

Towards Evidence Based Public Policy: The Power and Potential of using Well-being Indicators in a Political Context

NIC MARKS¹

Introduction

Overview

This paper is based on a pilot project carried out jointly by nef (the new economics foundation) and Nottingham City Council (NCC).

The purpose of the project was to explore the potential of using well-being indicators in a Local Government setting. In the UK all Local Government Authorities have recently been granted a new legal power – called the Power of Well-Being (Local Government Act 2000).

The Bhutanese political challenge of operationalising the idea of “Gross National Happiness” is possibly a similar challenge to the UK Local Governments’ in regard to “Well-being”.

Whilst there may be some differences between ‘happiness’ and ‘well-being’, for the purposes of this paper the two concepts are considered as equivalent. Details of our approach and understanding of well-being are laid out in the paper. Essentially we propose that well-being concerns both people’s satisfaction with their lives and their personal development.

It should be noted that the author is not an expert on either the historical context or the type of “economic development” pressures that a country such as Bhutan is under.

This paper is offered as a case study of a pilot project. Some of the methodologies and findings are very specific to the project’s context – young people living in a city environment, in a Western economically developed country. However it is hoped that the spirit of the inquiry, which is effectively to raise the happiness of young people in Nottingham, is directly relevant to the purpose of this conference.

Who are NEF?

“NEF is an independent think and do tank that inspires and demonstrates real economic well-being. We aim to improve quality of life by promoting innovative solutions that challenge mainstream thinking on economic, environment and social issues. We work in partnership and put people and the planet first.

NEF was founded in 1986 by the leaders of The Other Economic Summit (TOES) which forced issues such as international debt onto the

¹ *This paper is based on a forthcoming report by nef that will be launched on 30th April 2004 in Nottingham. Please refer to the author for any clarifications or for citation purposes.*

agenda of the G7 and G8 summits. We seek to combine rigorous analysis and policy debate with practical solutions on the ground, often run and designed with the help of local people. We also create new ways of measuring progress towards increased well-being and environmental sustainability.

NEF works with all sections of society in the UK and internationally - civil society, government, individuals, businesses and academia - to create more understanding and strategies for change."

Well-being – Why New Indicators are Needed

Well-being – the Ultimate Goal of Societies?

NEF's Well-being Programme was set up in late 2001 with the vision of developing a programme of work that would promote individual, social and environmental well-being as the ultimate goals of society. We wanted to understand the relationship between the conditions of people's lives (often referred to as 'quality of life') and the actual experience of their quality of life (what we call personal well-being).

Most measures of quality of life (QoL) focus on the conditions of people's lives, such as the quality of housing, financial circumstances, employment rates, personal and political freedoms or the state of the environment. Whilst national economic output as measured by GDP is often used as a proxy indicator of QoL, it is now widely accepted that this is a very one-dimensional view.

New QoL indicators are being developed which attempt to take a more holistic view. For example the UK government now publishes an annual set of 15 national Sustainable Development indicators that includes three components:

- Economic Growth;
- Social Progress; and
- Environmental Protection.

Internationally the UN's Human Development Indicator is well respected: it rates nations according to their success at enhancing their citizens'

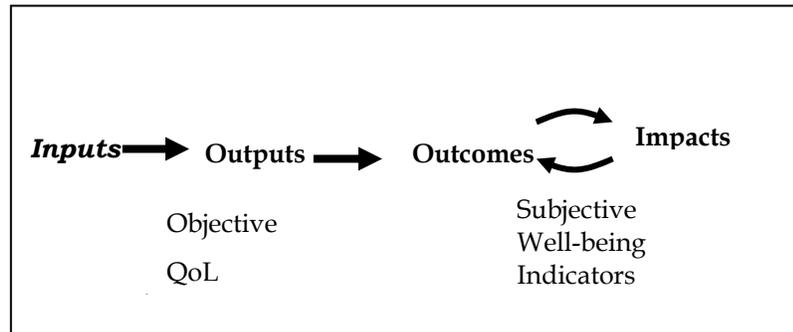
- Health,
- Wealth and
- Education,

using indicators of longevity, per capita GNP and literacy rates.

Measuring Impacts of policy.

Whilst these developments are to be welcomed, these types of 'objective' indicators do not assess the impact of conditions and policies on people's actual experience of their lives – their sense of well-being.

When assessing the effectiveness of specific projects or policies, many people now include 'outcome' and 'impact' assessments. This is based on a model of:



To formulate public policy that actually enhances people's well-being, nef's proposition is that policy makers need to measure outcomes and impacts, as well as inputs (normally financial) and outputs (often products or services).

For example for a particular project or policy that is seeking to improve young people's well-being through enhancing their prospects of being engaged in meaningful work:

The inputs would be the resources committed such as finance, human resources or use of buildings.

The outputs might be specific deliverables, such as training courses, websites or one-to-one career advice.

The desired outcomes could be that young people who have used the service are more skilled, they have more choices available to them and that they are more successful at finding meaningful jobs.

The ultimate impact is hopefully that they will experience a better quality of life as a result of engaging in meaningful employment and using their skills.

There is also potential for positive feedback from impacts to outcomes that could be due to the fact that enhanced well-being is likely to lead to a further increase in personal resources.

nef's Well-being Programme is seeking to develop better ways of understanding, measuring and influencing these kinds of impacts on well-being, using the results to suggest how policies might be changed. We see this as a move towards 'evidence-based public policy'.

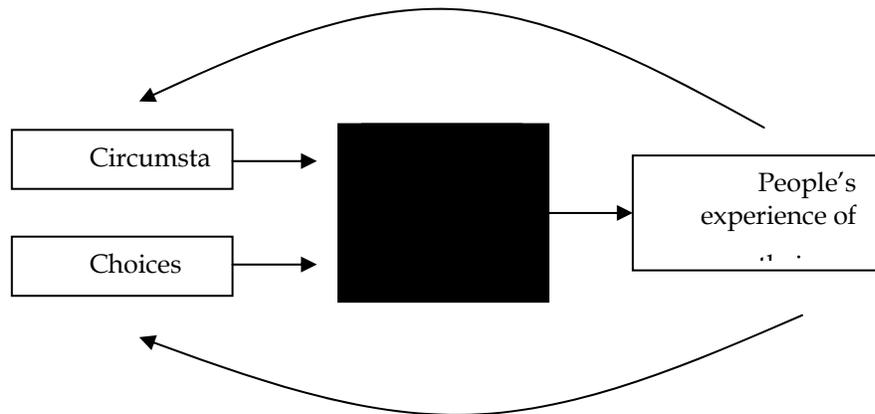
Academic Models of Well-being

Human Needs

The inspiration for nef's Well-being Programme has its roots in human needs theories. A specific influence has been the work of Manfred Max Neef, the Chilean 'barefoot' economist, who proposed a 'human scale' approach to international development, based on the principle that "development is about people not objects".²

Max Neef, and indeed others before him including most famously Abraham Maslow, proposed that as human beings we seek to fulfil our fundamental needs, and that whilst some needs can be physically satiated, others are more developmental or growth orientated. However, in contrast to Maslow, Max Neef rejected a hierarchical structure of needs instead proposing that the process of need-fulfilment would be better understood as an interconnecting system of physical, social and developmental needs (potentially also spiritual)³.

Whilst expressions such as "meeting people's needs" have entered the language of political policy formation particularly in regard to sustainable development, theories of human need have not often been operationalised in this realm. This might be due to the somewhat abstract nature of human needs, with their fulfilment being something of a 'mysterious black box', into which go the circumstances & conditions of life mixed with personal choices and out of which come people's experience of their lives (with a feedback loop).



² See Max Neef et al; *Human Scale Development*; Apex Press; 1990

³ Max Neef's present his needs model as a non-hierarchical system where complementarities and trade-offs between different needs are frequent. He proposes a set of nine needs: subsistence, protection, affection, understanding, participation, idleness, identity, creativity and freedom – and further suggests that transcendence may be a tenth need.

Life Satisfaction

Another field of academic research has focused more directly on people's experience of life, with Psychologists developing survey tools to measure people's satisfaction with their lives. A typical question in such a survey would be:

"If you consider your life as a whole, on a scale of 0-10 how satisfied would you say you are?"

Other surveys use several questions that respondents score their level of agreement or disagreement with:

"In most ways my life is close to ideal"

"The conditions of my life are excellent"

"I am satisfied with my life"

Some surveys supplement these questions with more specific inquiries into different 'domains' of people's lives, for example: *Health, Finances, Family, Social Life, Job, Community and Living Conditions*.

The responses to these types of questions have been found to be very robust: they compare well to physical observations of pleasure – such as smiling and laughing, to electrical activity in parts of the brain, as well as other people's assessment of how happy the respondent is. The questions have also been tested on bilingual people and within bilingual nations and found to translate well into other languages.

The results from such large-scale surveys allow statisticians to compare different population groups and also to assess trends over time. The opportunities for policy makers are rich, and this hasn't gone unnoticed by the British Government. Early in 2003 the Strategy Unit for the Cabinet Office produced an excellent overview of the academic literature and its implications for policy formation⁴.

Strategy Unit, Cabinet Office – Life Satisfaction Paper 2003

The authors concluded that:

The relationship between government policy and life satisfaction is hugely complex. Many societies have stated goals of increasing happiness. But there continues to be controversy over whether states should primarily seek to maximise choices and opportunities rather than focusing on end objectives such as life satisfaction.

There are questions over when states should act paternalistically in the light of evidence about what makes people happy (for example to prevent

⁴ *Life Satisfaction: The State of Knowledge and the Implications for Government*; Nick Donovan, David Halpern, Richard Sargeant; Strategy Unit; No.10 Downing Street; UK Government.

addictive behaviour), and over how to balance life satisfaction with other goals such as individual liberty and environmental sustainability.

The research currently underway will not offer definitive answers. Instead it may be most useful in providing insights into areas of possible policy change where there is scope to reshape policies in programmes to better influence people's satisfaction with their lives.

For example:

Income is far less important than marital status, employment status and health.

Education is only important in as far as it improves people's economic and social status.

The stronger relationship between income and life satisfaction in less developed countries bolsters the case for international development policies which target poverty.

Referenda can improve people's life satisfaction – partly through the ability to participate in the decision making process.

To illustrate their conclusions they took the example of how life satisfaction research sheds new light on unemployment policies.

Unemployment

Unemployment significantly lowers levels of life satisfaction. It hits those directly affected particularly hard, but also impacts on the general population. The size of the effect is such that the "compensation" required to keep life satisfaction constant after losing your job dwarfs the monetary loss felt by the unemployed. Employment plays an important role in people's social lives and also confirms someone's conformity with social norms – recall that levels of life satisfaction among the unemployed are higher in areas of high unemployment. It has also been found that those who are hurt less by unemployment were somewhat less likely to look for a new job and, over time, were more likely to remain unemployed. These findings have the following implications:

The scale of the loss of life satisfaction is such that it lends support for active labour market policies, such as the New Deal, which seek to quickly reattach people to the labour market. Finding employment for the jobless should be given a higher priority than increasing the level of benefits received by the short term unemployed;

This is particularly the case for the long term unemployed and those in unemployment black spots who may be less motivated to look for work as their life satisfaction is higher;

The research unfortunately does not touch upon wider issues of worklessness – many of the long term unemployed in Europe may be on sickness rather than unemployment benefits.

Multi-dimensional Models of Well-being

As important as 'life-satisfaction' is, there are a growing number of academics who suggest that looking in isolation at life satisfaction may create a distorted view of people's quality of life. Robert E. Lane⁵, author of 'Loss of Happiness in Market Democracies' suggests that measures of quality of life should also include a 'personal development' component.

Norwegian psychologist Professor Joar Vittersø⁶ also suggests that life-satisfaction is only one part of the story when it comes to explaining people's experience of life. He proposes a two-dimensional model of well-being that has a satisfaction component which is complemented with a developmental component - he calls these 'hedonic and eudemonic' well-being respectively.

Whilst this is new work, Professor Vittersø is not alone in his proposal that there is more to understanding people's well-being than life satisfaction. Over many years American Psychologist Carol Ryff has rigorously developed psychometric survey scales that use a six-dimensional model of psychological well-being: self-acceptance, personal growth, autonomy, positive relationships, environmental mastery and purpose in life. Other studies⁷ that have combined questions regarding life satisfaction with questions about personal development have also statistically shown that there are at least two components to people's well-being, which have been summarised variously as:

A satisfaction, happiness, comfortableness, or pleasurable dimension; and

A developmental, growth orientated, meaningful or absorbing dimension.

Positive Psychology

Recently a whole 'positive psychology' network has started to gain significant momentum (and funding) in the US. Leading lights include Mihaly Csikszentmihalyi (known best for his theory of creativity and flow) and Martin Seligman. Seligman's latest book *Authentic Happiness* is halfway between an academic overview and a self-help book that provides an excellent overview of the positive psychology approach. He summarises this approach as:

"My central theme.. is that there are several routes to authentic happiness that are each very different..
Positive emotion.. divides into two very different things - pleasures and gratifications.. Pleasures are momentary and

⁵ Robert Lane is Emeritus Professor of Political Science at Yale University, US

⁶ Professor Vittersø has been an advisor to *nef* for this project, and is also presenting at this conference

⁷ See for example Compton et al; *Factor Structure of Mental Health Measures; Journal of Personality and Social Psychology* Vol 71; 1996

defined by felt emotion.. The pleasant life successfully pursues positive emotion about the present, past and future [for example savouring, contentment and optimism].

The gratifications are more abiding... they are characterised by absorption, engagement and flow ... this [is] my formulation of the good life. The meaningful life has one additional feature: using your strengths in service of something larger than you are. To live all three lives is to lead a full life.”⁸

Health, Happiness and Well-being

The relationship between how healthy people are and their sense of well-being is not straightforward. Whilst good health is widely considered to be the key to living a happy life, statistically the relationship between objective (diagnosed) health and well-being is not strong. Seligman writes “*moderate ill-health does not bring unhappiness in its wake, but severe illness does*”, instead most research suggests that it is how people perceive their health that is more important.

However despite the fact that health is not a good predictor of people’s well-being, there is strong evidence that happy people live longer and are healthier – in other words the causality is the other way round – happiness and well-being is the key to good health. The evidence is emerging from both long-term studies of cohorts (peer groups) and targeted research into the health of older people.

Another member of the US positive psychology network, George Vaillant, has done extensive work in this area and published a book called ‘Aging Well’⁹. His research suggests that being ‘positively engaged’ with meaningful ‘life tasks’, such as (though by no means exclusively) bringing up children are key to happiness and longevity. Also having a positive outlook seems to be very important for longevity, with research showing that optimists live on average 19% longer than pessimists¹⁰. Furthermore there is evidence that happy people ‘*seek out and absorb more health risk information*’¹¹, which is clearly likely to enhance longevity and health. Indeed the emerging evidence from the positive psychology network is that health benefits are more closely associated with ‘gratifications’ (the good life) than ‘pleasure’ (the pleasant life).

In summary there is strong evidence that people’s sense of well-being has a strong positive effect on their health and longevity.

⁸ P248; *Authentic Happiness*; Martin Seligman; 2002

⁹ George Vaillant; *Aging Well – surprising guideposts to a happier life from the landmark Harvard study of adult development*; 2002

¹⁰ Mayo Clinic Research; *Living 19% longer: survival rates among medical patients over a 30 year period*; cited on p 273 M. Seligman; *Authentic Happiness*

¹¹ Seligman citing the research of Professor Lisa Aspinwall of Utah University, p40.

NEF's Approach to Measuring Well-being

In the light of all these influences we have decided to assess people's well-being with at least two components, their personal satisfaction and their personal development. We also were aware that there might be a third component associated with living 'meaningful' lives.

As this is a new emerging field, different authors or disciplines use different language to refer to similar concepts - the inter-use of the expressions such as 'subjective well-being', happiness and life satisfaction illustrates the point. The table below seeks to clarify the inter-connections between the terms and theories that have been referred to.

Source	Components			
nef's well-being programme	Personal Satisfaction		Personal Development	
Joar Vittersø consultant to nef	Hedonic Well-being		Eudemonic Well-being	
Robert E Lane Loss of Happiness in Market Economies	Subjective Well-being (Life Satisfaction)		Personal Development	
Carol Ryff Psychological well-being	Self acceptance Positive relations Environmental mastery		Autonomy Personal growth	Purpose in Life
Martin Seligman Authentic Happiness	Pleasure - Positive emotions "The Pleasant Life"		Gratifications "The Good Life"	Meaning "The Meaningful Life"
Max Neef Human Scale Development	Subsistence Protection	Affection Understanding	Participation Idleness Creativity	Identity Freedom (transcendence)
Abraham Maslow Hierarchy of Needs	Physiological Safety	Social & belongingness	Self Esteem	Self actualisation

The two or multi-dimensional approach to understanding people's well-being has many benefits over a one-dimensional life-satisfaction model. It allows for trade-offs and can also explain some statistical paradoxes that arise from exclusively adopting the life-satisfaction approach. For example 'the parenting paradox', in that parents report in

retrospect that they are very glad they had children, but parents living with children usually score pretty low on life satisfaction indicators¹².

The Power of Well-Being: the political context

UK Local Government Act 2000

In the Local Government Act 2000 all local authorities in England & Wales were entrusted with a new power of 'well-being'. This power entitles local authorities to do anything that might achieve any, or all, of the following:

The promotion or improvement of the economic well-being of their area;

The promotion or improvement of the social well-being of their area; and

The promotion or improvement of the environmental well-being of their area.

Before this Act all local authorities had to refer to specific pieces of legislation in order for to provide services. Professor Sir Michael Lyons, director of the Institute of Local Government Studies (INLOGOV), says that "*Councils now have the legal capacity to act in new ways to tackle those issues for which existing legislation is imperfectly designed*" and "*that like all innovations, it requires us to confront established ways of thinking*".¹³

The well-being power has not been as widely used by Local Authorities as was anticipated. This is probably in part due to the introduction of several other new developments in the statutory duties that councils are required to carry out, including the introduction of new structures, best value reviews and the rigour of comprehensive performance assessments (CPA), which have resulted in an overload of new demands. Other factors include organisational inertia, a lack of legal clarity and an absence of a clear understanding of how to identify social, economic and environmental well-being.

A Framework for Understanding the "power of well-being".

NEF's framework for understanding well-being proposes that to co-ordinate the three aspects of the power of well-being (social, economic and environmental), local authorities need to consider their inter-relationship with people's personal well-being.

¹² See for example I. MacGregor & B. Little; *Personal Projects, Happiness, and Meaning - On Doing Well and Being Yourself*; *Journal of Personality and Social Psychology*; 1998, Vol. 74, No. 2, 494-512

¹³ This section draws extensively on the following publication. *Promoting Well-being: Making use of Councils' New Freedom*; Hilary Kitchin; Institute of Local Government Studies, at the School of Public Policy; University of Birmingham; April 2003. Professor Lyons wrote the preface.

Indeed it is nef's proposition that these realms are important precisely because of their effect on people's personal well-being.

By developing well-being indicators, Local Governments will be able to assess the ultimate impact of their policies more effectively. This in time may allow them to be more efficient in enhancing well-being and possibly more innovative in the way that they serve their communities.

The Well-being of Young People in Nottingham, UK

A Pilot Project with Local Government

Preparation

In the preparation phase Nottingham City Council (NCC) and nef worked very closely together in both building inter-departmental co-operation, creating an outline inquiry strategy and designing the survey.

Officers from the following departments attended meetings or were interviewed:

- Chief Executive's Policy Unit
- Education Department
- The Children's Fund
- The Preventative Strategy Team
- Youth Services
- Sports and Leisure Department
- The Crime and Disorder Reduction Partnership
- Youth Offending Team
- Social Services Department
- One City Partnership Nottingham

The contact strategy was to use a school setting to reach most of the children. This was both strategic – it was a good way to capture a cross section of young people, -and pragmatic from the perspective of budget constraints. For the over 15 year olds a street survey was conducted as many young people leave the school system after their major examinations - GCSEs.

The inquiry's main aim was to identify levels of, and understand influences on, the well-being of young people in Nottingham. The inquiry aimed to be policy relevant and pertinent to the operationalising of the Power of Well-being.

Questionnaire Design

It was decided that young people's well-being was to be assessed using the two dimensional model discussed earlier in this report – personal satisfaction and personal development.

For the satisfaction component an existing established children's questionnaire designed by Scott Huebner, Professor of School Psychology

Program from the University of South Carolina US, was identified. This assessed children's life satisfaction (their satisfaction with their whole lives), together with five different domains of their lives: their family life, their friendships, their living environment¹⁴, their schools and themselves. The questionnaire was designed for a reading age of 8 years old.

For the personal development component, we could not identify an established children's questionnaire. However Todd Kashdan, the American author of an adult's scale for 'curiosity' and also an expert in child development, agreed to design a pilot version for children. Curiosity is a particularly appropriate manner of capturing what we mean by personal development in regard to children. Kashdan's scale was built from two sub-scales.

The first is 'absorption' - how intensely they tend to become absorbed in tasks.

The second is 'exploration' - how much they like to explore new things or seek out interesting challenges.

Taken together they are very similar to Martin Seligman's concept of "gratifications" which he said are characterised by "absorption, engagement and flow".

As discussed earlier we are also interested in a potential third component to personal well-being - meaningfulness. Due to the fact that the conscious appreciation and understanding of the importance of meaning is probably more associated with adulthood than adolescence, we did not assess this component directly.

However we were keen to shed light on the inter-relationship between personal and social well-being. To do this we decided to explore, what we called, 'pro-social' behaviour - behaviour that has a knock-on positive effect for other people's personal well-being¹⁵. No scale for pro-social behaviour existed though interestingly there were several very detailed ones for 'anti-social' behaviour. Seligman refers to the meaningful life as "using your strengths in service of something larger than you are", by 'strengths' he is referring to a body of research that the positive psychology network have carried out on identifying universal character strengths. We made contact with the leader of this project Christopher Peterson and he offered us a set of questions that sought to identify how much children were using their 'character strengths' in their day-to-day lives. The questions explored children's propensity to display characteristics of:

Emotional Strengths

Cognitive Strengths

¹⁴ This domain includes questions about the respondent's satisfaction with their own house, their neighbourhood and the wider area they live in.

¹⁵ In contrast to anti-social behaviour which undermines social well-being with negative consequences for other people's well-being.

Strengths that protect against excess
Interpersonal Strengths
Civic Strengths
Spiritual Strengths

Whilst data was gathered on all these strengths, we decided to only use a sub-set of them for indicating pro-social behaviour, as only the 'interpersonal' and 'civic' strengths were directly related to potential knock-on effects on other people's well-being.

So as to create some insight into which policies may support young people's well-being, we asked a series of open questions regarding children's favourite activities – what they liked doing best each week, where they did it and who they were with whilst they were doing it. In addition information about age, gender, ethnicity, geographical mobility and family structure was also sought.

The Importance of Good Process

The importance of gaining inter-departmental involvement within NCC cannot be overstated, as this was essential to both the quality of the inquiry and the financial viability of the project.

It is also likely that the end impact on NCC's internal dissemination of the work and its impact on future policy formation will be built on these foundations. nef's previous work on Quality of Life indicators¹⁶ has found that this kind of work needs to be embedded into the organisational culture if it is to have significant impact.

The quality of analysis is dependent on both the quality of the survey instruments and the data collection process.

There were some problems with the data collection process and this did have some impact on the data quality – however these are lessons that can be learned from such a pilot project.

In regard to the quality of the survey instruments there were two main issues: firstly, a multi-dimensional approach to well-being is an emerging line of academic inquiry, and secondly the project focused on young people. The result was that two of the survey instruments were being used for the first time – Curiosity (personal development) and Pro-Social Behaviour. Whilst both of these scales do need further statistical work they performed well¹⁷ and are adequate for indicating these realms.

¹⁶ Making Indicators Count (2003) Higginson, Walker, Terry and Robbins (New Economics Foundation and University of the West of England). Available from www.neweconomics.org

¹⁷ Their factor structure was consistent – meaning that the responses suggested that the set of questions that the scales are calculated from, are consistently measuring one concept. Todd Kashdan plans to publish an academic paper partially based on this data.

Method of Analysis

NEF was responsible for the data analysis and most of the statistical work was carried out by the author.

Scales were created by calculating a respondent’s average score for a set of related questions. For example in relation to a child’s ‘life satisfaction’ the following questions were asked, where the children were asked to:

- circle 1 for ‘strongly disagree’ with the sentence,
- circle 2 for ‘moderately disagree’,
- circle 3 for ‘neither agree nor disagree’
- circle 4 for ‘moderately agree’
- circle 5 for ‘strongly agree’

1	My life is going well.	1	2	3	4	5
2	My life is just right.	1	2	3	4	5
3	I would like to change things in my life. (-)	1	2	3	4	5
4	I wish I had a different kind of life. (-)	1	2	3	4	5
5	I have a good life.	1	2	3	4	5
6	I have what I want in life.	1	2	3	4	5
7	My life is better than most kids.	1	2	3	4	5

Responses to questions 3 & 4 were reverse coded to allow for their negative wording and then the average was calculated. This score which could have a maximum value of 5 and a minimum of 1, then becomes that child’s ‘life satisfaction’ score.

If for any scale the average score across the whole dataset (or a subsection), is lower than 3, this would mean that children are on average responding negatively to the set of questions that the scale is created from.

To ease interpretation we have also created four categories of individual’s scores.

HIGH – scores of over 4 – strongly positive answers.

MEDIUM – scores of between 3 & 4 – mainly positive responses.

LOW – scores of between 2 & 3 – mainly negative responses.

VERY LOW – scores of under 2 – strongly negative answers.

Two ‘headline indicators’ were calculated to capture overall well-being:

A Life Satisfaction scale

A Curiosity (personal development) scale.¹⁸

¹⁸ Hereafter labelled as ‘Curiosity (personal development)’ to emphasise the point that curiosity is our proxy indicator for personal development.

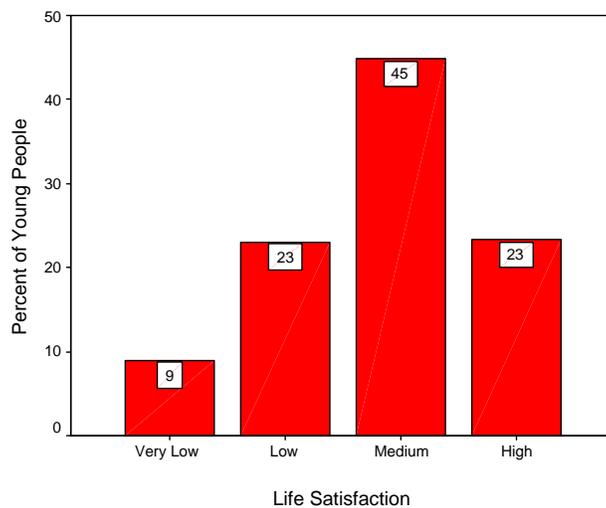
Responses to ‘open’ questions concerning their favourite activities were coded into groups to allow comparisons to be made. Demographic information was also collected and coded.

Statistical relationships between scales and different groups of young people were explored using frequency cross-tabulations, correlations, regressions and factor analysis – where appropriate the statistical significance of relationships was tested. Groups of young people with similar well-being profiles were also identified using cluster analysis.

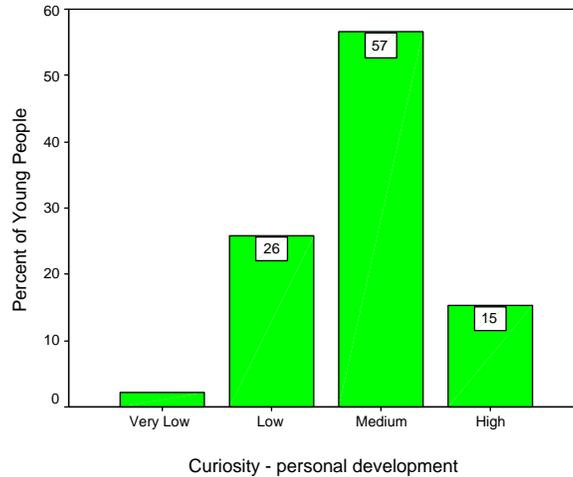
The Potential of Well-being - Key Findings of the Pilot Project

Overall Well-being

Overall, most of the young people surveyed responded positively to the questions posed to them. 68% of young people (aged 9 - 15) responded positively to the life satisfaction questions and 72% to the curiosity (personal development) questions. Medium levels of life satisfaction and curiosity (personal development) are the norm, with 45% registering a medium score for life satisfaction and 57% for curiosity.



The 9% of young people who are scoring ‘very low’ in regard to life satisfaction can be considered as at “very high risk of depression”.



Medical surveys about depression tend to focus on symptoms such as fatigue, inability to sleep or concentrate whereas very low life satisfaction is almost by definition depression itself as it is an absence of feeling positive emotions about life. Indeed Professor Bob Cummins of Deakin University in Australia and author of the world’s first national index of well-being, has gone as far as to suggest that life satisfaction is a better indicator of depression than depression scales.¹⁹

The 23% of young people who are scoring ‘low’ are also at risk from depression, forming a large group of 32% of young people in Nottingham who are at the very least unhappy in life.

The headline indicator for the personal development component of well-being – curiosity – has a similar shape of responses to the satisfaction indicator, however there are less young people at the extremes of high or very low.

Those children who score very low or low curiosity (personal development) are likely to be quite ‘closed’ and to avoid challenging situations (which may be potentially creative). Future entrepreneurs and risk takers are most likely to be high scorers.

% of young people	Very Low / Low Curiosity	Medium / High Curiosity
Very Low / Low Life Satisfaction	12%	20%
Medium / High Life Satisfaction	16%	52%

Source: Schools survey ages 9 – 15. Sample size 691.

¹⁹ Based on as yet unpublished PhD research by his student Vanessa Cook. Professor Cummins Australian Quality of Life Centre’s web address is <http://acqol.deakin.edu.au>

The table above illustrates that the group to perhaps be most worried about are the 12% of young people who score low or very low on both scales, as there would seem to be less potential for them to shift from their unhappy lives.

The good news is that 52% of all young people surveyed are doing okay in regard to their overall well-being. Obviously there is still potential to enhance their well-being further and this should not be outside the realm of policy, but they are less of a concern.

Comparable data is hard to find for the UK but a comparison of sorts can be made with a report by the UK government's Office of National Statistics on the 'Mental Health of Children and Adolescents'²⁰ which found that about 11% of 11-15 year olds had symptoms of a mental disorder with about 6% of these being an 'emotional disorder' - either depression or anxiety - the rest having behavioural dis-orders.

So the 9% of children aged 9-15 who are scoring 'very low' in terms of life satisfaction is, if anything, slightly higher than would be expected.

Well-being Falls as Children Become Teenagers.

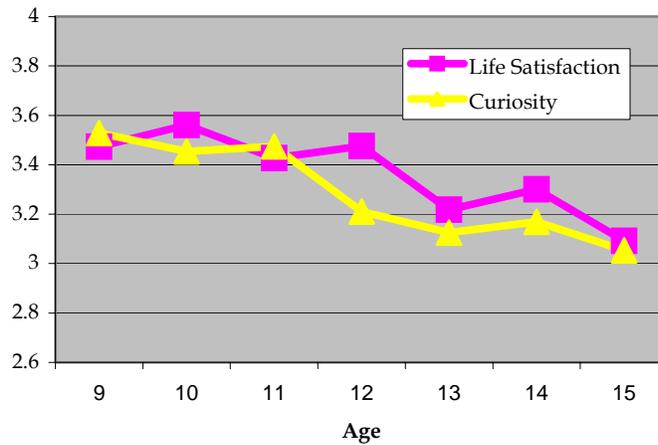
By comparing average well-being scores for age groups it is possible to observe a decline in overall well-being in regard to both components as children get older.

As illustrated in graph 1 below, both of the headline indicators of well-being fall significantly as children get older²¹. The scale on the vertical axis corresponds with the scales on the questionnaires that were completed, with 5 the highest possible score and 1 the lowest. It should be emphasised that the graph plots are average figures, which depict general trends, but this hides the large variations in children's scores.

²⁰ *The mental health of children and adolescents in Great Britain; 1999; Social Survey Division of the Office for National Statistics on behalf of the Department of Health, the Scottish Health Executive and the National Assembly for Wales; Howard Meltzer & Rebecca Gatward*

²¹ *For life satisfaction r-square = 1.7% and for curiosity r-square = 7.3%. Both are statistically significant.*

Graph showing average Well-being falling as Children get older



Graph 1 - Source: Schools survey; ages 9-15

Both show a significant decrease in the proportion of young people scoring highly, and increases in the number scoring low. Interestingly there is not a 'free fall' into the very low category (not shown here) suggesting that the risk of severe depression does not seem to increase with age.

	Very Low / Low Curiosity		Medium / High Curiosity	
Age Groups	9 - 11 year olds	12 - 15 year olds	9 - 11 year olds	12 - 15 year olds
Very Low / Low Life Satisfaction	9%	16%	18%	21%
Medium / High Life Satisfaction	11%	22%	62%	41%

Source: Schools survey ages 9 - 15. Sample size 691.

However the percentage of young people who are scoring low (or very low) on both indicators does significantly increase from 9% to 16% for the 12 - 15 year olds and those scoring positively falls from 62% to 41%.

Comparisons were made between boys and girls and in regard to how satisfied they are with their lives, there appears to be little difference between them. However with regard to their curiosity and personal development this does not appear to be the case. Although for all children curiosity (personal development) falls as they get older, boys do not suffer

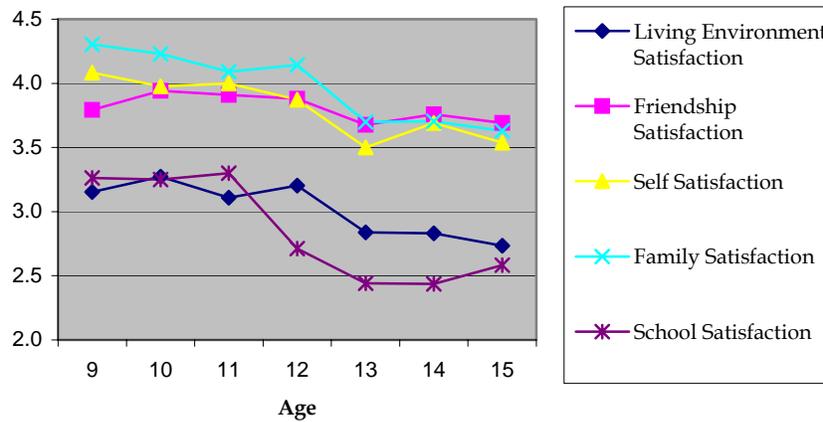
as great a loss of curiosity as girls, with 68% of boys still responding positively to questions about their curiosity, compared to just 54% of girls.

Important Domains of Children’s Lives

In four out of the five domains of children’s lives that we assessed – family, friends, schools, living environment and self – the year group average score falls as children get older. The one exception is satisfaction with friendships, which remains quite stable. Graph 2 depicts the downward trends illustrating that school well-being showing the most dramatic fall. Nearly all the change in school satisfaction happens when children switch from the primary school system to the secondary. Family satisfaction, which is the second biggest faller, lags a year behind, with the main fall occurring as children enter their teenage years.

Living environment and school satisfaction also score significantly lower than the other well-being domains, which is probably because they are less ‘personal’ than the other three domains. However they are also the two domains that are most readily addressed by public policy formation.

Changes in Domain Satisfaction by Age Group



As well as changes in the levels of the domain scores it is also possible to calculate, using correlation techniques, which domains are the most important predictors of the headline well-being indicators. Effectively this means children do not weight all the domains equally in terms of their impact on their well-being – this is not necessarily a conscious weighting as often what we imagine has the greatest impact on our well-being, does not. The classic example with adults is that people tend to over-estimate the

importance of earning more money at the expense of spending more time with family and friends.²²

For ‘life satisfaction’ the order of importance, together with the r-square figures (which indicate the % of variance that the domain indicator can explain by itself²³):

Life Satisfaction: Relative Importance of Domains		
Rank	Domain	R-Square
1 st	Family	39%
2 nd	Self	29%
3 rd	Living Environment	26%
4 th	Friendship	19%
5 th	School	14%

For ‘curiosity (personal development)’ the order of importance is:

Curiosity - Personal Development: Relative Importance of Domains		
Rank	Domain	R-Square
1 st	School	22%
2 nd	Self	21%
3 rd	Family	19%
4 th	Friendship	8%
5 th	Living Environment	6%

Not too much should read into the fact that the r-square figures are lower for curiosity than life satisfaction – this is more to do with an inherent bias in the domain scales towards ‘satisfaction’ than that the domains are less relevant in regard to personal development.

So schools are the least important domain as regards children’s satisfaction with their lives, but the most important in regard to their curiosity and personal development. The other vital domain is family satisfaction, which perhaps unsurprisingly is easily the most important in regard to life satisfaction, but also a close third in relation to curiosity and personal development. Due to their importance we will explore these two domains in more detail in the next section.

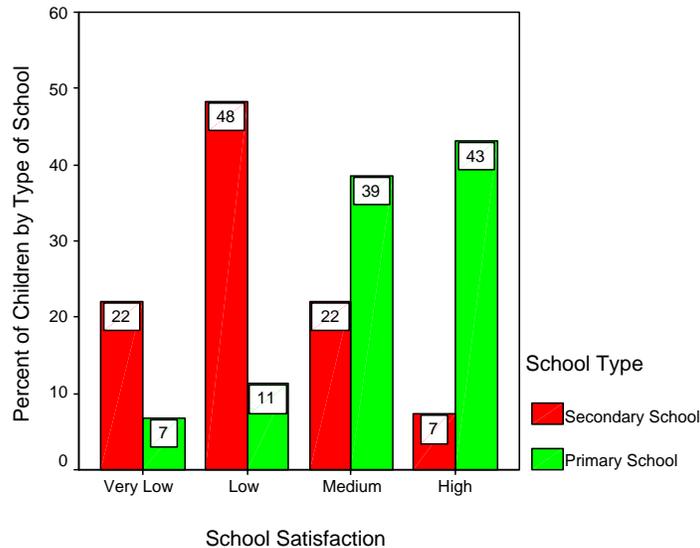
Interesting Schools

As indicated in the last section, the analysis suggests that schools are the most important domain in regard to children’s personal development. Also schools, which are the direct responsibility of the local governments, are a very policy relevant part of children’s lives.

²² Professor Richard Easterlin; University of Southern California. Forthcoming paper.

²³ The figures do add up to 100% as the domains are inter-related – altogether they can explain 54% of ‘life satisfaction’ variance and 33% of ‘curiosity (personal development)’ variance.

The differences between children’s experience of primary school and secondary school are very marked, no doubt a well-known phenomena amongst all UK educationalists. Nonetheless to see the scale make a complete step change when children move schools focuses the mind. The bar graph below indicates the change.



At primary schools 82% of pupils are responding positively about school, whereas by the time children have moved to secondary school this has dropped to only 30%. Some of the responses to individual questions highlight the problems that children seem to find. The three questions with the largest changes are:

Question	Primary School % 'Strongly Agreeing'	Secondary School % 'Strongly Agreeing'
I learn a lot at school	71%	18%
School is interesting	65%	12%
I enjoy school activities	65%	18%

Secondary school children seem to become bored, stop learning and no longer enjoy the activities available at school. All of these problems are certain to undermine children’s curiosity and personal development. Getting involved in activities that they find interesting and challenging, and learning from the experience, are all key factors in developing children’s potential. So not only do children enjoy school less, but also it seems they are aware that they are not getting as much from school as they could.

The differences between boys’ and girls’ achievements at school in the UK are well recognised – girls are out performing boys in all age groups. The well-being data reinforces this differentiation in terms of their experience at school. The divergence seems to happen at quite a young age, as it is readily apparent even in the experimental junior survey that we carried out with 7 to 9 year olds.

The table below illustrates the differences within the surveys – all of which are statistically significant, though the secondary school differences are much less pronounced than the other surveys.

Survey	Sample size	Average School Satisfaction Score	
		Boys	Girls
Junior Primary- Ages 7 - 9	105	3.50*	4.45*
Senior Primary - Ages 9 - 11	339	3.01	3.62
Secondary - Ages 12 - 15	239	2.42	2.63

The junior survey used fewer, only positively worded, questions – so the scores cannot be directly compared to the other surveys.

The data can also be used to distinguish between schools, whilst there were only 5 schools in the pilot survey – it was very interesting to note that the highest achieving school was the least happy and had the lowest levels of curiosity.

If we were to create a ‘league table’ showing both academic and well-being rankings, it would look something like the table below.

School	Academic	Overall Well-Being			School Satisfaction		Value Added Well-Being ²⁴	
	Rank	Rank	Life Sat	Curiosity	Rank	Score	Rank	Score
A	1 st	4 th	3.27	3.31	4 th	2.92	4 th	95
B	2 nd	1 st	3.64	3.56	1 st	3.43	3 rd	102
C	3 rd	2 nd	3.47	3.61	2 nd	3.43	1 st	103
D	4 th	3 rd	3.50	3.52	3 rd	3.36	2 nd	102

There could be many factors involved in such well-being suppression, for example:

²⁴ Value added well-being is a very approximate calculation made to allow for the ‘top-down’ affects that overall well-being is likely to have on specific domain scales. It is the school satisfaction score divided by the mean of the two headline well-being scales, with the mean for the four schools set as 100 – the idea being that it allows for the fact that we would expect children from ‘happier’ backgrounds to be more content at school.

The teaching could be too test focused with not enough stimulating exploration.

Extra curricula activities that are enjoyable but not focused on academic achievement could have been reduced.

Sports participation could similarly have been curtailed.

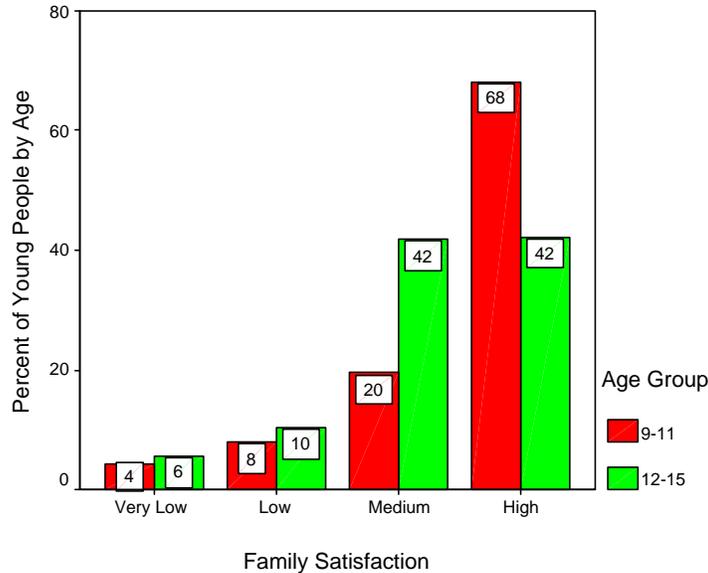
The school may have a specific culture that is not supportive of pupils' individual needs and experiences.

Obviously with samples from just four primary schools in one city, these cannot be considered general results but it certainly suggests that more detailed well-being research with larger sample sizes and a range of schools would be very worthwhile.

Happy Families

As shown earlier, how satisfied children are with their family situation is key to their overall well-being. Family satisfaction is the most important domain for personal satisfaction and also highly influential in regard to personal development. Indeed as the surveys are cross-sectional rather than longitudinal it is quite possible that at an earlier age families are more important as regards personal development than suggested by this study.

Family satisfaction, perhaps not surprisingly, falls as children become teenagers, it seems that this is the cultural norm! The bar graph below illustrates the shift, which interestingly does not show a huge rise in 'low' or 'very low' scores (from 12 - 16%). This suggests that whilst family satisfaction does fall, the number of children who feel negative about their family experience does not increase very much.



Children who are unhappy at home are more at risk of being amongst the 12% of young people who fall into the trap of having both low satisfaction and development – as described in section 6a. The risks for each category of family satisfaction are shown below.

Family Satisfaction Score	Risk Factor for Low Overall Well-being
Very Low	3.8
Low	3.3
Medium	1.6
High	0.1

This means that children who have registered dis-satisfaction with their home life are over 3 times as likely as an ‘average child’ to be in the low satisfaction – low personal development group. Whereas in contrast children who are very happy at home are 10 times less likely than average to be in this group²⁵.

This emphasises the overwhelming importance of public policy supporting happy family life. Children from happy families are much more likely to have high levels of well-being themselves, which is not only important in its own right but it also has knock-on educational and health benefits.

Poverty Does Undermine Children’s Well-being.

The UK government report on children’s mental health certainly found evidence of a link between prevalence of mental disorders and poverty – children from families with no adult working were more than twice as likely to have a mental disorder (20% compared to 8%).

The question that we have used to identify poor families was ‘how many adults were employed in their household?’ – which in retrospect used too technical language and was not well understood by many children. However due to the fact that primary school questionnaires were read aloud, we had better response rates to the question from primary school children than secondary schools.

Average Score	No Adults employed	One or more Adults employed
Life Satisfaction	3.08*	3.57*
Curiosity (personal development)	3.36	3.51
Family Satisfaction	3.98	4.25

²⁵ And over 30 times less likely than the low family satisfaction groups.

Source: Primary School Survey ages 9-11.

Although all the figures are lower for children from households with employed adults, only the differences in 'life satisfaction' are statistically significant. Still considering the very small sample size this is a good result and certainly the data seems to support the fact that poverty undermines children's well-being.

Favourite Activities – Sport is great for Well-being

As part of the way local authorities interact with young people is to provide recreational facilities for them all children were asked an open question about 'what their favourite thing was they did in a typical week'. The idea was to ask them actually what they most enjoyed rather than provide a 'wish list'. The responses broadly fell in 5 categories:

- Sports
- Playing
- Creative Activities.
- Socialising.
- Passive pastimes.

The findings from the survey were that if children listed sports as their favourite activity they were significantly more likely to have higher levels of both life satisfaction and curiosity (personal development).

Favourite Activity	Life Satisfaction	Curiosity (personal development)
Sports	3.55	3.48
Playing	3.41	3.32
Creative / Engaging Activities	3.38	3.46
Socialising	3.22	3.30
Passive Pastimes	3.14	3.27
Average	3.41	3.40

We also asked the children who they did their favourite activity with and if they responded alone then their well-being was significantly lower.

Favourite Activity	Life Satisfaction	Curiosity (personal development)
Alone	3.06	3.26
With Others	3.47	3.42
Average	3.41	3.40

These results are very important for a local government as it allows them to target their financial investments by differentiating between potential policy interventions in terms of their expected impact on well-being.

Pro-Social Behaviour (as opposed to anti-social)

From the initial inquiry design phase, it was decided to explore the relationship between young people's well-being and their tendency to act in a pro-social manner. The challenge was to find a scale appropriate for use with children, which would address this issue.

Pro social behaviour, as measured by our scale, is more strongly related to the developmental dimension of well-being than the satisfaction dimension²⁶. However it seems to predominantly display independent characteristics, ie you can find young people with high personal well-being but low characteristics of pro social behaviour.

This emphasises the need to look beyond just life satisfaction as a sole indicator of personal well-being. However even the relationship to curiosity (personal development) is limited, so the goal of improving pro-social behaviour should be pursued alongside enhancing both personal satisfaction and development.

The Power and Potential of Well-being Indicators

Policy Implications

Process - Best Practice

For any such inquiry to have a sound statistical foundation the process of actually contacting the target population has to be best practice.

Investing in consultation processes such as a well-being inquiry can potentially improve the effectiveness, efficiency and direction of future 'service provision'.

Like all good practice, test phases and pilot projects (such as this inquiry) are essential.

Integrated Policy Formation

The involvement of different departments of the City Council has created the potential base from which Nottingham will be able to start to integrate policy formation.

In the UK integrated policy formation is a goal of central government but is counter-cultural to local governments. They have previously been put under enormous pressure to deliver services at reduced costs. This has had

²⁶ R-squared is 3.8% for curiosity and 0.7% for life satisfaction – both statistically significant.

the undesired affect of creating very specific service targets, and little inter-departmental co-operation.

This type of inquiry allows all departments to use the same set of 'impact' indicators, thus helping to create a culture of co-operation.

Differentiated Policy Formation

The same set of indicators can be used to compare and contrast different groups of people, whether the differentiation be by age, gender, ethnicity, geographical or financial.

Different policy interventions may be appropriate for these different groups, however the ultimate goal of enhancing people's well-being remains the same.

From A Culture of Containment to One of Facilitation

At present most Local Government targets are about reducing levels of 'ill-being', 'not-having' or 'bad-doing'. Having a positive goal, such as enhancing young people's well-being, for all policy formation will help councils shift from a culture of 'containment' to 'facilitation'

Facilitation does not rule out leadership, a quality that central government are demanding councils to take more responsibility for. We would suggest that a facilitating leadership style should be a listening and reflexive style, with potential policy interventions built on 'evidence-based' foundations rather than ideological grounds (which tend to shift).

Schools - Fostering Curiosity or Academic Achievers

The preliminary 'evidence' from this pilot project suggests that schools may have a tension between delivering academic results and enhancing children's well-being.

Whilst academic results are sometimes claimed to be 'well-becoming' indicators, in that higher academic achievements are associated with positive outcomes in adulthood, this has to be balanced against children's present well-being.

Curiosity, used in this project as an indicator of personal development, may be a better indicator of future positive outcomes than academic achievements – as this realm is increasingly being shown to have major health benefits within groups of adults.

The question arises: should schools be fostering curiosity as their major goal rather than success at test-orientated academic achievements? An answer to this question is obviously beyond the scope of this project but nonetheless well-being indicators are capable of pointing to this type of fundamental question.

Sports for Well-being

The inquiry into which were children's favourite activities, has shown that of these sport seems to have the most positive well-being effects.

Opportunities for sport do reduce as children leave school, even though the benefits do not decrease.

Access to participating in sporting activities and also creative activities should be a well-being priority.

Encouraging Pro-Social Behaviour

The indicators for 'pro-social' behaviour were exploratory. It appears that pro-social behaviour whilst partially related to personal development, is mainly independent of personal well-being. This suggests that a goal of improving pro-social behaviour would be complementary to enhancing personal well-being.

This can be tentatively interpreted as potential evidence that social well-being is not the same as the sum of all personal well-being.

Future Work

There is much possibility for future work in this area and nef hope to be a (facilitating!) leader in this type of work.

Creating representative baseline indicators for Nottingham is a potential future project and nef are also in discussions with a London borough council in regard to a similar project.

Opportunities to link this type of work more closely to the issue of sustainable development field are also in the pipeline.

Academic challenges include more of a focus on the components of well-being that lie beyond 'satisfaction' with life. The personal development component, that nef uses, is politically acceptable in the UK, however a more 'spiritual' or 'meaningful' third component might be more challenging to convince policy makers of its worth.

Understanding the differences between personal and social well-being is also an urgent academic and practical challenge that needs more attention. To assume that maximising personal well-being, or indeed gross national personal happiness, is the same as creating the 'good society' may be a fallacy. Potentially by focusing on individuals, collective solutions will be overlooked, and thereby ironically creating a suppression of personal well-being.