



We now turn to an update for 2018 country-by-country. We emphasize that this is a sample rather than an exhaustive update.

## United Kingdom

The United Kingdom has started to emphasize positive education as a mechanism to prevent mental health problems by concentrating on improving well-being rather than risk reduction. A single theme that is mentioned in positive education literature is the importance of whole school approach that supports in well-being development (MAPPCP, 2018). Additionally, coaching psychology is now gaining popularity within educational institutions in the UK as it provides opportunities to improve mental health well-being by including coaching in application of positive psychology interventions (Nieuwerburgh & Barr, 2017).

Universities UK (UUK), the representative organization for UK universities, have introduced a new program of work on mental health in higher education in December 2016. The aim of the program is to ensure that well-being and mental health are a strategic priority for universities.

Two principles that guide this work are:

- We all have mental health, well or unwell.
- A whole university approach to well-being is needed.

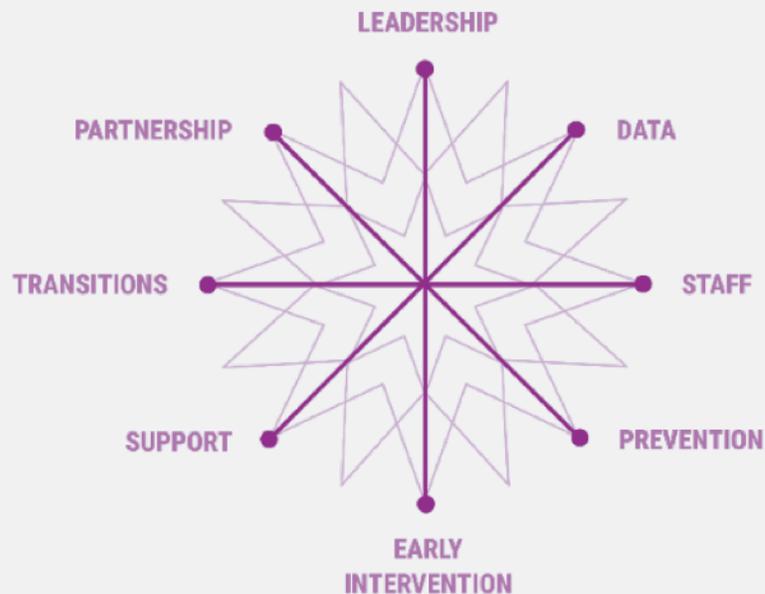
UUK has since introduced a Step Change framework that was published in September 2017 to support higher education institutions to take on the whole university approach and improve students and staff well-being. The publication sets out

- a case for a strategic approach
- a vision
- a whole-institution approach
- an eight-step framework for achieving the vision (Metcalfe, Wilson, & Levecque, 2018)

**Table A1. Synthesis of PosEd landscape in the UK (MAPPCP, 2018)**

<b>Need</b>	<ol style="list-style-type: none"> <li>1. Crisis affecting children and young people’s mental health in UK</li> <li>2. Negative impact on health and education outcomes</li> <li>3. Prevention of illness</li> <li>4. Promote mental health and protect against mental illness</li> </ol>
<b>Solution</b>	<ol style="list-style-type: none"> <li>1. Improve accessibility to a range of clinical or specialist interventions, e.g., Counselling and Children’s Mental Health Services.</li> <li>2. Significantly ease pressures on clinical mental health services by developing school-based interventions.</li> <li>3. Develop a whole school culture within schools that values and promotes mental health and protects against mental illness.</li> <li>4. Improve teacher’s confidence and ability to identify issues and provide preventative strategies.</li> <li>5. Academic resilience programmes for children and young people, targeted at those who are vulnerable and at risk.</li> <li>6. Identify evidence-based prevention programmes</li> </ol>
<b>Synthesis</b>	<p>Nuanced and integrated approach to PosEd that provides prevention through</p> <ul style="list-style-type: none"> <li>• A whole school approach that includes a range of targeted interventions for more at-risk children and young people.</li> <li>• PosEd programmes for the whole school community that improve well-being, skills for achievement and create a sustainable culture of mental health and well-being.</li> <li>• Support for teachers and staff to develop skills for well-being that protect against mental health problems, promote well-being, develop resilience and contribute to sustainable mental health and well-being culture.</li> <li>• Access to a range of clinical or specialist interventions for those that need it.</li> <li>• Coaching schools through the long-term change and system transformation to ensure well-being becomes fabric of the school.</li> </ul>

**Figure A1. Eight-step framework for achieving the vision**



(Metcalf, Wilson, & Levecque, 2018)

## UUK framework for Higher Education

### Student Minds

Student Minds, a UK based student mental health charity, works in conjunction with students, professionals, service users and academics to improve student mental health. They have announced plans to develop a University Mental Health Charter which will recognize and reward institutions that deliver improved student mental health and well-being while keeping student and staff mental health a priority. This charter is created in partnership with various charities and Higher Education organizations and with an initial support of £100,000 grant from the University Partnerships Programme (UPP) foundation.

### Future in Mind

Has introduced cross-agency services for mental health among children and young adults so that the local areas could collaborate with commissioners and other providers across education, health, social care, youth justice and the voluntary sector. This system would help everyone plan strategically while reflecting the needs of the

local communities (Department of Health & Department for Education, 2017).

### Time to Change Campaign

The Government has invested up to £31 million in this campaign for reducing the stigma towards mental health. Time to Change claims it has already helped four million people bring positive changes in their lives.

### Schools

After the Department for Education's survey on mental health support in schools and colleges in 2017, a government Green paper proposed three ways to improve support for children and young people's mental health in the UK.

1. All schools will be incentivized to identify and train a Designated Senior Lead for Mental Health to help other staff members deliver the whole school approach in promoting mental health.
2. Funding for new Mental Health Support Teams will be provided to persons who would work jointly between schools and the NHS to help improve support for vulnerable groups.

3. Steps to reduce NHS services waiting time will be taken for children and young people needing specialist help (Department of Health & Department for Education, 2017).

However, these steps will need additional funding which is uncertain given the UK's transition to leaving the EU in 2019.

### How to Thrive

How to Thrive (Lucy Bailey [lucy@howtothrive.org](mailto:lucy@howtothrive.org)) has trained teachers in 400 schools (110 primary schools) to teach the Penn Resilience Program. Some of these teachers have now been teaching the PRP for 9 years. They (conservatively) estimate the Penn Resilience Program to have reached 150,000 students in the UK.

## China

Positive education is rapidly taking off in China. Numerous practical models of positive education which are tailored for Chinese culture have emerged and been widely applied. Positive education may be the right antidote for the existing effective yet psychologically expensive educational system in China.

### Beijing

From 2014 to 2018, the Positive Psychology Research Center (PPRC) of Tsinghua University has provided rigorous training courses, positive education curricula, and scientific measures for 19 schools, with over 17,500 students and 900 teachers from Guangdong, Sichuan, Hunan and other provinces in China. From 2016 to 2017, compared to control group, the scores of experimental group has increased in psychological resilience, growth mindset and hope in Yuncheng Vocational School. In Taohuajiang primary school, scores rose in 2017 compared to 2016 in students' hope (4.54%), resilience (5.87%), and optimism (6.31%).

To further disseminate PE, PPRC also launched a non-profit program called "Happy Gardener" (Gardener is the common metaphor of teacher in China) that trains school principals and head teachers for free, funded by the Beijing Happiness Foundation. From 2013 to 2018, this 16-session program, trained 1,678 principals and head teachers, who went to Tsinghua University for a

five-day training in PE. Partnered with GuiXin Foundation, the Happy Gardener program has provided PE training for 1,500 teachers in rural regions in Hunan, Sichuan, Qsinghai, Guizhou and Heibei Provinces in China through 2018.

In 2018, the Bureau of Education of Beijing decided to implement a positive education program for all primary schools, junior high schools, and senior high schools in Chaoyang district. This was done under the supervision of the Institute of Psychology of the Chinese Academy of Sciences, and involved 15,000 students and 1,000 educators. This positive education program emphasized cultivating positive character strengths, growth mindset, grit and the pursuit of academic achievement as well as well-being. It also established a psychological wellness profiler for each student, aiming to track their long-run psychological development.

Starting in 2014, Beijing local government partnered with Tsinghua University China Positive Psychology Research Foundation, to fund the research and application of positive education in the amount of US \$285,000 per year.

### Zengcheng

In 2014, the city of Zengcheng (now part of Guangzhou), Guangdong province, launched the largest program to date in China. Under the supervision of Ms. Ye Hong, member of the standing committee, more than 600 school principals and head teachers completed an intensive training program of positive education provided by the Positive Psychology Research Center of Tsinghua University (PPRC). Martin Seligman lectured to the educators of Zengcheng in 2015.

As of September 2018, Ye Hong reports that 20 primary schools, junior high schools, and senior high school have consistently launched Positive Education for four years in Zengcheng under the supervision of positive education experts of PPRC, influencing over 30,000 students and their families. In 2018, the Education Bureau of Zengcheng provided 50 or more positive education workshops as a public service for parents, impacting 9000 families.

Mayor Ye Hong reports that from teachers' point of view, measured career devotion is now higher

and teaching methods have improved – they are more flexible and more effective. From the students: academic performance is higher on University Entrance Exams (gaokao) compared to 2017: in 2017 the rate at which students were admitted to key universities was 41.2%, while in 2018 it had gone up to 56.2%.

## USA

### The Shipley School

The Shipley School (Bryn Mawr, Pennsylvania) is to our knowledge the only school in the USA that has adopted full whole-school Positive Education. It works towards the integration of Positive Education throughout the entire school community. Baseline data of Shipley students prior to the launch of Positive Education showed that perseverance, connectedness, and happiness were significantly higher than national averages. Engagement and optimism, on the other hand, were significantly lower, and also lower than the national average. Anxiety and depression among students were relatively high. Since the start of formal training of all teachers and staff in Positive Education in August 2017, most domains of student well-being (engagement, perseverance, optimism, happiness, and overall well-being) showed moderate improvements. Additionally, depression and anxiety declined modestly during the same time period (2016 to 2017). Shipley continues to monitor and evaluate the impact of the Positive Education whole-school initiative on academic performance, as measured by admissions testing data, in-school reading testing, and SAT/ACT scores.

Early evidence of Shipley teachers and staff found that baseline well-being was significantly higher than national averages. Three months after the 2017 all-colleague Positive Education retreat, the area of quality of relationships showed a significant improvement.

Here is the timeline for the next steps to continue the integration of Positive Education at Shipley:

- August 2018 – Summer Symposium for Curriculum Integration of Positive Education
- August 2018 – Training of New Colleagues
- August 2018 – Training of Student Leaders

- September 2018 – Launch of an elective course in Positive Psychology (to complement the Social, Emotional and Ethical Development course taught to all PK-12 students)
- September 2018 – May 2019 – Pilot Parent Training (4th grade parents)
- November and December 2018 – Student and Colleague well-being surveys
- Summer 2019 – Host training for local/national educators in Positive Education at Shipley.

### Gateway Community College

GateWay Community College in Phoenix, AZ, launched an initiative in 2018 to become the first Well-Being Community College in the world. GateWay's comprehensive effort will create a whole-school system that promotes well-being in an integrated program targeted to staff, faculty, students, employers and community members. The core components (Five Cs highlighted below) will bring GateWay's current efforts together under one overarching commitment to positively impact the college and its broader community.

**Character:** Creating a strengths-based culture through college-wide use of the VIA Character Strengths Assessment.

**Connection:** Creating and supporting deeper, more meaningful connections among all community members to support employee engagement, students' sense of belonging, and students' efforts to persist and complete their degrees.

**Care:** Taking care of psychological, physical and financial well-being, including mindfulness, physical exercise, financial stability and other supportive programs.

**Career:** For both current employees and students pursuing new careers, providing an integrated experience focused on making decisions that contribute not just to career success, but life success by exploring alignment with strengths and values, understanding how to find meaningful work, and increasing energy and engagement.

**Contribution:** Building connections to the greater community so that students and employees can elevate their personal contribution to the greater good and make an impact that is socially and personally significant. The goal is for all to “feel

valued and add value” and to become educated, compassionate, active citizens.

Anticipated outcomes of GateWay’s increased well-being include improving student achievement, increasing retention and graduation rates, elevated levels of effort and engagement for both students and employees, and a culture where all community members feel they matter.

## United Arab Emirates

The vision of the government of the United Arab Emirates (UAE) is to become one of the happiest nations in the world by the 50th anniversary of its nationhood in 2021. Including all public and private sector industries in the UAE and Dubai, and delivered through targeted policies, programs and partnerships at the local and international levels, the UAE has made much progress on its well-being journey in 2018.

Within this context, the awareness and application of positive education has begun to take hold across the UAE’s public and private schools. With the guidance of the Minister of State for Happiness and Wellbeing, the National Program for Happiness and Wellbeing has undertaken a pilot project to train public school teachers in positive education practices. In partnership with the Institute of Positive Education at Geelong Grammar School in Australia, 80 teachers and 40 school leaders across 10 public schools took part in initial training, with follow-up training conducted six months later. Preliminary qualitative findings – evaluated by collaborative teams from United Arab Emirates University and the University of Melbourne - indicate an improvement in student well-being and an increase in community engagement. Final results will be released in February 2019.

The UAE’s commitment to happiness and well-being in education has also seen support from the higher education sector. Zayed University<sup>1</sup>, a federal institution educating UAE nationals, has recently introduced ‘The Quest for Happiness’ – a mandatory course for all new students. This interdisciplinary course takes students through a journey of connecting with self, others, and community as they explore concepts of positive psychology and apply tools to find their purpose and improve their well-being. Topics will include meaning, purpose,

resilience, motivation, emotional intelligence, gratitude, mindfulness, altruism, empathy, and happiness around the world. This course uses an experiential approach in guiding students to understand and apply core concepts, analyze foundational texts and exercise self-reflection. Students will be exposed to the discourse on how to live a purposeful life and will gain insights and practical strategies to engage in a search for fulfillment.

The Knowledge and Human Development Authority (KHDA) in Dubai, working in partnership with the Department for Education in South Australia, recently completed the first year of a 5-year project to measure the well-being of middle school students across Dubai’s private schools. Involving nearly 65,000 students across 168 schools, first year results of the Dubai Student Wellbeing Census<sup>2</sup> have revealed that 84% of Dubai’s students consider themselves to be happy most of the time.<sup>3</sup> The second year of the Census will be expanded to include students up to Grade 12. Results will be released in February 2019.

KHDA will survey principals, teachers, administrators, governors and school owners about their own well-being in order to gain a more complete picture of well-being in education and to enact policies to benefit the whole community. The Adults@School Wellbeing Survey, run with the support of Michelle McQuaid, was launched in late 2018, and is based on the PERMA model pioneered by Dr. Martin Seligman.<sup>4</sup> Schools will receive summary reports of responses from their student and adults that they can use as evidence and reference points for developing initiatives to improve well-being across their school community.

## The Well Schools Network

The Well Schools Network is a national network offering optional membership for the UAE public and private schools seeking to foster positive education and well-being culture for their students and teachers. The network provides a flexible mechanism that allows member schools to implement positive education and well-being principles in line with a set of pillars that would yield positive benefits for the school community.

## Registration

Schools willing to promote positivity and well-being can register in the network

## Implementation

Member schools implement activities and initiatives aiming to boost positive education and well-being within the school community, in line with the network's key pillars.

## Optional Consultation

Member schools can access consultation and advice on their proposed initiatives from the network's pool of experts in positive education and well-being. These optional consultations aim to maximize the impact of the initiatives.

## Grants

The network offers a range of grants to support the activities and initiatives undertaken by its member schools. Schools wishing to benefit from these grants can submit a detailed list of their proposed activities and initiatives, and the network will select the initiatives eligible for the grants.

## Well Schools Mark

The Well Schools Network supports member public and private schools to adopt the principles of positive education and well-being by providing financial and advisory support to related activities and initiatives. Given the flexible nature of the network's pillars and related elements, member schools can focus on the pillars and elements they deem more important to them. Distinguished schools will be granted the 'Well Schools Mark', which highlights the school's outstanding efforts in promoting positive education and well-being. Obtaining such mark will serve as a proof of the school's excellence in promoting positivity and well-being among parents and the whole community."

<https://wsn.hw.gov.ae/en>

## India

**CorStone** works with some of the world's most marginalized populations to empower them to "bounce back" and thrive despite significant adversity. CorStone is an internationally recognized nonprofit organization with the mission to provide evidence-based resilience programs to improve mental and physical health, increase academic achievement, and reduce

poverty among marginalized youth and women. Since 2009, CorStone has reached over 65,000 beneficiaries in India and Kenya. Its largest program, *Youth First*, is an evidence-based integrated emotional resilience and health program that has been rigorously tested through a randomized controlled trial among 3,600 schoolgirls in a rural setting.

In India, CorStone works through three modalities: providing *Youth First* to students in government middle schools; providing *Girls First* to students in Kasturba Gandhi Balika Vidyalaya (KGBV) schools, which are government-run residential middle schools for vulnerable girls; and providing the *Self Help Group Resilience Project* to rural women in self-help groups.

## Youth First and Girls First in Middle Schools

CorStone has trained nearly 500 government middle school teachers to conduct a 25-session resilience and health curriculum among 6th, 7th and 8th standard students in 250 schools. As of the end of the 2017/18 academic year, *Youth First* and *Girls First* had reached over 65,000 students. Teachers report better rapport with students and improved student focus in the classroom. Students report improved goal-setting and problem-solving skills, and describe using their character strengths to help them work towards goals and solve problems. Quantitative pre- and post-assessments among student participants also show improved resilience skills as well as improved psychological well-being. For example, in a recent pre- to post-test uncontrolled evaluation of *Girls First* conducted in KGBV schools, resilience, self-efficacy, social-emotional assets, psychological well-being and social well-being improved significantly ( $p$ 's < 0.001; see Figure 1).

In 2018, CorStone launched a longitudinal randomized controlled study of *Youth First* in government middle schools in Bihar. This evaluation will provide some of the first evidence in the region about the longer-term impact of emotional resilience training on students' enrollment into high school, mental health, substance use and reproductive outcomes.

In addition, CorStone has entered into an understanding with the Bihar Education Department to plan for scale-up of its *Youth First* program in government schools and *Girls First-KGBV* program in KGBV schools throughout Bihar. There are over 70,000 middle schools and 500 KGBV schools in Bihar, serving over 6,000,000 primarily low-income students.

### Self-Help Group Resilience Project

In 2018 CorStone completed piloting a new program aimed at rural, low-literacy women, delivered through the self-help group platform. Six hundred women in 50 self-help groups participated in the pilot. An observational study of this program showed that the intervention had significant impact on women’s assets and well-being (see Figure 2). Resilience measures increased by 25%, from 25.1 to 31.3 (maximum possible score of 40 points). Similarly, statistically significant increases were found for General Self-Efficacy scale (+18%). Increases were also

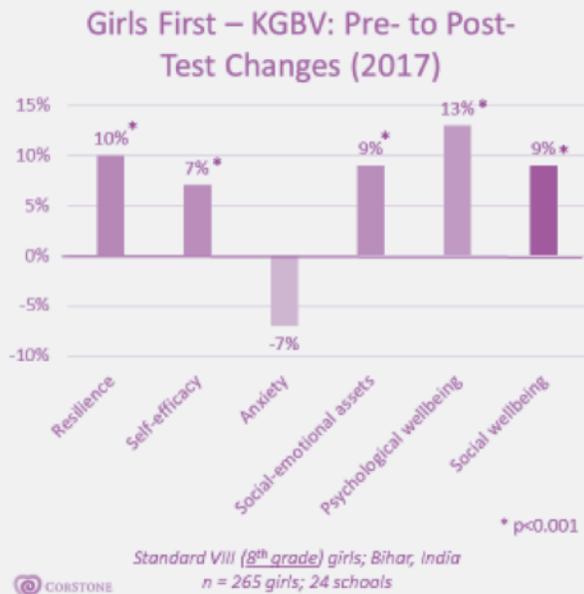
found on the State Hope Scale (+12.8%), which encompasses aspects of both agency (goal-directed energy) and pathways (planning to meet goals). Significant impacts on mental well-being were also found, measured. Scores decreased by 21.6%, representing a clinically meaningful change.

### Kenya

#### Youth First Kenya

In the past year CorStone expanded Youth First to Kenya, where it successfully piloted its emotional resilience and health program among 9 schools in low income rural and nomadic communities, training 16 teachers and 200 students. CorStone is now working closely with county- and national-level policy makers in the Ministry of Education to approve the curriculum and plan for a longer-term scale up strategy.

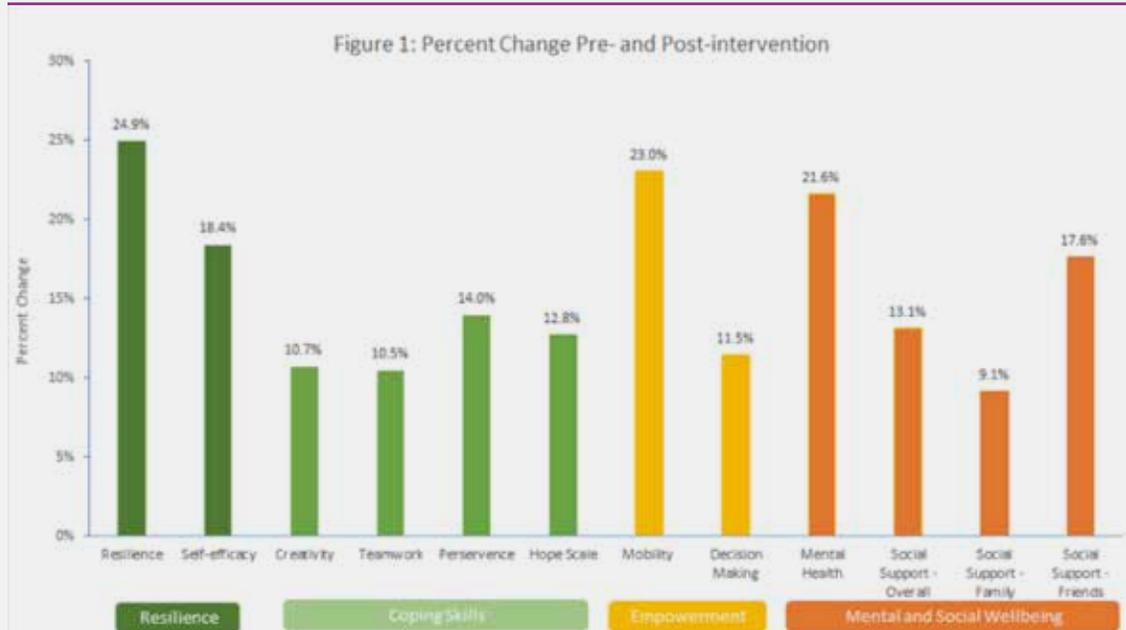
**Figure A2. Girls First – KGBV: Pre- to Post-Test Changes**



- 8<sup>th</sup> grade girls improved from pre to post test on a host of psychosocial measures
- Differences from pre to post were sizeable and statistically significant (p < 0.001) for:
  - Resilience
  - Self-efficacy
  - Social-emotional assets
  - Psychological wellbeing
  - Social wellbeing
- Anxiety showed a sizeable though not statistically significant change (p = 0.11)
- Analyses controlled for clustering at the school level

Resilience = Connor-Davidson Resilience Scale (CD-RISC)  
 Self-efficacy = Schwarzer’s General Self-efficacy Scale  
 General Anxiety Disorder = General Anxiety Disorder Scale  
 Social-emotional Assets = Child and Youth Resilience  
 Kidscreen Psychological Wellbeing = Kidscreen Psychological Well-being  
 Kidscreen Social Wellbeing = Kidscreen Social Well-being

**Figure A3. Self-help Group Resilience Project: Percent Change Pre- and Post-intervention**



Notes for Figure A3: All items significant at  $p < 0.001$ . Resilience and coping skills together represent the assets that are hypothesized to improve as a result of the SRP. Mental health is shown as improving in this figure, as indicated through a reduction in the SRQ-20 scores.

## Australia

In 2018, **Geelong Grammar School (GGS)** celebrated the tenth year of its successful implementation and embedding of Positive Education, and the fifth year of operation of its **Institute of Positive Education**. To help mark the first decade of Positive Education, GGS hosted the 4th annual Positive Education Schools Association (PESA) conference. The conference was attended by more than 800 delegates representing each state and territory in Australia and ten different countries.

<https://vimeo.com/284659310/677af18854>

Professor Martin Seligman returned to GGS and delivered the opening and closing keynotes. With 20 addresses, 18 masterclasses, 60 teacher-led workshops it was a true festival of learning, living, teaching and embedding Positive Education. The **Institute of Positive Education (IPE)** continues to grow its impact in inspiring and supporting schools to discover and implement Positive Education. In 2018, the IPE

delivered 124 training courses comprising 208 training days, which were attended by over 6000 participants. To meet the increasing demand, the Institute team has doubled in size in the past year to 24 members across five teams: Training, Research, Communications, Business Development and Administration. Whilst continuing to deliver a range of open-entry courses and workshops, the IPE is increasingly working directly with individual schools to provide whole-school training and in-depth, long-term consultancy to facilitate customized whole-school Positive Education implementation strategies. The Institute's training team has a combined total of more than 150 years of classroom and school leadership experience and over 50 years of practice implementing Positive Education.

Significant progress has been made by the IPE's dedicated curriculum writers in developing a Positive Education Enhanced Curriculum (PEEC). This is a research-based explicit curriculum, developmentally sequenced from Kindergarten to Year 12, and draws on ten years of experience

teaching Positive Education at GGS. Already trialed across the four GGS campuses, PEEC is now being piloted at schools both nationally and internationally, ready for its public launch in 2019. PEEC is not a replacement for the implicit Positive Education that takes place every day through pastoral care, coaching, teaching and every interaction that a teacher has with a student. It is an explicit curriculum that is implemented in a strategic way during timetabled lessons.

In 2018, GGS produced a detailed 40-page booklet titled 'Positive Education Research at Geelong Grammar School: Our contributions and discoveries to date.' Findings from a recent key collaborative venture with the Centre for Social and Early Emotional Development (SEED) at Deakin University were shared following the third year of our 'Giving for a Better World' project. The project explored the link between student eudaimonic well-being and voluntary prosocial action. The eudaimonic model posits that well-being is not so much a goal of behavior as a consequence of living virtuously – or living in a “caring and personally meaningful” way. One of the successful aims of the project was to trial new measures for kindness and eudaimonic well-being and to develop a new student interview methodology to assess student motivation for participation in the project. An important finding was that students developed a more mature understanding that caring for others can be a difficult, challenging and yet rewarding undertaking.

National and international conference keynote presentations addressed two distinct but related concepts: 'Ten Lessons Learnt' from a decade of implementing Positive Education and 'Ten Hopeful Thoughts' for the future directions of Positive Education. Blogs on both topics are published on the Institute's website.

As a School, and through the Institute's training and research, GGS remains committed to its dual foci of nurturing the well-being of its school community and furthering the field of Positive Education: the science of education at its best.

In 2018, Positive Education has continued to grow in Australia as evidenced by growth in membership of the Positive Education Schools Association (PESA) (450% growth since 2016), growth in the number of attendees at the Annual Positive Education (PESA) Conference

(2017 n = 350. 2018 n = 800), growth in the number of people formally enrolling in university qualifications in Positive Education and Positive Psychology, together with an Australian first of the science of positive psychology being formally included into the Bachelor of Teaching and Master of Teaching programs at The University of Adelaide who, from 2019, will graduate teachers formally trained in the science of positive education.

2018 has seen the formation of a four 'Positive Education Cluster Models' in Australia where groups of schools are banding together to share training resources. The largest of these clusters involves 21 schools across the State Sector, Independent Sector and Catholic Sector in the Upper Hunter Region of New South Wales. This has been made possible through a three-way partnership among PESA, the Where There's a Will Charity, and Visible Wellbeing. The two-year project in Upper Hunter brings together all teachers and school leaders to receive 8 days of training in positive education together with ongoing coaching, measurement, parent education and student resources across the two years. <https://www.muswellbrookchronicle.com.au/story/5196692/a-significant-milestone/?cs=1865>

The Victorian State Government is investing in positive education for its state schools and has injected \$6.39 million into a positive education cluster by forming a partnership between the University of Melbourne's Centre for Positive Psychology, Maroondah City Council, Maroondah Principals Network and Geelong Grammar's Institute of Positive to provide training for 20 Victorian school. <http://www.maroondahyouth.com.au/Maroondah-Plus-10-Schools>

Another Victorian State Schools Education cluster is the Langwarrin Positive Education Network, a cluster of 4 government secondary and primary schools, which have banded together to jointly appoint a Positive Education Coordinator, whose role is to embed Positive education across all 4 schools using a shared language and philosophy.

A similar State Schools Education Cluster was formed in Tasmania, with 50% of the funding coming from the Tasmanian State Education System towards a cluster of 4 State primary school who undertook the Visible Wellbeing Training. For more information about these 4 schools: <http://www.visiblewellbeing.org/media/>

The Centre for Positive Psychology at The University of Melbourne continues to be the pre-eminent place of positive psychology training for university level certificates and degrees over 3,000 undergraduate and postgraduate students graduating from the Centre's courses since 2013. The Centre for Positive Psychology has also taken its Professional Certificate in Positive Education to China and Japan.

[https://education.unimelb.edu.au/\\_\\_data/assets/pdf\\_file/0011/2851841/2018-Annual-Review-Centre-for-Positive-Psychology.pdf](https://education.unimelb.edu.au/__data/assets/pdf_file/0011/2851841/2018-Annual-Review-Centre-for-Positive-Psychology.pdf)

**Endnotes**

- 1 <https://www.zu.ac.ae/main/en/index.aspx>
- 2 <https://www.khda.gov.ae/en/dswc>
- 3 [https://www.khda.gov.ae/Areas/Administration/Content/FileUploads/Publication/Documents/English/20180218150520\\_WellbeingCensus\\_2017Results.pdf](https://www.khda.gov.ae/Areas/Administration/Content/FileUploads/Publication/Documents/English/20180218150520_WellbeingCensus_2017Results.pdf)
- 4 <https://permahsurvey.com/>