



## Measuring Children and Young People's Wellbeing in the School Context

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**Abstract**

Although being rooted in the work of ancient Greek philosophers, contemporary research on wellbeing is a relatively new phenomenon. As a term in the literature, wellbeing is often used interchangeably with others, such as happiness, flourishing, enjoying a good life, and life satisfaction. Furthermore the wellbeing of school-aged children is only beginning to be explored with increasing recognition that research conducted on adults cannot be uncritically applied to children and young people. This paper aims to address some of the complexities in conceptualising, and hence assessing, children and young people's wellbeing by drawing on a recently completed study examining the role of creative initiatives in fostering wellbeing. The new instrument that was developed to capture children and young people's perceptions of their wellbeing in school is outlined. Data are presented from a survey of 5170 students from 20 primary and 20 secondary schools across England that identify four dimensions of wellbeing. Differences in self-reported wellbeing relating to age, gender and type of school attended (Creative Partnerships versus other schools) are explored. The implications of these findings, particularly differences related to type of school attended given the focus of this special edition, are considered.

## Introduction

Interest in wellbeing has mushroomed in the past couple of decades, driven mainly by new thinking in the fields of economics and psychology but also with contributions from other fields such as development studies and sociology. However, there is no agreed definition of the term which tends to be conceptualised in slightly different ways in different disciplinary areas. For instance sociological approaches to wellbeing tend to be more structural and objective, and psychological ones more based on subjective reports of personal feelings and emotions (Fegter, Machold, & Richter, 2010, p. 7). To compound the issue, wellbeing is often used interchangeably with other terms such as 'happiness', 'flourishing', 'enjoying a good life' and 'life satisfaction', and these all carry different underlying meanings and emphases. In addition, studies into adult well-being, while themselves relatively new, cannot be applied uncritically to children and young people.

Without a commonly agreed definition of wellbeing, it is therefore unsurprising that there is also a lack of agreement as to how to assess it, hence different studies have tended to measure wellbeing in different ways, encapsulating different variables. In this paper, wellbeing is conceptualised in relation to learning in school, and a wellbeing-for-all perspective is adopted rather than being concerned only with the welfare of specific vulnerable groups that is traditionally a concern of educators. We aim to add to the growing literature in the field by introducing an instrument designed to capture children and young people's perceptions of their wellbeing in the school context that is based on sound psychological (and other) theory, and reporting findings from its application in a survey of primary and secondary-aged students who were participating in a study of the impact of creative initiatives. We can therefore add to the debate as to whether creative initiatives have a positive impact on wellbeing.

## Conceptualising Wellbeing

Economists have perhaps been most vociferous in championing the importance of wellbeing in the last decade or so by identifying wellbeing as a key indicator of the state of a nation. Nobel Prize winning economists, Joseph Stiglitz and Amartya Sen, for instance, have strongly criticised an over reliance on standard economic indicators such as GDP as measures of quality of life and recommended in their influential report from the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen, & Fitoussi, 2009) that:

The time is ripe for our measurement system to *shift emphasis from measuring economic production to measuring people's well-being*. (2009, p. 12)

However, despite putting wellbeing centre-stage in the political arena, economists have had to turn to other disciplines to characterise and conceptualise what is meant by this term. In the UK, the economist Richard Layard, who has perhaps written most extensively in this area, has called upon governments to measure citizen's 'subjective wellbeing' (i.e. how a person feels about themselves) (e.g. Layard, 2005), a construct taken from the field of Positive Psychology discussed below. Whilst wellbeing as a construct is being conceptualised and developed in various disciplinary fields, arguably psychology, with its focus on 'the scientific study of human mind and behaviour' (The

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3 British Psychological Society, 2013), is best placed to provide some insights, particularly in relation to  
4 how a person feels about themselves, and indeed a large body of work on wellbeing is accumulating  
5 within this discipline. Thus literature from psychology is considered first below before turning to key  
6 ideas from other disciplines. Then we consider how young people's wellbeing has been  
7 conceptualised before considering the implications of the literature for developing an instrument to  
8 measure young people's perceptions of their wellbeing in the UK school context.  
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### 11 12 13 ***Conceptualising Wellbeing within the Field of Positive Psychology*** 14

15 The burgeoning field of Positive Psychology is responsible for much of the contemporary theorising  
16 on wellbeing within psychology. Positive psychology as a distinct branch of psychology is relatively  
17 new and can be traced back to, first of all, Martin Seligman's inaugural address as President of the  
18 American Psychological Society in 1999 where he called for psychology not just to be 'pathologically  
19 focussed' and secondly, the subsequent special edition of the American Psychologist in 2000 setting  
20 out, in essence, a manifesto for positive psychology:  
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24 The aim of positive psychology is to begin to catalyse a change in the focus of psychology  
25 from preoccupation only with repairing the worst things in life to also *building positive*  
26 *qualities*. (M. Seligman & Csikszentmihalyi, 2000, p. 5)  
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28 Thus positive psychology provides a legitimate and acknowledged space in which psychologists  
29 interested in wellbeing and related topics can work but that is not to say that topics such as these  
30 had not been examined before, as clearly early humanistic psychologists had similar concerns (see  
31 for instance A. Maslow, 1962; Rogers, 1961). Furthermore, it makes clear that it is important to be  
32 concerned with everyone's wellbeing and not just the wellbeing of people who might be perceived  
33 to be vulnerable in some way.  
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36 The distinct feature of psychological work, as noted by Fegter, Machold, & Richter (2010), is the view  
37 that wellbeing is subjectively defined; two individuals in the same material circumstances might  
38 experience different levels of wellbeing (e.g. one might feel happier than the other), thus objective  
39 indicators (for instance socio-economic circumstance, physical health etc.) alone cannot capture  
40 wellbeing. Psychologists, therefore, are primarily concerned with the concept of subjective  
41 wellbeing.  
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44 The first work on subjective wellbeing dates back to the 1960s when psychologists started to  
45 consider the correlates of happiness (Wilson, 1967) and the terms happiness and subjective  
46 wellbeing were used somewhat interchangeably at this time but Diener and his colleagues  
47 delineated the terms in the 1990s and formalised a definition for subjective wellbeing:  
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51 Subjective well-being [SWB] is a broad category of phenomena that includes people's  
52 emotional responses, domain satisfactions, and global judgments of life satisfaction...  
53 We define SWB as a general area of scientific interest rather than a single specific  
54 construct (Diener, Suh, Lucas, & Smith, 1999, p. 277).  
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In this conceptualisation wellbeing comprises two main components, affect (i.e. feelings, emotions and mood, for instance feeling happy) and life satisfaction, which were identified as distinct constructs in empirical work (Lucas, Diener, & Suh, 1996) and is defined relative to specific domains in life (for instance work, family etc.). Affect is broken down into positive and negative emotions, with subjective wellbeing being experienced when there is a preponderance of positive over negative emotions (Diener, 1984). This element of subjective wellbeing is typically assessed by asking people to complete a self-report instrument such as the well-established Positive and Negative Activation Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). The life satisfaction component of subjective wellbeing is a cognitive evaluation of how satisfied an individual is with their life and Diener's 5-item Satisfaction with Life Scale, developed in mid 1980s (Diener, Emmons, Larsen, & Griffin, 1985), is undoubtedly the most commonly used in the field; a quick search of Psych Info database reveals in excess of 200 papers have used the scale in the psychological literature alone.

Subjective wellbeing can be regarded as a *hedonic* conceptualisation of wellbeing, as the focus is on considering what makes life pleasurable and makes people feel good (Kahneman, Diener, & Schwarz, 1999). However, recent research has suggested that the pursuit of hedonic pleasures such as material goods ultimately does not make people happy (Kasser, Cohn, Kanner, & Ryan, 2007; Ryan, Huta, & Deci, 2008) suggesting some limitations in conceptualising wellbeing as subjective wellbeing in the above terms. This has led some positive psychologists to consider alternative conceptions of wellbeing and in this endeavour they have been assisted by a key distinction made by ancient Greek philosophers. Waterman (1993) explores two contrasting schools of thought in ancient Greece of what constituted the good life, namely that of Aristippus of Cyrene who posited that pleasure is the sole good in life (i.e. wellbeing is equated with hedonism), in comparison to Aristotle who identified eudaimonia, 'activity expressing virtue' (Aristotle, 1985, p.284 cited in Waterman, 1993), as an ethical theory for living. Drawing on contemporary philosophy that eudaimonism requires people to recognise and live in accordance with the daimon or 'true self' (Norton, 1976), Waterman interprets Aristotle's conception of living well as self-realisation and personal expressiveness. Eudaimonic wellbeing, in terms of self-actualisation and fulfilling one's potential has therefore been seen as providing a different basis for conceptualising well-being.

Although researchers vigorously continue to investigate subjective wellbeing (see for example Eckersley, 2013; Gadermann, Schonert-Reichl, & Zumbo, 2010), there is a growing interest in eudaimonic approaches to wellbeing, for example a relatively recent special edition of the Journal of Happiness Studies was devoted to this area (E. L. Deci & Ryan, 2008b). The idea of developing to one's potential is, of course, not new, as humanistic psychologists have long been interested in this (see for instance Maslow's hierarchy of needs, 1954, with self-actualisation at the apex of the hierarchy) and indeed, Csikszentmihalyi, one of the fathers of positive psychology had already established the theory of flow (Csikszentmihalyi, 1975, 1990, 1992) to characterise the situation when people were totally absorbed in an activity to the exclusion of everything else and hence were functioning at their fullest capacity. Nevertheless in the last decade more theories are beginning to

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3 be put forward to characterise eudaimonic wellbeing. First of all, Seligman in writing about authentic  
4 happiness (2002) distinguished three routes to happiness by living the pleasant life (a hedonic  
5 conception), a good life (being able to experience flow, so a eudaimonic conception), or a  
6 meaningful life (deploying ones strengths in the pursuit of something greater than oneself, also a  
7 eudaimonic conception). Secondly, Ryff and colleagues put forward and developed the idea of  
8 psychological wellbeing (Ryff, 1995; Ryff & Singer, 2006) as comprising self-acceptance, personal  
9 growth, purpose in life, positive relations, environmental mastery and autonomy; all of which relate  
10 to development, and developed an instrument to capture these. Finally, and perhaps most  
11 influentially, Deci and Ryan recast self-determination theory (SDT), originally developed to  
12 understand motivation and well established in the motivation field (E.L. Deci, 1975; E. L. Deci &  
13 Ryan, 1985), explicitly as a eudaimonic conceptualisation of wellbeing (E. L. Deci & Ryan, 2008a;  
14 Ryan & Deci, 2000; Ryan, et al., 2008). At the heart of SDT lies the ontological belief that '*all*  
15 *individuals have natural, innate, and constructive tendencies to develop an ever more elaborated and*  
16 *unified sense of self*' (Ryan & Deci, 2002, p. 5), hence the theory is centrally concerned with the  
17 development of self. Healthy development and hence eudaimonic wellbeing depends on the  
18 fulfilment of three core needs, namely the need for competence, autonomy and relatedness, with  
19 humans possessing the capacity or 'will' to choose how to do this, with self-determination being the  
20 'process of utilising one's will'. A number of well-used self-report scales (The Basic Psychological  
21 Needs Scale) have been developed to capture need satisfaction in different contexts such as work  
22 (Baard, Deci, & Ryan, 2004) and personal relationships (La Guardia, Ryan, Couchman, & Deci, 2000).

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30 In some of the most recent work in the field, efforts have been made to integrate aspects of hedonic  
31 and eudaimonic wellbeing to provide a more comprehensive account of wellbeing. Seligman's  
32 thinking, for instance, has evolved from his earlier ideas about authentic happiness and he has now  
33 put forward the PERMA (P: positive emotions, E: engagement, R: relationships, M: meaning, and A:  
34 accomplishments) model of flourishing as a conceptualisation of wellbeing (2011). Policy level work  
35 attempting to assess adult wellbeing at European (Huppert et al., 2009; Huppert & So, 2013;  
36 Michaelson, Abdallah, Steuer, Thompson, & Marks, 2009) as well as national level (Dolan, Layard, &  
37 Metcalfe, 2011; Self & Randall, 2013) is also increasingly drawing on both hedonic and eudaimonic  
38 conceptualisations of wellbeing. In this study we therefore considered wellbeing to comprise  
39 hedonic and eudaimonic elements.

### 40 41 42 43 44 45 **Conceptualising Wellbeing: Contributions from Other Disciplines**

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48 What accounts of wellbeing from positive psychology tend to under-theorise, with their focus on  
49 individuals' feelings and functioning, is the social context and this is where sociology in particular has  
50 a specific contribution to make. Keyes (1998) suggested that there are five dimensions of social  
51 wellbeing: social integration, social contribution, social coherence, social actualisation and social  
52 acceptance, and these are strongly related to the concept of 'social capital', particularly the model  
53 developed by Robert Putnam, in his influential book *Bowling Alone* on the decline of social capital in  
54 America (Putnam, 2000), where the social networks that an individual possesses are valuable not  
55 only to that individual but also to the community and wider society to which that individual belongs.

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3 This suggests that not only are individual indicators important for measuring wellbeing but that the  
4 more collective indicators of the extent of social ties within neighbourhoods, participation rates in  
5 community initiatives and how inclusive these are also need to be considered in a comprehensive  
6 model of wellbeing. La Placa, McNaught and Knight (2013) have developed such thinking further,  
7 posing a wellbeing framework to encompass a range of domains beyond individual subjectivity, to  
8 incorporate the family, community and society as a whole. Consideration of the whole extent of this  
9 framework was beyond the scope of the present study, nevertheless the important distinction  
10 between individual and social was taken into consideration.  
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14 A final perspective that offers useful insight comes from work that has been done within  
15 developmental studies, namely the capabilities approach. Originally proposed by Sen (1999) but  
16 developed and extended by Nussbaum (2000) who argues that marginalised groups do not expect  
17 and demand basic what she terms 'central requirements of a life with dignity' (Nussbaum, 2003, p.  
18 40) which can be interpreted as necessary for wellbeing, the ten central requirements or human  
19 capabilities identified include elements such as bodily health, emotions, affiliation, play and control  
20 over the environment. Some of these, such as health, might be seen as an objective measure of  
21 wellbeing, whilst others such as positive emotions, might be seen as more subjective measures but  
22 these have to be considered together and all capabilities or entitlements need to be in place for a  
23 person to flourish and experience wellbeing. Some of these capabilities overlap with entitlements  
24 identified in the UN Convention on the Rights of the Child (United Nations, 1989) which directly  
25 influenced the Every Child Matters reforms in England (Department for Education and Skills, 2003).  
26 The latter in particular was important for the current study in developing indicators of young  
27 people's wellbeing.  
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### 35 ***Conceptualising Children and Young People's Wellbeing***

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37 Modern thinkers view children and young people as a group in their own right with their own  
38 concerns and priorities, rather than just 'adults in the making', who need to be consulted about  
39 matters of importance to them (see James, Jencks, & Prout, 1998). The implication of this is that  
40 research into adult wellbeing cannot be extended uncritically to children and that children  
41 themselves need to say what issues affect their wellbeing directly. This poses a conundrum, as  
42 although policy documents put the consultation of young people at their core, questions must be  
43 raised about who in these documents decides what constitutes a 'good life' for young people.  
44 However, notwithstanding this issue and the implications this has for creating a valid measure of  
45 children and young people's wellbeing, governments around the world have become increasingly  
46 interested in monitoring and measuring children's well-being to inform policy (Ben-Arieh, 2005).  
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51 International approaches to measuring children and young people's wellbeing provide insight into  
52 how young people's wellbeing has been conceptualised. One of the most influential is the UNICEF  
53 Index of Children's Wellbeing (based around the *UN Convention on the Rights of the Child* and  
54 carried out in 21 industrialised countries) (see United Nations Children's Fund (UNICEF), 2007). This  
55 recorded each country's score across six domains: material wellbeing, educational wellbeing, health  
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3 and safety, family and peer relationships, behaviours and risks, and subjective wellbeing. A follow-on  
4 study was done in 2009 across all OECD countries (OECD, 2009) where the domains were altered to  
5 include housing, environment and quality of school life but subjective wellbeing was removed; this  
6 was done in part to have influence on government policies. Although objective indicators of  
7 wellbeing are included the removal of subjective wellbeing means that this approach does not  
8 provide a comprehensive picture of young people's perceptions of their wellbeing.  
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11 Another large-scale international survey is the *Health Behaviour in School-Aged Children* (HBSC),  
12 carried out for the World Health Organisation (WHO). This employed global measures of wellbeing  
13 such as 'life satisfaction' (i.e. an aspect of subject wellbeing) and attempted to relate this to other  
14 general perceptions, such as 'liking of school' (Currie *et al.*, 2008). This very general measure of  
15 wellbeing we would argue fails to capture the complexity of the construct.  
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18 In the UK, the Social Policy Research Unit at the University of York, funded by The Children's Society  
19 (and in the past by the charity Save the Children), has developed an overall 'index of children's  
20 subjective wellbeing in England' through consulting young people (e.g. Gwyther Rees, Goswami, &  
21 Bradshaw, 2010). The index measures wellbeing across a range of domains identified as important to  
22 happiness with life as a whole, and these are (ranked) - family, choice, health, time use, friends,  
23 appearance, the future, money and possessions, home, and school. Safety and local area were also  
24 included but not seen by young people as significant to wellbeing in the Good Childhood Report (G.  
25 Rees *et al.*, 2012). It is interesting that school appears relatively low down the list, however we  
26 would argue that as educators it is important to investigate wellbeing in the school context, as if this  
27 is understood and more importantly, can be changed, then this will enable more young people to  
28 flourish. Overall this index is useful as it indicates which domains young people regard as significant  
29 for their wellbeing and represents a comprehensive measure of subjective wellbeing. However it  
30 does not take into account eudaimonic aspects of wellbeing.  
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### 39 ***Implications of Differing Conceptualisations for Measuring Children and Young People's Wellbeing*** 40 ***in English School Settings***

41 Research in positive psychology has revealed the importance of considering everyone's wellbeing for  
42 the benefit of society and not just particular vulnerable groups within that society, but also in doing  
43 so to include both hedonic and eudaimonic aspects of wellbeing (i.e. a focus on feeling and  
44 functioning). Sociological work highlights the need to consider wellbeing in relation to the social  
45 context as well as in terms of the individual. Thinking from development studies reminds us of the  
46 importance of basic entitlements and some of the more objective indicators of wellbeing. Research  
47 with children and young people indicates that domains of importance may differ between children  
48 and young people, and adults, and that school is one such important domain. It was outside the  
49 scope of the current study to investigate all elements of a comprehensive framework of the type  
50 suggested by La Placa *et al* (2013), however we wanted to capture a more nuanced understanding of  
51 children and young people's perceptions of their wellbeing in the school context (i.e. the school  
52 domain) than the international and national surveys reviewed offered, as the instruments deployed  
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3 to measure children and young people's wellbeing in such work appeared to be relatively under-  
4 developed.  
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### 8 9 **Developing the 'How I feel about myself and School' Questionnaire**

10 We started by considering each of the measures developed to capture specific aspects of wellbeing  
11 relating to the differing theoretical conceptualisations reviewed above (e.g. we looked at PANAS and  
12 the Satisfaction with Life Scale in conjunction with the index of children's subjective wellbeing in  
13 England described above, as measures of subjective wellbeing) to put together a more  
14 comprehensive measure of young people's wellbeing in the school context. We were particularly  
15 drawn to the work done by Huppert and colleagues in developing indicators of wellbeing for the  
16 European Social Survey (see European Social Survey, 2005 for original proposal; Huppert, et al.,  
17 2009; Huppert, Marks, Siegrist, Vazquez, & Vitterso, 2010) and used by the New Economics  
18 Foundation in their work establishing national accounts of wellbeing (New Economics Foundation,  
19 2009), as they had already made the case for including hedonic and eudaimonic approaches (i.e.  
20 feeling and functioning). Their model of wellbeing comprises two main aspects; personal and social  
21 wellbeing (thus including a key distinction our reading of the literature had led us to make). Personal  
22 wellbeing consists of emotional wellbeing (positive feelings and absence of negative feelings),  
23 satisfying life, vitality, resilience and self-esteem, and positive functioning (autonomy, competence,  
24 engagement, and meaning and purpose). Social wellbeing is subdivided into supportive  
25 relationships, and trust and belonging. The first two elements of personal wellbeing capture  
26 subjective wellbeing, whilst the other elements have clear parallels with Ryff's conceptualisation of  
27 psychological wellbeing. The first two aspects of positive functioning together with the social  
28 dimension encapsulate the core needs central in SDT. Similarly the elements of Seligman's PERMA  
29 model map directly. Thus the model appeared comprehensive in many ways and the work beginning  
30 to emerge from using the accompanying measure suggests it is relatively robust (Huppert, et al.,  
31 2010; Huppert & So, 2013). Thus we took this measure as the basis for our instrument.  
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40 We were mindful that Huppert and colleagues' model did not incorporate some of the elements of  
41 entitlement that might be important. For this we turned to the Every Child Matters (ECM) agenda  
42 (Department for Education and Skills, 2003), which had identified five outcomes or entitlements for  
43 young people, on which schools would be judged during government (Ofsted) inspections : being  
44 healthy, staying safe, enjoying and achieving, making a positive contribution, and economic  
45 wellbeing. Although the present government has recently removed all mention of wellbeing from  
46 the current inspection framework (Office for Standards in Education, 2012), the ECM Agenda and the  
47 accompanying SEAL (Social and Emotional Aspects of Learning) Programme (Department for  
48 Education and Skills (DfES), 2005) continues to be seen as an important aspect of schooling, not least  
49 as the main aims, values and purposes of education articulated in the current National Curriculum  
50 talk about enabling all young people to become successful, confident and responsible recognising  
51 that personal development is essential to wellbeing and success (Department for Education, 2011).  
52 Hence we took into consideration the dimensions outlined in ECM.  
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3 We wanted to develop a measure suitable for a range of ages, including relatively young children. In  
4 particular the wider project within which this measure was developed required us to assess the  
5 wellbeing of children aged 7/8 years (Year 3 at primary school), aged 10/11 years (Year 6 – the final  
6 year at primary school), aged 11-14 years (Key Stage 3 at secondary school) and aged 14-16 years  
7 (Key Stage 4, the final part of compulsory schooling at secondary school) to paint a picture of  
8 perceived wellbeing at different stages of schooling<sup>1</sup>. The European Social Survey included 50 items  
9 and this, clearly, would not be feasible with children (particularly as the study encompassed other  
10 elements that required a separate section in the questionnaire pertaining to perceptions of school  
11 work, which will not be discussed here (see Author, 2012b, for further details)). The items also  
12 needed to be rewritten to be suitable for young people in a school setting.  
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17 We therefore first of all tried to rephrase the items and write additional items related to the five  
18 ECM outcomes (although ultimately we couldn't phrase a suitable item for economic wellbeing). We  
19 decided to adopt a common stem of 'I feel', as the items related to affect and beliefs, to make the  
20 questionnaire straightforward to respond to. It was not possible to rephrase every item as the ideas  
21 behind some did not readily translate to a school setting (for instance particularly items related to  
22 overall life satisfaction e.g. 'how satisfied are you with your present standard of living'). We then  
23 attempted to reduce the number of items created to between twenty and twenty five, as our  
24 previous experience of developing attitudinal scales (see for instance Author, 2013) suggested this  
25 would be optimal in a two section questionnaire which ideally should not take more than twenty  
26 minutes to complete (which is typically the amount of time allocated for registration / tutor time in  
27 secondary schools and the slot we felt schools would be most prepared to offer for questionnaire  
28 completion so as to minimise disruption in the school day). We did this by retaining at most two or  
29 three items from the original four or more items for each component of the model (and one for the  
30 ECM outcomes, except economic wellbeing) following discussion in the research team that included  
31 a practicing primary, as well as secondary specialists. A small number of students of different ages  
32 and practicing teachers outside the research team, as well as the project's Steering Group were also  
33 consulted. In most cases it wasn't difficult to agree which items to drop, as generally these were the  
34 ones that were wordier or seemed less applicable to the school context. Because some elements of  
35 functioning were also to be assessed in the context of motivation towards schoolwork (drawing  
36 particularly on SDT outlined previously) in the second section of the questionnaire, fewer items from  
37 this component were retained. Eventually this resulted in 26 items deemed appropriate for  
38 secondary students and 23 items for primary-aged children.  
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46 In the primary version, children were asked to respond on a three-point frequency scale ('not often',  
47 'sometimes', 'often') by ticking one of the three boxes offered with each item (presented in a  
48 rectangular array with each column headed with a smiley face and wording corresponding to the  
49 particular option –e.g. 'not much' and a sad face). The secondary version was more complicated.  
50 Recognising that school is only one domain influencing subjective wellbeing as the Good Childhood  
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54 <sup>1</sup> We ideally wanted to capture wellbeing at the 4 different Key Stages (KS) in English schooling but decided  
55 that the youngest children (KS1) would be too young to complete a questionnaire of the type proposed, so the  
56 youngest age group would be starting KS2.  
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3 Report discussed previously makes clear and trying to capture a more comprehensive framework as  
4 described by La Placa et al (2013) above, we attempted to assess the relative importance of school,  
5 family, friends and community for each item. So students had to give an overall rating out of 10  
6 (written as a number in a box) and then a score on a 7-point frequency scale to explain how much  
7 influence school, family, friends and community had on their overall rating for each item. We  
8 decided that trying to capture wellbeing inside and outside school would be too demanding for  
9 younger children so this was not a feature of the primary instrument. Both questionnaires provided  
10 some information about the research, requested some basic demographic information (school,  
11 gender<sup>2</sup>), and included instructions before the items were presented.

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16 The questionnaires were piloted in two primary schools and one secondary school by members of  
17 the research team. In the primary schools a member of the research team read through the  
18 instructions with each class and then read each item one by one, allowing the opportunity for  
19 children to ask questions if they were unsure, with Teaching Assistants helping children with literacy  
20 difficulties. In the secondary school, classes in each age group completed the questionnaire at the  
21 same time, so a briefing sheet was prepared for the teacher (which expanded the information given  
22 on the first sheet of the questionnaire and provided more detail about how the questionnaire should  
23 be completed – students then completed the questionnaire at their own pace when the task was  
24 explained) and the researcher rotated between the classes to clarify any issues that had emerged.  
25 The primary pilot was generally successful, as overall children didn't have too many problems.  
26 Children found two items difficult to answer even when they were explained by the researcher ('I  
27 feel useful', 'I feel life is great') and these were subsequently deleted. They also asked for help in  
28 understanding several others (e.g. 'I feel successful') but were able to answer the question when  
29 rephrased so these items were reworded (in this case to 'I feel I am doing well' as this alternative  
30 phrasing was understood in situ). Several commented that 'miserable' and 'sad' were the same so  
31 we decided to only retain 'miserable'. The smiley faces proved confusing for negatively worded  
32 items (e.g. 'I feel miserable') but the children didn't otherwise have any difficulties with the scales so  
33 the smiley faces were dropped.

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39 On the basis of the pilot a number of changes were made, the most important of which to ensure  
40 comparability by having the same items on all versions of the questionnaire. The secondary version  
41 was simplified to capture wellbeing separately inside and outside school on a 5-point scale, rather  
42 than assessing the relative importance of different influences, as this proved confusing (and this was  
43 re-piloted successfully). A full list of items are provided in table 1 and further details of the full  
44 questionnaire can be found in McLellan et al (2012b).

## 50 The Context of the Study

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55 <sup>2</sup> Given the complexity and sensitivity of capturing socio-economic and ethnicity data we did not attempt to  
56 include indicators of these.

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3 The 'How I feel about myself and School' Questionnaire was developed for a study assessing the  
4 impact of the Creative Partnerships Programme<sup>3</sup> on the wellbeing of children and young people.  
5 Further details about this research project are provided in another contribution to this special  
6 edition (Galton & Page, forthcoming) and here we will only focus on the work involving the  
7 wellbeing measure.  
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10 The first phase of the project involved conducting a survey using the 'How I feel about myself and  
11 School' Questionnaire during a one-day visit to a range of primary (N=20) and secondary (N=20)  
12 schools. There were two main reasons for adopting this approach. Firstly, the survey generated a  
13 snapshot of student perceptions of their wellbeing and provided evidence to address one of the  
14 main research questions; 'What is the impact of Creative Partnerships work on students' perceptions  
15 of their wellbeing?' Secondly, the findings from the survey together with other evidence collected  
16 during the visit (e.g. fieldnotes, interview data, documents), enabled us to identify interesting sites  
17 for in-depth study during the second phase of the research, providing further evidence to address  
18 this and the other research questions. (see Galton & Page, forthcoming, for more details).  
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23 The survey was designed so that half of the participating schools were involved in the Creative  
24 Partnerships (CP) Programme, whilst the others were not, as this would enable us to compare  
25 perceptions of wellbeing reported by students in these two types of school. To increase the chances  
26 of finding a difference, if a difference existed, we sought schools that were seen to be successful in  
27 implementing the CP Programme and did this by approaching a number of regional CP Local Delivery  
28 Organisations<sup>4</sup> located in different areas in England and asking for recommendations. Although we  
29 limited the number of organisations approached for practical reasons, the regions chosen included  
30 urban conurbations, smaller towns as well as rural areas, and stretched from Nottingham / Sheffield,  
31 Norfolk / Suffolk, London, and Wolverhampton / Staffordshire so included a wide variety of  
32 geographical areas within England. Once a list of potential schools was generated we considered  
33 various characteristics to try and generate a heterogeneous sample (in terms of location, socio-  
34 economic and other characteristics of intake (% student eligible for free school meals, % students  
35 with special educational needs), size, school-type (e.g. specialism) and achievement levels (KS2 or  
36 GCSE results<sup>5</sup>)) and then approached the schools identified, recruiting 10 primary and 10 secondary  
37 schools. Next, we attempted to find a match for each CP school on these same characteristics and in  
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43 <sup>3</sup> The Creative Partnerships Programme, which ran from 2002-2011 when government funding was withdrawn,  
44 was administered by the charity Creativity, Culture and Education (CCE) and operated in over 2700 schools in  
45 England. The programme aimed to foster long-term partnerships between schools and creative professionals  
46 to inspire, open minds and harness the potential of creative learning. See [www.creative-partnerships.com/](http://www.creative-partnerships.com/)  
47

48 <sup>4</sup> Local Area Delivery Organisations were the mechanism through which the Creative Partnerships Programme  
49 was delivered. These are independent organisations funded by CCE to employ creative agents to work with  
50 schools and find suitable creative practitioners for the projects agreed in each school. In working directly with  
51 schools, they were aware which schools ran the Creative Partnerships Programme particularly successfully.  
52

53 <sup>5</sup> Although there are socio-economic differences between schools we did not attempt to assign schools to  
54 different socio-economic categories for further analysis as not all students in each cohort completed the  
55 questionnaire at secondary level and we didn't have a student-level indicator of socio-economic status.  
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3 the same geographic area. This proved more straightforward for the primary schools as there is a  
4 greater pool of primary schools and in general they were more interested in investigating children's  
5 perceptions of wellbeing so more readily agreed to participate. Matches for secondary schools were  
6 more difficult and in some cases a suitable match in the same geographic area could not be found so  
7 approximations had to be made (for instance a Wolverhampton school was matched with one in  
8 Sheffield on the grounds both are post-industrial cities and the schools chosen were both in  
9 deprived parts of the city).

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13 In terms of administration; in the primary schools all children who consented<sup>6</sup> in Year 3 (aged 7/8)  
14 and Year 6 (aged 10/11) took part in the survey, although as some small schools had mixed aged  
15 forms a small number of Year 4 or Year 5 children also completed the questionnaire, generating a  
16 total of 767 Y3 and 802 Y6 returns. We asked for 4 classes in each of Year 8 and Year 10 to complete  
17 the questionnaire in secondary schools if they were larger than a 4-form entry, although some  
18 schools preferred that all students in the relevant cohorts participated. In a few cases another  
19 cohort in either KS3 or KS4 completed the survey if they had been more involved in CP work (so we  
20 adjusted the cohorts involved in the matched school accordingly). In some cases the researcher  
21 administered the survey individually to classes in turn but more often schools requested that we  
22 sent copies of the questionnaires in advance and had classes complete this (usually during tutor time  
23 on the day of the visit) so that it could be collected when the researcher visited. We sent a detailed  
24 briefing sheet for teachers (adapted from the one used during the pilot), so that they could explain  
25 the purpose of the research and explain how to complete the questionnaire. In total 1881 KS3 and  
26 1720 KS4 questionnaires were returned.

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32 The data were coded where required (e.g. 'never' = 1 etc.) and entered initially into Excel spread  
33 sheets by a team of data input assistants, with this process being overseen by a member of the  
34 research team who checked completed work for accuracy. Once data from all 40 schools had been  
35 entered, the data were imported to SPSS and the data were rechecked and cleaned. Descriptive  
36 statistics were calculated in the first instance to examine students' response as a whole. Year 3  
37 responses were rescaled<sup>7</sup> to enable comparisons with responses from the other three age groups  
38 regarding wellbeing in school<sup>8</sup>. As the scales from which the instrument had been developed had  
39 been reduced significantly, exploratory factor analysis was conducted to discern wellbeing factors  
40 evident with this dataset. Items loading on each factor were compared to the original scales to  
41 interpret meaning. This was subsequently followed by a confirmatory factor analysis to test the fit of  
42 the emergent wellbeing model. Initially individual analyses were undertaken for each of the four age  
43 groups but as the factor structure was invariant the datasets were merged and only the analysis  
44 from the complete dataset will be discussed. Wellbeing scales were created as variables and these

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50 <sup>6</sup> Parental permission was obtained but students were also given the opportunity not to participate.

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52 <sup>7</sup> Rescaled as 1 = not often, 3 = sometimes, and 5 = often to reflect the fact these represented the extremities  
53 of the scale.

54  
55 <sup>8</sup> In this paper we focus only on wellbeing inside school. However the same factor structure was also observed  
56 in the wellbeing outside school data.

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3 were subjected to further analysis to identify differences between particular groups of students  
4 relating to gender, age, and type of school (Creative Partnerships or not Creative Partnerships)  
5 attended. Findings from these analyses are reported below.  
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## 10 **Children and Young People's Perceptions of Wellbeing**

### 11 ***Overall Response to Individual Wellbeing Items***

12 The overall mean score and standard deviation for each item is presented in table 1.  
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14 *Insert table 1 here*  
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18 In general the trend is for the mean score on each item to fall just above the mid-point of the scale  
19 for positively-worded items (and just below the midpoint for negatively-worded items) indicating  
20 students believe they experience positive elements to wellbeing somewhere between some of the  
21 time and often (and negative elements somewhere between not very often and some of the time).  
22 There were no items which students regarded overall as being true more frequently than 'often', as  
23 the highest mean score is 3.93 ('I feel safe'). Conversely there were no items that the students  
24 responding as a group felt were true less frequently than 'not often', as the lowest mean score is  
25 2.06 ('I feel lonely'), and indeed the lowest mean score for a positively phrased item is 3.23 ('I feel I  
26 enjoy things'). This suggests that overall students don't experience wellbeing in school all of the  
27 time, nor do they never experience wellbeing.  
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31 The standard deviation values indicate there is a reasonable amount of variation in response  
32 indicating a range of different student experiences. So for some students, it would be true to say  
33 that they do not experience wellbeing at school, as these students endorsed the 'never' response  
34 across the majority of the items (except the negatively phrased items, where they tended to respond  
35 'always'), whilst in contrast the mirror reflection response pattern indicates that for other students  
36 the opposite is true and they always experience wellbeing at school. Overall the pattern of  
37 responses, when considering both the mean and standard deviation values, feels credible.  
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### 43 ***Discerning Wellbeing Scales***

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45 When conducting the exploratory factor analysis, the Kaiser (1960) criterion (that only factors with  
46 an eigenvalue over 1 should be retained) indicated a four-factor solution was optimal, whilst the  
47 Scree test (Cattell, 1966) suggested that either a 3- or 4-factor solution was appropriate so both  
48 solutions were explored further. We subsequently deployed several different extraction algorithms  
49 with various rotation approaches, which yielded similar results. The 4-factor solution proved more  
50 interpretable than the 3-factor solution, in terms of being a better match to the theoretical  
51 constructs on which the original scales were based, so this was chosen as the preferred solution  
52 indicating that four wellbeing scales were discernible in the data. Findings from principal  
53 components analysis deploying varimax rotation are presented, as this provided the clearest picture.  
54 The model accounted for 51.3% of the variance, which is deemed reasonable for studies of this  
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3 nature relating to self-perceptions and attitudes (Henerson, Lyons Morris, & Taylor Fitz-Gibbon,  
4 1987). The rotated component matrix, showing each item's factor loading is presented in table 2. To  
5 aid clarity, factor loadings less than 0.4 have been excluded as these are deemed too low to be  
6 worth considering in factor interpretation (Hair, Anderson, Tatham, & Black, 1998). Although not all  
7 of the loadings are strong (>0.6), each item, with three exceptions, is only strongly associated with  
8 one factor (and the lower of the two loadings for the three items that cross-load is comparatively  
9 low) indicating that a solution with simple structure was achieved that can be interpreted.

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11  
12 *Insert table 2 here*

13  
14 The first factor is most strongly associated with item 12 ('I feel people are friendly'), as this is the  
15 item with the highest loading (0.678) but all of the items (except item 20, 'I feel happy', which was  
16 part of the emotional wellbeing scale originally) have an interpersonal dimension (for instance,  
17 feeling cared for and treated fairly) and clearly relate to social aspects of wellbeing in Huppert and  
18 colleagues' model, leading us to name this factor *interpersonal wellbeing*. The second factor is  
19 associated particularly with items 17 ('I feel I enjoy things' – emotional wellbeing in the original  
20 model) and 13 ('I feel there is lots to look forward to' – resilience and self-esteem in the original  
21 model) and the other items, except item 6 (feeling cared for – supportive relationships in the original  
22 model) which has a comparatively small loading, relate to aspects of personal wellbeing. Although  
23 these items came from a range of different scales in the original model, the items as a group do feel  
24 consistent as a measure of how satisfied a young person feels with their life that includes cognitive  
25 as well as some affective elements and is a measure of subjective wellbeing (a hedonic  
26 conceptualisation of wellbeing). We therefore labelled this factor *life satisfaction*. The items most  
27 strongly associated with factor 3 include item 9 ('I feel I can deal with problems') and item 15 ('I feel  
28 confident'), and the other items except item 2 ('I feel healthy') which has a low loading, also related  
29 to aspects of positive functioning (e.g. feeling good about yourself and that you're doing well), so the  
30 label *perceived competence* (i.e. a eudaimonic conceptualisation of wellbeing) seemed a good  
31 reflection of this factor. Although the item with the highest factor loading on the final factor, item 16  
32 ('I feel a lot of things are a real effort') was part of the vitality scale in the original model, items  
33 associated with the fourth factor as a group had a negative emotive flavour (worry, misery, etc.), so  
34 was termed *negative emotion*.

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37 As the model derived from the exploratory factor analysis was interpretable, the fit of this model  
38 (disregarding the cross loadings as these were not theoretically validated) was tested using AMOS.  
39 Item 16 did not load on the negative emotion factor and the estimate of variance in this item  
40 accounted for was zero, therefore this item was dropped and a second model fitted. Standardised  
41 model estimates are shown in figure 1. Although the chi-squared statistic is traditionally calculated  
42 as a measure of fit, this is very sensitive to sample size and tends to lead to model rejection with  
43 large sample sizes of the type gathered here (Joreskog, 1969). We therefore took Hu and Bentler's  
44 (1999) advice to consider the Root Mean Square Error of Approximation (RMSEA) measure of overall  
45 fit and the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) as indicators of comparative fit,  
46 as well as Hoelter's critical sample size, another recognised measure of overall fit. There are no  
47 agreed criteria as to what constitutes good fit but Hu and Bentler recommend a RMSEA value of less  
48 than 0.06 and comparative fit indices close to 0.95. Hoelter (1983) recommends a critical sample size



of 200 or greater. The corresponding statistics for our model are RMSEA = 0.052, CFI = 0.927, TLI = 0.906 and Hoelter 0.05 = 404. Overall these figures suggest the model is an adequate fit to the data.

*Insert figure 1 here*

Turning now to the model estimates, figure 1 shows the amount of variance in each item the model accounts for (the squared multiple correlation), the standardised regression weight and the estimated correlations between the factors. The squared multiple correlations range from 0.122 (item 18) to 0.588 (item 17) suggesting between a modest to substantive amount of the variance in each item is accounted for by the model. The standardised regression weights are substantive and significant in all cases. The estimated correlations between the factors are relatively high, ranging from -0.658 to 0.846, however are not sufficiently high to indicate any of the factors are redundant. As would be expected correlations between negative emotion and the other factors are negative, whilst all the others are positive.

Having determined that the model is a reasonably good fit, summated average scales based on the contributory items (which are preferred to the alternative of factor scores as the scales are theoretically meaningful Kline, 1994), were then created to represent each of the four facets of wellbeing.

#### ***Differences in Wellbeing relating to Age, Gender and Type of School Attended***

Descriptive statistics for the wellbeing scales by age, gender and type of school (Creative Partnerships versus not Creative Partnerships) attended are presented in table 3.

*Insert table 3 here*

A 4 (age) x 2 (gender) x 2 (type of school attended) MANOVA was conducted examining all four wellbeing scales concurrently to discern differences in reported wellbeing between the various groups of students. There are significant main effects for age (Pillai's trace=.320,  $F(12, 12201)=121.525$ ,  $p<0.001$ , partial eta sq=.107) and gender (Pillai's trace=.035,  $F(4, 4065)=36.384$ ,  $p<0.001$ , partial eta sq=.035) on wellbeing scores but the interpretation of these must be considered in light of two significant interactions; specifically, age x gender (Pillai's trace=.011,  $F(12, 12201)=3.795$ ,  $p<0.001$ , partial eta sq=.004) and age x type of school attended (Pillai's trace=.006,  $F(4, 4065)=2.184$ ,  $p=0.010$ , partial eta sq=.002), although the effect sizes of these are small compared to the main effects. An examination of the corresponding univariate ANOVAs indicated there were a number of significant differences in wellbeing for the different groups considered, and key findings are summarised in table 4.

*Insert table 4 here*

Although there are significant age differences (i.e. students of different ages report experiencing different overall frequencies of each of the four types of wellbeing captured by the scales) and gender differences (with boys and girls reporting different experiences for two of the wellbeing dimensions), it would be misleading to look at these in isolation when several of the interaction

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3 effects are significant. Specifically the age by gender effect is significant for the life satisfaction and  
4 perceived competence scales, whilst the age by type of school (CP vs. non CP) effect is significant  
5 across all four wellbeing dimensions. To understand how age and gender, and age and type of school  
6 interact and impact upon the different groups of students concerned, the mean wellbeing scores of  
7 these differing groups were plotted.  
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10 Turning first to the significant age by gender interactions, these manifest differently for the two  
11 wellbeing scales concerned so are plotted in separate figures. Figure 2 shows the relevant  
12 interaction for the life satisfaction scales, whilst figure 3 shows the equivalent interaction for the  
13 perceived competence scale. Considering figure 2, the overall picture indicates that life satisfaction  
14 tends to decline with age, with Year 3 children being the most positive and Key Stage 4 students the  
15 least positive (which is also shown in the main age effect on life satisfaction in table 4). The main  
16 gender effect shown in table 4 suggests that frequency of experience of life satisfaction does not  
17 differ for boys and girls. However, as can be seen in figure 2, girls are more positive (in terms of  
18 reporting a higher frequency of experiencing life satisfaction) than boys at primary school with the  
19 pattern reversing at secondary school. This is interesting as it seems to show girls entering school  
20 more positive in terms of their life satisfaction than boys, but that this dissipates during their time in  
21 school such that by the time they finish compulsory schooling they are less positive than their male  
22 counterparts, although this would need to be substantiated with a longitudinal study that could  
23 track individuals over time.  
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28 In terms of perceived competence, the overall picture shown in figure 3 is that Year 6 children are  
29 more positive than Year 3 children but secondary school students report feeling competent less  
30 frequently than primary children, with Key Stage 4 students indicating the least frequent  
31 occurrences of experiencing competence (this is also shown in the main age effect on perceived  
32 competence in table 4). In addition, the significant gender effect for perceived competence shown in  
33 table 5 suggests that overall boys report higher frequencies of experiencing feelings of competence  
34 compared to girls. This pattern is borne out in figure 3. However, the significant interaction effect is  
35 apparent in gap between boys' and girls' self-reports. At primary school girls report feeling  
36 competence a little less frequently than the boys but a large gap opens up and appears to grow  
37 through secondary schooling.  
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41 *Insert figures 2 & 3 here*  
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43 In both of these interaction effects, older girls perceive their wellbeing to be particularly poor.  
44 Furthermore, girls overall report experiencing negative emotion more frequently than boys (shown  
45 as the significant main gender effect for negative emotion in table 4) so this suggests that girls'  
46 wellbeing, particularly for the oldest girls participating in this survey, is a concern. Although some  
47 studies have shown that girls report higher levels of wellbeing in school (Gutman, Brown, Akerman,  
48 & Obolenskaya, 2010), the decline in girls' wellbeing during adolescence has been demonstrated in  
49 other studies (Tomyn & Cummins, 2011) and studies looking at adulthood have also shown that  
50 women report experiencing less wellbeing than men (Stevenson & Wolfers, 2009).  
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54 It is also clear that secondary school students in general report feeling wellbeing less frequently than  
55 primary aged children. Declines in wellbeing with age have been documented in other studies  
56 (Gutman, et al., 2010; Tomyn & Cummins, 2011). Students nearing the end of compulsory schooling  
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3 appear to experience the lowest levels of wellbeing. Research on self-concept has shown that  
4 although this is expected to decline during early adolescence, it tends to recover by the time  
5 students reach the end of compulsory schooling (Marsh, 1989) so we might have expected the  
6 decline in perceived competence wellbeing at least to reverse for the oldest age group completing  
7 this survey. However, the low self-reported wellbeing across all dimensions may well reflect  
8 concerns Key Stage 4 students have about their futures, especially in the current economic climate  
9 where one million young people are out of work (Allen, 2011).  
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12 At primary school, Year 6 children reported experiencing wellbeing more frequently than Year 3  
13 children in relation to interpersonal aspects of wellbeing and in relation to competence, whilst Year  
14 3 children more often experienced life satisfaction. There are no differences between these year  
15 groups in relation to how often they reported feeling negative emotions. The fact that the older  
16 children are more positive about aspects of wellbeing related to interacting with other people and  
17 how they feel they are getting on at school may well be attributable to the fact that they have been  
18 in their school for a number of years and have got to know their teachers and other adults in the  
19 school, as well as their peers, well and that they are in essence 'big fish in a small pond' (Marsh,  
20 1987). However, the fact that their life satisfaction is lower in Year 6 compared to Year 3 may well  
21 reflect the fact that they are about to take public examinations (Key Stage 2 Standard Assessment  
22 Tasks), as when children participated in the survey during the spring term, schools were preparing  
23 them for these tests.  
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28 Considering now the interaction of age with type of school (Creative Partnerships vs. non Creative  
29 Partnerships) attended: a consistent and interesting picture emerges, shown in figures 4 and 5.  
30 Although the fact that the main type of school attended effect is shown as not significant in table 4,  
31 indicating that there are no overall differences in perceptions of wellbeing of students attending  
32 Creative Partnerships schools and other schools, different groups in the two types of school  
33 appear to hold different patterns of perceptions. Figure 4 presents the data for the interpersonal  
34 scale but the same pattern is apparent in the data for the life satisfaction and perceived competence  
35 scales (although Year 3 reported the most frequent occurrence of experiencing life satisfaction so  
36 the graphs falls from left to right in this instance, rather than peaking at Year 6).  
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40 In all cases, Year 3 children at Creative Partnerships schools reported more occurrences of wellbeing  
41 than their counterparts at the other schools participating in the research. In contrast Year 6 and Key  
42 Stage 3 students at the other schools report a higher frequency of wellbeing than students at  
43 Creative Partnerships schools. The difference more or less disappears by the end of Key Stage 4. The  
44 same trend (but in reverse) is seen for negative emotion and is shown in figure 5. Again, Year 3  
45 children at Creative Partnerships schools are more positive than the equivalent children at the other  
46 schools as they experience negative emotions less frequently, but students at Creative Partnerships  
47 schools experience negative emotions more often at Year 6 and Key Stage 3, with differences ironing  
48 out by Key Stage 4.  
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52 *Insert figures 4 & 5 here*  
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54 These findings are intriguing, given that students from two age groups in the same schools were  
55 surveyed. The Year 3 versus Year 6 comparison is particularly surprising as it is not immediately  
56 apparent why younger children in Creative Partnerships schools are, relative to children in other  
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3 schools, more positive, whilst the reverse is true for Year 6 children. Although the pattern may be  
4 attributable to sampling issues and measurement error, the fact that it is so robust and across all  
5 scales suggests that there is something real happening that warrants further investigation.  
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7  
8 Overall the data do suggest that Creative Partnerships work may be positively impacting on the  
9 reported wellbeing of Year 3 but not Year 6 children, whilst there is no evidence to suggest that  
10 Creative Partnerships work is having a positive impact on the wellbeing of secondary-aged students.  
11 These findings were unexpected, as our recent review of the literature in the field (Author, 2012a)  
12 had identified a range of school-based intervention programmes that are creative in nature that  
13 have been successfully implemented specifically to promote aspects that could be regarded as  
14 relating to wellbeing (for instance Edmiston & Bigler-McCarthy, 2006 identify the positive impact on  
15 motivation of Mantle of the Expert work; whilst O'Brien & Murray, 2006 find benefits of Forest  
16 Schools on confidence, motivation and social skills among others). Thus we had anticipated that we  
17 would find a main effect for type of school attended that would show that students at Creative  
18 Partnerships schools reported higher levels of wellbeing than those in the matched Non Creative  
19 Partnerships schools.  
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## 25 Conclusion

26  
27 Given the complexity and rapidly developing nature of the wellbeing field, it has been a challenge to  
28 develop a comprehensive model of wellbeing that can be operationalized in an instrument suitable  
29 for use with young people ranging in age from lower primary to the end of secondary schooling.  
30 What we offer in this paper is an instrument that we believe begins to provide a more nuanced  
31 understanding of their perceptions of wellbeing in school than previously available, by drawing upon  
32 key distinctions in the literature (hedonic vs. eudaimonic, individual vs. social, consideration of  
33 entitlement). The data presented from a large-scale survey provide some evidence that the  
34 instrument is robust, as exploratory factor analysis revealed a theoretically interpretable model that  
35 provided a satisfactory fit when subjected to confirmatory factor analysis. However further work is  
36 needed as the model fit could be improved, perhaps by refining the items further and considering  
37 the inclusion of new items into some scales (particularly the negative emotion scale). Furthermore  
38 the reliability and validity of instrument needs further exploration to establish, for instance, test-  
39 retest reliability and concurrent validity. Although the sample tested was large, the fact that the  
40 participating schools were involved in a specific project about creativity may mean they are atypical  
41 of schools in England in general, so replication with other samples is warranted.  
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47 Notwithstanding the caveats above about status of the instrument, the data collected have revealed  
48 some interesting age and gender differences, which suggest that older students, and girls' wellbeing  
49 in particular, are concerning. Further work is needed to understand these trends, especially their  
50 causes, but policy-makers and educators should be aware of and attend to these issues. Of particular  
51 relevance to this special issue is the finding that Creative Partnerships work does not appear to be  
52 having a positive impact on young people's perceived wellbeing, except for the very youngest  
53 children participating in the survey. This may be interpreted as showing the instrument does not  
54 have predictive validity, suggesting the model of wellbeing needs to be reconsidered, but given the  
55 complex interaction effects and the fact that the wellbeing model is premised on well-established  
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work in the psychological field in particular, this seems unlikely. The question then arises as to how the Creative Partnerships programme has been implemented and given the culture of performativity (Ball, 1993) and increasing pressure on teachers (Galton & MacBeath, 2008), it may be the case that creativity initiatives, such as Creative Partnerships, are squeezed out of key examination years (i.e. Year 6) or only involve small targeted groups (in secondary settings) so cohort level effects on wellbeing are not seen. Clearly survey data cannot provide answers to these sorts of questions and indicates more research is needed before concluding that creative initiatives, such as Creative Partnerships, do not have a positive impact on wellbeing.

## References

- Allen, K. (2011, 16 November). Youth unemployment hits 1 million, *The Guardian*, pp. 2-3.
- Aristotle. (1985). *Nicomachean ethics* (T. Irwin, Trans.). Indianapolis, IN: Hackett.
- Author (2012a).
- Author (2012b).
- Author (2013).
- Baard, P. B., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and wellbeing in two work settings *Journal of Applied Social Psychology*, 34(10), 2045-2068.
- Ball, S. J. (1993). Education Markets, Choice and Social Class: the market as a class strategy in the UK and USA. *British Journal of Sociology of Education*, 14, 3-19.
- Ben-Arieh, A. (2005). Where are the children? Children's role in measuring and monitoring their wellbeing. *Social Indicators Research*, 74(3), 573-596.
- Cattell, R. B. (1966). The Scree test for the number of factors. *Multivariate Behavioral Research*, 1(2), 245-276.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Csikszentmihalyi, M. (1992). *Flow: The psychology of Happiness*. New York: Rider & Co.
- Currie, C., Gabhainn, S. N., Godeau, E., Roberts, C., Smith, R., Currie, D., . . . Barnekow, V. (2008). Inequalities in Young People's Health: HSBC International Report from the 2005/2006 survey. World Health Organisation.
- Deci, E. L. (1975). *Intrinsic Motivation*. New York, NY: Plenum.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behaviour*. New York, NY: Plenum.
- Deci, E. L., & Ryan, R. M. (2008a). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14-23.
- Deci, E. L., & Ryan, R. M. (2008b). Hedonia, Eudaimonia, and well-being: An Introduction. *Journal of Happiness Studies*, 9(1), 1-11.
- Department for Education. (2011, 28 November 2011). The School Curriculum: Aims, Values and Purposes Retrieved 6 February, 2012, from <http://www.education.gov.uk/schools/teachingandlearning/curriculum/b00199676/aims-values-and-purposes/purposes>
- Department for Education and Skills. (2003). Every Child Matters: Green Paper. Nottingham: Department for Education and Schools.
- Department for Education and Skills (DfES). (2005). *Social and Emotional Aspects of Learning*.
- Diener, E. (1984). Subjective Wellbeing. *Psychological Bulletin*, 95(3), 542-575.
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1), 71-75.



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2  
3 Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress.  
4 *Psychological Bulletin*, 125(2), 276-302.
- 5 Dolan, P., Layard, R., & Metcalfe, R. (2011). *Measuring Subjective Well-being for Public Policy*.  
6 London: Office for National Statistics.
- 7 Eckersley, R. (2013). Subjective Wellbeing: Telling Only Half the Story. A Commentary on Diener et al.  
8 (2012). Theory and Validity of Life Satisfaction Scales. *Social Indicators Research*. *Social*  
9 *Indicators Research*, 112(3), 529-534.
- 10 Edmiston, B., & Bigler-McCarthy, T. (2006). Building Social Justice Communities: using drama to  
11 make power more visible. Retrieved from [http://ebookbrowse.com/building-social-justice-](http://ebookbrowse.com/building-social-justice-pdf-d176817159)  
12 [pdf-d176817159](http://ebookbrowse.com/building-social-justice-pdf-d176817159)
- 13 European Social Survey. (2005). Personal & Social Well-being: Creating indicators for a flourishing  
14 Europe Retrieved 8 August, 2013, from  
15 [http://www.europeansocialsurvey.org/index.php?option=com\\_content&task=view&id=220](http://www.europeansocialsurvey.org/index.php?option=com_content&task=view&id=220)  
16 [&Itemid=309](http://www.europeansocialsurvey.org/index.php?option=com_content&task=view&id=220)
- 17 Fegter, S., Machold, C., & Richter, M. (2010). Children and the Good Life: Theoretical Challenges. In  
18 S. Andresen, I. Diehm, U. Sander & H. Ziegler (Eds.), *Children and the Good Life: New*  
19 *Challenges for Research on Children*. Dordrecht Heidelberg London New York: Springer.
- 20 Gadermann, A. M., Schonert-Reichl, K. A., & Zumbo, B. D. (2010). Investigating Validity Evidence of  
21 the Satisfaction with Life Scale Adapted for Children. *Social Indicators Research*, 96(3), 229–  
22 247.
- 23 Galton, M., & MacBeath, J. (2008). *Teachers under Pressure*. London: SAGE in association with the  
24 National Union of Teachers (NUT).
- 25 Galton, M., & Page, C. (forthcoming). The Impact of various creative initiatives on the wellbeing of  
26 children in English Primary Schools. *Cambridge Journal of Education*.
- 27 Gutman, L. M., Brown, J., Akerman, R., & Obolenskaya, P. (2010). *Change in Wellbeing from*  
28 *Childhood to Adolescence: Risk and Resilience*. London: Centre for Research on the Wider  
29 Benefits of Learning, Institute of Education.
- 30 Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis* (5th ed.).  
31 Upper Saddle River, NJ: Prentice-Hall International Inc.
- 32 Henerson, M. E., Lyons Morris, L., & Taylor Fitz-Gibbon, C. (1987). *How to measure Attitudes* (Second  
33 ed.). Newbury Park, CA: Sage Publications Inc.
- 34 Hoelter, J. W. (1983). The analysis of covariance structures: Goodness-of-fit indices. *Sociological*  
35 *methods and research*, 11(3), 325-344.
- 36 Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis:  
37 Conventional criteria versus new alternatives. *Structural Equation Modeling: A*  
38 *Multidisciplinary Journal* 6(1), 1-55.
- 39 Huppert, F., Marks, N., Clark, A., Siegrist, J., Stutzer, A., Vittersø, J., & Wahrendorf, M. (2009).  
40 Measuring well-being across Europe: Description of the ESS well-being module and  
41 preliminary findings. *Social Indicators Research*, 91, 301-315.
- 42 Huppert, F., Marks, N., Siegrist, J., Vazquez, C., & Vitterso, J. (2010). Personal and Social Wellbeing:  
43 European Social Survey.
- 44 Huppert, F., & So, T. (2013). Flourishing Across Europe: Application of a New Conceptual Framework  
45 for Defining Well-Being. *Social Indicators Research*, 110(3), 837-861.
- 46 James, A., Jencks, C., & Prout, A. (1998). *Theorising Childhood*. Cambridge: Polity Press.
- 47 Joreskog, K. G. (1969). A general approach to confirmatory maximum likelihood factor analysis.  
48 *Psychometrika*, 34(2), 183-202.
- 49 Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-Being: The Foundations of Hedonic*  
50 *Psychology* New York: Russell Sage Foundation.
- 51 Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and*  
52 *Psychological Measurement*, 20, 141-151.
- 53  
54  
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2  
3 Kasser, T., Cohn, S., Kanner, A., & Ryan, R. M. (2007). Some Costs of American Corporate Capitalism:  
4 A Psychological Exploration of Value and Goal Conflicts. *Psychological Inquiry: An*  
5 *International Journal for the Advancement of Psychological Theory*, 18(1), 1-22.
- 6 Keyes, C. (1998). Social Well-Being. *Social Psychology Quarterly*, 61(2), 121-140.
- 7 Kline, P. (1994). *An Easy Guide to Factor Analysis*. London: Routledge.
- 8 La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within-person variation in  
9 security of attachment: A self-determination theory perspective on attachment, need  
10 fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79, 367-384.
- 11 La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on wellbeing in research and practice.  
12 *International Journal of Wellbeing*, 3(1), 116-125, 3(1), 116-125.
- 13 Layard, R. (2005). *Happiness: Lessons from a New Science*. London: Penguin Books.
- 14 Lucas, R., Diener, E., & Suh, E. (1996). Discriminant validity of wellbeing measures. *Journal of*  
15 *Personality and Social Psychology*, 71(3), 616-628.
- 16 Marsh, H. W. (1987). The Big-Fish-Little-Pond Effect on Academic Self-Concept. *Journal of*  
17 *Educational Psychology*, 79(3), 280-295.
- 18 Marsh, H. W. (1989). Age and Sex Effects in Multiple Dimensions of Self-Concept: Preadolescence to  
19 Early Adulthood. *Journal of Educational Psychology*, 81(3), 417-430.
- 20 Maslow, A. (1954). *Motivation and Personality*. New York, NY: Harper.
- 21 Maslow, A. (1962). *Towards a psychology of being*. Princeton, NJ: D. Van Nostrand Co.
- 22 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). National Accounts of  
23 Wellbeing: Bringing Real Wealth onto the Balance Sheet. London: New Economics  
24 Foundation.
- 25 New Economics Foundation. (2009). National Accounts of Well-being: bringing real wealth onto the  
26 balance sheet. London: New Economics Foundation.
- 27 Norton, D. (1976). *Personal destinies*. Princeton, NJ: Princeton University Press.
- 28 Nussbaum, M. (2000). *Women and Human Development*. Cambridge: Cambridge University Press.
- 29 Nussbaum, M. (2003). Capabilities as Fundamental Entitlements: Sen and Social Justice. *Feminist*  
30 *Economics*, 9(2-3), 33-59.
- 31 O'Brien, L., & Murray, R. (2006). A Marvelous Opportunity for Children to Learn. The Forestry  
32 Commission and New Economics Foundation. Retrieved from  
33 <http://www.neweconomics.org>
- 34 OECD. (2009). *Doing Better for Children*. Paris: OECD.
- 35 Office for Standards in Education, C. S. a. S. (2012). *The framework for school inspection*.  
36 Manchester: Ofsted.
- 37 Putnam, R. (2000). *Bowling Alone: The collapse and Revival of American Community*. New York:  
38 Simon and Schuster.
- 39 Rees, G., Goswami, H., & Bradshaw, J. (2010). Developing an index of children's subjective well-being  
40 in England. London: The Children's Society.
- 41 Rees, G., Goswami, H., Pople, L., Bradshaw, J., Keung, A., & Main, G. (2012). *The Good Childhood*  
42 *Report 2012: A review of our children's well-being*. London: The Children's Society.
- 43 Rogers, C. R. (1961). *On Becoming a Person: A Therapist's View of Psychotherapy*. London: Constable.
- 44 Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic  
45 motivation, social development and well-being. *American Psychologist*, 55(1), 68-78.
- 46 Ryan, R. M., & Deci, E. L. (2002). An overview of Self-Determination Theory: An Organismic-  
47 Dialectical Perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of Self-Determination*  
48 *Research* (pp. 3-33). Rochester, NY: The University of Rochester Press.
- 49 Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A self-determination theory perspective on  
50 eudaimonia. *Journal of Happiness Studies*, 9(1), 139-170.
- 51 Ryff, C. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, 4(4),  
52 99-104.



- 1  
2  
3 Ryff, C., & Singer, B. (2006). Best news yet on the six-factor model of wellbeing. *Social Science*  
4 *Research, 35*(4), 11-13-1119.
- 5 Self, A., & Randall, C. (2013). Measuring National Well-being - Review of domains and measures,  
6 2013. London: Office for National Statistics.
- 7 Seligman, M. (2002). *Authentic Happiness: Using the New Positive Psychology to Realize your*  
8 *Potential for Lasting Fulfilment*. New York: Free Press.
- 9 Seligman, M., & Csikszentmihalyi, M. (2000). Positive Psychology: An Introduction. *American*  
10 *Psychologist, 55*(1), 5-14.
- 11 Seligman, M. E. P. (2011). *Flourish: A new understanding of happiness and well-being - and how to*  
12 *achieve them*. London: Nicholas Brealey Publishing.
- 13 Sen, A. (1999). *Commodities and Capabilities*. Oxford: Oxford University Press.
- 14 Stevenson, B., & Wolfers, J. (2009). The paradox of declining female happiness. *American Economic*  
15 *Journal: Economic Policy, 1*(2), 190-225.
- 16 Stiglitz, J., Sen, A., & Fitoussi, J.-P. (2009). Report by the Commission on the Measurement of  
17 Economic Performance and Social Progress.
- 18 The British Psychological Society. (2013). Introduction to Psychology Retrieved 8 August, 2013, from  
19 <http://www.bps.org.uk/psychology-public/information-public/information-public>
- 20 Tomyn, A. J., & Cummins, R. A. (2011). The Subjective Wellbeing of High-School Students: Validating  
21 the Personal Wellbeing Index—School Children. *Social Indicators Research, 101*, 405-418.  
22 doi: 10.1007/s11205-010-9668-6
- 23 United Nations. (1989). The UN Convention on the Rights of the Child.
- 24 United Nations Children's Fund (UNICEF). (2007). Child poverty in perspective: An overview of child  
25 well-being in rich countries. Florence: Innocenti Research Centre.
- 26 Waterman, A. (1993). Two Conceptions of Happiness: Contrasts of Personal Expressiveness  
27 (Eudaimonia) and Hedonic Enjoyment. *Journal of Personality and Social Psychology, 64*(4),  
28 678-691.
- 29 Watson, D., Clark, L., & Tellegen, A. (1988). Development and validation of brief measures of positive  
30 and negative affect: the PANAS scales. *Journal of Personality and Social Psychology, 54*(6),  
31 1063-1070.
- 32 Wilson, W. (1967). Correlates of avowed happiness. *Psychological Bulletin, 67*(4), 294-396.
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Table 1: Descriptive statistics for the wellbeing items from the complete dataset

Item	Mean	Std. Dev.
1   I feel good about myself*	3.50	1.00
2   I feel healthy	3.67	1.10
3   I feel I am doing well	3.55	1.04
4   I feel miserable	2.46	1.10
5   I feel I have lots of energy	3.62	1.14
6   I feel cared for	3.53	1.20
7   I feel valuable	3.26	1.15
8   I feel worried	2.83	1.24
9   I feel I can deal with problems	3.51	1.09
10   I feel bored	3.28	1.24
11   I feel noticed	3.34	1.09
12   I feel people are friendly	3.72	1.10
13   I feel there is lots to look forward to	3.24	1.25
14   I feel safe	3.93	1.13
15   I feel confident	3.53	1.11
16   I feel a lot of things are a real effort	3.25	1.17
17   I feel I enjoy things	3.23	1.19
18   I feel lonely	2.06	1.15
19   I feel excited by lots of things	3.34	1.14
20   I feel happy	3.65	1.10
21   I feel I'm treated fairly	3.38	1.22

\* Item wording deployed on the primary versions of the questionnaire

**Table 2: Interpreting the wellbeing scales: The rotated component matrix from principal components analysis with varimax rotation**

Item	Component			
	1	2	3	4
1 I feel good about myself			.552	
2 I feel healthy			.416	
3 I feel I am doing well			.608	
4 I feel miserable				.483
5 I feel I have lots of energy		.508		
6 I feel cared for	.561	.442		
7 I feel valuable	.530			
8 I feel worried				.590
9 I feel I can deal with problems			.723	
10 I feel bored		-.620		.423
11 I feel noticed	.539			
12 I feel people are friendly	.678			
13 I feel there is lots to look forward to		.682		
14 I feel safe	.601			
15 I feel confident			.634	
16 I feel a lot of things are a real effort				.679
17 I feel I enjoy things		.743		
18 I feel lonely	-.602			.417
19 I feel excited by lots of things		.617		
20 I feel happy	.550			
21 I feel I'm treated fairly	.589			

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**Table 3: Descriptive statistics for the wellbeing scales by age, gender and type of school attended**

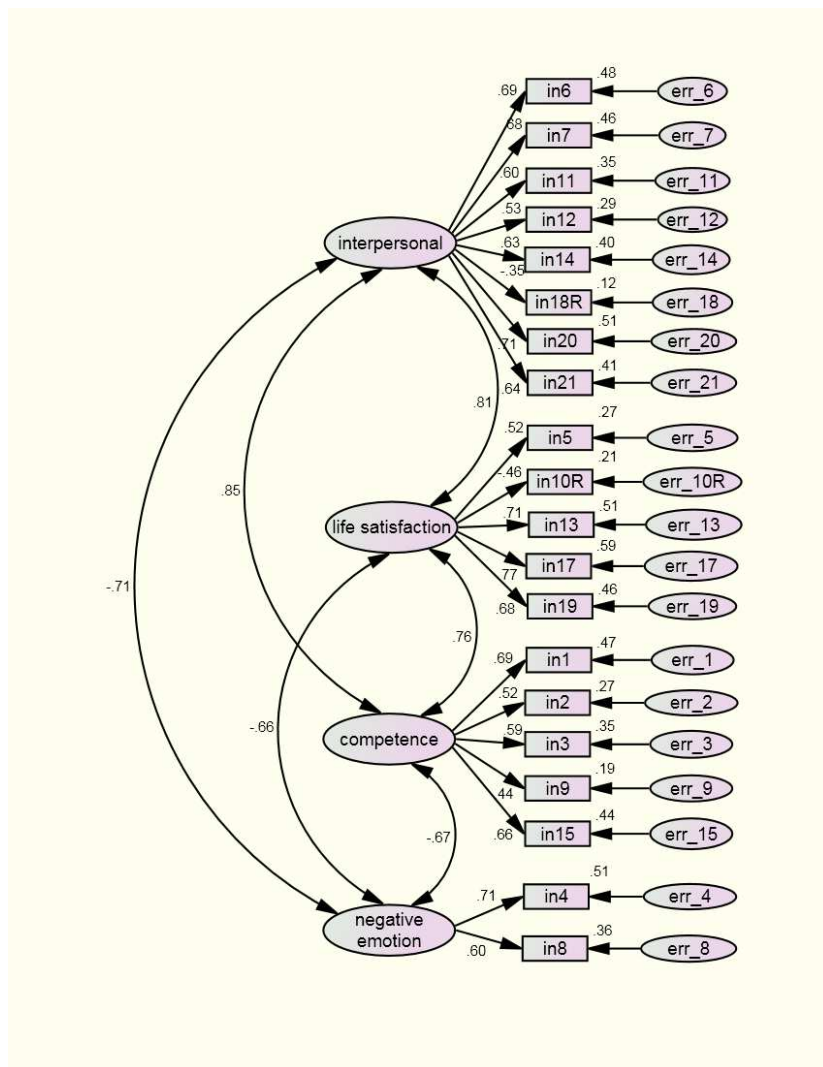
Scale	Age				Gender		Type of School Attended	
	Y3 Mean (Std. Dev.)	Y6 Mean (Std. Dev.)	KS3 Mean (Std. Dev.)	KS4 Mean (Std. Dev.)	Boys Mean (Std. Dev.)	Girls Mean (Std. Dev.)	Creative Partnerships Mean (Std. Dev.)	Non Creative Partnerships Mean (Std. Dev.)
Interpersonal	3.76 (.830)	3.91 (.751)	3.56 (.733)	3.42 (.713)	3.59 (.788)	3.61 (.738)	3.60 (.754)	3.62 (.782)
Life Satisfaction	3.98 (.836)	3.73 (.753)	3.06 (.749)	2.85 (.712)	3.23 (.881)	3.26 (.843)	3.23 (.859)	3.30 (.886)
Perceived Competence	3.71 (.773)	3.78 (.642)	3.54 (.701)	3.39 (.716)	3.65 (.732)	3.46 (.698)	3.56 (.709)	3.56 (.736)
Negative Emotion	2.22 (1.06)	2.18 (.832)	2.68 (.950)	2.99 (.889)	2.56 (1.02)	2.70 (.935)	2.65 (.959)	2.58 (1.02)

**Table 4: Differences in wellbeing by age, gender and type of school attended**

Effect	Wellbeing Scale			
	Interpersonal	Life Satisfaction	Perceived Competence	Negative Emotion
Age	✓ Y6>Y3>KS3>KS4	✓ Y3>Y6>KS3>KS4	✓ Y6>Y3>KS3>KS4	✓ KS4>KS3>Y3/6
Gender			✓ B>G	✓ G>B
Type of School				
Age x Gender		✓ See figure 2	✓ See figure 3	
Age x Type of School	✓ See figure 4	✓ See figure 4	✓ See figure 4	✓ See figure 5
Gender x Type of School				
Age x Gender x Type of School				

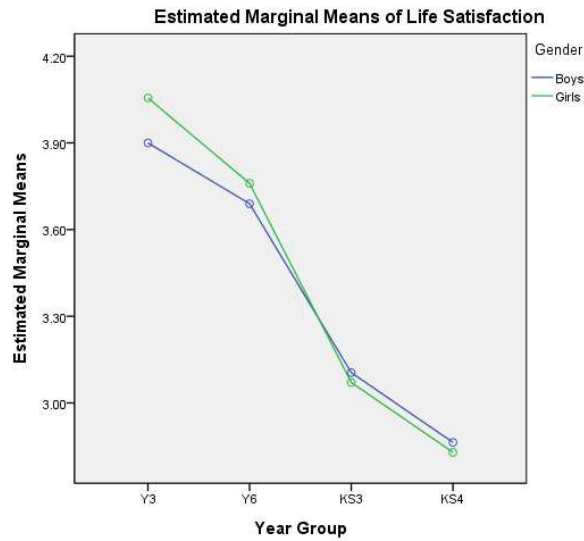
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Figure 1: Confirmatory factor analysis estimates for the wellbeing model



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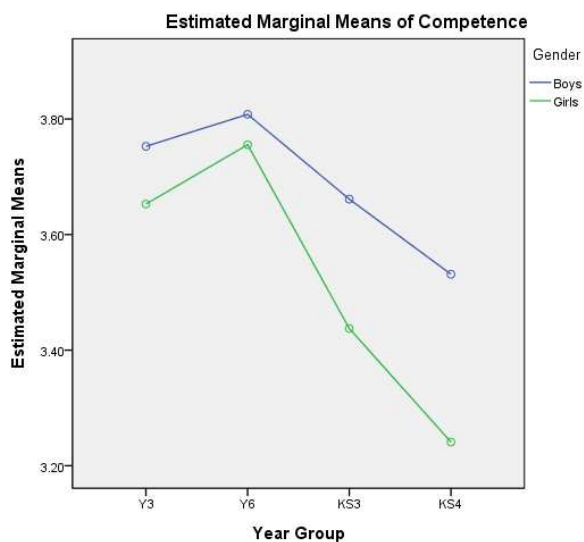
Figure 2: Age by gender interaction for the life satisfaction wellbeing scale





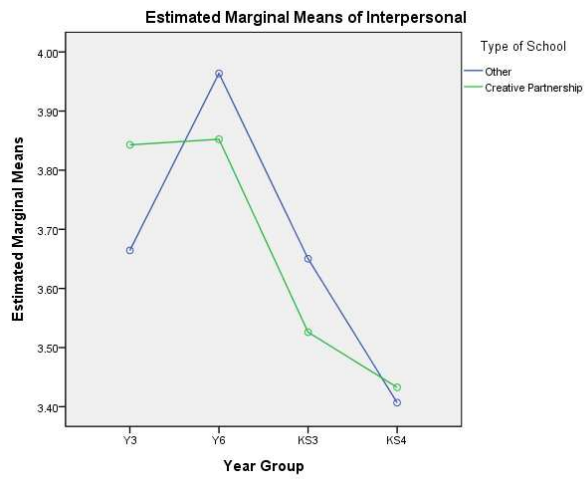
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Figure 3: Age by gender interaction for the perceived competence wellbeing scale



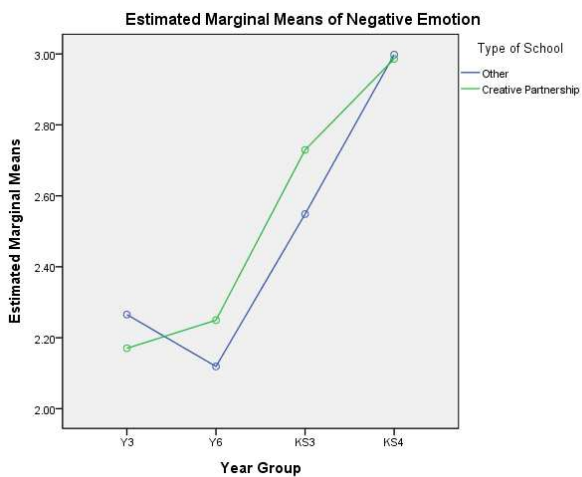
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Figure 4: Age by type of school attended interaction for the interpersonal wellbeing scale



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Figure 5: Age by type of school attended interaction for the negative emotion wellbeing scale



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