**Charity Entrepreneurship**

# POSITIVE EDUCATION

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**CONSIDERED**

# Research Report:
## Mental Health – Positive Education (2020 Considered Idea)

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This is a summary report about positive education, a potential intervention for improving mental health and subjective well-being. Although our research suggests that this could be a highly impactful intervention, its dependence on multiple assumptions and low probability of success mean that we do not recommend it at this time. However, if a well connected co-founder team were found, lobbying for positive education would be a strong contender for a new mental health charity.

For questions about the content of this research, please contact George Bridgwater at george@charityscience.com. For questions about the research process, charity recommendations, and intervention comparisons, please contact Karolina Sarek at karolina@charityscience.com.

*Charity Entrepreneurship is a research and training program that incubates multiple high-impact charities annually. Our mission is to cause more effective charities to exist in the world by connecting talented individuals with high-impact intervention opportunities. We achieve this through an extensive research process and through our annual* Incubation Program.

# Research Process

Before opening the report, we think it important to introduce our research process. Knowing the principles of the process helps readers understand how we formed our conclusions and enables greater reasoning transparency. It will also clarify the structure of the report.

Our research process incorporates elements that are well established in some fields but uncommon in others. This is partly because of the unique goals of our research (i.e. finding new areas for impactful charities to be launched) and partly because we incorporate lessons and methodologies from other fields of research, primarily global health and medical science. Below is a quick overview of some of the key elements.

Iterative depth: We research the same ideas in multiple rounds of iterative depth. Our goal is to narrow down our option space from a very large number of ideas (often several hundred at the start) to a more workable number for deeper reports. This means we do a quick 20-minute prioritization, a longer 2-hour prioritization, and finally an 80-hour prioritization. Each level of depth looks at fewer ideas than the previous round.

Systematic: The goal of our research is to compare ideas for a possible charity to found. To keep comparisons between different ideas consistent our methodology is uniform across all the different ideas. This results in reports that consider similar factors and questions in a similar way across different interventions, allowing them to be more easily compared. This is commonly used in other charity evaluations and encouraged in other fields.

Cluster approach: Comparing different intervention ideas is complex. We are not confident that a single methodology could narrow down the field, in part due to epistemic modesty. To increase the robustness of our conclusions, we prefer instead to look at ideas using multiple independent methodologies and see which ideas perform well on a number of them (more information here). These methodologies include a cost-effectiveness analysis, expert views, informed consideration and using a weighted factor model. We explain the merits and disadvantages of each method, as well as how we apply it, in the linked documents. Each methodology is commonly used in most fields of research but they are rarely combined into a single conclusion.

Decision relevant: Our research is highly specialized and focused. We only research topics that are directly related to the endline choice of what charity to found. Sometimes cross-cutting research is needed to allow comparison between different ideas, but all our research aims to be directly useful to getting new charities started. This level of focus on target practical outcomes is rare in the research world, but is necessary to our goal of generating more charity ideas with minimal time spent on non-charity idea related concepts.

# Table of contents

# Description of the intervention

Most definitions of positive education originate from Seligman et al. (2009), which describes it as "education for both traditional skills and for happiness" [1]. There are two main ways to implement positive education: via a whole school approach [2], or through designated positive education classes (the approach explored in this report). The whole school approach attempts to account for the multiplicity of factors that can influence the well-being of students. It integrates the philosophy of positive education schoolwide, emphasizing its importance to the teaching staff and students and throughout the curriculum. In contrast, the program approach to positive education focuses on introducing designated positive education classes, which teach students a variety of techniques drawing on the field of positive psychology. Among others, these can include resilience, mindfulness, and social and emotional learning. The two approaches are not mutually exclusive; in fact, one part of the whole school approach will likely be designated programs. However, set curriculums are significantly easier to implement than a larger overhaul of the underlying philosophy and culture of a school – itself shaped by existing paradigms within the broader education system, whose first priority is academic achievement.

The potential charity examined in this report would attempt to create policy change by **lobbying key government officials to implement a positive education program in government-funded schools**. The specific methods or avenues used to achieve legislative change have not been examined in significant depth. These would be among the first questions a new organization would investigate. We have some weak indications that informing and mobilizing parents to pressure officials is a promising model but do not have significant confidence in this.

Organizations focused solely on policy change are inherently risky ventures. Their impact relies on a successful campaign. However, if policy change is achieved on a nation- or state-wide scale, positive education has the potential to improve the quality of life of millions of students during schooling, and may have an impact across their entire lifespan.

# Summary conclusion

In this report we focus predominantly on the program approach to positive education. For this we found three main programs: the Maytiv School Program, trialed in some Israeli schools [78]; the Gross National Happiness (GNH) curriculum, implemented in Bhutan and adapted and trialed in Mexico and Peru [65]; and the Healthy Minds curriculum, trialed in the UK [39]. All these programs share similar elements and draw from the same sources within positive psychology. The most well studied program is the GNH curriculum. However, outcomes were not measured using subjective well-being, the metric we are most interested in for cross-comparison in our mental health cause area. We found that the most promising program to lobby for is likely to be the Healthy Minds curriculum, tested in the UK. We expect that policy makers are much more likely to be convinced by a trial within their own country with a decent sample size than by the massive trials of the GNH curriculum that have been run in Mexico and Peru, where the context differs greatly.

Although there are existing well evidenced programs, our research uncovered a variety of concerns associated with launching this organization. The first (common to all policy interventions) is the difficulty involved in estimating the probability of success and the attributable impact. The estimated probability of success can make a policy intervention appear to be the most or least promising idea to recommend, particularly when compared to direct interventions. For our cost-effectiveness analysis, we estimate a 7% probability of success, and that a new charity could bring forward the introduction of positive education policy by three years. However, we expect that reasonable individuals could disagree. If a potential co-founder had an existing network within the Department of Education and among policy makers, and therefore a greater chance of success, this idea would be very promising.

An additional concern for this intervention is how to model government funding. Implemented in the UK, the Healthy Minds curriculum would cost approximately $68,000,000 per year. There are a variety of ways to model this, which significantly affect the cost-effectiveness of this organization.

Given these concerns combined with the general difficulty of launching organizations aimed at policy change, we do not recommend that a positive education charity be launched in 2020. We would be significantly more interested in this idea if well positioned co-founders were open to founding this idea and some initial support could be provided by other key figures.

The table below offers a step-by-step summary of our research process for this intervention. Color-coding reflects how well the intervention performed at each stage. The idea sort, idea prioritization, supporting reports, and related reports involve background research prior to this report that will not be considered in the final decision on the promise of this intervention.

| Report type | Summary results | Deeper reading |
|---|---|---|
| Idea sort | During the idea sort this idea showed huge initial promise, scoring well on the weighted factor model, cost-effectiveness, and informed considerations. | Full report Process |
| Idea prioritization | After two hours of researching this idea's cost-effectiveness, it was the most cost-effective of thirty-three ideas considered when including counterfactual considerations. | Full report Process |
| Prior view (section 1) | Our knowledge of this area before starting our deep research reports was primarily informed by our initial methodologies. | Process |
| Informed consideration (section 2) | We explored crucial considerations for this intervention by examining the positive education landscape. We researched existing organizations and initiatives in various countries. Based on this research, we narrowed down promising potential locations for a charity focused on positive education, finding the UK to be promising. | Process |
| Expert view (section 3) | There was a lot of disagreement amongst experts. Some were very positive about the prospect of policy change and thought a new organization could add something to the space. Others were more skeptical and explained that the lack of evidence for the kind of programs policy makers tend to prefer would be a barrier. Experts working in the UK were the most positive about this idea. | Process |
| Weighted factor model (section 4) | The weighted factor raised the biggest concerns with this intervention: fundraising and the low likelihood of success. It is likely this org will have to largely depend on EA funding, and even this may not be an option for such a high-risk intervention. | Process |
| Cost-effectiveness analysis (section 5) | We modeled the cost-effectiveness of this intervention in two scenarios using the satisfaction with life scale (SWLS). This intervention could either be the most cost-effective intervention we have examined at this stage or the least. The results depend on several speculative inputs such as the probability of success and how to model the value of government spending. | Process |
| Informed considerati | The second part of our informed consideration closes the report. This internal contemplation allows our team to reflect on the data and | Process |

| on (section 6) | evidence gathered throughout the process. We conclude that although positive education has the potential to be highly impactful, the dependence on multiple assumptions and co-founder skills means that we do not recommend it this year. | |
| --- | --- | --- |
| Supporting reports | Two supporting reports are applicable to this idea. Our metrics report (forthcoming) examines different quality of life measures and discusses why the metrics used in this report were chosen. The cause area report explains why we think mental health and subjective well-being is a promising area to research. | Metrics Cause area Process |

# 1 Prior view

This brief section summarizes our team's thoughts on this intervention before starting in-depth research.

Our prior view is informed by the initial stages of our research process and the Founders Pledge report on Action for Happiness [3]. We find it difficult to contrast this intervention with our other more direct charity ideas, as it targets policy change. We expect that this could make positive education appear more cost-effective than our other interventions, as it is more difficult to model the probability of achieving policy change. Our overall impression thus far is that positive education can have significant effects on the subjective well-being of recipients.

Subjective likelihood of recommendation:
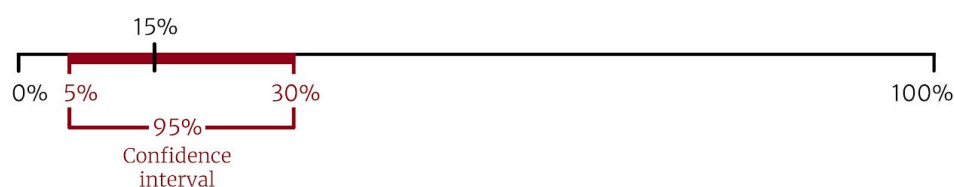


## 1.1 Informed consideration

The key uncertainties with this charity idea are the probability of successful policy change and the length of effect. We are also concerned about the external validity of manyrxisting studies examining the effect of positive education (or similar programs) as implementation on a larger, nationwide program would be much more difficult. Country prioritization could be another significant factor for this intervention but we think it unlikely that much certainty will be achieved within the ten-hour time cap for this stage of the research.

## 1.2 Expert view

Positive psychology experts will likely be more positive about this intervention, although we expect them to raise concerns about the specificity of the program and to perhaps make recommendations for techniques they have researched. If country-specific policy experts can be interviewed, we expect them to be highly skeptical of an organization's ability to enact policy change.

## 1.3   Weighted factor model

Although we expect the evidence base to be sufficient for positive education, the high-risk nature of this intervention will likely lower its score on the weighted factor model. The high potential for failure and difficulty establishing relationships within government will make it very difficult to execute. Funding and talent could be limiting factors, as staff will have to be skilled and have connections in government. At the prior view stage we do not have a good sense of how significant a barrier this would constitute.

## 1.4   Cost-effectiveness

This charity idea will probably appear to be very cost-effective, as it performed well during our idea prioritization. However, we are more skeptical of the results of cost-effectiveness analyses of policy interventions, as it is particularly hard to model the probability of policy change, particularly where the country to target is unclear. Given the number of highly uncertain parameters involved, our cost-effectiveness analysis will thus weigh less heavily in our final decision on the promise of this intervention. It is also difficult to estimate counterfactuals, including the likely timeline for positive education without the organization and the value of government funding. We expect that the effect on the population of implementing such a policy will be more certain.

# 2   Informed consideration: Crucial considerations

After the prior view, we began the research process by identifying crucial considerations for positive education. In this early phase, we investigated the following:

- Do any countries or schools already implement positive education?
- Are there any existing initiatives pushing for positive education?
- What types of positive psychology interventions are there?
- Which countries seem amenable to the idea? Could we (or have we) recruited entrepreneurs from these countries?

## 2.1   Positive education in schools and countries

A large number of schools and districts have already experimented with positive education classes or with adding it as a core goal of their institutions. In our short examination, we found six individual schools with preexisting positive education classes. These include Wellington College [4] and the University of Buckingham [5] in the UK, Geelong Grammar School [6] and St Peter's College [7] in Australia, Tecmilenio University [8] in Mexico, and The Shipley School [9] in the US.

At a larger scale, Australia and Bhutan are world leaders in positive education. The Melbourne Declaration on Educational Goals for Young Australians states that "schools play a vital role in promoting the intellectual, physical, social, emotional, moral, spiritual and aesthetic development and well-being of young Australians" [9,10]. One effort to uphold this value is the student well-being hub [11], an online resource for students, parents, and educators to find positive education resources. In 2016, the state of New South Wales provided a total of AUD 167 million (~$105 million) over four years to be spent on the 'Supported Students, Successful Students' initiative and the 'Every Student is Known, Valued and Cared For' initiative in an effort to promote student well-being [12].

Bhutan, which uses gross national happiness (GNH) instead of gross domestic product (GDP) to guide policy, has organized its education system around the goal of increasing the well-being of its citizens [13]. In collaboration with the Positive Psychology Center at the University of Pennsylvania, Bhutan has codeveloped a GNH Curriculum that aims to teach students a variety of skills to increase their well-being [14].

Outside Bhutan and Australia, similar programs or interest in such programs exist in the US, India, and China.

In the US there are a variety of positive youth development programs in addition to the Shipley School mentioned above [15]. These programs aim to "engage young people in intentional, productive, and constructive ways while recognizing and enhancing their strengths" [16]. Although not integrated into the standard curriculum, such programs reflect some interest in the principles of positive education in the US.

There seems to be more explicit interest in positive education in China, as it is compatible with traditional Chinese philosophies and could help combat the anxiety and depression that has been linked to their more authoritarian teaching styles [13]. China implemented programs in Zenchang and Beijing in 2014 and 2012 respectively.

In India, there is some interest in the resilience programs run by CorStone [17]. CorStone is currently making efforts to scale up its existing programs into more states and schools.

Overall, there seems to be a significant amount of interest in running or piloting positive education programs. Countries like Bhutan and Australia are leading the way, rolling out positive education on a wider scale. There has also been interest from the three most populous nations (China, India, and the US), although this has mostly taken place on the level of individual schools, regions, or pilots rather than nationwide.

## 2.2　Existing organizations and initiatives

The most prestigious positive education research center is the Positive Psychology Center at the University of Pennsylvania [18]. They created the Penn Resilience Program and Perma workshops [19] and, as mentioned above, partnered with Bhutan to create their national positive education curriculum. There are numerous other research centers such as The Institute for Positive Education [18,20], The Positive Education Laboratory [21] and the New Zealand Institute of Wellbeing & Resilience [22].

The main organization pushing for positive education seems to be the International Positive Education Network (IPEN) [23]. They aim to bring together teachers, parents, academics, students, schools, colleges, universities, charities, companies

and governments to promote positive education, with the overall goal of changing education practice and reforming government policy. Their team includes many prestigious figures in positive psychology, including Martin Seligman, the director of the Positive Psychology Center at the University of Pennsylvania; and Sir Anthony Seldon, the co-founder of Action for Happiness [24].

Another international organization with similar aims is the International Positive Psychology Association (IPPA) [25]. They aim more narrowly to promote research into positive psychology interventions and disseminate the findings to as many people as possible. Such efforts have also been emulated on a more national level. Australia's Positive Education Schools Association (PESA) [26] has been pushing for positive education since its founding in 2014. Japan's Positive Education Association [27] promotes the SPARK resilience program for 10 to 12 year olds [27,28]. In the UK, Bounce Forward has done a great deal of work trying to get resiliency-based positive education implemented in UK schools [29].

As there are already groups aiming to coordinate international efforts, it seems that at least internationally there is no need for additional organizations. On a national scale this is less clear. Replicating a model similar to PESA, which seems to have had some success in Australia, may increase the chance of policy reform in other countries.

## 2.3   What types of positive psychology interventions are there?

Positive education focuses on building specific skills that assist students to strengthen relationships, build positive emotions, increase resilience, promote mindfulness and encourage a healthy lifestyle [30]. There are a variety of programs, but the evidence for individual programs tends to consist of a few studies, and no meta-analysis comparing school-based programs exists.

The most comprehensive review of school-based positive psychology interventions was conducted by Walters in 2011 [31]. She examined twelve positive education programs and categorized them according to the following aims:

1. Cultivate Hope
2. Cultivate Gratitude
3. Cultivate Serenity
4. Develop Resilience
5. Develop Character Strengths

Walters' overall finding is that all methods of positive education were significantly related to student well-being and academic performance. This has been further demonstrated by studies of non school-based positive psychology interventions. Sin et al (2009) [32] conducted a meta-analysis of such interventions and found that 'the r effect sizes ranged from -.31 to .84, with 96% of effect sizes in the predicted, positive direction'. Although these studies are not entirely generalizable to the school based context, they are some indications of efficacy.

Overall, there seems to be a wide variety of positive education programs and positive psychology interventions with a statistically significant effect on subjective well-being, but little prioritization work comparing the effects of different programs. This could be an issue for any organization attempting to lobby for positive education if the optimal program cannot be determined through desk research. If this is the case, more extensive research would be necessary or make a way for policymakers to optimize the program over time.

## 2.4   Promising locations

If the organizations and schools above are representative of national interest, countries with the greatest potential are Australia, Bhutan, China, India, Japan, and the UK. However, the counterfactual impact of an organization lobbying for positive education in some of these countries (e.g. Australia, Bhutan) would be low due to existing interest and the efforts of organizations like PESA, which may achieve policy change without additional assistance. Other countries like China have more authoritarian regimes that make it more difficult for foreign NGOs to operate [33]. As indicated above, countries with similar cultures to the regions in China that have already piloted positive education programs may have some success. For example, neighboring countries or regions such as Singapore, Vietnam, South Korea, Taiwan, and Laos may be more amenable.

To gain some sense of how viable lobbying for positive education would be, we examined four countries in more detail: the United Kingdom, Taiwan, Norway, and Ghana. These were selected to represent a variety of possible countries that a charity could attempt legislative change in. Our research into these countries is not exhaustive due to the time cap, but should give a sense of how different regions may view positive education. After more extensive research a better list may have been based on The Steering Committee meeting on positive education [34] as this would provide an organization with existing allies who are already interested in it.

### United Kingdom

In the UK there seems to be widespread public support for positive education. '9 out of 10 parents in the UK want schools to offer this kind of education' [35], and '2/3 of Parliament support teaching character education' [36]. This support has translated into action by MPs and some of those in the House of Lords, such as Richard Layard, who has been working toward positive education in the UK for over ten years. However, this raises the question, why has policy reform not already been achieved? This is explored in Robson-Kelly (2018) [37] and White (2016) [38], who attempt to understand the disconnect between public opinion, research, and public policy. They conclude that there needs to be more coordination between these three aspects. However, we do not put huge weight in their conclusions as these papers are more discursive than analytic.

The two most promising developments in the UK are the introduction of a new private members bill 'Education and Training (Welfare of Children) Bill' by MP Mary Kelly Foy in 2019, and the Healthy Minds research project [39,40]. Foy's bill would ensure that 'the proprietor of a 16 to 19 Academy must make arrangements... with a view to safeguarding and promoting the welfare of children receiving education or training at the Academy.' At time of writing, the bill is waiting to move to a Public Bill committee in the House of Commons [38, 41]. This could help to shift the focus of the UK education system towards the well-being of students.

The Healthy Minds research project is a five-year trial of a resilience-based PSHE curriculum in a sample of 11,000 students in 34 schools. The course consists of 113 lessons over four years in a variety of topics including core resiliency skills, social media and sex education. The program had an effect size of 0.18 on a life satisfaction ladder questionnaire [52]. The existence of such a trial in the country is very promising, enabling a new organization to more easily influence policy makers.

### Taiwan

Taiwan has already implemented programs akin to positive education. The 'life education curriculum', which was in part developed to combat the high suicide rates in Taiwanese students [42], was implemented in 2001 and has been running for about twenty years [43]. The course is elective [44] [45], which reduces its overall impact. The curriculum is quite different from the programs assessed in the reviews cited above. It seems to focus more on instilling moral values into students rather than evidence-based positive education, even if some aspects are likely to capture some of the same effects. An organization lobbying here could aim to access the

effects of the existing program and then make it mandatory or attempt to alter the curriculum to more evidence-based practises.

### Norway

Even though Norway is one of the happiest countries on the planet [46], the well-being of its students has not historically been a core tenet of its curriculum [47]. This was somewhat updated in the Curriculum Renewal in 2019, when 'health and life skills, democracy and citizenship, and sustainable development' were made three key features of its new curriculum [46, 48]. The inclusion of these clauses is significant, but is not an explicit step towards positive education.

### Ghana

From a brief review of the 2018 educational goals in Ghana [49], it seems unlikely that an effort could be successful here. Their current aims are to address existing problems, such as the teacher absence rate, which is as high as 14%; the year repetition rate of between 12% and 16%; and the disparity in the number of years of education between those in the poorest and richest areas. It is possible that positive education could be framed to address some of these problems, but large-scale reform seems less likely.

# 3   Expert view

This section summarizes conversations between the lead researcher and a range of experts, mostly consisting of academics and leaders of existing positive education efforts.

## Cindy-Lou Esler and David Bott

**Profile:** Cindy works as the client relationship officer for the Institute of Positive Education and as campaign coordinator for Geelong Grammar School. David is the Associate Director of the Institute of Positive Education based at Geelong Grammar School. He has been involved in training thousands of teachers from hundreds of schools around the world in designing, implementing and sustaining individual and whole-school approaches to well-being. David also consults with some of the world's leading schools to help guide well-being vision and strategy. David's current role follows three years as Head of Positive Education at Geelong Grammar, where he led the school's well-being program across four campuses and headed the school's Psychology Department. David also taught for five years in the UK, where he was Head of Psychology at Aldenham School and co-authored 'Teach Positive: Applying the Science of Positive Psychology in the Classroom'.

**Summary:** The main concern raised in conversation with Cindy and David was the strength of existing evidence for positive education. They note that although positive psychology has been demonstrated in a lab setting, generalizing these findings to the wider world is more difficult. It is hard to evaluate, as a philosophy that puts well-being science at the heart of education rather than a single measurable program. Along with the resistance of the education system to change and the historic focus on academic performance, the difficulty of evaluation is the main barrier they see to achieving policy change.

*More information can be found in the conversation summary.*

## Professor Richard Layard

**Profile:** Richard is a British labor economist currently working as program director of the Centre for Economic Performance at the London School of Economics. His current field of interest is in mental health and the economics of happiness. His work has included the Depression report [50], which led to the Improving Access to Psychological Therapies (IAPT) program in England. He is also co-editor of the World Happiness Report and a co-founder of Action for Happiness [50, 51].

**Summary:** Richard is a strong supporter of positive education and has worked on some trials in UK schools. He expected that mobilizing parents for a campaign could be a promising approach. Unfortunately much of the specifics of this interview are less clear as the audio from the recording was lost.

*More information can be found in the conversation summary.*

## Dr. Peggy Kern

**Profile:** Peggy is an associate professor at the Centre for Positive Psychology at the University of Melbourne's Graduate School of Education. Originally trained in social, personality, and developmental psychology, she received her undergraduate degree in psychology from Arizona State University, a Masters and PhD in social/personality psychology from the University of California, Riverside, and additional postdoctoral training at the University of Pennsylvania. She has published three books and over eighty peer-reviewed articles and chapters.

**Summary:** Peggy shared David and Cindy's view that positive education should be seen more as an approach than as a given program. There is no one right program, as this depends on the ever-changing context. The main impediment she saw to the adoption of positive education is the existing paradigm that focuses on academic achievement and success. Well-being is spoken about as something of value, but all the incentives and outcomes are misaligned with this view. Asked about the potential of a new organization, she thought that aiming to coordinate the work of all the diverse organizations in this space would be a good path forward.

*More information can be found in the conversation summary.*

## Lucy Bailey

**Profile:** Lucy is Chief Executive Officer and co-founder of Bounce Forward. She has seventeen years of experience as a youth worker developing, reforming, and managing children's services. Over the last twelve years, Lucy has focused on education and has been instrumental in embedding resilience curricular in schools and services across the UK. She directed the Healthy Minds research project, and has an MSc in Practice Based Research, a BSc in Social Policy and Criminology, and a Post-Graduate Certificate in Education.

**Summary:** Lucy highlighted some recent progress in Personal and Social Education (PSE) in the UK but thought progress is slower because although schools care about the well-being of their students, they are judged by their exam results. She was interested in the idea of a new organization mobilizing parents to lobby for policy change, but could not be contacted at follow-up.

*More information can be found in the conversation summary.*

# 4  Weighted factor model

In this stage of research, we scored positive education based on preset criteria and weightings. We also generated a causal chain. Overall, this intervention performed poorly on the weighted factor model, with a weighted score of 24 out of 50.

At this point in time, the evidence base for particular positive education programs seems too weak to convince policy makers in countries not explored in existing studies or to give us much confidence in program effect. Funding may be an issue: targeting both policy and subjective well-being restricts the donor pool to those who are willing and able to fund riskier lobbying efforts and have a strong interest in subjective well-being. Additionally, existing organizations may already be doing most of what is currently feasible in this space. There are few country-specific efforts but focusing on a particular country may not be viable given currently available evidence, outside of a few regions where trials have been conducted (e.g. the UK).

The graphic below shows the intervention's score out of ten on each criterion. Width of the bars reflects the weight accorded the criterion within the overall score of 24/50:
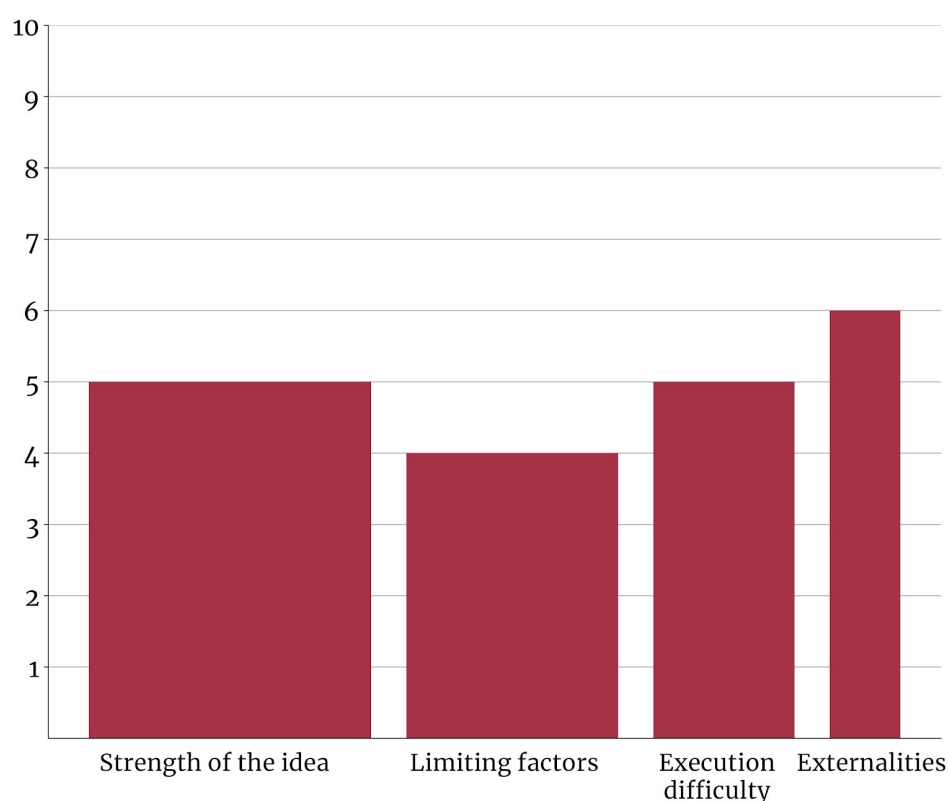
## 4.1   Strength of the idea

Score: 5/10

Broadly, a wide variety of studies examine positive psychology interventions. Positive psychology is often viewed as less well evidenced compared to other psychological interventions but evidence is sufficient for us to draw some conclusions about the effects. Two meta-analyses we examined to establish this were Bolier (2013) [57] and Sin (2009) [58]. Bolier examined 39 studies with a total of 6,139 participants and found an average effect size of 0.34 for subjective well-being. Sin reviewed 51 positive psychology interventions with 4,266 participants and found an average effect size of 0.29 for well-being.

A concern with these studies is that the broader evidence base for positive psychology may not be generalizable to younger populations or to school settings. However, a number of studies examine positive psychology interventions used in schools. These generally use one type of intervention, such as 'gratitude' [59], 'hope' [60], or 'mindfulness'[61]. The interventions in these studies are conducted over shorter time scales (<11 weeks) and in smaller samples. They provide evidence of useful themes that could guide the development of positive education programs but should not be thought of as full positive education studies.

Existing evidence [62] for the efficacy of positive education mostly consists of quasi-experimental studies that examine either the Penn Resilience Program [63] or the Gross National Happiness (GNH) curriculum developed in Bhutan [64]. The largest studies of this kind were examined by Adler (2016) [65] in their PhD dissertation. These included three trials of the GNH curriculum adapted for three different countries: Bhutan (N = 8,385), Mexico (N = 68,762), and Peru (N = 694,153). They found effect sizes of 0.59, 0.41, and 0.24 for the EPOCH measure of adolescent well-being [66] respectively. Only the study in Bhutan used the satisfaction with life scale, and unfortunately the effects were not reported in Adler's dissertation. The effect sizes decreased as the size of the program increased, which as the author notes is likely due to lower treatment fidelity. Another important trial has been conducted in the UK for the Healthy Minds curriculum [39]. This two-arm cluster randomized trial found a life satisfaction effect size of .18 in a sample of 7,362 British school children.

A related concern is that the effect size of such a program could diminish outside of the original contexts and culture. The same would likely be true as the program is scaled up, as demonstrated in Adler (2016) [65]. Awareness of this issue could also prevent policy makers from implementing the program in the first place, reducing the probability of success for a new organization.

## 4.2  Limiting factors

Score: 4/10

A variety of factors could limit the impact of a new organization lobbying for positive education. The first and most salient is funding. As this is a high-risk policy intervention focused on the less traditional metric of subjective well-being, the potential number of donors is likely to be significantly smaller. A large proportion of funding would likely come from effective altruist sources with previous interest in hits-based giving or subjective well-being, such as the EA global health and development fund [68] or Founders Pledge [69]. In general, we think it unlikely that this organization successfully fundraises beyond the first year.

Outside effective altruism, fundraising would be very difficult. The majority of existing funds in the area focus on mental health rather than subjective well-being. They are usually quite small, like the Pixel Fund [70]; or too connected to governments to engage in this sort of advocacy, such as national lottery funds [71]. This problem would be exacerbated in lower-income countries where funding is less available, so that entrepreneurs would need to rely more on effective altruist sources of funding.

Existing efforts also have the potential to limit the impact of a new organization in this area. To a degree this depends on the country, but there are already broader, more international efforts. The most significant of these are the International Positive Education Network (IPEN) [72] and the Institute for Positive Education [73].

IPEN mostly functions as a way for teachers, policy makers and researchers to coordinate their work on positive education. Their team consists of many key positive psychology researchers and teachers [74]. Similarly, the Institute for Positive Education also does some great work. Alongside their research, they consult for schools to embed positive education into their teaching approaches. They have worked with schools in Australia, the UK, Dubai, the US, and Hong Kong.

The existing efforts of both IPEN and the Institute for Positive Education make us more skeptical that a new organization could contribute internationally.

On a more national scale, there are some excellent models a new organization could follow. The Positive Education Schools Association [75] has met with the most success. Based in Australia, they perform a similar role to IPEN but with a narrower focus. If their structure were replicated in other countries, it could plausibly achieve similar success. Finding a country where enough support is available to fundraise without crowding out existing efforts will be a difficult balance to strike.

## 4.3   Execution difficulty

Score: 5/10

This is likely to be one of the most difficult-to-run charities we consider within our mental health and happiness cause area. A policy intervention, it requires founders to establish key relationships with government, research organizations, and possibly teachers or parents. This would be even more difficult when targeting a country the founders are not from. Although some existing trials are as good as we could expect, policy makers may be averse to implementing such large reforms based on the existing evidence.

Any decisions made by the organization would have a large amount of uncertainty as strong evidence for the best approach is not available. This problem will be exacerbated by the long feedback loops. Instead of feedback from direct impact, proxy measures will probably be used, creating the possibility of a disconnect between action and impact. For example, the organization could use the opinions of key stakeholders to measure progress but mistakenly target the wrong decision makers.

## 4.4   Externalities

Score: 6/10

Positive education has additional effects beyond increasing the well-being of students, including an increase in academic performance. This was found in Adler (2016) in three studies examining GNH curriculum 'life skills training' in three different countries [65]. Although the effect size decreased as the program was tested at a larger scale (likely due to lower treatment fidelity), the effect on standardized test score was significant in all three studies. This increase in

standardized test score might simply be credential inflation, but could improve productivity of students later in life and thus increase income, GDP, and possibly subjective well-being. However, we have a great deal of uncertainty surrounding such a delayed effect that occurs several steps later in the causal chain.

Some programs have the potential to have effects beyond those on subjective well-being. A key teaching in some positive education programs is that doing things for others can increase your well-being. This is likely to emphasize more local altruism to one's peers, as this tends to have the greatest effect on well-being. Even so, it could emphasize the well-being benefits of donating to charity, which has been discussed in more depth by 80,000 Hours [76].

## 4.5  Causal chain
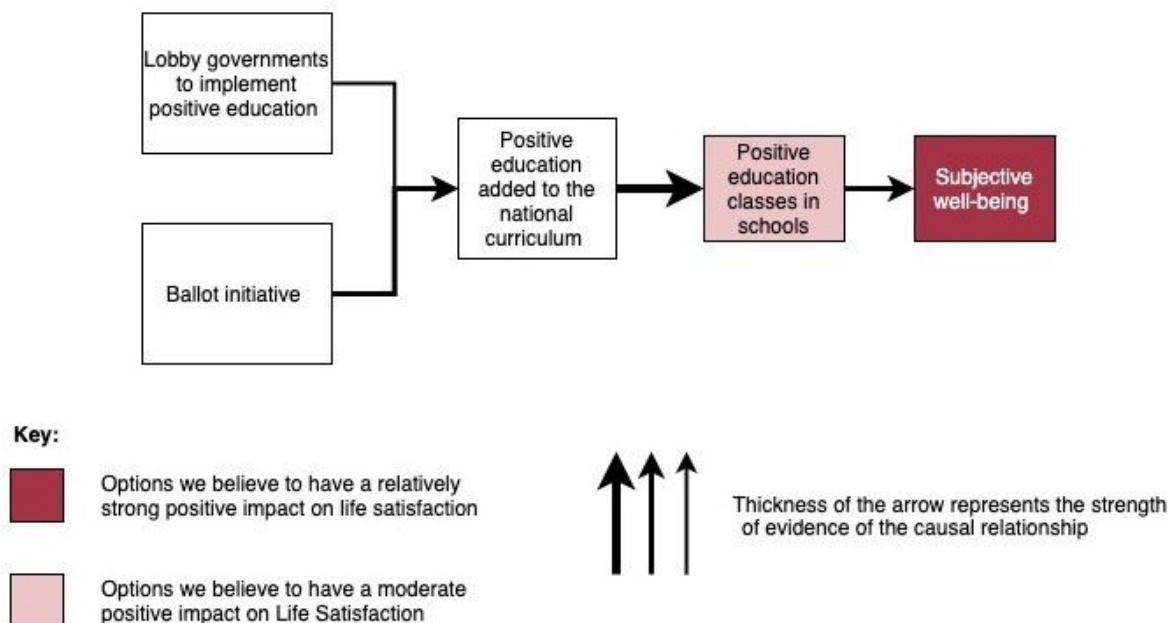
# 5　Cost-effectiveness analysis (CEA)

This section summarizes our cost-effectiveness analysis, which weighs the costs of running this intervention against the subjective well-being benefits.[1]

The CEA for this intervention models the expected value of launching a campaign or ballot initiative for positive education in either the UK or another high-income region. We measure subjective well-being using the satisfaction with life scale (SWLS).

## 5.1　Overview

Lobbying or running a ballot initiative for positive education has the potential to be highly cost-effective. However, the model depends on multiple subjective estimates for the probability of success when lobbying or campaigning and the probability that the organization will be able to fundraise. Fundraising seems particularly unlikely for scenario 2, which involves targeted campaigning in a country or state after conducting a local RCT, as this may require significantly more funds.

## Different methods of delivery

Our analysis explores two methods of delivering this intervention, which vary according to the amount of existing evidence available. In the UK, the Healthy Minds trial [52] increases the likelihood that an organization will be able to convince policy makers to introduce positive education. For high-income countries where no country-specific evidence is as yet available, an organization would need to arrange a local randomized controlled trial to garner support and improve the chances of success.

**Scenario 1:** Organize a public campaign of parents for positive education in the UK based on the Healthy Minds trial [52].

**Scenario 2:** Target a country or state (e.g. California) with ballot initiatives or public referendums and campaign for public support after conducting a RCT locally.

| Scenario | Guesstimate SWLS Model | Google Sheets SWLS model |
|---|---|---|
|  |  |  |

---

[1] For interventions in this cause area, we generally modeled our CEAs using quality-adjusted life years as well as the satisfaction with life scale. Our model for positive education focused solely on the latter metric due to the constraints of the available evidence base.

| | | |
|---|---|---|
| **Scenario 1** | 26 (−48 to 390) | **27.91** |
| **Scenario 1 (no counterfactuals)** | 21 (2.8 to 90) | 7.76 |
| **Scenario 2** | 25 (−54 to 350) | **23.50** |
| **Scenario 2 (no counterfactuals)** | 10 (2.7 to 29) | 11.62 |

As a policy intervention, positive education necessarily involves some highly subjective assumptions and a greater degree of uncertainty than a more direct intervention. The figures below show the distribution of estimates of this intervention's cost–effectiveness under both scenarios considered.

**Scenario 1 Guesstimate distribution (UK–based)**



**Scenario 2 Guesstimate distribution (other high–income region with local RCT)**



We took into account the following factors in our CEA:
- Fundraising chance
- Expected effect
    - Expected total direct effect per year (SWLS) if policy passes
    - Probability of success
    - Years of speedup for the policy

- ○ Time discount
- Costs
- Counterfactual costs
  - ○ Funding counterfactual cost
  - ○ Staff counterfactual cost
- Affecting factors
- Assumptions and limitations

## 5.2  Expected effect

Detailed figures for the following considerations (including ranges) can be found in our Guesstimate models, linked in the table .

The expected value of a positive education campaign or ballot initiative was calculated from a variety of factors, most prominently:

- Time discount
- Estimated effect size of positive education program on the SWLS
  - ○  Paoletti (2016)[7] who examined an extra-curricular positive education program called 'the Leadership Academy Scholar Course' (LASC)
  - ○ Proctor (2011) [8] who examined a character strengths-based positive psychological intervention program 'strengths gym'
  - ○ Lopez and Pais-Ribeiro (2011) [9] who examined a hope based intervention
  - ○ Lordan (2018) [53] who examined the Healthy Minds program
  - ○ SWLS standard deviation from Pavot and Deiner (2009) [6]
- Total pupils affected per year
- School leavers per year
- Length of time the effect lasts after graduation (years)
- Probability scaled up program has no effect
- Probability that bill/ballot is proposed
- Probability of bill/ballot success
- Years of counterfactual speed up
- Counterfactual use of government funding

We have low confidence in the estimates for the expected effect, as this calculation can vary widely depending on the estimated probability of success. The estimate for the effect of the policy if it passes also has numerous potential

problems. The studies used either have too small a sample size or use different measures of well-being, such as the Students' Life Satisfaction Scale or the life satisfaction ladder.

## 5.3  Costs

Detailed figures for the following considerations (including ranges) can be found in our Guesstimate models linked above.

- Years of operation: three or five
- Staff costs: $123K
- Logistics and administration costs $60K
  - Drawn from Charity Science Health's 2017 budget [54] and estimated event costs.
- First year start-up costs: $100K
- RCT costs: $838K
  - Sample size assumed from Adler (2016) [4]
  - Cost per participant informed by the low end of estimate from Speich (2018) [55]
- Ballot initiative spending: $3,800,000
  - Mean estimated from the Rethink Priorities intervention profile [5]

## 5.4  Counterfactual costs

Detailed figures for the following considerations (including ranges) can be found in our Guesstimate models linked above.

- Funding counterfactuals
  - Based on amount of funding diverted per year from high- and medium-impact charities and the estimated cost-effectiveness of high- and medium-impact charities from the distribution of effects from our idea prioritization report [56].
- Staff counterfactuals
  - An estimate for the counterfactual cost of the co-founders and core staff had they worked at other organizations or earned to give.
- First year counterfactuals
  - Incorporates the counterfactual costs of staff time and funding used within the first year.
- Government counterfactuals

- Estimated to be $240,000, based on a total positive education program cost of $68 million per year and an estimated impact of government funding of $310 per SWLS.

## 5.5 Affecting factors

Detailed figures for the following considerations (including ranges) can be found in our Guesstimate models linked in the table above.

We conducted a sensitivity analysis (excluding counterfactuals) in Guesstimate. The inputs that each model is most sensitive to are shown in the table below.

| | Affecting factor 1 | Affecting factor 2 | Affecting factor 3 |
|---|---|---|---|
| Scenario 1 | Overall probability of success ($r^2$ = 0.19) | Years of speedup ($r^2$ = 0.12) | Length of time the effect lasts after graduation (years) ($r^2$ = 0.09) |
| Scenario 2 | Ballot initiative spending ($r^2$ = 0.20) | Years of speedup ($r^2$ = 0.20) | Length of time the effect lasts after graduation (years) ($r^2$ = 0.09) |

All three factors each model is highly sensitive to involve high levels of uncertainty. The estimate for probability of success and years of speedup (i.e., by how many years the introduction of policy change is brought forward) is a judgment that could vary widely. The other factors are also a concern: the estimate for the length of time the subjective well-being effect lasts after graduation which although it is a very conservative estimate is based on weak evidence, and, as Rethink Priorities notes, ballot initiative spending is currently very hard to forecast.

## 5.6 Assumptions and limitations

We considered how our CEA could go wrong in each step. Some general potential issues, assumptions and limitations include:
- Several key estimates in this model had to be made subjectively. These include:
  - Probability that scaled up program has no effect

- ○ Probability that bill proposed
  - ○ Years of counterfactual speedup of program introduction
  - ○ Years of charity's operation
- We assumed that the SWLS effect size is similar to the effect on the Life Satisfaction Scale ("Overall, how satisfied with your life are you nowadays?") and have discounted the effect on the EPOCH Measure of Adolescent Well-being by 50%.
  - ○ For consistency across our reports, we measure impact in increments on the SWLS. There is evidence for this intervention using the Life Satisfaction Scale, SWLS and the EPOCH Measure. As both single and multiple item life satisfaction measures perform similarly and have a dientaunated correlation of r=0.8 we are more confident to convert between the two [79]. EPOCH on the other hand has many questions that pertain to SWB directly but others that would better track onto trait consciousness such as 'Once I make a plan to get something done, I stick to it.'For this reason we chose to discount the effect found using EPOCH when converting into the SWLS.
- We modeled the counterfactual use of teaching time as having negligible value.
  - ○ Modeling counterfactual teaching time is highly complex, and we felt that diving into the intricacies was not justified given the time cap of this report, particularly given that this would involve the counterfactuals of a marginal hour of teaching per week.

# 6  Informed consideration: Internal contemplation

In this stage, we analyzed all the data and insights gathered through previous steps in the research process. The most important conclusions from each are summarized here, as are our team's overall thoughts on lobbying for positive education as an intervention.

## 6.1  Crucial considerations

Crucial considerations research was used to provide an overview of existing organizations, initiatives, and schools who use or are trying to get positive education principles embedded in schools. We found that existing efforts focus more on research or international efforts. There are a few more country-specific organizations (e.g. PESA in Australia and Bounce Forward in the UK) but not a significant number, and they have only met with moderate levels of success thus far.

Brief country prioritization was also researched at this stage. We found that positive education principles tend to be more accepted in Southeast Asian countries, plausibly due to cultural affinity. We also concluded that some low-income countries are less promising as their education systems tend to suffer from other more significant problems that policy makers would probably focus on first. For this reason, we focused predominantly on high/ middle income countries but it is still plausible that someone with the right background in a low income country could achieve policy change.

## 6.2  Expert view

There was a lot of disagreement among experts. Some were very positive about the prospect of policy change, and thought that a new organization could add value in the space. Others were more skeptical, explaining that the lack of strong, specific evidence or programs that policy makers tend to prefer would be a barrier. Some even indicated that choosing between current positive education versus positive psychology interventions was more of a political choice than one based on the evidence available. Overall experts updated us away from this intervention in countries outside the UK, where the evidence from the Healthy Minds program means that positive education benefits from a higher level of political support.

## 6.3  Weighted factor model

The weighted factor raised the biggest concerns with this intervention: the difficulty of fundraising and the low likelihood of success. These concerns are linked to the evidence base for positive education, which is less extensive than other possible interventions in this space (e.g. guided self-help, our 2020 recommended mental health intervention).

Although positive psychology more broadly has some evidence-based interventions (albeit less so than other mental health interventions), specific evidence of its efficacy when implemented through education in schools and particularly at larger scales is sparse. Most existing trials either examine a narrow positive psychology intervention over the short term or have too small a sample size [62]. This gives us much less confidence in the effect of this intervention compared to others on our idea list. It would also likely affect the views of policy makers, making it more difficult to implement policy change. Running a randomized controlled trial in the country will probably be necessary before beginning a public campaign. An exception to this is likely to be the UK, where the Healthy Minds trial took place.

The relative paucity of the evidence is just one of several potential problems with starting an organization lobbying for positive education. Funding will be difficult, as it targets a niche policy change unlikely to appeal to risk-averse donors. It is probable that this organization would have to depend largely on effective altruist funding or, more optimistically, crowdfunding from parents.

## 6.4  Cost-effectiveness analysis

The expected cost-effectiveness of this intervention falls into a wide range. Multiple speculative inputs relating to probability of success, difficulty of fundraising, and counterfactual value of government funding could either make this intervention highly cost-effective or net negative given counterfactuals. More in-depth research could increase our confidence in a few of these parameters. However, even with additional research, parameters such as by how many years this intervention would advance policy change and the overall probability of success would probably remain highly uncertain.

## 6.5  Conclusion

Positive education has the potential to increase the well-being of millions of people. The existing evidence is not as strong as some other interventions we have examined, such as guided self-help. However, it is sufficient for us to conclude that

such a program is likely to have a small to moderate effect on subjective well-being. Lobbying for positive education may be a good intervention for a charity with a track record or connections in the space that can select a promising location, but we do not believe it is suitable for our 2020 incubation program.

In most locations, the lack of a context-specific trial would make it more difficult to convince policy makers of the promise of positive education. Combined with the large amount of uncertainty surrounding a few key factors (e.g. length of the effect and probability of success), the lack of strong context-specific evidence leaves a substantial chance that launching this organization this year could have negative expected value when accounting for time and funding counterfactuals. As a result, we do not recommend positive education this year. Nonetheless, due to its promise we will examine this idea further during a future round of mental health research.

# References

1. Seligman MEP. Positive education: positive psychology and classroom interventions. Oxford Review of Education. 2009;35:293–311.

2. Hoare, E., Bott, D., & Robinson, J. Learn it, Live it, Teach it, Embed it: Implementing a whole school approach to foster positive mental health and well-being through positive education. International Journal of Wellbeing. 2017;7:56–71.

3. Founders Pledge Charity Recommendation: Action for Happiness - EA Forum [Internet]. [cited 2020 Apr 20]. Available from: https://forum.effectivealtruism.org/posts/EiyQHKeRurtXZ2Rff/founders-pledge-charity-recommendation-action-for-happiness

4. The Web Kitchen. Wellbeing - Wellington College [Internet]. Wellington College. [cited 2020 Apr 21]. Available from: https://www.wellingtoncollege.org.uk

5. University of Buckingham to become Europe's first Positive University | University of Buckingham [Internet]. University of Buckingham. [cited 2020 Apr 21]. Available from: https://www.buckingham.ac.uk/news/university-of-buckingham-to-become-europes-first-positive-university/

6. What is positive education? - Geelong Grammar School [Internet]. [cited 2020 Apr 21]. Available from: https://www.ggs.vic.edu.au/School/Positive-Education/What-is-Positive-Education

7. St Peter's College - Wellbeing & Pastoral Care [Internet]. St Peter's College. [cited 2020 Apr 21]. Available from: https://www.stpeters.sa.edu.au/life-at-saints/well-being-pastoral-care/

8. Universidad TecMilenio. Home | Universidad Tecmilenio [Internet]. Universidad Tecmilenio. [cited 2020 May 25]. Available from: https://tecmilenio.mx/en

9. positive education Shipley School [Internet]. [cited 2020 Apr 21]. Available from: https://www.shipleyschool.org/about/positive-education

10. Melbourne Declaration on Educational Goals for Young Australians [Internet]. Available from: http://www.curriculum.edu.au/verve/_resources/National_Declaration_on_the_Educational_Goals_for_Young_Australians.pdf

11. Student Wellbeing Hub | Home [Internet]. [cited 2020 Apr 21]. Available from: https://studentwell-beinghub.edu.au/

12. Wellbeing of secondary school students [Internet]. Audit Office of New South Wales. 2019 [cited 2020 Apr 21]. Available from: https://www.audit.nsw.gov.au/our-work/reports/well-being-of-secondary-school-students

13. Seligman M. positive education [Internet]. Positive Psychology Center at the University of Pennsylvania; Report No.: Chapter 4. Available from: https://ppc.sas.upenn.edu/sites/default/files/posedseligmanadler.pdf

14. Gross National Happiness and positive education in Bhutan - WOHASU [Internet]. WOHASU. [cited 2020 Apr 21]. Available from: https://www.worldhappiness.com/2018/01/02/gross-national-happiness-and-positive-education-in-bhutan/

15. Positive Youth Development | Youth.gov [Internet]. [cited 2020 Apr 21]. Available from: https://youth.gov/youth-topics/positive-youth-development

16. Effectiveness | Youth.gov [Internet]. [cited 2020 Apr 21]. Available from: https://youth.gov/youth-topics/effectiveness-positive-youth-development-programs

17. About CorStone [Internet]. CorStone. [cited 2020 Apr 21]. Available from: https://corstone.org/about/

18. Positive Psychology Center [Internet]. [cited 2020 Apr 21]. Available from: https://ppc.sas.upenn.edu/

19. Penn Resilience Program and PERMA™ Workshops | Positive Psychology Center [Internet]. [cited 2020 Apr 21]. Available from: https://ppc.sas.upenn.edu/services/penn-resilience-training

20. Institute - Geelong Grammar School [Internet]. [cited 2020 Apr 21]. Available from: https://www.ggs.vic.edu.au/institute

21. 正向教育研究室 positive education Laboratory [Internet]. [cited 2020 Apr 21]. Available from: http://www.cityu.edu.hk/ss_posed/content.aspx?title=7

22. NZIWR is dedicated to increasing well-being for communities and organisations in Aotearoa/New Zealand [Internet]. NZIWR. [cited 2020 Apr 21]. Available from: https://nziwr.co.nz/

23. IPEN [Internet]. IPEN. [cited 2020 Apr 21]. Available from:

http://ipen-network.com/about

24. IPEN [Internet]. IPEN. [cited 2020 Apr 21]. Available from:
http://ipen-network.com/about

25. About IPPA [Internet]. International Positive Psychology Association. [cited 2020 Apr 21]. Available from: https://www.ippanetwork.org/about/

26. Holland S. PESA History | PESA: positive education Schools Association [Internet]. PESA: positive education Schools Association. [cited 2020 Apr 21]. Available from: https://www.pesa.edu.au/history/

27. 当協会について [Internet]. 一般社団法人 日本ポジティブ教育協会. 2015 [cited 2020 Apr 21]. Available from: http://www.j-pea.org/introduction/aboutus

28. レジリエンス [Internet]. 一般社団法人 日本ポジティブ教育協会. 2015 [cited 2020 Apr 21]. Available from: http://www.j-pea.org/resilienceeducation

29. Special Announcement - Bounce Forward [Internet]. Bounce Forward. [cited 2020 May 25]. Available from: https://bounceforward.com/

30. What is positive education? - Geelong Grammar School [Internet]. [cited 2020 Apr 21]. Available from:
https://www.ggs.vic.edu.au/School/Positive-Education/What-is-Positive-Education

31. Waters L. A Review of School-Based Positive Psychology Interventions. The Educational and Developmental Psychologist. Cambridge University Press; 2011;28:75–90.

32. Sin & Sonja N. Enhancing Well-Being and Alleviating Depressive Symptoms With Positive Psychology Interventions: A Practice-Friendly Meta-Analysis. Journal of Clinical Psychology [Internet]. 2009 [cited 2020 Apr 23]; Available from:
http://sonjalyubomirsky.com/wp-content/themes/sonjalyubomirsky/papers/SL2009.pdf

33. Hancock T. China law puts foreign NGOs under tighter control | Financial Times [Internet]. Financial Times. 2018 [cited 2020 Apr 21]. Available from:
https://www.ft.com/content/a61994da-3ec1-11e8-b7e0-52972418fec4

34. [No title] [Internet]. [cited 2020 Apr 24]. Available from:
https://ppc.sas.upenn.edu/sites/default/files/posedseligmanadler.pdf

35. The case for positive education [Internet]. Action for Happiness. [cited 2020 Apr 21]. Available from:

https://www.actionforhappiness.org/news/the-case-for-positive-education

36. Website [Internet]. [cited 2020 Apr 21]. Available from:
https://www.worldgovernmentsummit.org/api/publications/document/8f647dc4-e97c-6578-b2f8-ff0000a7ddb6

37. Robson-Kelly L. Is positive education too positive for the UK? Do we require a more nuanced approach to positive education in the UK? European Journal of Applied Positive Psychology [Internet]. 2018 [cited 2020 Apr 21];4. Available from:
http://www.nationalwell-beingservice.org/wp-content/uploads/2018/08/EJAPP-2-4.pdf

38. White MA. Why won't it Stick? Positive Psychology and positive education. Psychol Well Being [Internet]. Springer; 2016 [cited 2020 Apr 21];6. Available from:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4748005/

39. Healthy Minds: the positive impact of a new school curriculum [Internet]. [cited 2020 May 16]. Available from: http://cep.lse.ac.uk/pubs/download/cp558.pdf

40. Healthy Minds Research Project - Bounce Forward [Internet]. Bounce Forward. [cited 2020 May 16]. Available from:
https://bounceforward.com/healthy-minds-research-project/

41. Education and Training (Welfare of Children) Bill 2019-21 — UK Parliament [Internet]. [cited 2020 Apr 21]. Available from:
https://services.parliament.uk/bills/2019-21/educationandtrainingwelfareofchildren.html

42. International Association for Religious Freedom [Internet]. [cited 2020 Apr 24]. Available from: https://iarf.net/REBooklet/RoCTaiwan.htm

43. 新聞工作小組. The Establishment of the Life Education Middle-Term Project Enabling Students to Comprehend Values of Life. 新聞工作小組; 2019 [cited 2020 Apr 24]; Available from: https://english.moe.gov.tw/cp-13-19216-9533f-1.html

44. Chaoyang University as an Example of Taiwan University Life Education Curriculum Planning, Design, and Implementation - Bản tin Đại học Quốc gia Hà Nội [Internet]. [cited 2020 Apr 24]. Available from:
http://100years.vnu.edu.vn/BTDHQGHN/Vietnamese/C1794/2006/05/N8040/

45. NCEE | Taiwan: Learning Systems [Internet]. [cited 2020 Apr 24]. Available from:
http://ncee.org/what-we-do/center-on-international-education-benchmarking/top-performing-countries/taiwan-overview/taiwan-learning-systems/

46. BBC News. Norway "is the happiest place on Earth" [Internet]. BBC News. BBC News; 2017 [cited 2020 Apr 24]. Available from: https://www.bbc.com/news/world-39325206

47. [No title] [Internet]. [cited 2020 Apr 24]. Available from: https://www.oecd.org/norway/48632032.pdf

48. Doe J. National Reforms in School Education – Eurydice – European Commission [Internet]. Eurydice – European Commission. 2017 [cited 2020 Apr 24]. Available from: https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-48_en

49. Ministry of Education. EDUCATION STRATEGIC PLAN [Internet]. Available from: https://www.globalpartnership.org/sites/default/files/2019-05-education-strategic-plan-2018-2030.pdf

50. The depression report: a new deal for depression and anxiety disorders. London, UK: Centre for Economic Performance, London School of Economics and Political Science; 2006;20.

51. Action for Happiness [Internet]. [cited 2020 Aug 3]. Available from: https://www.actionforhappiness.org/about-us

52. Dr Grace Lordan and Professor Alistair McGuire. Healthy Minds [Internet]. Education Endowment Foundation; 2018. Available from: https://educationendowmentfoundation.org.uk/public/files/Projects/Evaluation_Reports/Healthy_Minds_interim_paper.pdf

53. Dr Grace Lordan and Professor Alistair McGuire. Healthy Minds [Internet]. Education Endowment Foundation; 2018 Nov. Available from: https://educationendowmentfoundation.org.uk/public/files/Projects/Evaluation_Reports/Healthy_Minds_interim_paper.pdf

54. Public CSH Budget 2017 USD [Internet]. Google Docs. [cited 2020 Apr 16]. Available from: https://docs.google.com/spreadsheets/d/1YcMdYbpxarONoSs_PCAtiKRr2c4g9YPiXzR81owdvBk/edit?usp=embed_facebook

55. pubmeddev, Speich B E al. Systematic review on costs and resource use of randomized clinical trials shows a lack of transparent and comprehensive data. – PubMed – NCBI [Internet]. [cited 2020 May 15]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/29288136

56. Top Mental Health and Happiness Charity Ideas We're Researching in 2020 (Idea Prioritization Report) [Internet]. CHARITY ENTREPRENEURSHIP. [cited 2020 Apr 3]. Available from:
http://www.charityentrepreneurship.com/1/post/2020/03/top-mental-health-and-happiness-charity-ideas-were-researching-in-2020-idea-prioritization-report.html

57. Bolier L, Haverman M, Westerhof GJ, Riper H, Smit F, Bohlmeijer E. Positive psychology interventions: a meta-analysis of randomized controlled studies. BMC Public Health. BioMed Central; 2013;13:1–20.

58. Sin NL&. L. Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis. Journal of Clinical Psychology. 2009;65:467–87.

59. Jeffrey J. Froha, Todd B. Kashdanb, Kathleen M. Ozimkowskia and Norman Millera. Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a moderator. The Journal of Positive Psychology. 2009;4:408–22.

60. Marques SC, Lopez SJ, Pais-Ribeiro JL. "Building Hope for the Future": A Program to Foster Strengths in Middle-School Students. J Happiness Stud. Springer Verlag; 2011;12:139–52.

61. Huppert, F. A., & Johnson, D. M. A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being. The Journal of Positive Psychology. 2010;5:264–74.

62. Positive education: Quality and quantity of evidence [Internet]. Google Docs. [cited 2020 May 7]. Available from:
https://docs.google.com/spreadsheets/d/1Tf8dhv_fH9U8WnxNkS-WTDsBSK9JkGRRClTcGgDXIQo/

63. Penn Resilience Program and PERMA™ Workshops | Positive Psychology Center [Internet]. [cited 2020 May 7]. Available from:
https://ppc.sas.upenn.edu/services/penn-resilience-training

64. Zangmo S. A Gross National Happiness Infused Curriculum: The Promise of a More Meaningful Education in Bhutan [Internet]. Western Michigan University; [cited 2020 May 7]. Available from:
https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=1546&context=masters_theses

65. Adler A. Teaching Well-Being increases Academic Performance: Evidence From Bhutan, Mexico, and Peru [Internet]. Seligman ME, editor. University of Pennsylvania; 2016 [cited 2020 May 7]. Available from: https://repository.upenn.edu/edissertations/1572

66. Margaret L. Kern, Lisbeth Benson, Elizabeth A. Steinberg, Laurence Steinberg. The EPOCH Measure of Adolescent Well-being. [cited 2020 May 7]; Available from: https://www.peggykern.org/uploads/5/6/6/7/56678211/epoch_measure_of_adolescent_well-being_102014.pdf

67. Top Mental Health and Happiness Charity Ideas We're Researching in 2020 (Idea Prioritization Report) [Internet]. CHARITY ENTREPRENEURSHIP. [cited 2020 May 7]. Available from: http://www.charityentrepreneurship.com/1/post/2020/03/top-mental-health-and-happiness-charity-ideas-were-researching-in-2020-idea-prioritization-report.html

68. Effective Altruism [Internet]. [cited 2020 May 4]. Available from: https://app.effectivealtruism.org/funds/global-development

69. Action for Happiness Summary | Founders Pledge [Internet]. Founders Pledge. [cited 2020 May 4]. Available from: https://founderspledge.com/stories/action-for-happiness-summary

70. The Pixel Fund - UK Mental Health Grants for Charities [Internet]. The Pixel Fund. [cited 2020 May 4]. Available from: https://www.pixelfund.org.uk

71. Funding programmes | The National Lottery Community Fund [Internet]. [cited 2020 May 4]. Available from: https://www.tnlcommunityfund.org.uk/funding/programmes

72. IPEN [Internet]. IPEN. [cited 2020 May 4]. Available from: http://ipen-network.com/

73. Our Vision - Geelong Grammar School [Internet]. [cited 2020 May 4]. Available from: https://www.ggs.vic.edu.au/Institute/About-Us/Our-Vision

74. IPEN [Internet]. IPEN. [cited 2020 May 4]. Available from: http://ipen-network.com/about

75. Holland S. Mission, Vision & Goals | PESA: positive education Schools Association [Internet]. PESA: positive education Schools Association. [cited 2020 May 4]. Available from: https://www.pesa.edu.au/mission-vision-goals/

76. Wiblin R. Everything you need to know about whether money makes you happy - 80,000 Hours [Internet]. 80,000 Hours. [cited 2020 May 7]. Available from: https://80000hours.org/articles/money-and-happiness/

78. Shoshani, A., Steinmetz, S., & Kanat-Maymon, Y. (2016). Effects of the Maytiv positive psychology school program on early adolescents' well-being, engagement, and achievement. Journal of School Psychology, 57, 73-92.

79. Cheung, F., & Lucas, R. E. (2014). Assessing the validity of single-item life satisfaction measures: Results from three large samples. Quality of Life research, 23(10), 2809-2818.