a lot of people.				
16 Is very critical of others' shortcomings.				
17 Leaves things to the last minute.				
18 Is aware of his/her own strengths and weaknesses.				
19 Rushes into things without really thinking.				
20 Can make friends again after a row.				
21 Gets annoyed when other people get things wrong.				
22 Keeps trying even when faced with something difficult.				
23 Is easily hurt by what others say about him/her.				
24 Is a bad loser.				
25 Mixes with other children.				

Thank you for completing this checklist. Please return the completed checklist to the school.

Appendix 3

Delivering Equality of Opportunity in Schools (DEIS)

Information taken from www.education.ie

DEIS provides for:

- A standardised system for identifying and regularly reviewing levels of disadvantage and
- A new integrated School Support Programme (SSP) which will bring together and build upon the following existing schemes and programmes.

Over the years, no less than 8 separate schemes to tackle educational disadvantage have been put in place with some schools benefiting from just one or two of these and others benefiting from more. The DEIS initiative is designed to ensure that the most disadvantaged schools benefit from a comprehensive package of supports, while ensuring that others continue to get support in line with the level of disadvantage among their students. While there are benefits in individual interventions and programmes, a more integrated and joined up response to the issue of educational inclusion is required.

Definition of disadvantaged status taken from
http://www.cso.ie/releasespublications/documents/other_releases/spar.pdf

The Department uses the concept of "disadvantaged school status" as a means of deciding on the type and level of additional resources that should be allocated to a school. This status is allocated partly by estimates of the numbers of students whose families qualify for medical cards. These estimates are made by school principals. It is not clear whether the estimation procedure is carried out using the same objective criteria by all principals. Many of the listed performance or effectiveness needs at primary level include disaggregation by "school disadvantaged status". Some also refer to disaggregation by ethnicity, refugee status,

membership of the traveller community as well as socio-economic status. Information is also collated on unemployment levels, housing and information on basic literacy and numeracy of the children attending the schools.

The following information was taken directly from the DEIS action plan for educational disadvantage booklet-available on

http://www.education.ie/servlet/blobservlet/DEIS_action_plan_on_educational_inclusion.pdf?la

nguage=EN

Identification of Disadvantage and Targeting Supports

Research carried out by the Educational Research Centre (ERC) for the Educational Disadvantage Committee found strong evidence for the proposition that the disadvantage associated with poverty and social exclusion assumes a multiplier effect when large numbers of students in a school are from a similar disadvantaged background (the "social context effect").

In addition, the ERC found no evidence of a specific point at which the multiplier effect becomes evident and no point at which the relationship changes qualitatively. The relationship is best represented as linear, progressing from schools with relatively few students from disadvantaged backgrounds on a sliding scale to those with large numbers of students from disadvantaged backgrounds.

A standardised system will be put in place for identifying schools at both primary and second level for the purposes of qualifying for resources, both human and financial, according to the degree of disadvantage experienced. It will involve the collection and analysis of data on levels of disadvantage in individual schools to inform the allocation of supports to schools and school clusters/communities for a three year planning cycle under the new School Support Plan SSP. The indicators used will take account of the differences between urban and rural disadvantage.

The identification and analysis process will be managed by the ERC on behalf of the Department.

The first set of data on levels of disadvantage in primary identified under the standardised system will become available in 2005, following a new survey by the ERC of primary schools and the updating by them of existing data sources of levels of disadvantage in second-level schools.

The overall process will be assisted by a new Advisory Group, which will be supported by quality assurance work co-ordinated through the Department's regional offices and the Inspectorate. Information available from other sources (e.g. in relation to areas selected for inclusion in the RAPID and CLÁR programmes administered by the Department of Community, Rural and Gaeltacht Affairs) will also be taken into consideration.

About 600 primary schools will be identified for participation

in the SSP arising from the identification process and these will be targeted for particular support over the next five years. Supports will continue on the existing basis for 2005/2006 for all other schools receiving additional teaching or financial resources under current schemes and programmes for addressing disadvantage. The efficacy of these supports will be kept under review. The next identification process will be carried out in the school year 2009/2010 (to allow time for the phased implementation of this action plan) and the process will continue thereafter on a three-year cyclical basis, in line with the proposed three-year planning cycle for schools participating in the SSP.

The development of a new Primary Students Database, a Further Education Management Information System using the Personal Public Service number (PPS No.), will further enhance the identification process for future planning cycles. The availability of the Primary Students Database, in particular, will enable the tracking of students from their first enrolment in school through second-level education and beyond. In addition, the Department will continue to develop its overall data/statistics strategy and will work in co-operation with other Departments and agencies in the context of the National Statistics Board's Strategy for Statistics.

Appendix 4

School letter

Dear _____

My name is Sara Jane Flynn. I am a doctorate student working in the area of Child, Education and Community Psychology. I am studying long distance through Exeter University, Devon and as part of my studies I am placed with The National Educational Psychology Service (NEPS). I am presently carrying out research in the area of children's emotional development and was hoping your school would take part in my study.

I am standardizing an emotional literacy (EL) scale called The *Nfer-Nelson Emotional literacy test* on an Irish population of children.

My research will take place in two parts. The first part of the study (April-May 2009) involves giving a short questionnaire to the parents and teachers of the randomly chosen children, as well as the children themselves. I will come to the school to administer the individual child questionnaires myself.

The second part of the study (September 2009) involves my returning to the school and working with the same children, administering two separate scales, the MICRA-T test of attainment and a self esteem scale. The theory behind part two is checking to see if the EL scale can predict attainment scores and self esteem measures in children. I have included all the different pieces of paperwork for your perusal.

I will follow this letter with a phone call shortly to determine your interest and set a date to come and visit you and give you more thorough information on exactly what this entails, and to answer any questions you may have.

For your part, I would require

Parental consent forms signed and returned, for 20 children. The test is designed for 7-11 year olds and requires four children from each of the five years (1st class [7 yr olds] up to 5th class [11yr olds], two males and two females.

Completed teacher version of EL scale (takes roughly 5 minutes per child)

A room available for the administration by myself of the EL test, administered individually (April/May 2009)

A room available for group administration (September 2009).

Additionally, I have a short questionnaire to be completed by any teachers who teach SPHE in your school, also included here.

Please note, your school has been randomly chosen to participate.

Many thanks for your time.

Yours Sincerely

_____

Sara Jane Flynn B.Sc. Grad. Dip.Psych. (Educational Psychologist in training)

Appendix 5

Information letters to parents and consent forms

Included are; the initial letter, the abbreviated letter, the individual schools letters.

Initial letter

Sara Jane Flynn

School of Education & Lifelong Learning.

Graduate & Professional studies

St.Lukes campus

Heavitree Road

Exeter

EX1 2LU

Dear Parent

My name is Sara Jane Flynn. I am an Irish doctoral student working in the area of Child, Education and Community Psychology. I am studying long distance through Exeter University, Devon. I am presently carrying out research in the area of children's emotional development and I was hoping your child, who has been randomly chosen, would take part in my study.

I am standardizing an emotional literacy (EL) scale called *The Nfer-Nelson Emotional literacy test* on an Irish population of children. Emotional literacy refers to the ability of people to manage, use, regulate and understand their own and others emotions. Originally, this test was given to a population of British children and the results of that test are now used as a benchmark for any children given the test. By standardizing it, I will determine the average emotional levels of Irish children, allowing for our cultural differences and as a consequence, this will serve as a benchmark for any Irish children assessed using *The Nfer-Nelson Emotional literacy test.*

My research will take place in two parts. The first part of the study (April-June 2009) involves giving a short questionnaire to you (see Questionnaire included), the child and the child's teacher. I will go to the school to administer the individual child questionnaires myself.

The second part of the study (September 2009) involves returning to the school and working with your child in a group where I will administer two separate scales, namely the MICRA-T test of attainment and a self esteem scale . The theory behind part two is checking to see if the EL scale predicts attainment scores and self esteem measures in children.

The results of your child's scores will be kept anonymous, and will be used only by myself for the purpose of this study. Confidentiality and anonymity are of key priority.

If you have any questions or concerns please contact me on the number provided above.

Thank you for your time and cooperation.

Yours Sincerely

_____

Sara Jane Flynn B.Sc. Grad. Dip. Psych (Educational Psychologist in training)

1.If you are happy with you child taking part in my study, please sign the following section and return to the class teacher.

2. Please complete the attached questionnaire and return to the class teacher with the consent form below.

I consent for _____ to be part of the standardization of the t*he Nfer-Nelson Emotiona*
literacy test.

_____

(Parental Signature)

If you wish to receive a summary of the findings from this study please tick the box, if not pleas
leave blank. Please note that no individual scores will be provided.

☐

Abbreviated letter

Dear Parent

We need your help. Our school has been asked to take part in some research by a psychology student, Sara Jane Flynn. She is looking at children's understanding of their emotions. All children in your child's class have been given this form.

I need you to sign the consent form at the bottom of this page and fill out the short questionnaire attached. Please give it to your child to give to their teacher. You have no more work to do after this.

The teacher will fill out a similar questionnaire. Sara Jane will fill out a questionnaire with your child. Later, Sara Jane will take the results of the MICRA-T from our school and she will fill out a questionnaire around self esteem with your child.

The results will not be used for anything other than this research. Your child's name will not be listed anywhere.

This study will help psychologists understand children better.

If you have any questions please call Sara Jane

Thank you for your time.

Sara Jane Flynn B.Sc. Grad. Dip. Psych (Educational Psychologist in training)

1.If you are happy with your child taking part in my study, please sign the following section and return to the class teacher.

2. Please complete the attached questionnaire and return to the class teacher with the consent form below.

I consent for _____ to be part of the re-standardisation of the *The Nfer-Nelso Emotional literacy test.*

_____

(Parental Signature)

If you wish to receive a summary of the findings from this study please tick the box, if not please leave blank. Please note that no individual scores will be provided. ☐

Appendix 6

Cronbach alphas for the Nfer-Nelson scales and subscales

The Item by item total statistics including the Cronbach alphas for the scales and subscales of the student, teacher and parent questionnaires

Student scale

Question number	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Empathy subscale		
1	.416	.381
6	.250	.481
11	.140	.559
16	.282	.462
21	.371	.400
Motivation subscale		
2	.147	.444
7	.269	.338
12	.228	.373
17	.235	.381
22	.272	.342
Self-awareness subscale		
3	.338	.253
8	.119	.414
13	.230	.329
18	.181	.370
23	.183	.372
Self-regulation subscale		
4	.339	.380
9	.224	.469
14	.239	.452
19	.344	.385
24	.192	.477
Social skills subscale		
5	.389	.415
10	.266	.495
15	.393	.401
20	.213	.518
25	.238	.497
Total Emotional Literacy		
Empathy	.492	.671
Motivation	.546	.651
Self-awareness	.449	.687
Self-regulation	.542	.649
Social skills	.384	.712

Teacher scale

Question number	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Empathy subscale		
1	.714	.163
6	.814	.163
11	.822	.163
16	.763	.163
Motivation subscale		
2	.657	.833
7	.737	.797
12	.670	.826
17	.742	.801
Self-awareness subscale		
3	.414	.562
8	.312	.644
13	.384	.586
18	.587	.458
Self-regulation subscale		
4	.807	.814
9	.827	.803
14	.657	.871
19	.656	.872
Social skills subscale		
5	.680	.763
10	.570	.822
15	.576	.810
20	.800	.711
Total Emotional Literacy		
Empathy	.707	.829
Motivation	.655	.841
Self-awareness	.691	.833
Self-regulation	.755	.819
Social skills	.659	.840

Parent scale

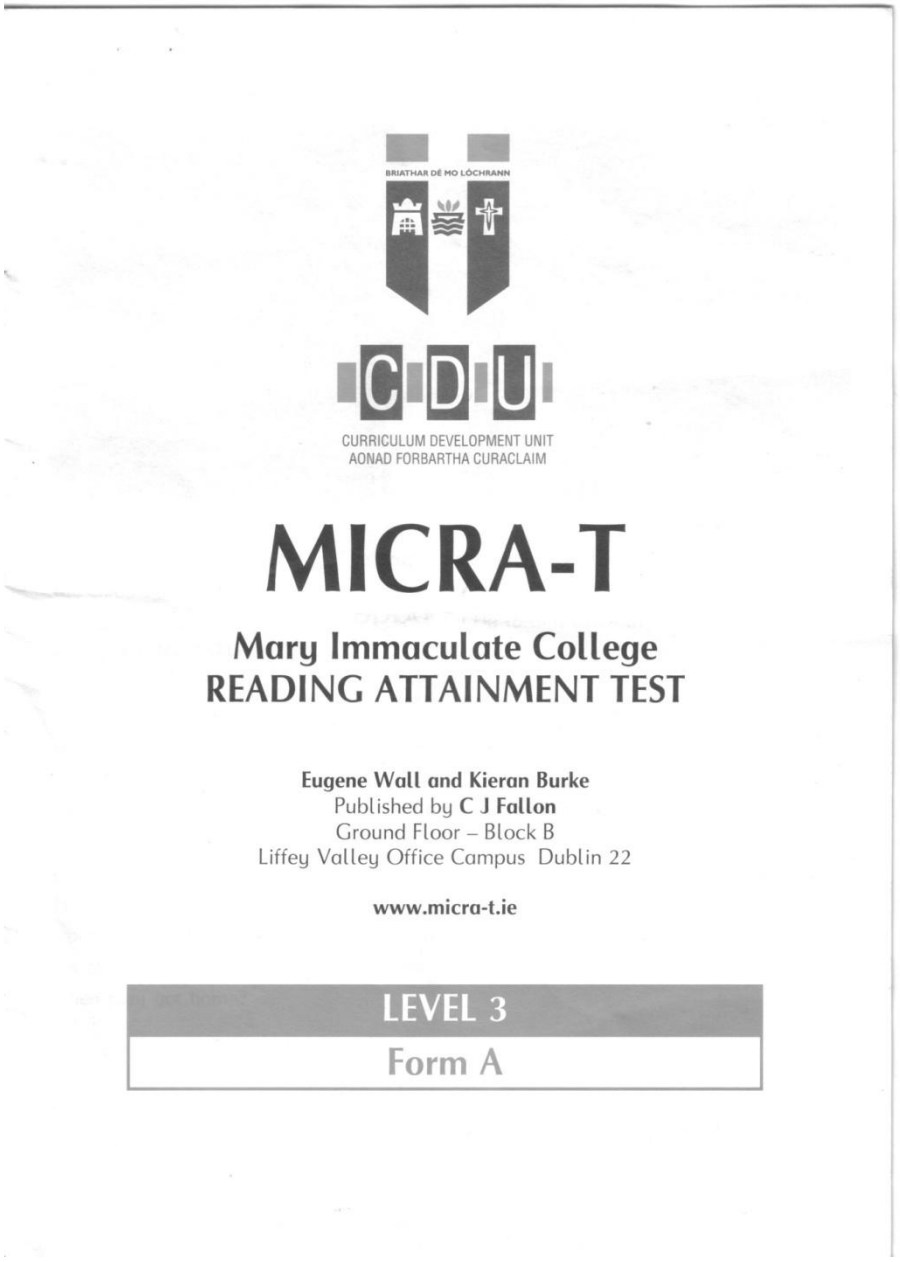
Question number	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Empathy subscale		
1	.408	.482
6	.366	.492
11	.249	.573
16	.400	.480
21	.273	.547
Motivation subscale		
2	.384	.551
7	.185	.655
12	.423	.533
17	.401	.543
22	.505	.505
Self-awareness subscale		
3	.202	.374
8	.239	.347
13	.262	.329
18	.123	.424
23	.246	.341
Self-regulation subscale		
4	.485	.712
9	.586	.673
14	.618	.663
19	.383	.745
24	.490	.710
Social skills subscale		
5	.362	.538
10	.503	.446
15	.398	.520
20	.208	.611
25	.302	.567
Total Emotional Literacy		
Empathy	.412	.646
Motivation	.497	.608
Self-awareness	.520	.609
Self-regulation	.523	.600
Social skills	.279	.693

Appendix 7

MICRA-T

Mary Immaculate College reading attainment test (MICRA-T)-Wall & Burke (2004)

Level 3


BRIATHAR DÉ MO LÓCHRANN

CDU

CURRICULUM DEVELOPMENT UNIT
AONAD FORBARTHA CURACLAIM

MICRA-T

Mary Immaculate College
READING ATTAINMENT TEST

Eugene Wall and Kieran Burke
Published by C J Fallon
Ground Floor – Block B
Liffey Valley Office Campus Dublin 22

www.micra-t.ie

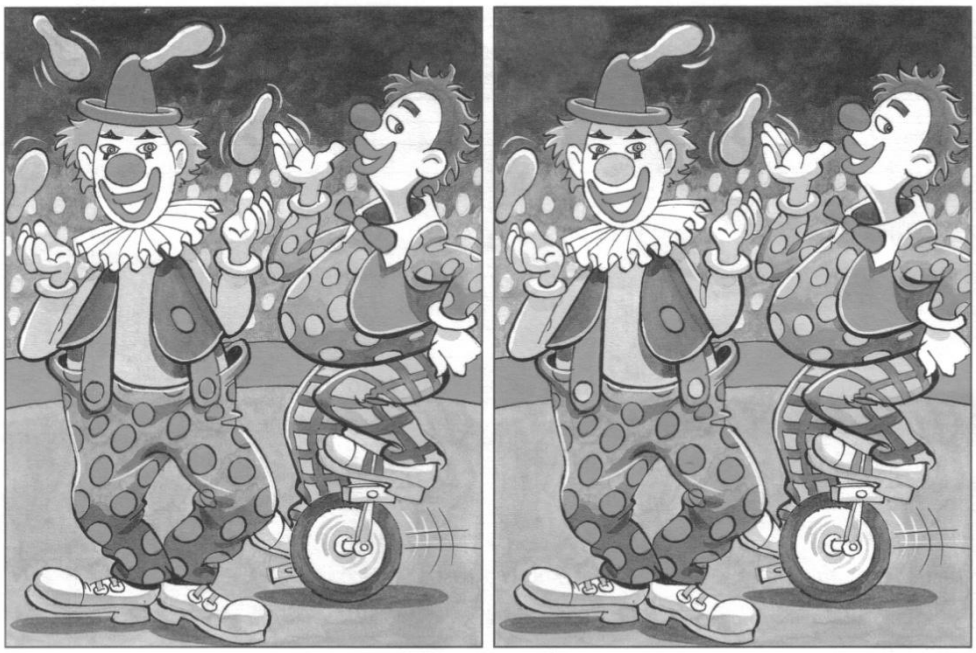
LEVEL 3
Form A

Example

Pat was sweeping his chimney. The brush came away from the rod and got stuck up the chimney. He climbed up on _____ roof to try and poke it down. He asked his _____ to shout up to him when the brush came down. He stuck a long pole _____ the chimney and tried to reach the _____. "Is it down?" he shouted to his wife. "Not yet," _____ called back. He rolled up an old shirt and pushed _____ down the chimney with the pole. There _____ still no sign of the brush. So he pushed the pole even further. The shirt fell out of the chimney and into the fireplace. Then he realised to _____ horror that it was the wrong chimney. He had pushed the shirt down his neighbours' _____. He got down from the roof in a hurry. He ran over and looked in through the _____ of his neighbours' front room. There was soot all over the room and in the fireplace he could see his old _____. Poor Pat. What would he say to his neighbours when they got home?

Do not turn over

3



Look at Bippo and Zippy the clowns. Bippo has orange _____ and he is wearing a green _____. His pal Zippy has _____ hair, the same colour as _____ nose.

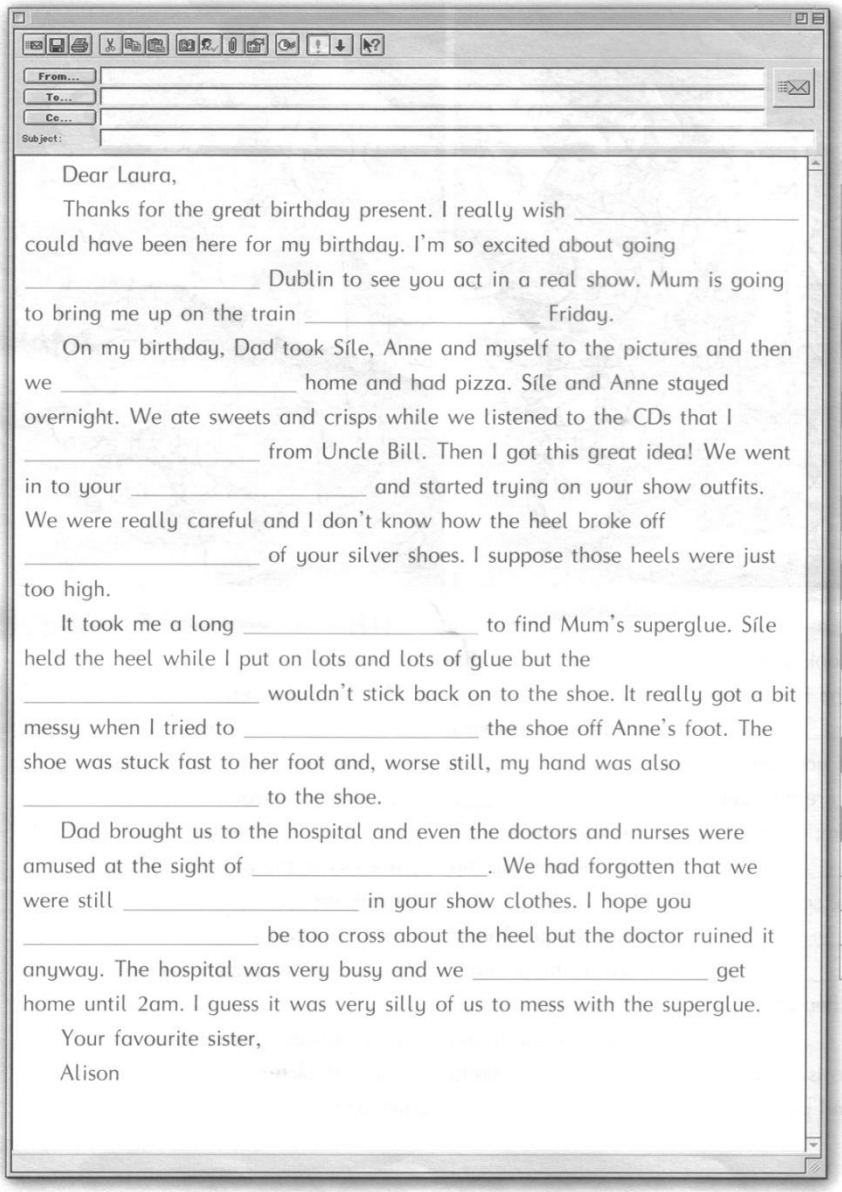
If you look closely _____ the two pictures, you can see that they are not quite the _____. Bippo's nose is yellow in one picture; in the other picture his nose is _____. There are two _____ buttons holding up Bippo's trousers in the first picture but in the second picture the _____ are coloured _____ and not purple. The two stripes on Zippy's _____ are red in the picture on the right; in the picture on the left they are _____.

_____ you spot the final difference between the pictures? Bippo is juggling _____ skittles in the first picture but in the second picture there are _____ three skittles.

1	
2	
3	4
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Total Page 5

5



Dear Laura,

Thanks for the great birthday present. I really wish _____ could have been here for my birthday. I'm so excited about going _____ Dublin to see you act in a real show. Mum is going to bring me up on the train _____ Friday.

On my birthday, Dad took Síle, Anne and myself to the pictures and then we _____ home and had pizza. Síle and Anne stayed overnight. We ate sweets and crisps while we listened to the CDs that I _____ from Uncle Bill. Then I got this great idea! We went in to your _____ and started trying on your show outfits. We were really careful and I don't know how the heel broke off _____ of your silver shoes. I suppose those heels were just too high.

It took me a long _____ to find Mum's superglue. Síle held the heel while I put on lots and lots of glue but the _____ wouldn't stick back on to the shoe. It really got a bit messy when I tried to _____ the shoe off Anne's foot. The shoe was stuck fast to her foot and, worse still, my hand was also _____ to the shoe.

Dad brought us to the hospital and even the doctors and nurses were amused at the sight of _____. We had forgotten that we were still _____ in your show clothes. I hope you _____ be too cross about the heel but the doctor ruined it anyway. The hospital was very busy and we _____ get home until 2am. I guess it was very silly of us to mess with the superglue.

Your favourite sister,

Alison

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Total Page 6

6

This is Ling Ling, the giant panda. The giant panda _____ a bear. Pandas have white _____ black fur. As you can see, the _____ fur is mainly around the panda's eyes and along _____ ears, nose, arms and legs. Most of the rest of its _____ is covered in thick, woolly white fur which helps to _____ it warm. With its large head and its black spotted eyes, most people think that giant pandas are very cuddly _____.

Ling Ling lives in a zoo but most giant _____ are to be _____ in the wild. They live very _____ up in forests in the mountains of Central China. In the wild, giant pandas feed mainly _____ bamboo shoots.

Sadly, the giant panda is in _____ of becoming extinct. In the past, they _____ hunted and the forests in _____ they lived were cut down. Scientists think that there may be _____ few as 1,000 giant pandas living in the wild today. It would be very sad if this beautiful creature were to _____ from the earth.

1	
2	
3	
4	
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7	
8	
9	10
11	
12	
13	
14	
15	
16	

Total Page 7

7

8

So this was it. New York City. The 'Big Apple'. The 'city that never sleeps'. I can remember well the first day that I stood in a New York street, looking up _____ the huge buildings that towered into the sky. I may have been 18 years _____ but I sure felt lost, alone and tiny, really tiny, in that vast city. Alright, so I was scared too. I was a long way _____ Ireland and this was my first time in a city like this. This was a lot different from how it seemed _____ the television and in the cinema.

Only two days to spend here before moving on and there was a _____ to see. I took the bus tour around Manhattan, one of the islands that make _____ New York City. After a visit to the top of the Empire State Building, I headed for Battery Park to _____ the boat trip to the Statue of Liberty. The famous green Statue looked disappointingly smaller _____ I had expected so I stayed on board the _____ while most people queued to climb up into the crown of the Statue. That's right, you can actually climb the 192 steps up to the _____ on the top of Liberty.

Ellis Island is on the boat journey back _____ Manhattan. For many years, people arriving in the United States, who _____ to settle there, first landed at Ellis Island. The first person to _____ the country through Ellis Island was Annie Moore. She arrived there on 1st January 1892 on her 15th birthday, _____ travelled from Cobh in Ireland with her two younger brothers. They had left Ireland just before Christmas to rejoin their parents who had moved to New York three years _____. However, Annie was _____ the first Irish person to leave Ireland for the United States. Between 1820 and 1890, more than $3\frac{1}{2}$ million Irish people emigrated _____ the United States. Today, the statue of Annie in the museum on Ellis Island is a memorial to the millions of people who left Europe in _____ of a new life.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Total Page 9

MICRA-T

LEVEL 3 | **Form A**

Name _____

Class _____

Date of Testing ____ ____ ____

Date of Birth ____ ____ ____

Age ____ ____
years completed months

Scores	
Page 5	
Page 6	
Page 7	
Page 9	
Total	

	STANDARD SCORE	PERCENTILE	STEN SCORE
Class-based scores			
Age-based scores			

Autumn ☐
Summer ☐

Reading Age ____

A	B	C	D	E	F	G	H	I	J	K	L
0	1	2	3	4	5	6	7	8	9	2	3

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This reprint October 2008

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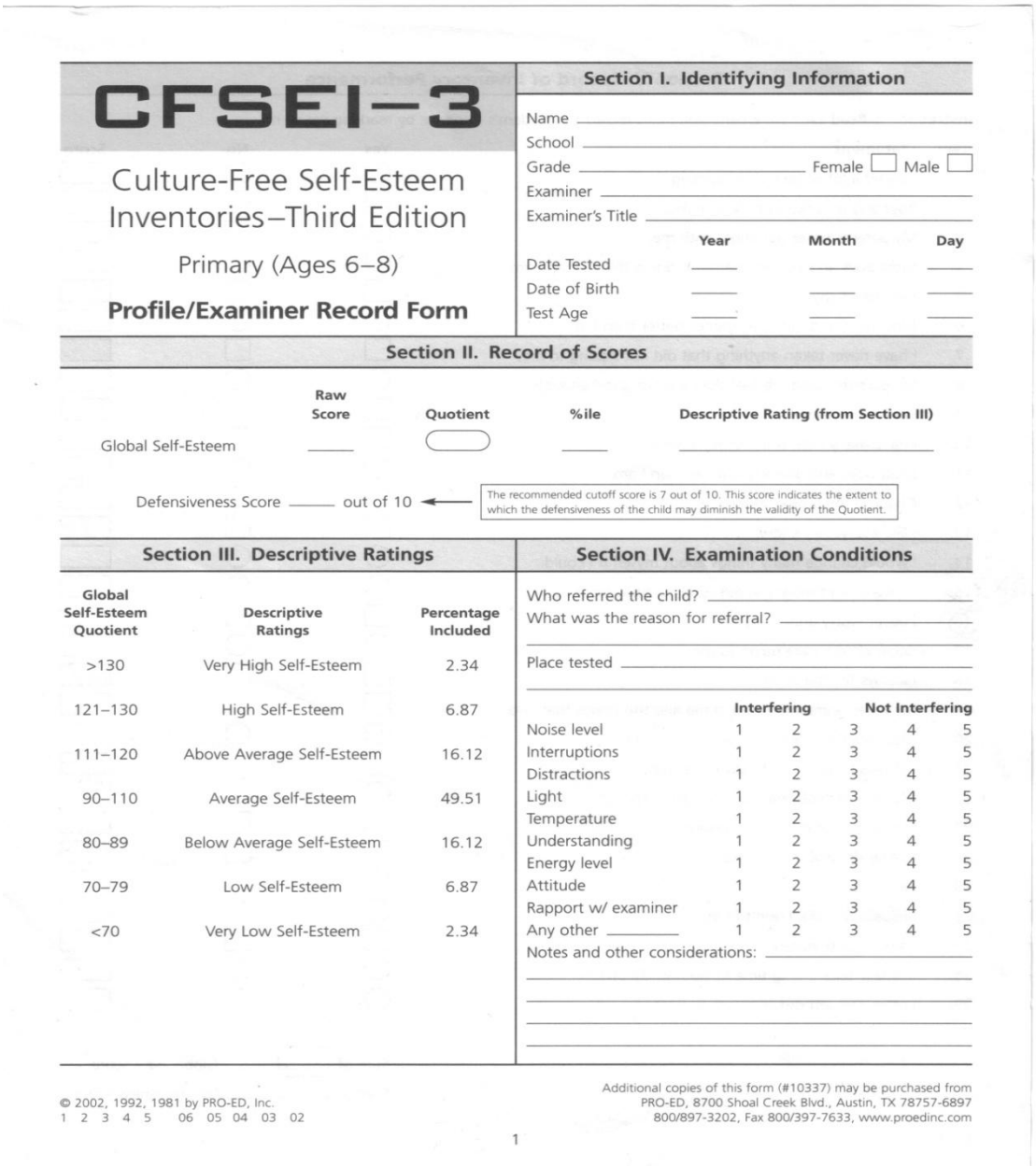
Appendix 8

CFSEI-3

The Primary (6-8 years) form and Intermediate (9-12 years) form are included

Primary form



CFSEI–3

Culture-Free Self-Esteem Inventories–Third Edition

Primary (Ages 6–8)

Profile/Examiner Record Form

Section I. Identifying Information

Name _____

School _____

Grade _____ Female ☐ Male ☐

Examiner _____

Examiner's Title _____

	Year	Month	Day
Date Tested			
Date of Birth			
Test Age			

Section II. Record of Scores

	Raw Score	Quotient	%ile	Descriptive Rating (from Section III)
Global Self-Esteem				

Defensiveness Score _____ out of 10 ← The recommended cutoff score is 7 out of 10. This score indicates the extent to which the defensiveness of the child may diminish the validity of the Quotient.

Section III. Descriptive Ratings

Global Self-Esteem Quotient	Descriptive Ratings	Percentage Included
>130	Very High Self-Esteem	2.34
121–130	High Self-Esteem	6.87
111–120	Above Average Self-Esteem	16.12
90–110	Average Self-Esteem	49.51
80–89	Below Average Self-Esteem	16.12
70–79	Low Self-Esteem	6.87
<70	Very Low Self-Esteem	2.34

Section IV. Examination Conditions

Who referred the child? _____

What was the reason for referral? _____

Place tested _____

	Interfering				Not Interfering
Noise level	1	2	3	4	5
Interruptions	1	2	3	4	5
Distractions	1	2	3	4	5
Light	1	2	3	4	5
Temperature	1	2	3	4	5
Understanding	1	2	3	4	5
Energy level	1	2	3	4	5
Attitude	1	2	3	4	5
Rapport w/ examiner	1	2	3	4	5
Any other _____	1	2	3	4	5

Notes and other considerations: _____

Additional copies of this form (#10337) may be purchased from
PRO-ED, 8700 Shoal Creek Blvd., Austin, TX 78757-6897
800/897-3202, Fax 800/397-7633, www.proedinc.com

1

Section V. Record of Inventory Performance

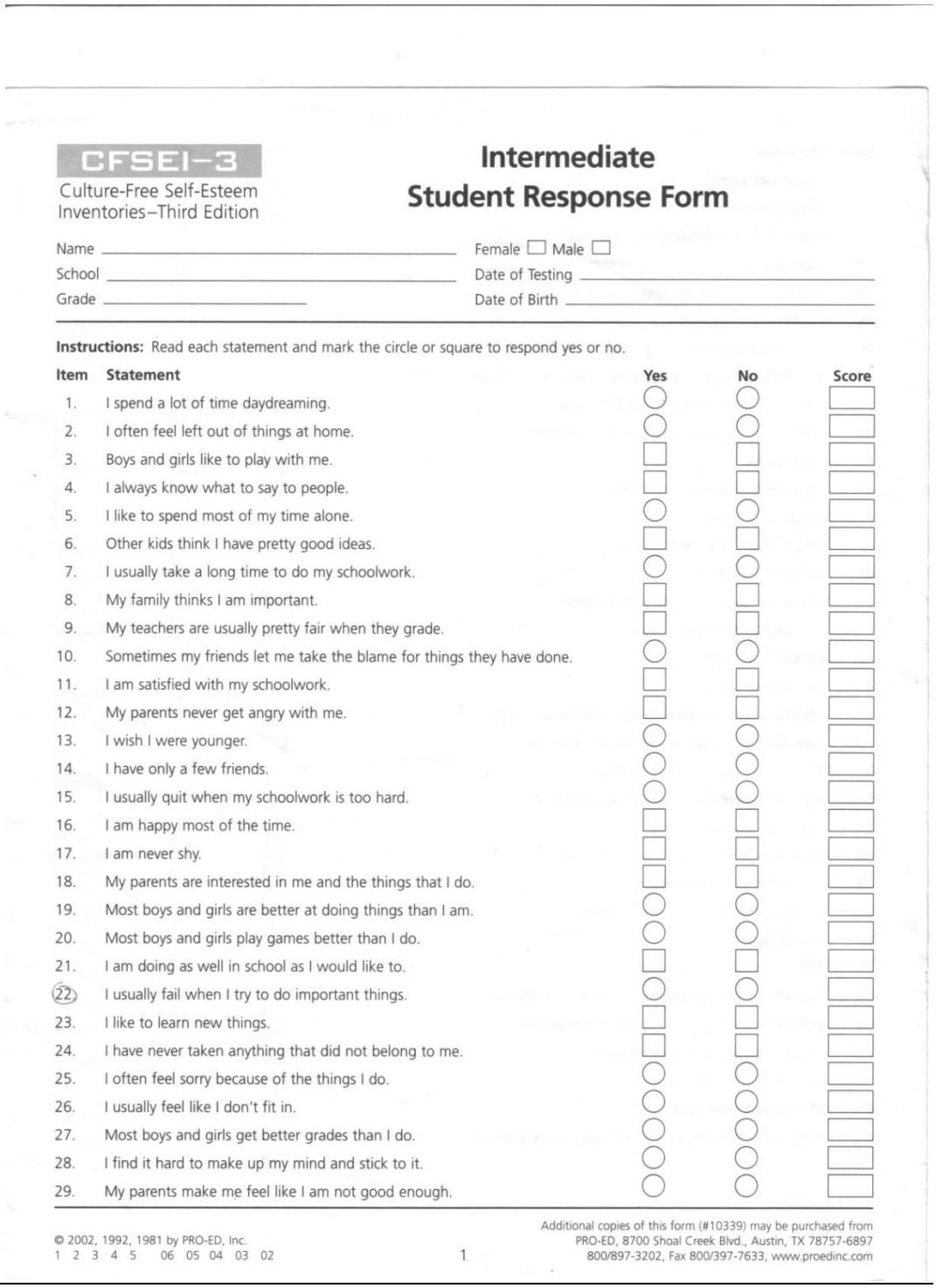
Instructions: Read each statement aloud and record the student's response by marking yes or no.

Item	Statement	Yes	No	Score
1.	I spend a lot of time daydreaming.	○	○	□
2.	Boys and girls like to play with me.	□	□	□
3.	My parents never get angry with me.	□	□	■
4.	Most boys and girls are better at doing things than I am.	○	○	□
5.	I am never shy.	□	□	■
6.	Most boys and girls play games better than I do.	○	○	□
7.	I have never taken anything that did not belong to me.	□	□	■
8.	My parents make me feel like I am not good enough.	○	○	□
9.	I never get angry.	□	□	■
10.	I have many friends about my own age.	□	□	□
11.	Most boys and girls are smarter than I am.	○	○	□
12.	Children often pick on me.	○	○	□
13.	I like everyone I know.	□	□	■
14.	I would change many things about myself if I could.	○	○	□
15.	I have often thought about running away from home.	○	○	□
16.	I never worry about anything.	□	□	■
17.	Other children are mean to me.	○	○	□
18.	I always tell the truth.	□	□	■
19.	My parents are interested in me and the things that I do.	□	□	□
20.	Most boys and girls are better than I am.	○	○	□
21.	I always know what to say to people.	□	□	■
22.	My teacher feels that I am not good enough.	○	○	□
23.	My family thinks I am important.	□	□	□
24.	I never do anything wrong.	□	□	■
25.	I am clumsy.	○	○	□
26.	I usually feel like I don't fit in.	○	○	□
27.	I am never unhappy.	□	□	■
28.	I usually take a long time to do my schoolwork.	○	○	□
29.	I often feel left out of things at home.	○	○	□

Sum of □ ____ Global Raw Score

Sum of ■ ____ Defensiveness Score

Intermediate form



CFSEI–3
Culture-Free Self-Esteem Inventories–Third Edition

Intermediate Student Response Form

Name _____ Female ☐ Male ☐
School _____ Date of Testing _____
Grade _____ Date of Birth _____

Instructions: Read each statement and mark the circle or square to respond yes or no.

Item	Statement	Yes	No	Score
1.	I spend a lot of time daydreaming.	○	○	☐
2.	I often feel left out of things at home.	○	○	☐
3.	Boys and girls like to play with me.	☐	☐	☐
4.	I always know what to say to people.	☐	☐	☐
5.	I like to spend most of my time alone.	○	○	☐
6.	Other kids think I have pretty good ideas.	☐	☐	☐
7.	I usually take a long time to do my schoolwork.	○	○	☐
8.	My family thinks I am important.	☐	☐	☐
9.	My teachers are usually pretty fair when they grade.	☐	☐	☐
10.	Sometimes my friends let me take the blame for things they have done.	○	○	☐
11.	I am satisfied with my schoolwork.	☐	☐	☐
12.	My parents never get angry with me.	☐	☐	☐
13.	I wish I were younger.	○	○	☐
14.	I have only a few friends.	○	○	☐
15.	I usually quit when my schoolwork is too hard.	○	○	☐
16.	I am happy most of the time.	☐	☐	☐
17.	I am never shy.	☐	☐	☐
18.	My parents are interested in me and the things that I do.	☐	☐	☐
19.	Most boys and girls are better at doing things than I am.	○	○	☐
20.	Most boys and girls play games better than I do.	○	○	☐
21.	I am doing as well in school as I would like to.	☐	☐	☐
22.	I usually fail when I try to do important things.	○	○	☐
23.	I like to learn new things.	☐	☐	☐
24.	I have never taken anything that did not belong to me.	☐	☐	☐
25.	I often feel sorry because of the things I do.	○	○	☐
26.	I usually feel like I don't fit in.	○	○	☐
27.	Most boys and girls get better grades than I do.	○	○	☐
28.	I find it hard to make up my mind and stick to it.	○	○	☐
29.	My parents make me feel like I am not good enough.	○	○	☐

1

Item	Statement	Yes	No	Score
30.	I never get angry.	☐	☐	☐
31.	Children often pick on me.	○	○	☐
32.	I have many friends about my own age.	☐	☐	☐
33.	Most boys and girls are smarter than I am.	○	○	☐
34.	Most boys and girls are better than I am.	○	○	☐
35.	I like everyone I know.	☐	☐	☐
36.	I would change many things about myself if I could.	○	○	☐
37.	I have often thought about running away from home.	○	○	☐
38.	I am as happy as most boys and girls are.	☐	☐	☐
39.	I can do things as well as other boys and girls do.	☐	☐	☐
40.	I worry a lot.	○	○	☐
41.	My parents understand how I feel.	☐	☐	☐
42.	I never worry about anything.	☐	☐	☐
43.	Other children are mean to me.	○	○	☐
44.	I am doing the best schoolwork that I can.	☐	☐	☐
45.	People can trust me to do what I promise to do.	☐	☐	☐
46.	My parents think I am a failure.	○	○	☐
47.	I always tell the truth.	☐	☐	☐
48.	I need more friends.	○	○	☐
49.	I feel as though my parents expect too much of me.	○	○	☐
50.	I will be an important person when I grow up.	☐	☐	☐
51.	I like playing games with other kids.	☐	☐	☐
52.	My teacher feels that I am not good enough.	○	○	☐
53.	I never do anything wrong.	☐	☐	☐
54.	Most boys and girls are stronger than I am.	○	○	☐
55.	I am proud of my schoolwork.	☐	☐	☐
56.	I often get upset when I am at home.	○	○	☐
57.	I am clumsy.	○	○	☐
58.	Other kids call me a crybaby.	○	○	☐
59.	I sometimes pretend to know more than I really do.	○	○	☐
60.	Other kids think I am a lot of fun to be around.	☐	☐	☐
61.	I usually do my homework on time.	☐	☐	☐
62.	I am never unhappy.	☐	☐	☐
63.	My teachers seem to like me.	☐	☐	☐
64.	I feel like nobody pays much attention to me at home.	○	○	☐

Appendix 9

Ethical approval from the University of Exeter

STUDENT HIGHER-LEVEL RESEARCH

UNIVERSITY OF EXETER

School of Education and Lifelong Learning

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: Sara Jane Flynn

Your student no: 570022332

Degree/Programme of Study: Doctorate in Educational Psychology

Project Supervisor(s): Flora Macleod and Margie Tunbridge

Your email address: sara_jane_flynn@yahoo.ie

Title of your project:

The Re-standardization of the Nfer-Nelson emotional literacy scale on an Irish population including qualitative information from teachers of SPHE on the cultural and educational influences on children's emotional development.

Brief description of your research project:

I will administer the Nfer-Nelson emotional literacy scale to 100 Irish schoolchildren between the ages of 7 and 11.This involves a parent, teacher and student version of the scale. I will run internal consistency checks on the scale. For the second part of my research I will return to the schools and give self esteem and attainment measures and check for the predictive validity of the emotional literacy scale. In addition to this I will give a semi-structured questionnaire to those who teach SPHE and assess how they feel the course addresses emotional literacy, whether they feel children's level of emotional literacy affects their attainments and self esteem, and if there are any aspects of Irish culture which influence children's emotional development (See School letter attached for copy of questionnaire and theoretical rationale.)

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

The participants are children aged between 7 and 11 years. The schools will be chosen randomly and then the children will be chosen randomly. Double the quantity of children will be invited to ensure high numbers of participants upon completion. Active written consent forms will be sent to the parent of each child. (See letter to parents attached).

Give details regarding the ethical issues of informed consent, anonymity and confidentiality (with special reference to any children or those with special needs)

The consent forms will be attached to an information sheet addressing the random selection of children, nature of the research, the anonymity and confidentiality of the research and what it will

be used for. As the children will be chosen randomly there should be no particular issue around special needs. I will provide a contact number for parents to contact me should they have any issues/questions/concerns. (See school information and parental information and consent forms attached.)

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:

I will provide the school with copies of all the tests to be administered at first contact. Parents and teachers need to fill out their versions of the scale and then I will meet with the children individually and administer the emotional literacy scale. Any issues that may arise out of it can be explored with the child at this point and if I feel any need for additional concern I will inform the school. The second part of the research will involve group administration of the self esteem measure and the attainment test. All these tests have been in circulation for years and their does not appear to any particular ethical concern around their administration.

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.):

All the documents will be stored in my office at work. The building has 24 hour/7 day a week/365 day a year security and so they will be secure. All the assessments will be carried out in the different schools who are involved.

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):

NA

***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:... **Date:** March 29th 09.

***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:** April 23rd 2010

By (above mentioned supervisor's signature)..... **date:** April 23rd 2009

***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|08|09|52

Signed:..... **date:** 30/04/2009
Chair of the School's Ethics Committee

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

Appendix 10

Literature Review

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

"When street gangs substitute for families and schoolyard insults end in stabbings, when more than half of marriages end in divorce, when the majority of the children murdered in this country are killed by parents and stepparents, many of whom say they were trying to discipline the child for behaviour like blocking the TV or crying too much, it suggests a demand for remedial emotional education."

(Gibbs, 1995)

Contents

Whole school ethos

EL in the classroom

- **Testing for level of EL**

  Standardised EL scales

  Nfer-Nelson Emotional Literacy scale

- **Bibliography**
- **Appendix**

Introduction

This literature review will examine the research evidence and theory to date around the concept of Emotional Literacy. This background provides a context for my thesis which will be a standardization of an Emotional Literacy (EL) scale namely the Nfer-Nelson Emotional literacy Scale (Faupel, 2003) on an Irish population. The thesis will also present qualitative data provided by teachers in Ireland on aspects of Irish culture and their opinion of the primary school module Social, Personal and Health Education (SPHE-DFES, 1999-Appendix 1) and its relationship to the development of EL in primary aged children. This paper will start with looking at the theory around EL and its importance in today's society, socially and educationally. A closer look at its importance in school and everyday life is followed by examination of how children learn to be emotionally literate. Finally assessing children's level of EL is discussed and this paper culminates with a look at the particular test I am standardizing as part of my thesis in Educational, Child and Community psychology.

Definition of Emotional Intelligence and Emotional Literacy, associated theories, and the importance of emotional literacy in today's society

Theories

The concept of EL is not a new one. Charles Darwin (1872) emphasised the importance of emotional expression for survival and in the 1920s, E. L. Thorndike, coined the term social intelligence to describe the skill of understanding and managing social interactions with other people. Psychology and the Health and Social Sciences have progressed massively in the last century in this direction and theory around the importance of emotional well-being and EL has become more popular.

Theories abound, such as Emotional Intelligence (EI) (Goleman, 1996), Multiple Intelligences (Gardner, 1983) and Positive Psychology (Maslow, 1943., Rodgers, 1959., Seligman, 2002., Csikszentmihalyi, 1990) to name a few. Some theories such as Attachment theory (Bowlby, 1973) and Human Givens (Griffin & Tyrrell, 2003) claim that emotional security is the basis for psychological well being and overall happiness, as it is directly related to the quality of the relationships we have (Faupel, 2003).

Application of theory

Opposing theories have been espoused that suggest that feelings are by products of behaviour (James, 1890., Skinner, 1974). Contemporary application of theory into practice tends to focus more on the cyclical nature of the relationship between thoughts, feelings and behaviour, namely Cognitive Behavioural Therapy, CBT (Ellis, 1997; Beck, Rush, Shaw & Emery, 1979) and Choice Theory (Glasser, 1998). Institutions or psychology departments don't tend be exclusive in the theory they draw from when dealing with their own EL ethos and guidelines. The National Educational Psychology Service (NEPS) in Ireland, a centralised system, draws upon numerous theories such as Piaget's theory of cognitive development, Vygotskian Socio-cultural theory, Family therapy(Bowen, 1994), Cognitive-behavioural therapies (Beck *et al.,* 1979, Ellis, 1997) and systems/ecological theory (Bronfenbrenner, 1979; Dowling & Osborne 1995) to name but a few (Sheehan, Costello, O'Dowd, Gregory & O'Leary, 2008). Such an amalgamation is due to the contemporary concept of looking at the child and their difficulties in context, in a holistic, systemic manner considering the thoughts, feelings and behaviours of all those involved. All behaviour has an emotional counterpart (Ellis *et al.,* 1979), whether that be apathy, love, hate, boredom etc. For humans to be able to function with others in society they need to have some level of meta-cognition around

their own and others emotions and it is this that forms the basis for what is termed EL. The skills involved in this meta-cognition have been characterised by Goleman (1996) as part of his theory of Emotional Intelligence. These skills are self-awareness, self-regulation, motivation, empathy and social skills. These skills make up the five subscales of the Nfer-Nelson Emotional literacy Scale (Faupel, 2003), that which is being standardised as part of the PhD work which this Literature Review feeds into.

Emotional Intelligence vs. Emotional Literacy

Although it's not a new concept, the *term* EL is a relatively new one. It has been more commonly referred to as Emotional Intelligence, but both terms are now used interchangeably (Claxton, 2005; Park, 1999). The difference between intelligence and literacy lies in the former having connotations of being inherited, predestined and stable whereas *Literacy* has connotations of being malleable. The same connotative difference exists between emotional intelligence and emotional literacy.

In contrast, from reading the relevant texts many similarities are evident between the two terms. Both Goleman, who is associated with 'intelligence', and Claude Steiner, a proponent of 'literacy', emphasize the abilities to recognize and manage one's own feelings, to read the emotional behaviour of others, and to use these combined understandings as a way to interact and develop positive relationships (Steiner & Paul, 1997). The fact that reading of emotions can be developed is some proof of it being literacy and not an intelligence. Paul Ekman (1992) is a researcher in reading facial expression which represent emotions (Faupel, 2003) and teaches people how to read them competently. In other studies (1972) Ekman observed that members of an isolated culture could reliably identify the expressions of emotion in photographs of people from cultures with which they were not familiar. They could also ascribe facial expressions to descriptions of situations. Ekman concluded that some emotions were basic or biologically universal to all humans and this is now widely accepted by scientists.

Similar to and preceding the discrepancy between EL and EI is the existence of a limited researched debate around whether EI is something that is inherited and predetermined, an idea akin to traditional views of intelligence, namely Ability Theory (Salovey & mayer, 1990) or whether it can be developed,-Trait Theory (Goleman, 1996; Dulewicz & Higgs, 2004; Bar-On, 1997). The former is typically measured through performance tests,

whereas the latter tends to be assessed through self report questionnaires. This difference in assessment technique has theoretical and practical implications (Perez, Petrides & Furnham, 2005). For example, Ability EI would be expected to correlate strongly with measures of general cognitive ability (Perez, Petrides & Furnham, 2005) but Trait EI should not relate to such measures.

It should be noted that even though Emotional Intelligence as termed by Goleman (1996) is an intelligence *per se*, it provides the theoretical basis for Trait (developable), not Ability (fixed) theory. EI also provides theoretical basis for the design of the Nfer-Nelson Emotional literacy Scale (Faupel, 2003), where it can be developed.

Irrespective of the terminology used, the concept of EL now can be publicly communicated and as a consequence, so can related topics. As stated, EL and EI are commonly used interchangeably (Claxton, 2005) and for ease throughout this paper I will refer to EL.

Interest in EL – Social and educational issues

Europe and America

Interest in EL as an Education issue appears to stem from different roots depending on what side of the globe you are on. In the US, it developed as a reaction to social problems displayed by students and a perception of an emotionally impoverished environment in schools (Goleman, 1996). Research suggests that in the UK interest stemmed from an imbalance in the role of school (Radford, 2002) which tends to be highly content driven (Faupel, 2003) and concentrates on standardised testing and associated cognitive abilities. In addition to these initial differences, it is a safe assumption that interest in one first world country will spark interest in others. Both countries address the school environment, but surprisingly, only America cites social problems; which impacts on many areas, not only Education. The Internet and other media forms as well as academic research highlight the growth in frequency and intensity of social problems related to youth antisocial behaviour, and sometimes associated crime rates. This type of behaviour is not a recent occurrence but the increase in its severity and regularity has prompted a more extensive focus on the behavioural difficulties children can display which may be

leading to these behaviours. Emotional issues, such as ADHD and conduct disorder, termed SEBD (Social Emotional and Behavioural Difficulties) have only recently gained strong research and policy attention. In Ireland reports such as the Department of Health's *Vision for Change* and the Health Service Executive's *Child Mental & Emotional Health* have brought attention to the growing behavioural and mental health problems experienced by Ireland's youth, the scarcity of resources, and difficulties often experienced by parents and children in accessing appropriate professional support and treatment. In a similar vein in the UK, policies such as Parenting Orders and the Super Nanny scheme were introduced to tackle growing levels of antisocial behaviour. Policy around children's emotional well-being has been addressed in schools with the introduction of PHSE in the UK (DCFS, 2005B) and its counterpart in Ireland namely SPHE (DFES, 1999). Neither of these are ostensibly about emotional development but the holistic importance of emotional well-being is espoused in the Irish Primary school National Curriculum and is referred, not only in relation to SPHE but also to the overall uniqueness of the child. This approach covers language, development of the imagination, writing, drama, physical education and dance (DFES, 1999).

SEBD

SEBD is something of a buzz word in schools and the intrinsic relationship between emotion and behaviour both of which impacts on social ability, is encapsulated in the term. However, much of the time the social and behavioural aspects are given precedent over the emotional side. Cognition and the associated emotions are what drive behaviour as presented in CBT (Ellis, 1997) yet educators still tend to focus only on the behaviour (Faupel, 2003). Emotional disturbances which can lead to mental health issues are ostensibly health issues, but research has prompted Education departments to provide pro-active measures to limit occurrences of emotional disturbances by addressing children's development. School is an ideal environment to do this as children's brains are developing and their natural capacity to progressively understand emotions can be matched with appropriate practical and theoretical exposure to the issues. Also, childhood marks the time when children start behaviour that may become lifetime habits and so is a vital time for teaching socially appropriate and healthy conduct.

The increasing prevalence of SEBD (Walker, Horner, Sugai, Bullis, Sprague, Bricker & Kauffman, 1996) has a big impact on schools in the form of interrupted lessons, violent outbursts and truancy to name a few. So, one may ask, why is the occurrence of SEBD increasing, or is it? Perhaps it was always as prevalent but traditional authoritarian teacher-student interaction meant less tolerance for emotive expression. We no longer have corporal punishment at Irish and English schools but the disciplinary role at home has also changed. Parents work more and see their children less, affecting the quality and quantity of time spent together. Research shows that the children of mothers who work full time are more likely to experience psychological distress and have comparably low attainments (Ermisch & Francesconi, 2001). Is it a societal change, the backlash of radical industrialization where parents are no longer spending time with their children; an ever increasing drug culture causing pre and post natal atypical brain development; or is it the advent of desensitization through increasing influence by the media and television? With so many possible contributing factors it is difficult to pinpoint the principal cause. All we know is that the numbers are increasing (Walker *et al.,* 1996) and more research is needed and these issues continually need to be addressed before children with SEBD become adults with more deleterious mental health issues and associated societal problems.

Importance of EL in school: attainment and predictive validity

It is widely recognised that children's social and emotional development has significant implications for their success in learning (DFES, 1999). However, achieving academic success does not equate to high EL, as the motivation for succeeding can vary widely from a positive, motivating home life to neurosis to be the best or a distraction/refuge from other life events (Faupel, 2003). In this section we will look at the biological development of emotional understanding, why EL is important for academic success and the predictive validity for academic success.

Biology and culture

When assessing behaviour that is seen as problematic, biology should be the first possible factor. Children's sensory or motor functions may be manifested in inappropriate

behaviour e.g. children with Autism who don't react well to high levels of visual stimulation (Grandin, 2006). Similarly, children may have neuro-biologically different brains such as is the case with Tourettes syndrome (Hoekstra, Anderson, Limburg, Korf, Kallenberg & Minderaa, 2003) where to use an analogy of a car, an increase in neuro-transmitters is akin to driving fast without any brakes. It is not just atypical brain interpretation or development that can lead to ostensible emotional difficulties. In typical brain development, children's understanding of emotion is progressive. As the brain develops, people will typically become more competent in dealing with their own; and other's emotions. The frontal lobes help us control our impulses and demonstrate restraint. Three year olds can identify basic emotions and the situation that caused them to arise (Denham, 1986). Understanding of emotion e.g. that you can feel two conflicting emotions simultaneously, develops around six (Brown & Dunn, 1996). As thought and language become more complicated, the ability to experience, understand and regulate combinations and variations of these develop. However, these are not fully developed until adulthood (Blakeman & frith, 2008) and so children and teenagers should not be expected to reason and act like adults when their brain has not yet reached this stage. This understanding is also culturally related. In a social context, certain emotions such as shame and anger function to facilitate social control (Harre & Parrott, 1996). By encouraging people to act in socially appropriate ways, the associated emotions of social control help to build and espouse the habits that become considered demonstrative of a virtuous character. The degree to which different cultures and societies emphasis this differ. Socialization pressures vary across cultures and may influence implicit awareness and therefore the age of onset of emotional understanding. In one study,

Indian girls were shown to appreciate the distinction between felt and expressed emotion as preschoolers, earlier than Indian boys and British boys and girls, suggesting that specific cultural patterns of socialization affect the age at which understanding emerges (Joshi & MacLean, 1994). In a different study, another sample of young South Asians understood that one can feel angry but should not communicate it on one's face (Cole, Bruschi & Tamang, 1998), suggesting that the study of culture in children's emotion understanding may affect theories of emotional development.

Why is EL important for academic success?

The necessity for EL in an academic sense comprises two strands.

The first relates to the competency individuals have for getting along with teachers and students, learning how to manage and regulate one's emotions in a social context with individuals who one sees everyday for at least one year. As part of their social development children need to learn to appreciate other people in their lives and to know how to create and maintain positive, healthy relationships (SPHE Curriculum, Appendix 1). Eisenberg, Fabes, Bernzweig, Karbon, Poulin, & Hanish (1993) suggest that children who display poor emotional control may experience lower peer acceptance, which can lead to low self esteem and have a knock on effect on the ability to engage and concentrate. There is a symbiotic relationship occurring where social competence may influence the development of emotional competence and vice versa. For example, friendship is an important context for the development of emotion regulation (Parker and Gottman, 1989). A healthy student-teacher relationship is also integral for academic achievement. Turner (2000) presented the perspective of a 13 years old with SEBD and it was concluded that the primary reason for his problematic behaviour which was affecting his learning was the breakdown of the student-teacher relationship. The complexity involved in the dynamics of all human relationships mean that it is not possible for people always to get along, but it is a necessary ingredient to enable children to engage with the educator.

The second strand relates to having an emotionally stable mindset (which may be unsettled if the first strand is not stable) so that one is productive and able to access (listen, concentrate and comprehend) the academic content (Blakemore & Frith, 2008). Studies show that four year olds who displayed the greatest self-control performed better in school as teenagers than their impulsive counterparts (Mischel, Shoda & Rodriguez, 1989). Individuals who have accomplished EL skills are more likely to be in a psychological mindset where they can access education (Blakemore & Frith, 2005) irrespective of the non-educational environment they live in i.e. home and social environments.

Predictive validity

Society is presently at a stage where EL is used and understood not only in the personal and social context but also in the academic one. This is a reflection of the progression of systematic thought around children's overall well-being, considering all the different environments children function in. The link between social and emotional competency and academic success was supported by Downey, Mountstephen, Llody, Hansen & Stough (2008) who studied 12-17 year olds in Australia; Parker, Summerfeldt, Hogan & Majeski (2004) who studied university students in America and Petrides, Frederickson & Furnham (2004) who studied British Teenagers. When students of different levels of academic achievement (Parker, 2004) were compared (top 20%, middle 60% and bottom 20%), academic success was found to be significantly associated with most of the EL dimensions assessed by the EQ-i:YV (Emotional quotient index : young version). These results were consistent with the overall results reported by Petrides *et al.* (2004), who found an association between EL and overall academic performance especially significant for disadvantaged and vulnerable adolescents. In Parker *et al*. (2004) and Newsome Day & Catano (2000) studies total EQ-I were found to be poor predictors of academic success, although the Parker *et al.* 2004(1) study found several of the subscales (intrapersonal, stress management, and adaptability) to be significant predictors of academic success. Instead Newsome *et al.* (2000) found that both cognitive ability and aspects of personality were significantly associated with academic achievement and claim that psychometric tests such as the 16PF (Cattell, Cattell & cattell, 1993) are a better prediction of academic achievement. Davies, Stankov and Roberts (1998) suggest that objective measures of EL are unreliable and that self-report measures tend to be ``indistinguishable from established personality traits'' (p. 1012).

As demonstrated here, it is very difficult to use EL exclusively as a predictor for academic success, as there are other variables such as personality and intelligence that may confound the level of EL and so some would argue that using EL as a predictor of academic success is somewhat redundant. The limited number of conclusive findings may be due, in part, to a lack of agreement among emotional-intelligence researchers on what constitutes EL and how it should be measured (Faupel, 2003). The results of a psychometric test are only ever as good as the instrument allows because the test only ever tests what you ask it to. For this reason, current instruments may be limiting and

future ones may have higher predictive validity if constructed differently. There may be difficulty assessing the predictive validity of EL as different from other personality traits but the sheer interest of schools, educations and public sector workers (Faupel & Sharp, 2003) is testament to the interest and effect believed that it has on children's ability to communicate and later life success.

The importance of EL in everyday school and work life

EL is important in the workplace(Jordan, Aston-James & Ashkanasy, 2006), which is observable through increasingly popular psychometric tests around EL (Zeidner, Matthews & Roberts, 2004) as well as integrity, honesty and personality tests (Jenkins, 2001). All children grow into adults and as the saying goes "Every childhood lasts a lifetime". This could imply that the EL skills learned in our childhood and teens still serve us as adults, in the workplace and our interpersonal relationships. Research has shown that EL is related, indirectly or directly, to a better adjustment or success in academic, personal social or occupation settings (Jordan et al., 2006). Success at work is connected with various EL dimensions such as empathy, optimism and conflict resolution (Zeidner, Matthews & Roberts, 2004). On a macro level EL has been shown to be important for inter and intra personal skills for productivity and success in the workplace (Jordan *et al.,* 2006) . However, these skills required as adults are best nurtured in the classroom as children (Dulewicz & Higgs, 2000) and some doubts are raised as to the efficacy of learning interventions at later stages in life (Goleman, 1996). Having a reliable and valid measure of EL is important to be able to identify children with an area of deficit, to enable parents and educators to build on the skills the children already have and try to mediate the difficulties.

Social skills in school

Kauffman (1997), who worked in schools suggested that some students didn't develop, didn't want to or didn't know when and how to use the appropriate social skills necessary for acceptance in school. This, I believe highlights the lack of appropriate models within the family that would typically be demonstrating healthy EL practices. A meta analysis of

79 studies involving aggressive and socially withdrawn SEBD students where they were given social skills training indicted that modelling and coaching techniques are somewhat more successful than using cognitive strategies (Schneider, 1992). Transference of new skills to outside the classroom setting is also problematic (Royer Desbiens, Bitaudeau, Maltais, & Gagnon 1999) and consequently Royer *et al*. suggested that a multi-assessment involving multi-intervention and multi-environment with all people around the child is needed to allow skills to be generalised and practiced in a variety of contexts. Using a trans-disciplinary model based on service delivery starting with the needs and wishes of the family (Watson *et al.,* 2002) will hopefully lead to those involved having a greater knowledge base around any difficulties and being able to accept and work towards a better future. Intrinsic to this is the role of the teacher in developing the child's EL.

The EL of educators

The EL of educators also needs to be addressed. In programmes such as SPHE (DFES, 1999) and the UK based Social and Emotional aspects of learning-SEAL (DCFS, 2005A), the importance of the EL of teachers is highlighted. Reasons include the teachers' overall own personal well-being but also to ensure healthy student-teacher relationships. Teachers can have emotional burnouts as a result of their intense interactions with students, especially those who have emotional and behavioural difficulties (Wisniweski & Gargiulo, 1997). It may be that teachers can't do their duty of educating children because some of them have underdeveloped or maladapted emotional coping strategies themselves. This consideration of the EL of teachers is an evolving viewpoint. Woods & Wenham (1995) reported that "*In the prevailing government discourse, the emotions receive low priority. In fact they came under attack in the assault on primary pedagogy in the early 1990s. It was suggested that there had been too much 'caring and not enough teaching' "*. But teaching and learning are inescapably emotional matters. Emotions are linked to memory and this explains why emotional events are better remembered than neutral events (Blakemore & Frith, 2008).

Advocates for EL can point to evidence that different measures have been found to correlate positively with a wide range of practically useful variables in workplace e.g. empathy and conflict resolution (Zeidner, Matthews & Roberts, 2004), educational, and personal e.g. less internet addiction (Sjoberg & Engelberg ,2004) and interpersonal situations e.g. less loneliness, better leisure/family balance (Sjoberg & Engelberg ,2004). However, as with the predictive validity for academic success as discussed, warnings abound around the potential utility of EL pending clearer theoretical development (Day & Kelloway, 2004; MacCann *et al.,* 2004). Few studies have controlled for the possible effects of personality or cognitive abilities and even where one or the other has been included, typically both have not (Bastian *et al*., 2005). As stated before, a concrete quantitative basis for the EL relationship to different life successes is developing and ultimately will be better accepted if, it adds to knowledge about what influences real-life outcomes, beyond what can be attributed to cognitive abilities and personality, and stand alone as its own construct.

How children learn to be emotionally literate, the social climate and early intervention

"Not only ideas, but emotions too, are cultural artefacts"

(Geertz, 1973, p81)

The traditional role of parents

Traditionally, parents have been responsible for providing their children with appropriate and healthy education around understanding and managing their emotions. Being a moral guide is a parent's duty, one of the roles included in the requirement for them to care for the overall well-being of their child. It has been reported that children who receive "emotional coaching" by their parents have better physical health and are more resilient (Coleman, 2007). Unfortunately, in the present economic and social climate some parents are distracted by personal and economic agendas (Zins, Weissberg, Wang, & Walberg, 2004) and unintentionally ignore their children's emotional needs. The plethora of books around how to manage your children e.g. *Parenting is Child's Play*

(Coleman, 2007)and *Play is vital for healthy child development* (Parenting guide, 2007) emphasize the need to give children attention, empathize with them and recognize their emotions and allow them to express and experience them. In a similar vein, schools have been described as "humanising" agents (Bower, 1972), but to some extent also ignore this pastoral role. They have narrowed their remit to academic success and are reluctant to be accountable for social-emotional literacy as the starting point and home environment varies greatly from child to child. Consequently, some of today's youth who will grow into tomorrow's young adults, are suffering from inconsistent and incomplete emotional guidance provided by home and school. This will have an impact on their social and academic success.

Early intervention

So how should this be tackled? Early intervention in the form of educating parents and children may help. Research points towards two key entry points in the development of behavioural problems – early childhood and early adolescence. Both stages have their own distinct risk factors (Lahey, Waldman, McBurnett, 1999). The changing forms of behavioural problems from early childhood through to adolescence is documented in the literature. Links have been found between childhood difficulties and adolescent difficulties. ADHD is more common amongst children, while conduct disorder is more common amongst adolescents (Martin & Carr, 2005). A number of studies have documented that boys who reach the criteria for ADHD in childhood are at increased risk of conduct disorder and antisocial behaviour in adolescence and early adulthood (Hann & Borek 2001). One study found that 67% of children who displayed externalising behavioural problems (e.g. verbal and physical aggression and oppositional behaviours) at age 3 were still aggressive at age 8 (Richman, Stevenson, & Graham, 1982). Similarly, a UK study found that 60% of three year olds with conduct disorders still exhibit problems at the age of eight if left untreated and based on other studies it is predicted that many problems will persist into adolescence and adulthood (National Institute for Health and Clinical Excellence, 2006). All this suggests that early intervention is important as it may mediate these early childhood difficulties. A qualitative analysis of the factors that

contribute to children in these samples NOT developing conduct disorders may enlighten researchers about what strategies are actually working.

With statistics suggesting a fifth of the child and adolescent population may suffer from psychological problems at any given time(Bates, Illback, Scanlan & Carroll, 2009), there is a distinct need for quick services and proactive measures by clinical and education institutions. A 2004 study in Ireland found 17% of two to five year olds, 10% of six to twelve year olds and 26% of 13 – 18 year olds screened positive for a mental health problem (Cummins, 2006). Extrapolating from previously cited studies (Hann & Borek 2001, Richman, Stevenson, & Graham, 1982). it may be assumed that in some cases, early childhood difficulties develop into different ones with age. Mental health problems for teenagers were found to be over double that of 6-10 year olds, and so many cases are not progressive but develop in a psycho-social manner (Martin & Carr, 2005). Ensuring the development of ALL children's EL skills would catch both those with and without early difficulties. Early behavioural disturbance has been cited as one of the strongest predictors of later problems, including psychological difficulties, involvement in crime and antisocial behaviour (Kolvin, Miller, Scott, Gatzanie, & Fleeting 1990). Children who exhibit particularly high levels of externalising behaviour problems early in their lives are at high risk for intensifying to lying, bullying and fighting in middle childhood, and more serious behaviours such as cruelty to animals, vandalism and aggressive criminal behaviours in adolescence (Hann & Borek, 2001).

A particularly successful means of supporting families is to focus on parenting behaviour. Educating and the previous education of parents can mediate these difficulties. Research suggests that less mature women may be more likely to raise their children in ways that foster conduct problems, such as use of harsh and inconsistent discipline (Hann & Borek, 2001). In this manner, children are imitating unhelpful interaction patterns which are being modelled to them at home. Risk factors for behavioural problems include maternal factors (age, drug consumption during pregnancy, stress), family factors and processes (parent's relationship status, parenting style, income, history of problematic behaviour) and the community (neighbourhood, peer influences and school). There are a growing number of information services, supports and training programmes (Bradley & Hayes, 2007) available to parents to assist them in meeting their parenting responsibilities but in Ireland, such supports remain limited. *A Vision for Change* (Department of Health and

Children, 2006) and *Child Mental and Emotional Health* (Department of Health and Children, 2006) both emphasise the key role of parents in supporting children with behavioural problems and the general lack of supports and services for both parents and children in dealing with behavioural problems.

Whole school ethos and the classroom setting

Focusing on the school environment, Ciarrochi, Forgas & Mayer (2006) suggest that EL and academic skills are inseparable, as many of those skills required for curriculum attainment are skills necessary for high EL, such as predicting and extending a character's goals found in literature, poetry, history, drama etc. However, the structure of EL programmes in schools mean the promotion of social and emotional competencies are taught in discrete modules instead of having a cross curricular nature. Continued emphasis and research in this area may lead to more schools adopting whole school ethos aimed at creating emotionally literate students in a holistic manner.

Whole school ethos

It is testament to the importance of emotional development that core modules are now part of the Irish curriculum. A whole school ethos is necessary for continued practice, application and repetition of skills and also so that children are exposed to healthy emotional environments. The SPHE curriculum (DFES, 1999-Appendix 1) goes a step further and states that it will work most effectively where it is delivered consistently, at a developmentally appropriate level and where all members of a community share the responsibility. This includes teachers, parents, children, board of management, health professionals etc. Such close interaction helps to ensure that children are provided with a consistent experience in SPHE and are able to make connections between life at home, in the school and in the community. SPHE provides a context in which children are given opportunities to develop and enhance their language skills and to increase their vocabulary related to the social, personal and health aspects of their lives. This is particularly important as language is powerful because it both creates and reflects a culture. The SPHE curriculum claims it helps children begin to appreciate the connection

between identity and language, and a greater sense of who they are as individuals and as a culture. Planned programmes throughout the school allow children to explore the language used in various media and to recognize the values, attitudes and viewpoints being promoted and fostered. Other whole school approaches consider emotional development. The Motivated School (McEan, 2003) addresses the necessity of emotional bonding for children to engage and perform well. Woods & O Shannessy (2002) found that by introducing a creative arts morning in their school there was significant educational benefits around generating positive emotions such as self-confidence, pride in ones work, and the cultivation of social relationships among both staff and children. It may be that the academic environment is now too driven by competition around academic achievement and that although school is ostensibly about personal development, this is not always reflected in its execution. The fact that children are having difficulty transferring learned social and emotional skills may be overcome by having an overall more social and personal slant to school, which allows for personal development and expression. Although limited, there is some evidence linking arts education with increasing EL. Meekums (2008) used Dance Movement Therapy (DMT) with resulting increases in expression of emotions, social function and self-esteem as qualitatively reported by teachers.

EL in the classroom

However, even though an overall ethos is imperative for generalisation, the skills learning takes place in the classroom, and more specifically at an individual level (Faupel, 2003) The environment needs to be conducive to this learning and this can be achieved through providing children with time and a context that feels emotionally safe; where they can speak openly about their own experiences, and hear others speak equally freely about theirs. They require opportunities to explore themselves, test out the responses of others and develop forms of psychological understanding that allow them to move forward (Faupel & Sharp, 2003). In true humanistic nature, the group and the educator act as a meta-physical container for the difficult feelings that people experience. The interactions that take place within the group are used as an opportunity for learning. These

approaches are also central to other interventions such as the highly popular circle time (Mosley, 2005).

Testing for level of EL

As discussed above, with the richness of knowledge we have around children's development, standardized core modules addressing emotions are not surprising and these will absorb and educate most of the children taking the progammes, provide practice in novel situations and act as an add on to the stable emotional development they receive from within the family unit. For some on the fringe of healthy emotional development it will mediate and allow for appropriate emotional functioning and for a minority, these programmes will simply still not be enough.

Standardised EL scales

If the idea of EL is to be considered an important aspect of an individual's cognitive, social and emotional functioning, there is a distinct need to measure it. As it stands there are different scales available to measure EL. Some of these include the Emotional Quotient Inventory, EQ-I (Bar-On, 1997), a self-report measure and the most widely used tool. It does not measure personality traits or cognitive capacity, but rather the mental ability to be successful in dealing with environmental demands and pressures. There is also the SUEIT (Swinburne University Emotional Intelligent test), which is based on trait theory, like all trait theory it views emotional intelligence as a limited predetermined value. Many other scales are available but most are used with adults. Some of these include; Emotional Intelligence IPIP Scales (EIIPIP; Barchard, 2001), Emotional Intelligence Self Regulation Scale (EISRS; Martinez, Pons, 2000) Lioussine Emotional Intelligence Questionnaire (LEIQ; Lioussine, 2003) and the Wong & Law Emotional Intelligence Scale (WLEIS;Wong & Law, 2002). However, there are few tests that assess the EL of children.

The Nfer-Nelson Emotional literacy test

The Nfer-Nelson Emotional literacy test (Faupel, 2003) was developed in the UK. It has two standardised tests, one for 7-11 year olds and 11-16 year olds. It has a teacher, child and parent questionnaire meaning EL is measured through self-report and observational report. This method of data collection allows for triangulation and deciphering personal from other person perspective. The Nfer-Nelson Emotional literacy test is a highly informative tool that allows one to see if the major area of difficulty is due to lack of Personal Competence; addressed in the test under self-awareness, self-regulation, motivation, or; social competence addressed under empathy and social skills. Following this, the instrument has tailored activities to tackle these particular areas of need, which can be delivered individually, group or classroom level, and help children develop skills that parallel many skills required for general academic success as discussed in the section above .

An important aspect to consider is that every assessment scale is a product of the culture it was made in. As discussed earlier (p 6) culture and socialisation vary and can influence the age of onset (Joshi & McLean, 1994) expression of emotions (Cole *et al*., 1998) and also, there are differences in encompassing gender differences around skills which are expected in one sex but not in the other (Dixon, 2007). These differences tend to be reflected in the standardized scores. If an instrument which has been designed and standardised in one culture/country is to be used appropriately and accurately in another country/culture, it should be standardised in that country to allow for a comparative sample. The purpose of this literature review is to provide a comprehensive background to developing children's emotional literacy as it will form the basis of a PhD where this instrument, the Nfer-Nelson Emotional literacy test, will be standardised on a population of Irish children aged 7-11. This study will also qualitatively address the perspective of teachers in Ireland on the benefits of the SPHE module and cultural influences on children's emotional development.

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Appendix

Taken from: Department of education and science-Ireland (1999) *Primary School Curriculum.* The stationary office

Social, personal and health education

While all curricular areas contribute to the development of the child, social, personal and health education (SPHE) provides specific opportunities to enable the child to understand himself or herself, to develop healthy relationships, and to establish and maintain healthy patterns of behaviour. In fostering a range of personal and social qualities and dispositions, it helps children to develop a foundation of skills, knowledge and attitudes that will inform their decision-making in the social, personal and health dimensions of their lives, both now and in the future. It also helps to prepare children for active and responsible citizenship.

It is a particular concern of the curriculum to develop in the child respect and care for his or her body and an appropriate concern for safety. It also enables the child to acquire the knowledge and attitudes that help to promote a healthy life-style. This includes becoming aware of the influence that advertising, peer pressure and other factors can have on individual lifestyles

and developing the ability to make appropriate choices and decisions on a range of health issues.

A particular feature of the curriculum is the importance it places on the concept of the interdependence of individuals, groups, and peoples. In the context of social, economic, cultural, ethnic and religious diversity, it seeks to foster in the child attitudes and behaviour that are characterised by understanding, empathy, and mutual respect. It addresses, too, the issues of

equity and human rights, and fosters in the child the realisation that rights have associated responsibilities. Concepts of democracy, justice and inclusiveness are nurtured through the learning experiences offered and through the attitudes and practices inherent in the organisational structures of the class and the school.

The approach to the SPHE curriculum is determined in the first instance by the school ethos and will be mediated to the child in three contexts: through a positive school climate and atmosphere, through integration with other subjects, and in specifically

allocated curriculum time. Active learning is essential to the SPHE programme. Through it children can explore issues, acquire relevant information and develop skills that are relevant to the social, personal and health dimensions of their lives. As they engage in these processes and work together, they begin to internalise what they have learned and are able to transfer it to situations they encounter in everyday living.