# Teaching Wellbeing through a Positive Education Programme

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Putney High School GDST, 2018

Research Question:

*To what extent does the regular use of positive tools improve pupils' perceived satisfaction with life factors over time?*

## Introduction:

A major goal of formal education is to equip students with the intellectual tools, self-beliefs, and self-regulatory capabilities to educate themselves throughout their lifetime.
*—Albert Bandura (2001)*

This Action Research Project (ARP) measured the impact of teaching a positive education programme (PEP) – the Positive Schools Programme (PSP) – on the subjective wellbeing (SWB) and academic progress in Science of Year 7 pupils at Putney High School (PHS). It specifically enquired into the impact on pupils' self-beliefs and perceived satisfaction with life factors at school of two positive self-talk tools: the *inner coach* and the *worry filter*. In carrying out this research we aimed first and foremost to make a positive impact on the wellbeing (WB) of pupils, and furthermore to provide colleagues with a rationale for the continued teaching of the PSP based on sound evidence of its effectiveness at enhancing pupils' SWB and their objective academic achievement. This ARP has fulfilled these aims, and in so doing has greatly benefitted both pupils and teachers; participating pupils have reported higher levels of SWB, measured in terms of perceived satisfaction with life factors at school over time, and teachers have robust action research and substantiated conclusions to inform the school's WB strategy and overall pastoral care. Furthermore, this ARP has pointed to a correlation between pupils' perceived satisfaction with life factors at school and their achievement, indicating the significant link between teaching WB and academic success.

## Background, Context & Need

### *The Positive Schools Programme, Positive, and the GDST*

The PSP has been developed by Positive[1] in collaboration with teachers from the Girls Day School Trust (GDST) since the Summer Term 2016. Positive's training for teachers, pupils, and parents is founded on scholarship in the fields of positive psychology (PP) and neuroscience to '…help establish psychological wellbeing within the heart of a school's culture.'[2] In 2016—2018 Positive have taken 241 teachers and staff at 23 of the GDST schools and 2 academies through the PSP.[3] PHS has participated in the Positive/GDST collaboration since its inception and is a 'Pioneer School': as of July 2018, 11 teachers and staff from PHS have been trained and accredited by Positive to teach the PSP and are now Positive Practitioners. In 2017—2018 all pupils in Years 7, 11, and 12/13 were taught a 6-week scheme of Positive lessons through the school's Personal, Social, Health, and Economic (PSHE) curriculum. Each Positive scheme of work (SOW) was developed and differentiated by Positive teachers with the relevant needs and abilities of their year group in mind. Looking ahead to 2018—2019, Positive lessons will be taught by Positive teachers to pupils in every year of PHS senior school on a rotating carousel of three core Positive lessons, and Positive's new online training course for parents will be trialed with parents of Year 7 pupils between November 2018—February 2019. The PSP is firmly embedded within PHS's WB strategy and has been championed by participating teachers as it has gained momentum across the GDST.

### *Putney High School, Wellbeing, and Action Research*

Within the context of PHS, two annual school objectives in particular have motivated this ARP: **To develop a collaborative culture** and **to be a positive school**. Collaboration and positivity are the essence of the PHS ethos, and so it seemed intuitive to theorise that pupils and teachers who develop positive habits of mind and speak kindly to themselves will develop positive relationships and be kind to others. At the start of this research process, the value of the PSP to PHS's WB strategy and to achieving our aims of being a collaborative and positive

[1] https://www.positivegroup.org/
[2] https://www.positivegroup.org/schools
[3] Appendix 1: Positive PARS Report (2018)

school seemed self-evident however as a teacher of the PSP and Head of Wellbeing Innovation I was interested to learn what the specific impact of the PSP was on pupils (both at PHS and across the GDST). Participating in PHS's established ARP programme was an opportune way to do so. A further opportunity arose in January 2018 to enhance this ARP through participating in Positive's action research and becoming a Positive Action Researcher (PAR); Positive have defined the role and objective of the PARs as being:

> *…to participate in collaborative behavioural experiments that embed the skills and knowledge learnt through the Positive Schools Programme. PARs experiments means they can apply their own learning to the ethos, curriculum and culture of the school. Each PAR will be the pioneer of research at their school, and lead the way in developing exciting, robust and interesting findings which will enhance both the students, and staff's psychological wellbeing.*[4]

Positive ran a 1-day training course at the GDST to set up the PARs Study with participating GDST teachers, Evergreen Armstrong (Putney High School), Julie Bowman (Newcastle High School), Amy Hostler (Portsmouth High School), Olivia Hutchings (Nottingham High School), and Nicola Latter (Brighton & Hove School). The full PARs Report is available to read in conjunction with this ARP (Appendix 1).

Teachers participating in the PARs Study were all Heads of Year (HODs) or had pastoral responsibilities at GDST schools and therefore had relevant experience of observing and supporting pupil WB. Upon discussing the possible focus of the PARs Study it was swiftly identified that the tendency in our pupils to self-criticise and over-worry about various life factors at school were recognisable as having a negative impact on pupil WB throughout the senior school years; while the observed focus and cause of pupil worries varied between different year groups, rumination and self-limiting beliefs – particularly around the life factors of self-image, friendships, school-work, achievements, and future prospects – were a shared concern of participating PARs. We agreed that the PARs Study would not only afforded a valuable opportunity to drill down and discover specifically what aspect/s of and which of these life factors students were worrying about at each age and stage of their senior school life, it would also allow us to understand how teaching the PSP and positive tools can help alleviate these worries and empower pupils to manage their thoughts and emotions, while simultaneously holding the potential to promote more positive mind-sets and greater

[4] Appendix 1: The Positive PARS Report (2018)

perceived satisfaction with life factors at school overall; objectives that we unanimously agreed were of value to our pupils and schools.

## Literature Review

The study of happiness and WB within Psychology and PP is extensive, and studies of SWB and life satisfaction (LS) have long since been established amongst adults (Diener et al., 1999). Studies of SWB and LS amongst children and adolescents are fewer (Proctor, C.L., Linley, P.A. & Maltby, J., 2009), and fewer still can be found on young peoples' school satisfaction (SS) (Heubner 2001). Heubner defined SS as, 'a cognitive-affective evaluation of overall satisfaction with one's school experiences' that, 'differentiated clearly from satisfaction with other life domains, such as satisfaction with family, friends, self, living environment, etc.' (Huebner, 1994; Huebner et al., 1998). A review of the literature on SS suggests that young peoples' perceived satisfaction with learning and achievement are dominant factors of research into SS, as it relates to young peoples' overall LS and SWB. This is interesting *vis a vi* the raising number of reports on increasing incidence of mental ill-health and disorder amongst young people and in relation to the majority of young people spending on average 30 hours a week in school.[5] There is clear scope and an urgent need for psychologists – and educational policy makers – to pay greater attention to young peoples' SS and to ensure that SS is constructed in broader terms than academic achievement alone. This ARP speaks to this need by delineating five factors of school-life for participating pupils to provide perceived satisfaction measures of over time: self-image, friendships, school-work, achievements and future prospects – *all* of which participating pupils agreed are factors that their experience of and beliefs about impact on how satisfied they feel with their life at school. This challenges Heubner et al.'s idea of SS being different to satisfaction with factors such as friendships and self-image by proposing that, on the contrary, factors such as friendships and self-image

[5] Appendix 2: The State of Positive Education Report, published by The World Education Summit and the International Positive Education Network (IPEN)
https://www.worldgovernmentsummit.org/api/publications/document/8f647dc4-e97c-6578-b2f8-ff0000a7ddb6

emerge from and are integral to SS. Subjective feelings about school-work (learning in lessons, independent study) and achievements (grades, attainment, feedback) are included and recognised by this ARP as significant but not exclusive measures of a young person's LS at school.

In contrast to the scant research into young peoples' perceived satisfaction with and self-beliefs about specific life factors in school, a great deal of research on the relationship between young peoples' self-belief and their academic achievement *has* been conducted. One of the trickiest topics in this body of research is the debate over direction of causality. Does *believing* you can mean you can? Or does *achieving* make you believe you can? Quinn and Duckworth (2005) provide convincing evidence for reciprocal causality between happiness and achievement, which has been replicated in more recent studies (e.g. Huebner, E.S., & Kimberly, J.H, 2015, and Steinmayr R., Crede J., McElvany N., & Wirthwein L., 2016). The conundrum of causality has been highlighted by Pajares and Schunk (2001):

> *Although some results suggest that prior self-concept can, in some circumstances, influence subsequent academic achievement (March, Bryne, & Yeung, 1999), most self-concept researchers currently support a "reciprocals effects" model in which self-belief and achievement are viewed as exercising a reciprocal influence (March & Yeung, 1997); Wigfield & Karpathian, 1991.*

Notwithstanding this acknowledgement, and following Bandura's social cognitive theory of self-efficacy (Bandura, 1986), Pajares and Schunk make a case for the causal influence on achievement of self-efficacy beliefs:

> *Schunk assessed students' self-efficacy for learning novel tasks prior to instruction and then related that self-efficacy to subsequent achievement and motivation during instruction. Other findings show that efficacy beliefs influence academic achievement and mediate the effect of possessed skills on subsequent achievement by influencing effort, persistence, and perseverance (e.g., Collins, 1982).*

They conclude that, 'both self-efficacy and self-concept are powerful motivation constructs that predict academic achievements at varying levels'.[6] Similarly, a meta-analysis of longitudinal studies investigating the relation between self-beliefs and achievement found that, 'Estimated effects are consistent with a small, favorable influence of positive self-beliefs

[6] Pajares, P., & Schunk, D. H. (2001). Self-Beliefs and Schools Success: Self-Efficacy, Self-Concept, and School Achievement. In Riding, R.J., & Rayner, S. G., (Eds.), *Self-Perception. International Perspectives on Individual Differences, Vol. 2* (p.251). Westport: Ablex Publishing.

on academic achievement.'[7] Maddux (2009) has argued that, 'We can influence self-efficacy beliefs by imagining ourselves or others behaving effectively or ineffectively in hypothetical situations,'[8] This is of great interest when considering the potential impact of the positive tool of the inner coach, which encourages the visual and auditory imagining of a real or symbolic 'coach' to encourage a young person (or adult) to challenge negative self-talk and develop positive self-beliefs. While the case for reciprocity between LS/overall SWB and academic achievement is accepted, research indicating the influence of high self-efficacy and positive self-beliefs on academic achievement, including pupils' positive self-belief in their own ability to influence and enhance their self-efficacy, is central to this study.

This ARP emerges from an all-girls setting and it is therefore appropriate to review the literature on the gender differences in the SWB and LS amongst adolescents. At this point it must be noted that the potential of the PSP within an all-boys or co-ed environment is not underestimated.[9] Parallel studies within all-boys and/or co-ed environments would be of great interest to address questions of individual difference and the response to the PSP (indications for future research are discussed under Evaluations/Reflections/Impact).

An investigation into gender differences on LS and self-esteem as well as the association between self-esteem and LS in Norwegian adolescents aged 13—18 years found that boys report higher self-esteem LS than girls. Self-esteem has a positive role in association with adolescents' LS, and this relationship was equally strong for both genders and across age (Moksnes and Espnes, 2013). Deak and Adams (2010) dedicated a chapter to self-esteem in their book *How Girls Thrive*, and referenced Fennema and Leder's *Mathematics and Gender* specifically their chapter on '"Internal Beliefs", in which they claim that "affective variables have a more important influence on the achievement and participation of females than they do for males", and assert that 'girls perform better and report more satisfaction and confidence in democratic, cooperative, connected, inclusive hands-on educational settings.'[10]

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[7] Valentine, J.C., DuBois, D.L., & Cooper, H. (2004). The Relation Between Self-Beliefs and Academic Achievement: A Meta-Analytic Review. *Educational Psychologist, 39:2,* 111-133. DOI: 10.1207/s15326985ep3902_3

[8] Maddux, J.E. (2009). Self-Efficacy: The Power of Believing You Can. In Lopez, S.J., & Snyder, C.R. (Eds.), *The Oxford Handbook of Positive Psychology, Second Edition* (pp. 337). Oxford: Oxford University Press.

[9] https://positivegroup.blog/2018/04/19/positive-welcomes-dulwich-college/

[10] Deak, J., & Adams, D. (2010). *How Girls Thrive.* (p.19) Green Blanket Press.

The PSP at PHS generates these positive conditions for learning for girls, while addressing the important issue of how to raise girls' self-esteem.

In discussing self-beliefs, self-esteem – when theorised as a factor of self-concept – has been defined as a construct distinct from self-efficacy (Pajares, P., & Schunk, D. H., 2001) yet the potential of PP to enhance self-esteem *and* self-efficacy, understood as separate elements of the entirety of beliefs one holds about oneself, makes literature on high levels of low self-esteem amongst girls, particularly within school contexts, relevant to the current study. Considered in relation to findings that girls strongly relate SS to LS (Danielson, Samdel, Hetland, and Wold, 2009, and Katja, R., Åstedt-Kurki, P., Marja-Terttu, T., & Pekka, L., 2009), and that gifted students associate LS more with school experience than non-gifted students (Ash and Huebner, 1998), we have further reason to carry out this ARP in the high achieving all-girls context of PHS. Interesting comparative investigations could be conducted into the impact of the PSP on pupils in mixed-ability single-gender schools and in mixed-ability co-ed environments, gathering evidence on what difference, if any, gender and ability make to the efficacy of the PSP, while simultaneously addressing broader questions of whether PP needs to be tailored to different educational contexts, and if so, how.

The importance of teaching pupils to challenge negative thinking and alleviate anxieties by using cognitive tools that raise self-esteem, strengthen positive self-belief, stretch cognitive flexibility, and promote resilience, hope and learnt-optimism are increasingly being recognised by schools as central to their success as educators in the 21st century. As PP has gathered momentum it has opened up avenues for related fields of Applied Positive Psychology (APP) and Positive Education (PE) to emerge, and there is now a substantial body of literature addressing questions such as, 'Can wellbeing be taught in schools?' And 'What does a Positive School look like?' As schools increasingly value WB, PP is finding its place for teaching in schools, and Clonan et al. (2004) have highlighted that, 'the challenge for positive psychology is to establish […] how the teaching and natural environment can be used to capitalize on positive psychology principles, and how a school can maintain and plan for sustained change.' (Linley et al., 2009). Addressing the latter question directly, Huebner et al. (2009) have theorised the following characteristics of a positive school:

1. Positive Schools appreciate the importance of SWB to students' academic success.
2. Positive Schools work with individual differences in personality, abilities, and interests to maximize the goodness of fit between school experiences and students' needs.
3. Positive Schools facilitate supportive teacher and peer relationships.
4. Positive Schools emphasize instructional tasks that enhance student involvement through offering appropriately challenging, interesting, and voluntary activities.

Seligman et al. have been the forerunners of PE, and pioneers of three of the most successful and influential case studies of teaching WB through classroom interventions; at the Geelong Grammar School (GGS), on the Penn Resiliency Programme (PRP) and through the Strath Haven Positive Psychology Curriculum.[11] GGS has taken a whole school approach to wellbeing, embedding the teaching of PP – defined in terms of PERMA: Positive Emotion, Engagement, Relationships, Meaning, and Achievement – as stand-alone courses and within curricula across school. Kirschman et al. (2009) describe how on the PRP:

> *Cognitive behavioural therapy is used to increase resilience by building skills, such as the ability to identify multiple, accurate causes of a problem and balance optimistic thoughts with the reality of the situation, Adolescents are taught to identify negative beliefs, to evaluate those beliefs by examining evidence for and against them and to generate more realistic alternatives.*

At Strath Haven, students whose language arts classes incorporated the PP curriculum developed 'strengthened curiosity, love of learning, and creativity, by the reports of teachers who did not know whether the students were in the positive psychology group or not.'[12] School-based PP interventions such as these are of interest to psychologists who have evaluated how effective they are at increasing the SWB of young people. Walters (2011) reviewed evidence from 12 school-based PP interventions and concluded that 'positive psychology programs are significantly related to student wellbeing, relationships and academic performance.'[13] Shoshani and Steinmetz (2013) evaluated a positive psychology school-based intervention at a large middle school in the centre of Israel and found that:

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[11] Seligman, M. E., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education, 3:35,* 311-293.

[12] Seligman, M.E. (2011). *Flourish: A New Understanding of Happiness and Well-Being – and How to Achieve Them.* (p.85) London: Nicholas Brealey Publishing.

[13] Waters, L. (2011). A Review of School-Based Positive Psychology Interventions. *The Australian Educational and Developmental Psychologist, 28:2,* 75-90. DOI:10.1375/aedp.28.2.75

> *…the intervention strengthened self-esteem, self-efficacy and optimism, and reduced interpersonal sensitivity symptoms […] These results demonstrate the potential benefits of evidence-based positive-psychology interventions for promoting school-children's mental health, and points to the crucial need to make education for well-being an integral part of the school curriculum.*[14]

Furthermore, there has been interesting research into the impact of teaching character strengths within the school curriculum as a means of increasing LS and SWB among young people (Wood et al. 2010). Additionally, the value of teaching young people the skills of self-regulation and, importantly, *their belief in their ability to do so*, has also been recognised in the field of epidemiology and psychiatry:

> *A longitudinal project aimed at identifying the personal characteristics and the developmental pathways conducive to successful adaptation from childhood to adulthood [concluded that] Adolescents' self-efficacy beliefs to manage positive and negative emotions and interpersonal relationships contribute to promote positive expectations about the future, to maintain a high self-concept, to perceive a sense of satisfaction for life and to experience more positive emotions.*[15]

It is abundantly clear from the literature that PP interventions and PEPs in schools are having a positive effect on young people.

## The Innovation

### *Research question and hypothesis*

After agreeing the research question, *To what extent does the regular use of positive tools improve pupils' perceived satisfaction with life factors over time?* we hypothesised that pupils who were taught to develop and use an *inner coach* – a positive self-talk tool to challenge self-criticism and negative thinking – and the *worry filter* – a cognitive tool to separate useless worries from useful ones, i.e. worries that can be influenced – at least once a week over a four-week period, would perceive themselves as more satisfied with life factors at school, such as self-image, friendships, school work, achievements, and/or future prospects, than those who don't use these positive tools:

[14] Shoshani, A. & Steinmetz, S. (2014). Positive Psychology at School: A School-Based Intervention to Promote Adolescents' Mental Health and Well-Being. *Journal of Happiness Studies, 15,* 1289-1311. https://doi.org/10.1007/s10902-013-9476-1

[15] Caprara, G., Steca, P., Gerbino, M., Paciello, M., & Vecchio, G. (2006). Looking for adolescents' well-being: Self-efficacy beliefs as determinants of positive thinking and happiness. *Epidemiology and Psychiatric Sciences, 15:1,* 30-43. doi:10.1017/S1121189X00002013

> *We wanted to investigate whether the use of positive tools focusing on self-talk and worry management could help to address students' satisfaction with these areas, enabling them to control how they respond to situations more effectively and feel empowered that they can positively influence things in their life.*[16]

If our hypothesis proved correct, this would be evidenced by closer distances of these constructs (representing greater satisfaction) to the 'present-self' on the ISEE Goal Setting tool on the Positive App; by answers to questions taken from the Resilience Framework Assessment (RFA) at the start and end of the study; by qualitative feedback; and by more entries on the right hand (positive) side of the Emotional Barometer (EB) tool on the Positive App. (Further information about the methodology and findings of the full PARs Study involving five GDST schools and 131 pupils in Years 7—12, will be of interest, and can read in Appendix 1). In addition to the enquiry into the effect of the innovation on pupils' SWB, this ARP has addressed the question: *To what extent does teaching positive psychology tools impact the academic achievement of pupils?* Results of the innovation have been compared with assessment data from the end of unit in Science tests for pupils in both the experiment and control groups (see Data below).

***Methodology***

The innovation was conducted over a 4-week period in the Spring Term 2018, from March 1 to 29. It involved 55 female Year 7 participants, including an experiment group (7ECE) and a control group (7NRE). The experiment group and control group were comprised of 28 and 27 students respectively. Prior to the innovation, the experiment group had received three, 1-hour Positive lessons, taught weekly by their Head of Year, Evergreen Armstrong (EAG) on:

- emotional literacy, emotional regulation
- The emotional barometer (a Positive App and cognitive tool for emotional regulation)
- cognitive flexibility/neuroplasticity/positive self-talk

During the study, the experiment group received three further 1-hour Positive lessons on:

- The inner coach
- The worry filter
- Attentional focus

[16] Appendix 1: Positive PARS Report (2018)

Positive lessons were taught to the experiment group by EAG through a variety of activities and pedagogic strategies including teacher and student discussions and debate, paired and group work (both discursive and written, e.g. creating a class inner coach); making, performing, and evaluating dramatic role-plays; researching, reading, and summarising articles on the Positive App Student Newsfeed; and individual reflective writing tasks. (Appendix 3).

In the first week of the innovation all pupils completed a shortened version of the RFA, a survey used to assess general WB. This was made up of 6 questions to measure the girls' general perception of their levels of worry and general LS. Pupils in both the innovation and control group were then introduced to the ISEE Goal Setting tool on the Positive App, and were asked to make a baseline data entry to assess their satisfaction with the five life factors at school (self-image, friendships, school-work, achievements, and future prospects). Pupils in the experiment group were subsequently prompted to make ISEE and EB entries in the Positive App on their school iPads at the start of each lesson (Thursdays P1, PSHE lessons). They were also told that they could continue to make ISEE and EB entries at any time. Control group students had not received any Positive lessons before and did not receive any during the innovation; they were introduced to the ISEE tool at the start, and only prompted to completed an ISEE entry at the start and end of the innovation (March 1 and 29 in Tutor Time). EB entries could be made by pupils in the experiment group at any time, and were made at least once a week, as per the ISEE.

Participating pupils were told about the ARP, and were enthusiastic about being involved. 7ECE pupils understood that their lessons were being used to evaluate the impact of the PSP and the effectiveness of two new tools, which they were eager to try out. They responded with interest and engagement in the lessons. 7NRE pupils understood that they were the 'control' group and looked forward to the Summer Term when they would have the Positive lessons… *"When are we having the Positive lessons?"* was a frequent refrain during both the set-up and conclusion sessions with 7NRE! Participating pupils were aware of and appreciated the value of the Positive lessons, as evidenced in qualitative feedback gathered after the innovation. Pupils in both the experiment and control groups understood that their responses to the RSA survey questions, and anonymised data on the Positive App, would be used to measure any change over time to their levels of worry and satisfaction in school. Ultimately, 7NRE received their Positive lessons, and benefited from the adaptations EAG made to the

SOW after reflecting on its previous rotations with the other three Year 7 classes and the ARP, which aimed at enhancing pupil learning and experience on the PSP.

## Data

***Primary analytics used to measure the study's outcomes:***

- ISEE Goal Setting (self-image - friendships - school work - achievements - future prospects)
- RFA questions:
  - I generally allow my emotions and moods to impact on my behaviour
  - My self-criticism stops me from doing things
  - Worrying about failure stops me from doing things
  - I find it difficult to stop and control worrying
  - I find my workload manageable
  - I am optimistic about my future

The RFA used the following 6 point Likert scale; Strongly Agree, Agree, Slightly Agree, Slightly Disagree, Disagree, Strongly Disagree.

***Secondary analytics:***

- EB data
- Qualitative feedback/interviews from pupils

Reasons for choosing these analytics in particular: ISEE and RFA analytics are directly related to life satisfaction, the key focus of the research study.

***Baseline data:***

- RFA survey responses
- Initial ISEE entries

***Post-innovation data and collection:***

- ✓ Data was collected and analysed by Positive via the Positive App and survey gizmo at the start, throughout, and end of the innovation, and analysed and evaluated in the PARs Study Report;
- ✓ Positive provided a summary of information on the PARs Study to PHS, including some PHS specific analytics;

- ✓ EAG interpreted anonymous ISEE entry data for the experiment and control 'teams' on the Positive Teacher App to gather PHS specific data;
- ✓ EAG gathered feedback from members of the experiment group;
- ✓ Dr Nick Rolfe (NRE) gathered and interpreted assessment data for end of unit Science tests for pupils in both the experiment and control groups.

## Learning/Observations

***Analysis of PARS data provided by Positive:***

- In Year 7, the experimental group were far more satisfied with their 'Achievements' and their 'Friendships' after the innovation compared to the control group.
- Furthermore, when analysing the EB data the results showed far greater entries in the Top Right-hand quadrant for the experimental group in Year 7 post-innovation, compared to the control group. This is associated with more positive mood states.
- The ISEE data for Year 7 showed the biggest impact of using positive self-talk, their inner coach and the worry filter tool had been on their satisfaction with their 'Friendships'.
- In Year 7, the ISEE data shows that the innovation greatly increased students satisfaction with 'Achievements'. This may be due to using the Inner Coach tool to remind them what they have done well, and to act as a guiding figure which encourages and gives them positive self-talk whilst in the classroom.
- There were no specific Year 7 or PHS differences for the RFA questionnaire pre and post the intervention (however there was an overall difference in all of the girls finding their workload more manageable after the intervention if they were in the experimental group).

***Interpretation of the ISEE data from the Positive Teacher-App:***

**Self-image –** Perceptions of satisfaction with self-image were slightly higher in the control group than in the experiment group at the start of the innovation. They stayed roughly the

same in the control group but had improved enough in the experiment group to be marginally higher than the control group by the end of the innovation.

**Friendships –** perceptions of satisfaction with friendships were markedly higher in the experiment group than the control group at the start of the innovation, and remained higher than the control group throughout the innovation. While this was the construct that the full PARS Study saw the most significant improvement in satisfaction for Year 7, at PHS satisfaction with friendship stayed roughly the same in both control and experiment groups.

**School-work –** The experiment and control groups had equal levels of satisfaction with school-work at the start of the innovation. They were the same for the control group at the end of the innovation and marginally higher for the experiment group.

**Achievements –** Perceived satisfaction with achievements was slightly higher in the control group at the start of the innovation. They stayed roughly the same for the control group however the experiment groups' improved to the point of being equal to the control groups'. It will be interesting to see whether there is any correlation between the experimental group's improvement in their levels of perceived satisfaction with achievements and their attainment data (in Science).

**Future Prospects –** It was notable that at the start of the innovation that both the experiment and control groups perceived themselves the least satisfied with this life factor of the five life factors being considered, and notably less so. The control group's perceived level of satisfaction with future prospects had stayed roughly the same by the end of the innovation, while the experiment group's level of perceived satisfaction had made a marginal increase.

***Pupil response to the innovation:***

After the innovation, EAG asked pupils from the experiment group if they could share their thoughts about the PSP, the inner-coach, and the worry filter tools particularly in terms of the life factors at school we had been considering. Three pupils were keen to meet with EAG and agreed to being quoted for the ARP as follows (at this point they were not told the data findings of the innovation):

**Pupil X:**

*"I thought the Worry Filter and the Inner Coach were really useful because I used to worry about lots of pointless things; for example, the worry filter helped me separate the things that were useful worries and I could help change, from the worries I couldn't influence."*

*"I think the worry filter really helped with school work because I was more focused and wasn't distracted by unnecessary thoughts and worries."*

*"The inner coach – whenever I got a low mark I would always criticise myself but then when I was taught the inner coach I'd use more positive self-talk, saying more constructive advice to myself such as, 'Next time you can check that you fully understand the topic before the test.'"*

**Pupil Y:**

*"The Positive course was really good because it encouraged me to be more positive, and using the tools and app I found myself more happy generally."*

*"I found the inner coach the best one because it helped with school work, achievements, and friendships because I could push myself more and know what to do in a difficult situation; for example, if I had a problem with a friend, it helped me decide what to do and to do the right thing."*

*"The worry filter helped with achievements because if I worried less I could focus more."*

**Pupil Z:**

*"I thought the worry filter and inner coach were the best because it was something I had to remember, so it was something I had to do in my head rather than on an app, so you could use it all the time… It helped me be less of a negative person particularly with my attitude to achievements and results, so I'm speaking to myself more constructively."*

*"The EB was good because it made you think about your emotions."*

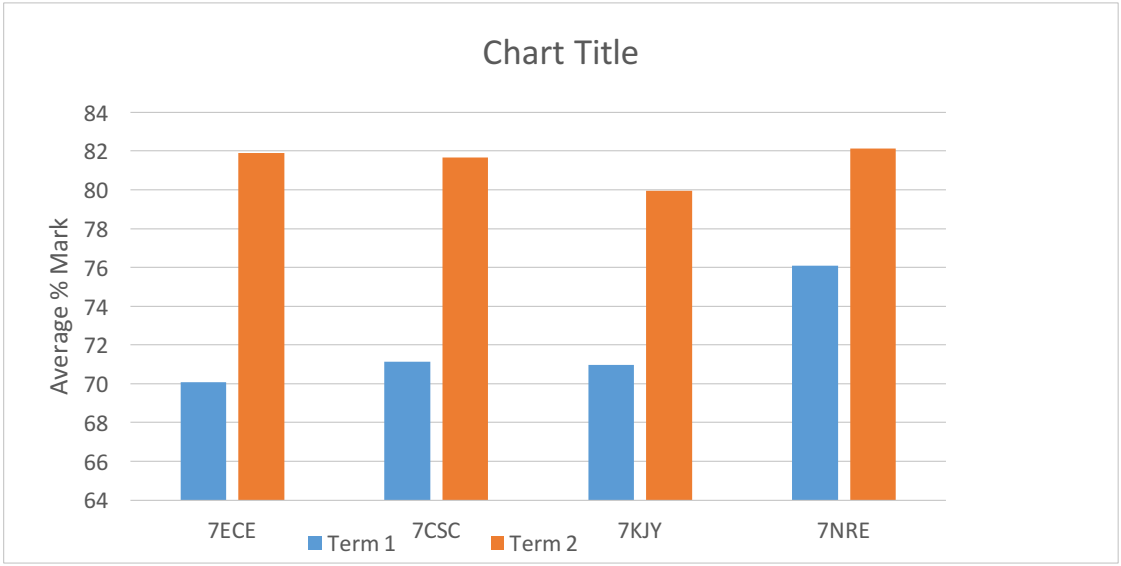
The pupils were then told the headline findings of the innovation – that the lessons and tools appeared to have had a positive impact on how satisfied they saw themselves to be with life factors at school, particularly with achievements, and it was noted by the pupils that this was in line with their responses earlier, and when asked by EAG why this might be they suggested for the reasons they had already given. When then asked why they thought it appeared that perceived satisfaction with the other factors were not influenced as much the girls weren't immediately sure of an answer however after a few moments thinking, Valentina Crespo replied, "Self-image is hard to influence and I feel like everyone has a pretty good self-image anyway." She went on to say they might have had an impact on how satisfied they were with friendships "…because everyone was using the tools at the same time, so when they thought

about their friendships they would feel more positive, and then their friends would be able to tell that *their* friends were feeling more positive about them, and that would make *them* feel more positive, so everyone was positively effecting each other." EAG noted that this reflected the social influence/social wifi aspect of the PSP, and the pupils agreed.

An interesting note on self-image: when discussing and exploring self-image at school – framing this and the other four constructs as a positive life-factor – a pupil participating in the experiment group queried whether we were considering physical or mental self-image. They shared how, for them, their self-image was more about the picture they held of their character and personality rather than their body-image. The class came to agree that we would leave it up to individuals how best to interpret and define 'self-image'. Ahead of any future ARP making reference to this life factor it would be useful to identify whether we are interested in pupils' perceptions of body-image or self-image; comments from pupils suggested that while the two might be related and mutually influential, they are understood as two separate constructs.

***Assessment Data from End of Unit Science Tests for control and experiment groups:***

Following the innovation, the end of unit test results in Science of pupils in both the experiment and control groups were collated and analysed. Looking at this data, we can be 95% confident that the academic achievement in Science of the experiment group improved more than the control group.



The effect size is large (d=0.86), which corresponds to the experiment group scoring an average of 6 percentage points higher than the control group. Pupils were taught Science in different groups to the experiment and control groups (i.e. not in their Form Tutor groups) and Science teachers were not aware of which pupils in their classes were in the PSP control and experiment classes, mediating for a 'whole-group' progress effect. **There appears to be a positive correlation between using cognitive tools to strengthen self-belief/mitigate worries and making academic progress in Science.** There are limitations to be aware of - firstly, the control group started about 7 percentage points above the test group, so they would have had a more difficult job improving. Secondly, although the effect size is large statistically, 6 percentage points corresponds to 2 marks in the test, so is a modest improvement. Nonetheless, pupils in the experiment group have made more objective progress in Science than those in the control group, and this is aligned with pupils' subjective measures of satisfaction with achievements, as evidenced in the ISEE data. As discussed above, this may be a reciprocal effect however the weight of the research arguing for the positive effect of high self-efficacy beliefs on pupil performance, considered alongside evidence from the innovation indicating a positive effect of the tools taught to the experiment group on self-belief (including self-efficacy beliefs about abilities in terms of school-work and achievement) suggest that this improvement in Science could in part be an effect of pupil's participation in the innovation.

## Evaluation/Reflection/Impact

There are some limitations to reflect on and evaluate the means of overcoming ahead of running future ARPS on school WB. The most significant of these is debate over the reliability of self-reports as a measure of LS and SWB (Deiner, 2009). Self-reports of high LS do not necessary equate with self-reports of high positive/low negative affect, which is problematic for SWB research; a person could report feeling satisfied with certain life factors and also report feeling miserable and vice versa. In addition to this, people often inflate their level of LS in self-reports and there is a risk of participants reporting how they think they should feel instead of how they actually feel (Argyle, 2001). Psychologists however agree that self-

reporting, while not without its limitations, is currently the best and only way we have of measuring SWB. It is proposed that the use of the Positive App to collect data for this ARP might have assisted in overcoming some of these limitations; it may be the case that young/people are more likely to provide reliable self-reports via app based tools than traditional self-reporting methods, due to the possibility of greater feelings of anonymity and distance from the research potentially created by the personal and habitual use of a digital device and app. The effect of Apps and personal digital devices on the reliability of self-reports, particularly the self-reports of young people, would be of interest to any future action research utilising the Positive App as a data collection and measurement tool.

One-off questionnaires that conspicuously top and tail research could cause cooperation bias and the provision of answers that participants believe the researcher wants to hear. The possibility of cooperation bias was low in this ARP as pupils were briefed to be open and honest in how they were feeling. The RFA questions used in the PARS Study were related to pupil worries and some of the constructs of life at school being explored, and in this respect were most appropriate. However, there are more specific measures of adolescent SS and SWB available, which it would be interesting to investigate further. An example of this is the Student Subjective Wellbeing Questionnaire (SSWQ), 'a 16-item self-report instrument for assessing youths' subjective wellbeing at school, which operationalized via 4 subscales measuring school connectedness, academic efficacy, joy of learning, and educational purpose'[17] with promising results for the study of SS and overall pupil SWB.

An assumption of this ARP is that increasing positive self-beliefs – particularly self-efficacy beliefs – leads to greater perceptions of LS, and that this correlates to achievement. In reflecting on this assumption, it is recognised that someone could hold low self-efficacy beliefs about a certain area of their life and still report high satisfaction with it (if they weren't particularly goal orientated or driven in this area). Conversely, someone could hold high self-efficacy beliefs (say their ability in Science) but report low satisfaction with it *either* because it isn't an area they care to be more capable in *or* because it's an area they care a great deal about being capable in; what is of importance is how *driven* a person is in a particular area of

[17] Renshaw, T. L., Long, A. C. J., & Cook, C. R. (2015). Assessing adolescents' positive psychological functioning at school: Development and validation of the Student Subjective Wellbeing Questionnaire. *School Psychology Quarterly, 30:4,* 534-552. http://dx.doi.org/10.1037/spq0000088

their life. This is relevant to the interpretation of the correlation between the pupils' perceived satisfaction with life factors at school, their results in Science, and the use of the ISEE Goal Setting tool in the Positive App because the tool is designed to motivate drive in the factors of life it constructs for users while also being a source of data about that drive. Further research into the relationship between goal setting, drivers, self-efficacy, and LS would be of interest to future action research related to pupil SWB and achievement making use of the ISEE tool both as a positive intervention and source of research data.

## Conclusions

A great deal of PP can seem intuitive on first encounter however participating in the PSP and carrying out this ARP has evidenced how meaningful and valuable a PEP can be to pupils' SWB. Teaching the positive tools and researching further into their groundings in PP has meant engaging in robust academic underpinnings of those intuitive and common-sense instincts, whilst simultaneously honing the skills required to turn theoretical ideas about how to improve teachers and pupils' WB into practical habits of mind and positive action.

If this research leads to a collective agreement amongst colleagues that WB can, and should, be taught within school – through the ethos, pastoral care, co-curricular opportunities, and a PEP such as the PSP – *and* builds recognition that there is a correlation between pupil's SWB and their objective academic success, then the means of measuring and promoting pupil's SWB must be further embedded into departmental planning, teaching, and review; we must create, in its fullest conception, wellbeing within school. It is hoped that this ARP will spark curiosity, convince, and inspire colleagues to continue to drive forward the promotion of WB, for pupils and for fellow teachers at PHS.

Possible directions for action research into pupil and school WB and potential topics for future ARPS:

- parallel studies of the PSP with other classes, years, and groups of pupils (e.g. G&T, SEN)
- the impact of Positive's parent programme
- whole school satisfaction and SWB of pupils throughout all or in various years
- the relationship between self-efficacy beliefs and achievements within departments
- the relationship between teachers' self-efficacy beliefs and those of their pupils'
- the relationship between pupils' satisfaction with non-academic aspects of school life – e.g. friendships – and their academic achievements
- the impact of whole school initiatives based on tenants of PP such as Gratitude and Flow on SWB
- the impact of the PSP at different times of the year for different groups of pupils
- pupil led ARPS – e.g. Pupil Wellbeing Reps creating WB ARP innovations alongside teachers, to promote pupil voice, collaboration, and positivity

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## APPENDICES

Appendix 1: Positive PARS Report
Appendix 2: The State of Positive Education Report
Appendix 3: Year 7 Positive SOW & PARS Study SOW

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