Should happiness be taught at school?

The effect of "Lessons in Happiness" on measures of well-being and academic performance for pupils aged thirteen at Dutch secondary schools

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"A later realization has been the beauty of the idea of the pursuit of happiness.

Familiar words, easy to take for granted; easy to misconstrue. This idea of the

pursuit of happiness is at the heart of the attractiveness of the civilization to so

many outside it or on its periphery. I find it marvelous to contemplate to what an

extent, after two centuries, the idea has come to a kind of fruition. It is an elastic

idea; it fits all men. It implies a certain kind of society, a certain awakened spirit.

(...) So much is contained in it: the idea of the individual, responsibility, choice,

the life of intellect, the idea of vocation and perfectibility and achievement. It is

an immense human idea. It cannot be reduced to a fixed system. It cannot

generate fanaticism. But it is known to exist, and because of that, other more

rigid systems in the end blow away"

V.S. Naipaul, 1990

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The cover is based on the workbook "Lessons in Happiness", with consent of Grafitall

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Contents

Abstract

The objective was to test the efficacy of a new school program for the promotion of wellbeing. In this study, a group of secondary school children who followed lessons in happiness, a six lesson program for 13 year olds, is compared to a control-group of secondary school children. Secondary school pupils from 25 classes (631 pupils) were randomly assigned to: a) Lessons in Happiness, b) their usual mentor class. Assessment according self perceived happiness and self perceived health according the last month, was performed pre and post-intervention. Grade points averages were collected at the end of the school year before the intervention and at the end of the school year in which it took place. Six lessons of 50 minutes were attended by 15 classes randomly assigned from the 25 classes in the study; the remaining 10 groups attended their usual mentor classes. The pupils completed pre-study and post-study questionnaires via internet. Grade point averages were calculated for each learner at the end of the school year pre and post the intervention. The following results were obtained: pupil's self perceived happiness and self perceived health measures did not show a significant change. Mean grade point averages for both the experimental and the control group, were lower on the second measurement occasion, however, this drop in grades was significantly smaller for the pupils that attended the lessons in happiness. It is concluded that the academic performance of the pupils ameliorated after lessons in happiness. This is a promising start. Further research and development of the lessons is recommended.

Chapter 1

Introduction

Adolescence is a critical period of development for the young person growing into adulthood, and developmental success during this period has implications throughout a persons' life. Erikson (1950) viewed adolescence as a period of identity crisis. When this stage is completed successfully, it results in a sense of "being at one with oneself", and having a sense of belonging to a community. Troubled adolescents however, suffering chronic role diffusion might choose to be "nobody" ," "someone bad", or even "dead", rather than "not quite someone" (Erikson, 1968).

Research shows that happiness scores for adolescents tend to decrease through teenage years to age 16, followed by a small recovery at 18 years (Csikszentmihalyi & Hunter 2003). Happy and healthy young people are most likely to grow into happy and healthy adults, who in turn will contribute to the health and well-being of nations: but not everybody is happy. Adolescent mental health has been declared a key-issue by the World Health Organisation Europe (WHO, 2007). The rationale for selection of this topic for the 2007 process is indicated by consideration of the following statistics: an estimated 10−20% of adolescents have one or more mental or behavioural problem, and suicide is the second leading cause of death among those aged 15–35 years in the European Region. Depression is common in youth: about 10% will experience major depression before the age of 14 (Garrison, Schluchter, Schoenbach, & Kaplan, 1989). Between 10% and 20% of young people will have had some form of an anxiety or mood disorder, or some form

of disruptive or substance use disorder by the age of 18 (Lewinsohn, Hops, Roberts, & Seeley, 1993).

A huge range of programs to prevent problems have been targeted at adolescents. School-based interventions usually aim at preventing problems such as bullying, eating-disorders, substance abuse, contracting sexually transmitted diseases, risk taking behaviour, violence or mood disorders, by focusing on, and magnifying these problems in detail. Therefore most of the prevention programs aimed at adolescents tend to have a more or less negative emotional charge. Besides this, most programs focus on what not to do, but do not provide any directions about what one can do, to learn to live a happy and healthy life.

Positive adolescent intervention programs are still scarce, and the Dutch program "Lessen in Geluk", that is Lessons in Happiness (LIH) is a rare example. This program was developed in the Netherlands by Braam, Tan, Wentink & Boerefijn (2008) in response to, and as a reaction and counterbalance to, the growing amount of prevention programs targeted at adolescents in school. The lessons are based on findings drawn from the emerging field of "Positive Psychology".

Positive psychology is the reform movement, founded by Seligman and Csikszentmihalyi (2000) , which tries not to just "fix" a person's problems, but to look for ways to enhance strengths, life-abilities, positive emotions and well-being. The

lessons in happiness fit in the positive psychology movement, and provide pupils with information and exercises around a number of important issues that underlie happiness. The lessons focus on optimism, gratitude, social relationships, strengths and the pupils' ability to implement plans for the future. The curriculum is designed to make learners aware that happiness is partly feasible and that they can play a decisive role in theirs and others happiness. The lessons contain exercises, tests and simple tasks for pupils aged approximately 13, i.e. second year secondary school children in the Netherlands, about how they can create positive feelings in themselves and others.

Happiness has a lot of beneficial side effects, like improved health, making a better marriage and having an increased chance of attaining personal goals. (Diener & Biswas-Diener, 2008). Happiness has also been found to be a very important protective factor in adolescence, against a range of psychological and behavioural problems (Suldo & Huebner 2006). Being happy, is what most people wish for themselves and their loved ones. Happiness is not just beneficial; it can also be a pleasant goal. Consequently, adolescents are expected to be willing to participate in LIH.

Most research on positive intervention programs and well-being in schools has been done in the USA. (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2002; Suldo & Huebner, 2006), and the vast majority of these positive interventions has been developed to avoid risks, and all are evaluated in this light. Catalano (2002) and his colleagues concluded that a wide range of positive youth development

approaches can result in positive youth behaviour outcomes and the prevention of youth problem behaviours, at least in the USA.

There are two important gaps in our knowledge. The role of cultural factors is not clear. It is not known if the US positive youth development programs are transferable to other parts of the world, and if these will show the same successful outcomes. In addition, research into school-based programs purely developed to enhance well-being is still scarce. The aim of this research project was to fill these gaps. The effects of the LIH on measures of well-being and academic performance in a Dutch sample of adolescents was studied.

The research hypotheses were:

a) "Lessons in happiness" will enhance well-being

b) "Lessons in Happiness" will enhance self perceived health

c) Academic performance will ameliorate after "Lessons in happiness"

These hypothesized beneficial side effects of happiness are similar to those described in Diener & Biswas-Diener (2008).

Initially a comprehensive literature review will be given, followed by a discussion of the methods used, and the results. The thesis concludes with a discussion of the results, conclusions are drawn and some recommendations for further research are made.

Chapter 2

Literature review

1. The goal of education.

One of the greatest minds in the Dutch history, Desiderius Erasmus (1466-1536) devoted important parts of his works to the question of what education and schooling is for and how it should be implemented. Why should we educate our young? Erasmus (1530) wrote, among a number of other educational works, a book especially meant for adolescents, their parents and teachers, on good manners and civilized behavior in everyday human interactions. He pointed to the importance of schools in promoting these. In another book, his main work on the education of youth, (1529), he stated that education, from the latin 'e-ducare' = to draw out, is the effort to turn 'uncivilized' human nature into one that is peaceful and social in disposition. Teachers will have a role in the overall development of children which is at least as important as that of the parents. In Erasmus' words: "…they are, so to speak, the mental parents...".

The International Commission on Education for the 21st Century (ICE) has identified four pillars as the foundations of education: learning to know, learning to do, learning to be, and learning to live together.(Jacques Delors 1996), for the United Nations Educational, Scientific and Cultural Organization, UNESCO).

'Learning to know' and 'learning to do' were the initial reasons for schools to come into being. Learning to live together has entered the curricula more recently, for

instance in the Netherlands "freedom of speech, equality, sympathy, tolerance, rejection of bigotry and rejection of discrimination" have been compulsory subjects in the curriculum since 2006. (Inspectie van het onderwijs, 2006).

Learning to be, or rather, be well, started to be incorporated in school curricula some decades ago. The World Health Organization (WHO) Europe (2007) proposed "Social cohesion for mental well-being among adolescents" as a priority for the coming decades. An estimated 10-20% of adolescents have one or more mental or behavioural problem, and suicide is the second leading cause of death among those aged 15–35 years in the European Region. The WHO also emphasises the importance of the school environment for enhancing social cohesion.

Apart from these four pillars, the UNESCO believes that the prospect of being able to go back to education or training will alter the general climate by assuring young people that their fate is not sealed forever between the ages of 14 and 20. Many UNESCO Member States recognize the importance of lifelong learning as an essential contribution to economic prosperity, sustainable development and social cohesion (UNESCO 2008).

2. How are the learning goals achieved?

The freedom of schools regarding how they accomplish their tasks is changing. Schools have obtained some freedom and responsibility for issues like housing and finances in many western countries which used to be in hands of the various

governmental authorities. Yet with respect to curricula, schools are losing freedom.

Many countries now have government ordained national curricula.

Learning to know and learning to do are still the essence of school life, and there is a

growing focus on knowledge, skills and testing in schools. Ongoing testing can create

a competitive atmosphere, which may have a negative effect on the well-being,

curiosity and motivation of children and restrict the material taught to children. Layard

& Dunn (2009) link this mechanism to the rising number of young NEET – "not

currently engaged in employment, education or training", in the United Kingdom. A

school high in the league tables is not by definition a school where children thrive and

learn how to live a happy life, let alone one that promotes a positive start to lifelong

learning for all its pupils.

      Glennville-Cleave (2009) found in her study looking at teacher well-being that

teachers' value their relationships with their pupils highly. The social aspect of their

work stands out far more than it does in other professions. This concurs with

teaching and learning theory, that teaching involves intensely social, personal,

creative, collaborative and ultimately transformational activities, in which the

relationship between teacher and learner is central. Teaching is a social activity, and

teachers seem to value relationships more than anything else, but today's reforms,

with their focus on targets, assessment and monitoring, are breaking down those

very human connections between people and this is also being felt in schools.

How schools accomplish the goal of "learning to live together" varies from country to country, and is changing rapidly. For instance social learning programs have been rolled out in the United Kingdom. In the Netherlands a social internship of one to two weeks for children aged 14 or 15 years old will be compulsory from the 2010-2011 school year on. There is no sound research on this internship yet. Dutch schools are more free in how far they introduce other activities, such as more student participation in school policy, or in how they teach: "freedom of speech, equality, sympathy, tolerance, rejection of bigotry and rejection of discrimination".

In terms of accomplishing the goal of "learning to be", schools have either voluntarily implemented, or have been required by the Dutch authorities to implement programs designed to teach their pupils about well-being, or, more precisely, about how to avoid being unwell. A broad spectrum of health related prevention programs have been developed for Dutch and other western secondary schools. Some widespread examples are: prevention of smoking, drinking, drugs, teenage pregnancy, HIV/AIDS, obesity and anorexia (Flay, Koepke, Thomson, Santi, Best & Brown, 1989, Newton, Vogl, Teesson & Andrews, 2009, Cuijpers, Jonkers, de Weerdt, & de Jong, 2002, Heller, 2003 , Imhonde, Aluede & Imhonde, 2005, Gibbons & Naylor, 2007, Robson 2002). Other examples of somewhat less widespread prevention subjects are sunburn, prostitution and criminality (Geller, Rutsch, Kenausis, Selzer & Zi, 2003, Ramsey, Rust, & Sobel, 2003). Several school-based prevention programs have been specifically targeted towards mental health issues, such as in the USA: "The Paths Curriculum" for primary schools, to promote social competence and to prevent aggressive behaviour (Kam, Greenberg, & Walls, 2003),

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"the Penn Resiliency Program" for promoting optimism and preventing depression (Gillham, Reivich, Jaycox, & Seligman, 1995); and "the Coping Cat" (Kendall, 1994) for preventing anxiety in children and adolescents, and in Canada "the Stress Inoculation training" for preventing anxiety in children and adolescents (Meichenbaum & Deffenbacher,1998) and "the Bounce Back program" (McGrath & Noble, 2003) and "the Bright Ideas" (Brandon & Cunningham,1999) for promoting resilience and coping skills in Australia. Research on many separate programs has been published, but the possible effects of combining prevention programs have not been mentioned, apart from the possibility of detrimental effects. Results could be the dispiriting effect on a young person of learning that he or she is regarded as someone who is likely to be a problem for others as well as for himself or herself. Lerner & Lerner (2006) ask: "What sort of message is sent to youth when they are spoken of as inevitably destined for trouble unless parents or practitioners take preventive steps? How do such messages affect the self-esteem of young people, and what is the impact of such messages on their spirit and motivation?" Boekaerts (1993) askes: "What have we achieved, if we produce generations of students who finish high school but who feel loss of control when they have to solve a problem in everyday life or develop psychosomatic complaints and health risks?"

3. Positive Psychology.

The situation in the field of education, with respect to adolescents, is comparable to that of the field of psychology, where the focus has been unilaterally on the negative. Within psychology, the field studying the subjective well-being of individuals has broadened into a growing movement , placing a greater emphasis on building

strengths and competencies rather than merely treating deficits and disorders. This movement, known as "positive psychology" (Seligman & Csikszentmihalyi, 2000), has been defined as the scientific study of "ordinary human strengths and virtues" (Sheldon & King, 2001) and "optimal human functioning" (Linley, Joseph, Harrington, & Wood, 2006). Positive psychology was developed in reaction to the "disease" model as presented by the Diagnostic and Statistical Manual of Mental Disorders- IV (APA, 1994) so prevalent in contemporary psychology (Seligman, Steen, Park, & Peterson, 2005).

Analogous to psychology, in the field of education, there is a shift in focus going on. Catalano, Berglund, Ryan, Lonczak & Hawkins (2002) have described the emerging Positive Youth Development field in the United States. They found 25 effective programs that have been evaluated well, including six school programs. This shift in focus has been towards the positive approach, but as Gillham (2002) questions: "In which ways do these positive youth development programs differ from preventive interventions in general, as the programs vary in the degree to which they focus on promoting positive qualities versus reducing risk factors, and the program evaluations focused primarily on the reduction or prevention of behaviour problems?"

4. Positive interventions.
In the field of physical health and well-being, the focus has gradually changed from treatment, towards prevention. First moving to the tertiary prevention of complications when health problems are already present. Then towards secondary

prevention, programs designed to educate people felt to be at risk of possible health problems. The focus then moved to primary prevention, programs for the general public. Today the focus has begun to fall on initiatives aimed at healthy individuals who are encouraged to enhance their health and fitness, before any risks are present. Analogous to changes in this field, the area of mental health or psychological well-being has also changed. Simply providing treatment for mental illnesses is no longer the only focus. Programs to prevent patients getting worse, e.g. to stop a depressed person committing suicide; prevention programs for people at risk, e.g. victim assistance, have developed towards programs designed for the general public and prevention of all kind of risks, e.g. publically available information on the dangers of alcohol. Finally programs that should enhance the mental wellbeing of everyone are being developed. A positive approach, or positive interventions can be used to add a beneficial effect in a healing process, as well as in all levels of prevention: but the idea of enhancement of the pupil's well-being, regardless of any possible risks, is new in schools. This new type of intervention has been named "amplition[1] (Amlitie in Dutch) by Ouweneel, Shaufeli & Le Blanc (2009).

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[1] This new word is not in any dictionary as yet, but it's use is expected to become common in the context described within the academic literature. Professor Wilmar Schaufeli, an international expert on the issues of burnout and work-engagement, is one of the researchers who has introduced and adopted this term to describe the enhancement of well-being (Schaufeli, Bakker, & van Rhenen, 2009).To determine the validity of the above translation from Dutch to English, the authors were contacted, and approved this English form of the Dutch amplitie.

Current attempts to treat or prevent mental health issues, or enhance wellbeing in schools in the Western world are shown in table 1:

Table 1 Interventions taking place in schools: based on a work into well-being at work by Ouweneel, Shaufeli & Le Blanc (2009)

	Cure	**Tertiary Prevention**	**Secondary Prevention**	**Primary Prevention**	**Amplition**
Objective	Treat pupils with problems or diseases	Reduce harmful effects of problems or diseases	Enhance coping, reduce risk behaviour	Reduce risks prevent risk behaviour	Enhance well-being/ happiness
Audience	Pupils with problems or diseases	Pupils with problems or diseases	Youth at risk	All pupils	All pupils
Professional	Physician, Psychologist Psychiatrist	Physician, Psychologist Psychiatrist Counselor	Psychologist Counselor	Teacher Counselor	Teacher

Positive interventions can take place in all the mentioned domains, but the amplition domain is new.

Amplition interventions, focusing on positive outcomes rather than on avoiding negative ones, are still scarce: "Zippy's Friends" from Denmark is a program for primary school children aged five to eight to help them develop coping and social skills. (Mishara & Ystgaard, 2006) "The Gatehouse Project" in Australia is a single whole school project to increase the pupils attachment and sense of belonging to their school (Patton, Bond, Butler, & Glover, 2003), "Lessons in Happiness" to enhance well-being of secondary school children in England (Morris, 2009), and the Dutch curriculum "Lessons in Happiness" to enhance current and future well-being of adolescents approximately 13 years old. (Braam, Tan, Wentink & Boerefijn 2008). "The School Intervention for Promoting Psychological Well-being" was developed in Italy to promote psychological well-being of secondary school children (Ruini et al, 2009), and the "Positive Psychology Programme" in the USA (Seligman, Ernst, Gillham, Reivich & Linkin, 2009) have been developed with the aim of promoting well-being of adolescents.

Being able to capitalize on one's strengths as an adolescent and lessons that foster positive attributes and help an adolescent understand their strengths, may buffer against negative outcomes and the development of psychological maladies (Masten, 2001; Seligman, 1995). To illustrate, life satisfaction mediates the relationship between parenting style and adolescent problem behaviour (Suldo & Huebner, 2004a) and moderates stressful life events and externalizing disorders (Suldo & Huebner, 2004b). Furthermore, happy adolescents tend to report fewer symptoms of depression and anxiety (Gilman & Huebner, 2003), less substance abuse (Zullig, Valois, & Huebner, 2001) and violent behaviours (Valois, Zullig, &

Huebner, 2001). Though adolescence can be described as turbulent and stressful on both the adolescents themselves and the family system as a whole (Freud, 1958), happiness and well-being may mitigate these effects and buffer future occurrences. Furthermore increases in an adolescent's wellbeing are likely to produce increases in learning, the traditional goal of education. A positive mood produces broader attention (Fredrickson, 1998; Bolte, Goschke, & Kuhl,2003; Fredrickson & Branigan, 2005; Rowe, Hirsh, Anderson, & Smith, 2007), and more creative thinking (Isen, Daubman, & Nowicki,1987; Estrada, Isen, & Young, 1994), in contrast to a negative mood which produces narrower attention (Bolte, Goschke, & Kuhl, 2003), more critical thinking, and more analytic thinking (Kuhl, 1983, 2000). Both ways of thinking are important, but schools emphasize critical, rather than creative thinking, and the negative mood so often found in the classroom only facilitates critical thinking.

5. What is happiness?

Lessons in happiness clearly fall into in the category of interventions known as amplition: but what exactly do we mean when we use the term happiness? The English word ''happiness'' came from the noun ''hap'': what just happens, chance, luck, good or bad. In time it came to mean having good hap. In common present use, ''happy'' has to do with both one's situation, e.g. one is fortunate, and one's state of mind, e.g. one is glad, cheerful, content (Griffin, 2007). The word "happiness" is translated into words like the Dutch "geluk", the Norwegian "lykke" , or the Finnish "onni", which also means "luck". In some other languages the word happiness also means "success". Veenhoven (2010) states: "Originally, the word happiness denoted

good luck, but nowadays it is used for subjective enjoyment of life and is synonymous to life satisfaction . A common definition of happiness is 'the overall appreciation of one's life-as-a-whole'. Bergsma (2010) specifies this subjective enjoyment into certain levels of short lived positive emotions that arise from interaction with the environment, and longer lasting moods more dependent on psychological personal characteristics.

Psychologists often refer to happiness as subjective well-being . Diener, Suh, Lucas, & Smith (1999) mention subjective well-being as a broad category of phenomena that includes people's emotional responses, domain satisfaction and global judgments of life satisfaction, while subjective well-being is defined by Calman (1984) as the total sum of the cognitive and emotional reactions when people compare what they have and do in life with their aspirations, needs, and other expectations.

Seligman (2002) defines a happy life as the combination of the pleasant life, the engaged life and the meaningful life. In 2010 he added "the social life" (Seligman, IPPA world conference speech, June 21th, 2009). Walburg (2009) mentions sustainable happiness which contains positive emotions, a positive judgment about one's life in general and a purposeful and productive life. Both Seligman and Walburg also include moral judgments, i.e. the happiness of one person should not be at the expense of someone else's happiness.

A major distinction between satisfaction with life and quality of life versus happiness is that happiness fluctuates significantly across time and may change from day to day, while satisfaction with life and quality of life have a larger degree of consistency (Diener, Suh, Lucas & Smith, 1999). Although there is a difference in life satisfaction, subjective well-being and happiness, Bartels & Boomsma (2009) found substantial overlap between four different measures of subjective well-being, life satisfaction and happiness and therefore suggest that different measures are comparable.

6. Adolescent happiness.

Life satisfaction, or perceived quality of life has received increasing attention as an indicator of optimal functioning among youth (Suldo & Huebner, 2006). Most adolescents reported positive levels of life satisfaction (Huebner, Drane & Valois 2000). However, a noteworthy minority of children and adolescents are very dissatisfied. (Huebner, Drane & Valois 2000). Individual differences in the global life satisfaction reports of children and adolescents are associated with a variety of intrapersonal, interpersonal and activity variables, suggesting that life satisfaction is determined by a complex interplay of environmental and personal factors (Huebner, Suldo & Gilman, 2006).

Recently subjective well-being has been measured in adolescents on large scales. The Health Behaviour in School aged Children (HBSC) study in Europe (Currie et.al., 2008) and the UNICEF study (Innocenti Research Centre, 2007), asked

the participants to rate their quality of life, using a 10-step Cantril Ladder (Cantril 1965). The top of the ladder indicates the best possible life and the bottom, the worst possible life. In the HBSC study high life satisfaction, with a score of ''6'' or more on the 10-point ladder, was common among young people. Between ages 11 and 15, there was a significant decline in levels of life satisfaction with a more pronounced effect in girls than boys. Boys reported high life satisfaction more often than girls at ages 13 and 15 (Currie et al., 2008). UNICEF (2007) reported that the great majority of young people in OECD (Organization for Economic Cooperation and Development) countries scored above the midpoint on the ' life satisfaction ladder' and life satisfaction decreased between the ages of 11 and 15, particularly for girls. This decline, often accompanied with mood-swings, is usually assumed to be caused by hormonal changes, and to be possibly functional with respect to a changing relation between the child and his or her parents, although Carr (2007) states that parent-child conflict is not the norm. He says that only one in five families experience conflicts, and only one in twenty report extreme conflict.

The decline in adolescent happiness levels also follows the decrease in selfesteem which can been explained by several factors, including the physical changes accompanying puberty that make children very critical and self-conscious, discrepancies between an ideal self and how they see themselves, and moving on to secondary schools where they are the youngest and least important members of the school, having been the oldest the year before in their primary school. (Simmons, Rosenberg, & Rosenberg, 1973).

7 Dutch adolescent happiness.

According to large-scale international research projects Dutch youth is the happiest, both in Europe and in the OECD countries. Bartels & Boomsma, (2009) measured subjective well-being in adolescents and young adults aged 12-23, in over 2000 twins and their non-twin siblings (n=>5000). They concluded that, although it can be assumed that each individual has their, probably genetically determined, setpoint of subjective well-being (Lykken 1999), non-genetic factors unique to each individual are responsible for at least 50% of the subjective well-being.

Veenhoven (2007) suggests several reasons for why Dutch children are happier than those in other industrialized countries and believes this is founded, in part on the fact that Dutch adults score about as high as their children on the happiness ladder. Happiness radiates from parents on children, research has shown (Kochanska, Aksan, Penney & Boldt, 2007). One of the mechanisms is that happiness makes parents nicer and more energetic. Furthermore, in this generation there are hardly any unwanted children, something that was quite different before inexpensive an freely available forms of contraception such as the pill and condoms became available, coupled with this abortion is no longer a crime and can also be used to terminate an unwanted pregnancy, thus most children are wanted. The UNICEF study (2007) also shows that Dutch teenagers are happier on average than in comparable Western countries. In England, Germany and France the percentage of happy teenagers is around 10% lower. The causes for this are not yet clear, but

one of these causes might very well be the school system. Teenagers in Britain and France could be less happy because there are more traditional schools in these countries and pupils have less space, both physically and to express themselves. This statement is corroborated by the fact that teenagers in these countries are also less likely to say they like school. It is also suggested by Veenhoven (2007) that the number of working mothers in a country play a role. In the Netherlands this percentage is significantly lower than in neighboring countries, especially when the children are young. Veenhoven found a statistical correlation, but it can not fully explain the difference in happiness levels of western teenagers. Another typical Dutch adolescent phenomenon is their freedom when it comes to transportation. They travel by bike, and most places they go to, i.e. to school, to visit friends, to sports or to the cinema are within cycling distance, and with dedicated cycle ways in most cases it is rather safe. Every August, villages and cities are filled with banners, sponsored by a food manufacturer, saying: "We go back to school again", to remind motorists of the possibility of meeting inexperienced cyclists on their way to their (new) schools. These relative safe and easy traffic circumstances, might influence Dutch parental consent towards their adolescents going out. A complex of factors plays a role in the differences in adolescent well being. The UNICEF report provides no clarity on this.

In preliminary (unpublished) research done by the author among 113 adolescents of 13 and 14, the respondents response to the question "What makes you happy?" could be grouped into roughly three categories: "What made me happy up till now?", "What makes me happy right now?", "What do I think will make me

happy in the future?" The last category is a tricky one. Gilbert (2006) showed in his research that quite a few mistakes are made when predicting what will make humans happy.

8. Can happiness be raised?

Some believe that happiness is relative and that chasing after it will get you exactly as far as a mouse in a treadmill (Veenhoven 2010). Some say that happiness is a fixed trait and as such is practically unchangeable. (Lykken & Tellegen, 1996). Research shows, however, that happiness can indeed be raised lastingly. (Sheldon & Lyubomirsky,2007). Examples of factors influencing individual differences in wellbeing in adults have been mentioned: income (Clark, Frijters & Shields. 2008), education (Blanchflower & Oswald 2004), unemployment (Clark & Oswald 1994), religion (Ciarrochi & Deneke 2005), exercise (Stubbe, de Moor, Boomsma & de Geus 2007), marriage (Brown 2000), and economic/political environment (Kahneman, Krueger, Schkade & Stone, 2004). For adolescents, however, good relationships with, and support from family, friends, peers and teachers are vital (Suldo & Huebner, 2006). Social support is important for well-being (Huppert & Whittington, 2003), but social contribution, like volunteering, may contribute even more to general well-being than receiving support (Meier & Stutzer, 2008).

Diener, Lucas, and Napa Scollon (2006) demonstrated that the subjective well-being levels of some people can and do change over time. Fujita and Diener

(2005) analyzed data from a 17-year German panel study, finding that 24% of the respondents' life satisfaction levels changed significantly from the first five years of the study to the last five years. Sustainable gains in subjective well-being are made possible through intentional activity rather than circumstantial changes (Sheldon & Lyubomirsky, 2007; Sheldon & Lyubomirsky, 2006), This can be accomplished through the practice of engaging in activities such as practicing positive thinking, investing in social connections, living in the present, improving health and physical fitness, committing to personal goals, and effectively managing stress, hardships, and trauma (Sheldon &Lyubomirsky, 2007; Lyubomirsky, Sheldon, & Schkade, 2005). Life circumstances only account for approximately 10% of subjective wellbeing, intentional activities may account for as much as 40% (Sheldon & Lyubomirsky, 2007).

9. Should schools try to raise happiness?

Numerous studies indicate that happy individuals are successful across multiple life domains, including their professional lives, and that the happiness–success link exists not only because successful people are happy but also because the experience of positive emotions engenders success (Lyubomirsky, King, & Diener, 2005). Veenhoven (2010) states that happiness activates people, it broadens our scope and helps to build up resources. Another striking result is that happiness is good for our health and that happy people live longer. Happy people are also better citizens; they need fewer scapegoats, give more of themselves for social

organizations and are, perhaps, more sensible voters. (Veenhoven 2010).

Boniwell (2006) concludes that the substantial research evidence telling us what contributes to a fulfilling and happy life could help adolescents choose their way to a successful and happy life. She regards school as a good place to learn about this. Schools can be conceived of as not only for developing learning and educational processes, but also as "positive institutions" for facilitating human and social development (Seligman & Csikszentmihalyi, 2000). Bernard, Stephanou & Urbach (2007) state: "Ongoing support of the social and emotional health of young people is vitally important, especially in the secondary years of schooling when the focus tends to be on academic achievement and where the influence of adults wanes and peer group influence grows. Almost 50% of students perceive they are not learning about their feelings and how to manage stress, while 40% say they are not learning about how to make friends or how to solve interpersonal problems." (Berhard, Stephanou & Urbach, 2007).

Ruus and collegues (2007) conclude, after questioning almost 4000 Estonian adolescents, that school is responsible, as a living and learning environment, for learners' optimistic acceptance of life, psychological and physiological well-being, and their academic success. They state a school has the responsibility to create a favorable climate where pupils are encouraged to perceive learning tasks as challenges and opportunities for self-improvement; where childrens can develop constructive coping strategies, where they are supported by teachers if necessary,

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and where pupils also have a sense of psychologically and physiologically well being.

Suldo & Shaffer (2008) have demonstrated that youths with high-subjective well-being have better reading skills, school attendance, academic self-perceptions, academic-related goals, social support from friends and parents, self-perceived physical health, and fewer social problems than their vulnerable peers with low subjective-well-being. There is substantial evidence from well controlled studies that skills that increase resilience, positive emotion, engagement and meaning can be taught to schoolchildren (Seligman,Ernst, Gillham, Reivich & Linkins, 2009).

Although there is increasing empirical support for the effectiveness of interventions from positive psychology (Seligman, Steen, Park & Peterson, 2005), the literature on applications of positive psychology to school-based interventions is limited (Miller & Nickerson 2007), particularly on the universal level, for all pupils.

As mentioned earlier, one of the main pillars of education is "learning to be", or rather "to be well". Until recently, schools have been trying to prevent unhappiness in various ways, by using all kind of prevention programs. The knowledge drawn from the field of positive psychology offers the chance to try learning to be well from another starting point.

At the European Conference on Positive Psychology in Copenhagen 2010 (June 26th) Veenhoven talked about the differences in happiness levels in Denmark and the Netherlands, having many similarities - both are rich, relatively equal, modern societies with similar political regimes, approaches to economic development, social security, and welfare. Data on country levels of happiness suggests not only that Denmark is a happier nation than the Netherlands, but that its happiness level has been gradually increasing since 1973 (when the data commences), whereas that in the Netherlands happiness has not increased over time. One of the differences might well be that Denmark invests more in its education system, and Danish children spend more years in the education system than their Dutch counterparts. Although school performance is no better, Veenhoven suggests that Danish children acquire better social skills at school.

When parents choose a school for their children, they appear to value the expected happiness of their children higher than the childs expected academic performance, however, most schools do not seem to realize this. (Coldren, & Boulton, 1991).

10. "Lessons in Happiness"

Lessons in Happiness (LIH) is a new addition to the overloaded curriculum of Dutch schools. Therefore it was chosen to make the program brief and focused, and it was expected that this would enhance the chances that the program would be adopted in

schools. The development of the program was financed by the Hermen J. Jacobs

fund, after the author was awarded a prize for the idea of the lessons. The

workbooks and comprehensive teachers manual are available free for all Dutch and

Belgian schools. The brief nature of the program made it impossible thoroughly to

deal with all the evidence based positive psychology interventions available. Instead

a variety of interventions were chosen, to enable the pupils to develop a feel for the

possibilities.

The first lessons are devoted to the nature of happiness and pupils are asked

to be aware of their own levels of happiness, and they are asked to think about the

characteristics of their society and their own choices that enhance or harm

happiness. Further lessons are devoted to the interrelatedness of happiness and

world view. Pupils are asked to develop a more positive attitude towards others with

a gratefulness exercise, and towards their own thoughts and future using an

optimism exercise. Pupils are also asked actively to engage in new behaviours and

to perform acts of kindness. The program is concluded with some directions as to

how pupils can take the lessons of the LIH to facilitate and enable their own

happiness development in the future.

Content and rationale of the lessons.

The series of Lessons in Happiness consists of six lessons each of 50 minutes. They

have been developed for the average level second grade pupil in secondary school

(Year 8), aged 12-14. The lessons are a mix of discovering new knowledge, play, new experiences in thinking and behaving, creativity and a quest for strengths. The teachers manual gives a lot of tips on how to create an atmosphere where positive feelings can arise easily, e.g. using funny video's to start a lesson. The lessons should be fun to attend in the first place. Pupils do homework, and are encouraged to do this by the awarding of small prizes and silly, funny awards such as a cloaverleaf trophy, a smiley pen or a youtube video on demand. A penalty for not having done the homework is out of the question. The main themes of the lessons are described below.

Measuring and valuing happiness.

In the first two lessons pupils studied the levels and sources of happiness in themselves, their families, the class and the world. They started with a questionnaire about perceived happiness and health, and kept a "happiness diary" (Veenhoven, unpublished). This "happiness diary" is a new internet tool, which is in the pilot stage, based on the Day Reconstruction Method (Kahneman, Krueger, Schkade, Schwarz & Stone, 2004) which can be used to measure well-being levels more precisely. First the various activities of the day before are filled in, and for example, where the activities took place and with whom. When this is done, every single activity is rated on a happiness scale, by smiley faces from 1 to 10, very unhappy to very happy. The happiness diary is only accessible using a personal code, and pupils were able to fill in the diary more often if they liked. They may have tried to find out more specifically what kind of activities make them most happy. The meaning and importance of happiness were discussed, and the different aspects of happiness, like contentment

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and hedonic level of affect. Pupils shared positive feelings while showing and sharing

with each other their favorite memories, photographs, pictures, poems or songs,

which they associate with happiness. Focusing on positive emotions enhances

happiness, as Fredrickson (2009) states. The children learn here that there is an

enormous variety of experiences which can make people happy.

Grattitude.

A gratitude exercise was done by the pupils. Gratitude is defined as an individual's

tendency to react to the benevolence and kindness of others with grateful or thankful

emotions (McCullough, Emmons, & Tsang, 2002). Empirical studies have found a

positive association between gratitude and well-being and that manipulating

individuals' gratitude levels results in increased reports of well-being (e.g., Adler &

Fagley, 2005; Emmons & McCullough, 2003; Polak & McCullough, 2006). In a study

of gratitude-intervention and adolescent well-being, Froh, Sefick, and Emmons

(2008) found higher optimism, life satisfaction and satisfaction with school, compared

to participants assigned to hassles or control conditions at post-intervention and at

three week follow-up assessment. In addition, such an intervention may not solely

produce intrapsychic gains, it can also produce stronger social bonds and peer

relationships, as well as increasing prosocial behaviours. Positive gains may occur

for both the direct recipients of the intervention and the entire student body at large.

Gratitude's influence on the promotion of prosocial behaviours and being "other

centered" may have an enormously positive influence on the culture and environment

within a school (Froh, Sefick & Emmons, 2008).

Optimism.

Pupils did do several exercises to help them to think a little more optimistically.

A pessimistic explanatory style leads people to expect bad events in the future to be

frequent and inevitable. An optimistic explanatory style in contrast leads people to

expect bad events in the future to be infrequent. (Peterson & Park 2007). Seligman,

Reivich, Jaycox & Gillham (1995) claim optimism infused in children can safeguard

them against depression and builds lifelong resilience.

Kindness.

Learners chose a postcard, addressed it to him or her self, and one pupil, "the

postman", delivered the postcards at random to other pupils. These pupils were

asked to write a personal compliment on the card. The postman collected all the

cards, and distributed them to the addressed learners. The children experience how

it feels to receive and give a compliment. Kindness is defined as taking part in

helping behaviours motivated by feelings of altruism, generosity and compassion

(Peterson & Seligman, 2004). Otake, Shimai, Tanaka-Matsumi, Otsui, and

Fredrickson (2006) found that people with high reports of kindness also reported

higher happiness and more happy memories than people with low reports of

kindness. Social contribution, like volunteering, may contribute even more to general

well-being than receiving support (Meier & Stutzer, 2008).

Strengths.

Pupils were asked to fill in the children's version of the Values in Action (VIA)

Strength Survey (Peterson & Seligman, 2004), followed by some assignments, with

which the learners thought and decided on what strengths really fit them, and how

they might be able to use them. A strengths approach is based on the premise that

each individual has unique strengths that can be used to enhance well-being.

Peterson and Seligman (2004) created the VIA classification of character strengths

consisting of the strengths of wisdom and knowledge, courage or the emotional

strengths, humanity or the interpersonal strengths, justice or the civic strengths, the

strengths of temperance and the strengths of transcendence with the objective of

creating a framework for considering strengths in a systematic manner. The

strengths philosophy explores ways to empower individuals to flourish rather than

simply survive (Liesveld & Miller, 2005) and asserts that capitalizing on one's areas

of talent is likely to lead to greater success than would be possible by making a

comparable investment of effort into overcoming personal weaknesses or

deficiencies (Clifton & Harter, 2003).

Future goals.

The last part in the LIH course booklet was set aside for future use: the pupils were

encouraged to keep their booklets, and read the last part whenever they can use

some help in making an attainable plan. This chapter is designed to help the pupil

reach goals by dividing the way into small steps, by advising the pupil to look for

support and make use of their strengths. Goals can serve as an organizing

framework for other subgoals (Elliot, Gable & Mapes, 2006).

11. Research Aims

In order to assess the efficacy of Lessons in happiness three Dutch secondary

schools were asked to use the LIH for part of their second grade classes (year 8) The

classes were randomly assigned to: a) Lessons in Happiness; b) Regular mentor

classes.

The research hypotheses were:

a) "Lessons in happiness" will enhance well-being;

b) "Lessons in Happiness" will enhance self perceived health;

c) Academic performance will ameliorate after "Lessons in happiness",

These hypothesized beneficial side effects of happiness are similar to those

described in Diener & Biswas-Diener (2008).

Chapter 3

Method

Epistemological approach

A post-positivism approach was taken in this research, this is also known as the scientific method, quantitative research or empirical science (Creswell, 2003). Post-positivism refers to the thinking after positivism, which challenges the view that there is an absolute truth to be discovered (Phillips & Burbules, 2000). It also differs from positivism in that post-positivists believe that we can never be 100% positive about claims that relate to human research, as humans are such complex beings whose behaviours are impacted upon by so many confounding variables. The current study fits well with this view as (a) quantitative methodology is used, and (b) the researchers could not be certain that confounded variables that were not directly measured did not have an impact upon the findings. The present study was an experiment within the pragmatic paradigm, and as such, it was focused on what is useful, the consequences of the research and oriented towards "real world" practice (Creswell & Plano Clark, 2007).

Participants

In September 2008 the lessons in happiness workbooks and the teachers manual were made available free of charge on the internet for all Dutch and Belgian schools. Within a few months they had been downloaded over 3000 times. People who downloaded the material had to fill in their name, the name of their school, and their

position, in order to incorporate some kind of threshold, so that not just everybody would try to download the lessons. In December 2008 all the downloaders were contacted and asked about their willingness to participate in a research project. Only 15 responded, possibly because the request came before decisions regarding incorporating Lessons In Happiness in the curricula in the schools had been made. On January the 1th 2009 a change in Dutch law made it impossible to contact the people who subsequently downloaded, because their permission to share their details was not asked for at the time of the downloading. The LIH program was explained in more detail to the respondents and headmasters involved. In total, three schools agreed to participate in the research project.

The sample consisted of secondary school children in year 8 (mean age 13,8, SD. ,79). There were 631 participants in total, 329 girls and 301 boys. The 631 participants have been randomly assigned with their 25 classes to either the intervention group (381) or the control group (250). 15 Classes were assigned to the experimental group, and 10 classes to the control group.

Design

The design employed was a 2x2 split-plot ANOVA with time (pre vs post) as the within-participants factor, and froup (LIH vs control) as the between-participants factor. There were three dependent variables: academic achievement, well-being and perceived health. Please note that for academic achievement the data pre relate to the end of the school year prior to the intervention and post relate to the end of the

school year after the intervention. For well-being and perceived health the data pre

relate to immediately before the first lesson prior to the intervention and post relate to

immediately after the last lesson in the intervention.

Questionnaires measuring well-being and perceived health were filled in

directly on the website of the Dutch research institute Verwey Jonker. The pupils'

academic achievement reports were obtained from pupils school records, and Grade

Points Averages (GPA's) were calculated by summing the numerical values of each

subjects scores, i.e., Dutch, German, French and English languages, Mathematic,

Biology, Chemistry, Science, History and Geography, and Musical and Physical

Education, and Arts, and dividing by the total number of subjects, resulting in an

average score for each pupil. Pupils' academic achievement reflects their school

records over the current grade with possible range of scores between 1 and 10, with

1 reporting the lowest achievement and 10 reporting the highest achievement.

Materials

The pupils workbooks detailing the six lessons are provided in Appendix I. 1 How

happy are you? What exactly is happiness? 2 What makes you happy? 3 Is

happiness important? 4 Can you learn to be happy? 5 Be nice to each other! 6 Use

your strengths! Desert for home…Make good plans come true!

The teachers manual containing general information, instructions regarding

the possibility of depressed pupils, class atmosphere etc., extensive guidance and

background information for each lesson, references towards underlying literature and contact information are provided in Appendix 2. The pre and post questionnaires completed by the experimental and control group are available in Appendix 3. Finally, ethical approval for the study was sought and gained from the University of East London (Appendix 4) with an information sheet made available to potential participants and permission to take part obtained through consent forms from the participants and the schools.

Procedure

The three schools signed an agreement with the Verwey Jonker Institute regarding books, experimental groups, control groups, participation in the research and the confidentiality of the research project. Contact information was given, so that teachers could be sure of easy access to the Verwey Jonker Institute in case of any ambiguity or doubt regarding either the lessons or the research. The schools involved received all the necessary color printed work-books and teacher manuals. This operation was financed by the Verwey-Jonker Institute. The 25 classes were randomly assigned to: a) Lessons in Happiness; or b) regular mentor classes. LIH school interventions were performed among a sample of 15 classes, 381 pupils (200 female. 181 male). 10 classes were assigned to the control group. Written informed consent was obtained from the pupils after the procedures were explained to teachers and learners . No pupil declined to participate. The intervention consisted of six, 50 minute sessions, which were held once a week in class. After filling in the second questionnaire, all the participants were debriefed. to obtain their final

consent. Pupils filled in questionnaires designed to record their well-being and perceived health directly on the website of the Verwey Jonker Institute before, or at the beginning of the first lesson and after the last lesson. This took place at each school in the computer room, in the company of classmates and the mentor. The participants were requested to do the task alone, without consulting with each other. However, if anything was unclear, the teacher could be asked for help.

The academic performance of each pupil was measured pre and post in the experimental and control group by recording the pupils end of year school marks, or grade point average prior to and after the year the LIH course was given. These data were retrieved directly from the schools administrators.

Chapter 4

Results

The raw scores from the pupil´s self perceived happiness, self perceived health and grade point average scales comprised the data upon which the statistical analyses reported below were performed.

Pupil´s self perceived happiness

The pupil´s self perceived happiness data averaged across participants are presented in Table 1, with standard deviations.

Table 1. mean self perceived happiness of pupil´s responses with standard deviations in the experimental and control conditions as a function of time

	Experimental		Control	
	Mean	**SD**	**Mean**	**SD**
Time1[2]	7.34	1.61	7.15	2.17
Time2[3]	7.40	1.41	7.48	1.85

Initially a descriptive statistics analysis was carried out in order to establish if the assumptions of the following analyses were met.

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[2] time 1 = time of pupil´s first self report questionnaire

[3] time 2 = time of pupil´s second self report questionnaire

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Eight outliers were indentified in the experimental condition and two in the control condition. These were trimmed to the next highest score plus one, and following this adjustment the distribution of the data in each condition was approximately normal and the standard deviations for each condition were approximately equivalent.

The data were then analysed with a 2x2 split-plot ANOVA with condition (experimental v control) and time (Timet v time 2) as factors

The main effect for time ($F_{(1,149)}=.1.488, p=.224$, partial eta squared = .010), the main effect for condition ($F_{(1,149)}=,035$, $p=.852$, partial eta squared = <.001) and the interaction term ($F_{(1,149)}=.679$, $p=.411$, partial eta squared = .005) did not achieve significance.

Pupil´s self perceived health

The self perceived health data averaged across participants are presented in Table 2 with standard deviations.

Table 2. mean self perceived health responses with standard deviations in the experimental and control conditions as a function of time

	Experimental		Control	
	Mean	**SD**	**Mean**	**SD**
Time1[4]	7.29	1.92	6.96	1.93
Time2[5]	7.45	1.49	8.04	1.61

Initially a descriptive statistics analysis was carried out in order to establish if the assumptions of the following analyses were met.

Thirteen outliers were indentified in the experimental condition and one in the control condition. These were trimmed to the next highest score plus one, and following this adjustment the distribution of the data in each condition was

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[4] time 1 = time of pupil´s first self report questionnaire

[5] time 2 = time of pupil´s second self report questionnaire

approximately normal and the standard deviations for each condition were

approximately equivalent.

The data were then analysed with a 2x2 split-plot ANOVA with condition

(experimental v control) and time (time1 v time 2) as factors. The main effect for

condition was not significant (F(1,143)=,145, p=.704, partial etq squared = .001), but

the main effect for time did achieve significance (F(1,143)=12.549, p=.001, partial eta

squared = .081), with self-perceived ratings being significantly higher at time 2

(mean = 7.75) than at time 1 (mean = 7.13). This significant main effect, however,

was modified by a significant interaction between time and condition

(F(1,143)=6.905, p=.010, partial eta squared = ,046).

Figure 1. the interaction between condition and time.

Estimated Marginal Means of MEASURE_1
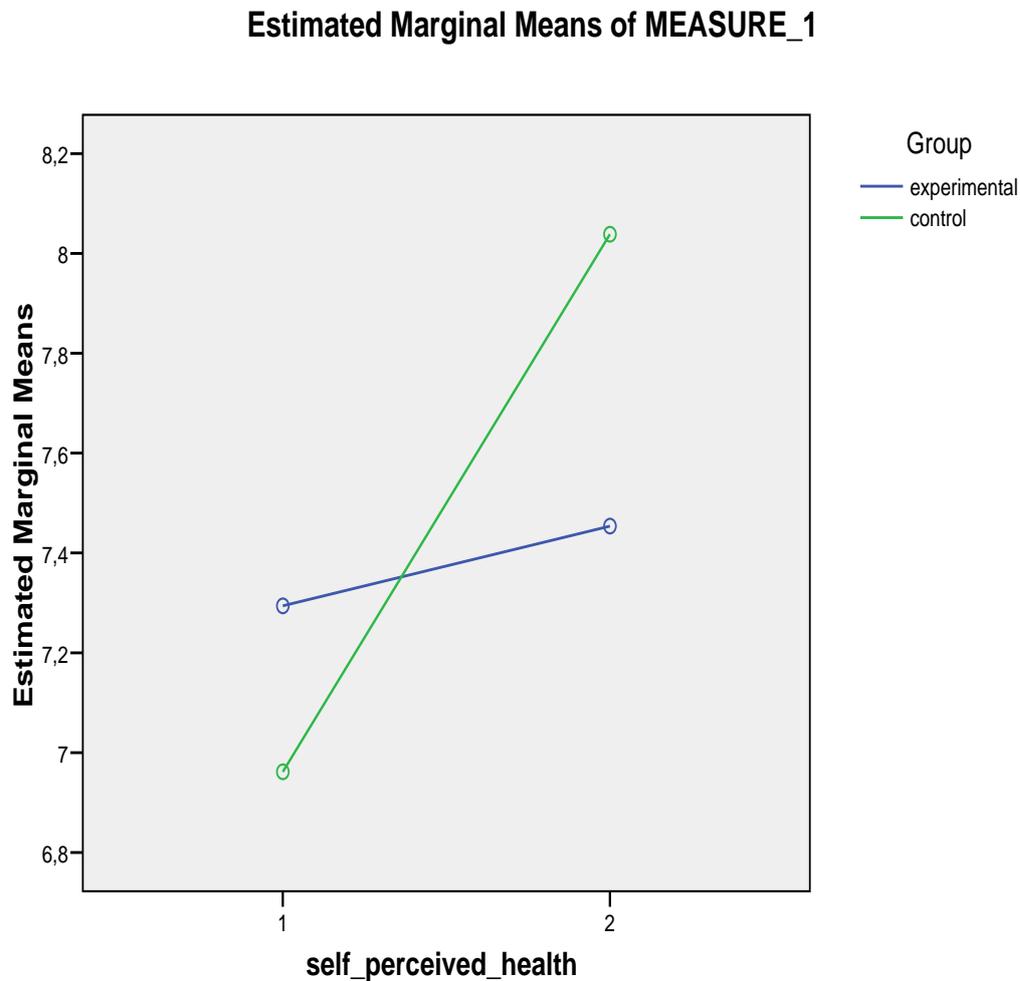
The mean health scores for pre and post levels of pupil´s self perceived health in the control condition were 6.962 and 8.038 respectively, whereas they were 7.29, and 7.45.respectively in the experimental condition . A simple effects analysis was carried out on the interaction data with the criterion value for significance set to .016 in order to control the familywise error rate. This revealed there was significant difference across the pre and post self perceived health condition for the control group $(F(1,143)=11.60, p=001).$, but not for the experimental group. No other

pairwise comparisons achieved significance. The results would appear to

indicate therefore that pupil´s self-perceived health increased across time in the

control group but in the experimental group no such beneficial effect was observed.

Pupil´s academic achievement

The pupil´s grade point averages data averaged across participants are presented in

Table 3, with standard deviations.

Table 3. mean grade point averages with standard deviations in the

experimental and control conditions as a function of time

|	Experimental		Control	
	Mean	SD	Mean	SD
Time1[6]	6.99	0.54	6.86	0.44
Time2[7]	6.76	0.65	6.54	0.55

.

Four outliers were indentified in the experimental condition and five in the control

condition. These were trimmed to the next highest score plus one, and following this

adjustment the distribution of the data in each condition was approximately normal

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[6] Time 1 = end of the grade 1, year before the intervention
[7] Time 2 = end of grade 2, year in which the intervention took place.

and the standard deviations for each condition were approximately equivalent.

.

The data were then analysed with a 2x2 split-plot ANOVA with condition (experimental v control) and time (time1 v time 2) as factors. The main effect for pupil´s condition achieved significance ($F_{(1,576)}=14.313$, $p<.001$, partial eta squared = .024), with pupil´s academic achievements scores being significantly higher in the experimental group (mean=6.871) than in the control group (mean = 6.703). The main effect for time was also significant ($F_{(1,576)}=236.670$, $p<.001$, partial eta squared = .291), with higher pupil academic achievement scores occurring at time 1 (mean=6.925) than at time 2 (mean=6.649).

Figure 2. interaction between condition and time.

Estimated Marginal Means of MEASURE_1
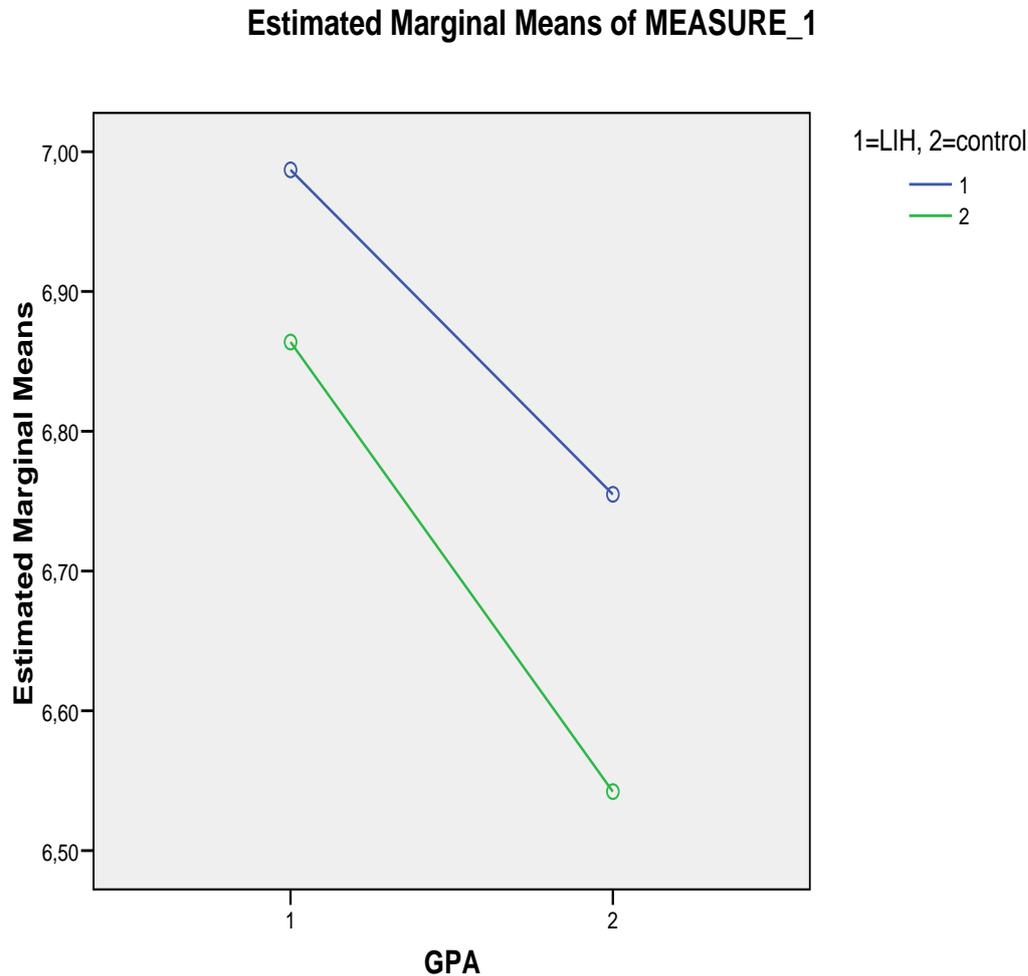
These main effects, however, were modified by a significant interaction between time

and condition (F(1,576)=6.186, p=.013, partial et squared = .011). The mean pupil

academic achievement scores for pre and post levels in the control condition were

6.86 and 6.54 respectively, whereas in the experimental condition they were 6.99,

and 6.76 respectively. A simple effects analysis was carried out on the interaction

data with the criterion value for significance set to .016 in order to control the

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familywise error rate. This revealed there was a significant difference across the pre

and post condition for the control group ($F_{(1,576)}$=37558.03, p<001), and for the

experimental group ($F_{(1,576)}$=61020.38, p<.001). In addition the two groups differed

significantly at both time 1 ($F_{(1,576)}$=8.21, p=.004) and time 2 ($F_{(1,576)}$=16.51,

p<.001). This would appear to indicate that academic achievement decreased

across time for all pupils, but decreased less severely in the experimental group.

Chapter 5

Discussion

A study was carried out to investigate the effects of LIH for pupils aged 12-14 at three Dutch secondary schools. The pupil´s self reported questionnaires were measured before and after the lessons, using internet questionnaires. Grade point averages were calculated with the marks retrieved directly from the schools administrators. The LIH school program was performed among a sample of fifteen randomly assigned classes (631 pupils). Ten classes were assigned to the control group. (250 pupils) and fifteen classes were assigned to the experimental group (381 pupils) . Quantitative results indicated that the intervention was not associated with an increase in pupil´s self perceived happiness, and it did not show an increase in pupil´s self perceived health at the end of the intervention. Thus, hypotheses 1 and 2: "Lessons in happiness will enhance well-being" and "Lessons in happiness will enhance self perceived health" are not supported. A significant effect was found on pupil´s academic achievement. Hypotheses 3: "Academic performance will ameliorate after lessons in happiness", is thus supported. The pupil´s academic performance ameliorated after LIH, even though the magnitude of this effect was small.

Grades seem to decrease significantly for all the pupils, on the second measurement occasion, however, this drop in grades was significantly smaller for pupils that attended the LIH classes. This finding can be interpreted as a moderating or buffering effect of LIH, that seems to have helped the pupils cope better with

various stressors that contributed to the general drop in grades. These stressors may be school related, like increased academic difficulty of classes, personal, e.g. mood-swings, assumed to be caused by hormonal changes, or home related, e.g. due to a changing relationship between the child and his or her parent(s).The causes of the drop in grades and the decreases in happiness scores seen for adolescents through their teenage years to age 16 (Csikszentmihalyi & Hunter 2003) are most likely interrelated in various ways.

Individual differences in the global life satisfaction reports of children and adolescents are associated with a variety of intrapersonal, interpersonal and activity variables, suggesting that life satisfaction is determined by a complex interplay of environmental and personal factors (Huebner, Suldo & Gilman, 2006). Consequently, the mechanisms driving the buffering effects of LIH may have a variety of causes depending on the individual child and its circumstances.

As the lessons consisted of providing the pupils with information about happiness; to measure and value happiness; of sharing positive feelings, such as gratitude and kindness; with a focus on strengths and thinking how to accomplish future goals, it is possible that pupils benefitted from one or more of these lessons individually, e.g. one pupil will have broadened his or her thinking skills, and became more creative, while another might have been helped by acquiring a more optimistic view towards schoolwork.

Good relationships with, and support from family, friends, peers and teachers are vital for adolescents (Suldo & Huebner, 2006). Some of the lessons, e.g. sharing

positive feelings, gratitude and kindness may have had a positive impact on the atmosphere in the class, which in turn may have made it easier and more fun for pupils to take part in class and work together. Short lived positive emotions that arise from interaction with the environment, are an important part of the common definition of happiness, "the overall appreciation of one's life-as-a-whole", apart from the longer lasting moods more dependent on psychological personal characteristics (Bergsma 2010).

Social support is important for well-being (Huppert & Whittington, 2003), but a person's social contribution may contribute even more to general well-being than receiving support (Meier & Stutzer, 2008). Pupils are taught about this explicitly in the lessons, and they may learn that their own role as an active contributor to a positive class atmosphere, is important. "Ongoing support of the social and emotional health of young people is vitally important, especially in the secondary years of schooling when the focus tends to be on academic achievement and where the influence of adults wanes and peer group influence grows" (Bernard, Stephanou & Urbach 2007). Veenhoven (2010) states that happy people need fewer scapegoats, and as long as bullying, almost by definition, belongs to school life, this may also affect a pupils changing grades.

The amelioration of the pupil's academic achievement for the experimental group indicates that it could not be ruled out that pupils had increased their happiness levels. This might be an explanation for the ameliorated grades. Research into happiness using meta-analysis findings indicate that happiness is both the cause and consequence of success (Lyubomirsky, King, & Diener, 2005). Suldo & Schaffer (2008) underscore the superior functioning of adolescents with average to high subjective well-being. Subsequently adolescent happiness could be seen as the cause and consequence of their functioning and academic achievement. The significant amelioration of the GPA's for the experimental group in this study is expected to be linked to the well-being of the pupils.

Most parents and educators see the promotion of pupil's well-being and character as an important, if not central, aspect of schooling (Cohen, 2006), but it is also expected that these parents and educators will also be content with their children performing better at school.

Nevertheless, notwithstanding the possible effectiveness of the intervention, it is also necessary to consider alternative explanations for the results. Seligman, Steen, Park & Peterson (2005) recommended the use of random-assignment placebo control when looking at the effectiveness of interventions like LIH. It may be that the mere act of doing something, assigned by a professional, in the expectation of gain in the form of a boost in happiness is sufficient to lift one's spirits in the short term (Frank, 1973). A similar effect has been described as the "Hawthorne effect" (Landsberger, 1955) whereby the participants in some form of intervention improve

because they are the centre of attention, and the control group may have not received this type of attention.

Compensatory equalization of treatments (Mertens, 2005) may have occurred in that members of the control group may have become disgruntled if they thought that the experimental group was receiving extra resources. This may be the cause of the lower levels of pupil's self perceived happiness and health in the baseline questionnaires in the control group. For example, it is possible that the question: "How happy did you feel last month?" or "How healthy did you feel during the last month?" will be answered differently if one has just been instructed to choose the questionnaire for pupils who will NOT attend the lessons in happiness. It might also be possible that having to fill in a questionnaire for nothing, and not being chosen to attend the LIH, while others are, causes a negative emotion in the affected pupil, especially the first time they see this, when it might come as a shock.

Compensatory rivalry by the control group (Mertens, 2009) may have occurred later , when the adolescent pupils may have argued that they do not need LIH, they are fine as they are. In retrospect using a wait-list control setting might have been a more reliable and elegant option.

The control groups in all three schools had their usual mentor lessons, but it was not possible to determine clearly what exactly happened in those lessons. Dependent on the teacher, the school rules and customs, these lessons may have been filled with discussing problems, e.g. bullying, misbehavior, underachievement,

or an extra free hour for the majority of the pupils, because the teacher used these

lessons to schedule private conversations with a few individuals per lesson leaving

the rest of the group free at this time.

It could be argued that the role of the teacher may be central to the

intervention success. Treatment fidelity is only assumed. The teachers received a

comprehensive manual, but no specific training or supervision. Coupled to this,

empirical evidence is now emerging that a teachers own well-being is linked to the

school performance of their pupils. A research study of 140,000 teachers in 2600

Brittish schools (Briner & Dewberry, 2007) suggests that average levels of teacher

well-being within schools is correlated with pupil performance. Depending on how

dedicated each teacher was to preparing for and giving the LIH, a possible

improvement in his or her own well-being may have occurred, and this may have

resulted in enhanced pupil performance, however this was not monitored.

The desire to be happy is prevalent in Western culture, and a happy life is very

much the preferred life (King & Napa, 1998). Lyubomirsky, King & Diener (2005)

have reviewed cross-sectional, longitudinal, and experimental data which showed

that happy individuals are more likely than their less happy peers to have fulfilling

marriages and relationships, high incomes, superior work performance, community

involvement, robust health, and a long life. The three classes of evidence also

indicated that positive emotions, and long term happiness, are often associated with resources and characteristics that parallel success and thriving.

This study also helps us to indicate the place of programs like LIH in the field of interventions, by translating the model from well-being at work (Ouweneel, Schaufeli & Le Blanc 2009), to well-being in school. This model explains the extended reach of positive psychology programs beyond cure or prevention into ampliton. It shows the potential of positive psychology as beneficial for populations who are doing generally well. Traditionally educational research has been deficit oriented, focusing on the reduction of risk factors within the individual. The present study demonstrates the value of working within the growth model.

Healthy youth represent one of any nation's most valuable resources. Troubled youth demand appropriate resources to assist them to deal with their problems. Given the growing disproportionate increase in the population of older age groups in some western countries, the resources available for adolescents may become increasingly strained, making prevention and health promotion programs for adolescents more critical in the future (Irwin, Burg & Cart, 2002). Within the next year or so, according to the International Labour Organisation (ILO), due to the financial crisis and economic downturn, more than 50 million people will lose their jobs (ILO, 2009). Many of these jobs will be gone forever. At the same time there are four million jobs that are not filled because of shortages of skilled people. Job rotation is speeding up and most people will have to learn new knowledge and skills several

times during their working lives if they wish to remain employed. Creative thinking will become much more important in future employment, e.g. when working a job, when looking for a job, and in the way a job is found. A positive mood produces more creative thinking (Isen, Daubman, & Nowicki,1987). Schools will need to emphasize creative thinking. Chaplin, & Roedder John (2007) found that warm peer acceptance boosts self-esteem, and the feeling of self worth of adolescents so much that giving adolescents a sense of self-worth and accomplishment seems to be an effective antidote to the development of materialism among young adolescents.

Limitations

This study has a number of limitations. The limited number of pupil sessions in the intervention, six sessions, once a week, 50 minutes each, may have been insufficient to engender an effect, as interventions designed to change behaviours, attitudes and knowledge often require more time than this. The study sample consisted only of school children from three secondary schools in the Netherlands, with no known particular physical or mental problems. The fact that the assessment was partly based on self-rating scales, could also be seen as a limitation.

Regarding the distribution of scores, potential threats to internal validity are almost inevitable in the way schools are organised. A diffusion effect is almost certain to appear, participants from the experimental group were expected to be friends with participants in the control-group, and "happiness" as a subject is still unexpected in most schools, so it might be likely to be a conversation topic.

The randomization was done group-wise, and another weakness of the experimental design was the absence of a placebo control, and a follow-up study. There is a significant gap in the positive psychology literature in the lack of longitudinal studies. Given that a fundamental goal of teaching positive psychology to adolescents is to teach them skills and behaviours that can have a positive effect over their life course, future research is needed to ascertain whether the benefits of LIH are sustained over time.

It should of course be acknowledged that the greatest limitation appears to be the failure to demonstrate any beneficial effect of LIH on self-perceived happiness and health. Nevertheless, it should be noted that outcomes based on pupil's self perceived happiness and self perceived health are not considered to be very reliable due to data collecting and storage errors completely out of the researcher's control. For example, on the self perceived happiness and health measures in the experimental group only around 30% valid data could be retrieved from the database, and in the experimental group 10%. (While for the academic achievement, in both groups over 90% valid data were found.). Given these technological difficulties it is not possible to interpret these results in any meaningful way.

Further recommendations

Future research with larger samples and follow-up is necessary to confirm the efficacy of LIH school-based intervention for improving adolescent well-being. If LIH is found to be successful it might be worthwhile to expand the program with items dealing with friendship, hope and meaning, which were not covered in LIH, but have been mentioned by positive psychology researchers as important contributors to wellbeing.

Friendship

Engels, Aelterman, Van Petegem & Schepens (2004) concluded after their study among >2000 Belgian adolescents that being together with friends is one of the most important motives for pupils to go to school. This highlights the importance of school as a living environment in which contact with friends is considered extremely important. Positive contacts with fellow pupils and solidarity within the group is an important component of a good classroom and school culture, and a positive school atmosphere, which has in its turn a positive effect on well-being. Lyubomirsky, King & Diener (2005) state that happy people have better social relationships than their less happy peers and that this is one of the most robust findings in the literature on well being. They present cross-sectional evidence regarding the question of whether individuals high in trait positive affect, happiness, and life satisfaction have more friends and more social support, and experience happier interpersonal relationships.

Hope

Snyder and colleagues' (1991) concept of hope has been studied in many contexts, and several positive correlates to this construct have been found in youth. Many of these constructs are directly related to goals that school counselors may have in

developing certain types of strengths in their pupils. Enhancement of hope within

pupils can assist with development in areas of personal/social, academic, and career

development Hope is termed "a psychological strength" by Valle, Huebner, and Suldo

(2006) and was found, in their study of adolescents, to function as a moderator or

buffer between difficult experiences in life and well-being. Hope has been linked to

academic benefits in several studies. Snyder and colleagues (Snyder et al., 1991;

Snyder et al., 1997) have studied the relationship between grade point average and

hope in college students and found positive results.

Meaning

The relation between search for meaning and well-being appears to be positive

among adolescents and to become increasingly negative in later life stages (Steger,

Oishi, & Kashdan, 2007).

Apart from developing more lessons, teacher training and supervision could

enhance the effects of LIH. In other school based interventions regarding well-being,

like the Penn Resiliency Program's effectiveness varied considerably across studies.

This variability in effectiveness appeared to be related to the level of training and

supervision that group leaders received (Gillham, Brunwasser & Freres, 2007).

As mentioned earlier, a teachers own well-being is important in performance of the

children, and probably not just according academic achievement.

Learning to be well and learning to live together do need more attention in secondary schools. Schools can be conceived of as not only for developing learning and educational processes, but also as ''positive institutions'' for facilitating human and social development (Seligman & Csikszentmihalyi, 2000). Apart from trying to develop class based interventions targeted towards enhancing well-being, school as a community could be used to strengthen the adolescent's learning to be well and learning to live together. More pupil participation in school policy will not only give pupils the opportunity to feel engaged with, and belonged to, the school community, it will also enhance the atmosphere in the school. Preparing pupils for life long learning, should also involve a good atmosphere and having fun in school.

A child-friendly school, according to the WHO (2001) encourages tolerance and equality between boys and girls and different ethnic, religious and social groups. It promotes active involvement and co-operation, avoids the use of physical punishment and does not tolerate bullying. It is also a supportive and nurturing environment; providing education which responds to the reality of the children's lives. Finally it helps to establish connections between school and family life, encourages creativity as well as academic abilities, and promotes the self-esteem and self confidence of children.

It could be argued that LIH might be seen as one step in the direction of a broader change. School wide changes in the direction of better well-being at present

are scarce, but they do exist. Wellington College in the UK and Geelong Grammar

school in Australia have made it their top priority to teach children about physical

and mental well-being along with social responsibilities.

Conclusion

To return to the questions posed in the title of this dissertation: should happiness be taught at school? The research reported in this thesis can not be used to answer this question with a resounding yes.

Schools should help pupils to have a good time, and to grow into happy people. The social return of happiness should not be underestimated. Happy people are typically better citizens (Veenhoven 2010) It is a misconception to think that people with more school knowledge will be happier. It would be good if schools were also judged on their contribution to the happiness of pupils. The Dutch government does not do this so far, but parents at least do (Coldren, & Boulton, 1991), they do value expected happiness of their child over expected academic achievement, in choosing a school for their child.

If a well-being promoting program can demonstrate that it raises happiness levels and in addition improves academic performance, it is easy to imagine that governments and schools which are obsessed with academic results will find both the means and the space in the curriculum to accommodate one. If health levels are improved by such a short, simple program, it is even unthinkable it will not be implemented, with raising health care costs in the western world.

If a program developed to raise well-being only shows academic improvement, schools might also be willing to accommodate it. Research into the effects of LIH will continue, with more groups and follow up research, and a more clear answer to the initial question is expected within a year from now.

The pillars of education for the coming century "learning to be well", and "learning to live together" are inseparable, as Berscheid (2003) highlighted the centrality of social relationships to successful human functioning when she wrote that "relationships constitute the single most important factor responsible for the survival of *homo sapiens*".

A future extended "Lessons in Happiness" program might add a little bit to the successful human functioning of the Dutch and Belgian population.

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