Positive educative programme

A whole school approach to supporting children's well-being and creating a positive school climate: a pilot study

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Abstract

Purpose – The purpose of this paper is to report on a process and impact evaluation of the Positief Educatief Programma (Positive Education Programme (PEP)), a whole school approach to supporting children's well-being and creating a positive school climate in primary schools in the Netherlands. PEP adopts a competence skill enhancement approach with a focus on developing children's positive emotions and strengths.
Design/methodology/approach – A process and impact evaluation was performed within the context of two schools piloting the programme. Employing questionnaires and interviews, the evaluation sought to examine the implementation of PEP, participants' experiences with key components and the programme impact of PEP.
Findings – The findings reveal largely positive attitudes towards PEP. Staff and parents were positive about the core components of PEP. Results from standardised questionnaires provide preliminary evidence about the positive impact of PEP on children's self-reported well-being and problem behaviour, teachers' awareness of children's strengths and overall school climate. The provision of practical strategies and activity-based resources was considered essential to the ongoing implementation of PEP.
Research limitations/implications – This study reports on findings from two implementation schools and therefore lacks generalisability. Further research using more robust research methods exploring the effectiveness of PEP when compared with "business as usual" is needed.
Originality/value – School frameworks aimed at creating a positive school climate and promoting well-being at the whole school level have not been carried out in the Netherlands to date. The results from this study provide a unique insight into the implementation and perceived impact of a whole school framework in the context of two primary schools.

Keywords Primary schools, Education, Qualitative methods, The Netherlands, Mental and physical well-being, School environment

Paper type Research paper

1. Introduction

Mental health and mental illness are two related but different dimensions (Keyes, 2005). Decreasing mental illness and increasing positive mental, emotional, psychological and social health and well-being are bothcrucial for improving mental health (Westerhof and Keyes, 2010). Positive psychology specifically addresses the promotion of well-being and personal development (Bohlmeijer *et al.*, 2013). Seligman and Csikszentmihalyi (2000) present positive psychology as the science of well-being and optimal functioning, with a focus on promoting positive emotions and positive traits.

In recent years, there has been increasing interest in the application of positive psychology in schools (Gilman *et al.*, 2009; Seligman *et al.*, 2009). Positive psychology in education is concerned with the development of students' strengths and well-being and thereby enabling students to flourish. Keyes (2002) describes flourishing as the presence of positive feelings about oneself and life (emotional well-being), feeling connected to others (social well-being) and functioning well (psychological well-being). Seligman (2011) names five specific elements that contribute to this state of optimal well-being: positive emotion, engagement, relationships, meaning and accomplishment. A key tenet within the field of

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positive education is that those elements that promote well-being can be explicitly taught through the implementation of positive psychology programmes, activities and practices aimed a cultivating positive feelings, positive behaviour or positive cognitions (Sin and Lyubomirsky, 2009; Norrish and Vella-Brodrick, 2009; Seligman *et al.*, 2009).

There is accumulating evidence regarding the positive impact of student well-being on student learning. Positive mood has been shown to produce broader attention and more creative and holistic thinking (Fredrickson, 2001; Fredrickson and Branigan, 2005; Rowe *et al.*, 2007; Estrada *et al.*, 1994; Isen *et al.*, 1991; Kuhl, 2000). Research also suggests that learning optimism skills can prevent anxiety and depression in children and adults (Seligman, 2007). In a recent review of 12 international school-based positive psychology interventions aimed at cultivating positive emotions, resilience and positive character strengths, Waters (2011) found that positive psychology interventions were significantly related to improved student well-being, relationships and academic performance.

To date, the implementation of positive psychology in schools has primarily taken place at the level of the classroom, with relatively short curriculum-based interventions being taught in isolation. Research, however, recommends an integrated or whole school approach to strengthen the well-being of pupils in education (Weare and Nind, 2011; Seligman *et al.*, 2009; Bolier *et al.*, 2013; Dix *et al.*, 2012). This approach moves beyond a focus on the classroom curriculum to consider the broader, more holistic aspect of the school setting (Barry and Jenkins, 2007; Clarke and Barry, 2015a). The whole school approach attempts to shape the whole school context, including the school's organisation, management structures, relationships and physical environment as well as the curriculum and pedagogic practices (Weare and Markham, 2005). This approach aims to include all relevant stakeholders including pupils, teachers, school administrators, parents and community members in fostering a positive school environment, ethos and sense of connectedness for pupils and staff (Barry and Jenkins, 2007). Norrish *et al.* (2013) developed such an applied whole school framework for positive education, the Geelong Grammar School Model for Positive Education. This applied framework works around six domains central to well-being (positive emotions, positive engagement, positive accomplishment, positive purpose, positive relationships, and positive health) which are comparable to the five aforementioned elements of Seligman (2011), and all underpinned by a focus on character strengths.

1.1 Background of the current study

This paper reports on a process and impact evaluation of the Positief Educatief Programma (Positive Education Programme (PEP)), a whole school approach to positive education for primary schools in the Netherlands. The programme was developed by the University of Twente in response to a request from a foundation, working with 33 schools in the region to develop a whole school framework aimed at supporting children's well-being and happiness. Norrish *et al.* (2013) developed an applied model for positive education derived from positive psychology, on which the philosophy behind PEP is based. PEP adopts a skill enhancement approach with a focus on improving children's well-being and creating a positive school climate. PEP consists of four core components: values, life rules, well-being and engagement and parental engagement (see methods section). Schools are provided with a framework which consists of: an overview of the rationale and goals of the initiative; a series of training workshops that upskills teachers in the enhancement of children's well-being and engagement; and a set of resources to implement a coordinated set of strategies to address the needs of their student population. A core component of PEP is teachers' assessment of the level of children's well-being and engagement using an assessment tool called Looqin. When teachers assess that the level of well-being or engagement of a child falls below a certain threshold, they are encouraged to apply an intervention to enhance the child's skills. This is supported by an online resource with over 100 possible activities. The assessment

procedures and online resource have been developed by the University of Leuven (Laevers and Aerden, n.d.).

In the first year of PEP, the programme was implemented in two primary schools in the Netherlands. A process and impact evaluation examining the implementation of the programme in the two schools was carried out over the course of one academic year (September 2014 through June 2015). Fixsen *et al.* (2005) describe implementation as a specified set of activities designed to put into practice an activity or programme of known dimensions. From a research perspective, implementation research enhances our ability to map the critical connections between the local context, intervention activities and the intended outcomes. Implementation information allows for greater understanding of the internal dynamics and operations of interventions, how the intervention components fit together, how the implementers and intervention recipients interact and the obstacles they face and resolve in the process (Clarke and Barry, 2015b; Barry and Jenkins, 2007; Greenberg *et al.*, 2001). The specific aim of this study was to examine how PEP was implemented in the two schools and the impact of the programme on pupils' social and emotional skills from the perspective of the teachers and parents.

2. Methods

2.1 Research design and sample

An internal process and impact evaluation was employed to investigate the implementation of PEP within two schools in Enschede, the Netherlands. PEP was developed, implemented and evaluated by a group of researchers from the University of Twente. The foundation of the regional schools selected one representative rural and one representative urban school to participate in the study. School A was a primary school based in a village in the region of Twente. At the beginning of PEP, there were 151 pupils attending School A, divided over seven classes. The staff of School A consisted of 11 members, of which nine were classroom teachers. School B was an urban-based school in a town in the region of Twente. School B had 188 pupils at the time of baseline data collection. In school B, there were 22 teaching staff, of which ten were classroom teachers.

Since the intervention used a whole school approach all pupils (age range 4-12) and classes (one to eight) participated in PEP and were given a personal code which they could use to take part in the research anonymously. Before filling out the questionnaires at T0 and T1 the parents/teachers were asked to fill in this unique code. All parents were informed about PEP via a letter. Informed consent was received from the parents of 184 out of a total of 339 children across the two schools (54 per cent). All staff from both schools participated in PEP ($n = 33$).

2.2 The intervention

PEP consists of the following components.

2.2.1 Values workshop. The implementation of the first component consisted of introducing PEP and identifying values. This one day collective workshop, which took place in September 2014, was led by an external experienced trainer. Following a step-by-step guide, the teachers from both schools first identified their most important values as a teacher and second what they saw as the most important values for their schools. Both the schools discussed the findings amongst their teams and decided on their core values.

2.2.2 Life rules workshop. At the next joint meeting in November 2014, which was a six hour workshop, the values identified were translated into positive "Life rules", designed to make it clear which behaviour was expected from the pupils and staff. A few weeks later the staff members set goals regarding the "Life rules" based on instructions provided by the trainer.

Subsequently, the staff made action plans and thought about possible activities and lessons for the life rule they wanted to start with. Both of the schools focussed on compliments. In the first number of months, the school implemented classroom and whole school activities around the first life rule: "Everybody gets happy from a compliment of mine". Later on, they continued on with a second life rule: "When I do something, I think before I act" (School A) and "Working together counts at our school" (School B).

2.2.3 Well-being and engagement workshop. In January 2015 the teachers from both schools were jointly trained throughout a day by trainers from CEGO Leuven (Centrum Ervaringsgericht Onderwijs) in the use of Looqin (Laevers and Aerden, n.d.), an evidence-based student tracking system which focusses on well-being and engagement. By observing and ranking the children on a five-point scale, the teachers examined how a pupil is doing in terms of well-being and engagement (see Appendix). Teachers can keep track of the observations and can undertake action when there is a score under 4. By scoring regularly, the teachers can intervene when it is necessary and can adjust their strategies. Looqin also provides multiple ideas for strategies or actions to carry out at the individual child level as well as the grade level. As part of a follow up to the training, teachers were asked to film their class and discuss the scores in team meetings with the support of trainers. This follow up was designed to assist teachers in improving their skills in assessing and scoring children's well-being and engagement.

2.2.4 Parental meeting. In January 2015 the researchers organised parental meetings of two hours. The purpose of those evenings was to inform and teach parents about PEP, giving and receiving compliments, and supporting children's well-being and engagement. After the meeting, parents were provided with a handout with included information and tips for supporting children's well-being at home. PEP was also mentioned as a recurrent theme in other appointments between the school and parents.

2.3 Instruments

This process and impact evaluation employed both quantitative and qualitative techniques, including a series of questionnaires and interviews to examine the implementation of PEP, participants' experience with key components, and programme impact.

2.3.1 Workshop questionnaires. On completion of each training workshop, teachers were asked to complete a questionnaire which was designed to ascertain their opinion about the workshops on a scale of 1-5. Parents also completed a similar questionnaire after the parent workshop. In June, at the end of the academic year, school staff completed a review questionnaire which examined their overall experience of implementing PEP over the course of the academic year.

2.3.2 Interviews. A total of 19 semi-structured interviews were conducted. Eight teacher interviews (four per school) were carried out in February 2015 and seven teacher interviews were carried out in June 2015 (four teachers from School A and three teachers from School B). Interviews with the two principals were held in February and June. Using Nielsen and Randall's (2013) evidence-based model for process evaluations as a framework, the interviews examined: the quality of the implementation, including the specific activities that were carried out during the pilot; the contextual factors facilitating and hindering implementation; and the perceptions of school staff towards PEP.

2.3.3 Standardised questionnaires. To gain insight into the possible impact of PEP, five standardised questionnaires were completed by children, teachers and parents at pre-intervention (November/December 2014) and post-intervention (May 2015).

Children completed the KINDL-R questionnaire (Ravens-Sieberer and Bullinger, 1998). This questionnaire is designed to measure six dimensions of children's well-being: physical, emotional, self-esteem, family, friends and everyday functioning in schools. Children aged

six or younger, together with their teacher, completed the Kiddy KINDL-R, and children aged seven and older completed Kid KINDL-R. In this study, the Cronbach's α for Kiddy KINDL-R was 0.76 at T0 and 0.80 at T1 and for Kid KINDL-R was 0.81 at T0 and 0.87 at T1. Most of the Cronbach's α of the subscale scores were medium to good (0.58-0.77) except for the subscale "everyday functioning" which reliability was poor. Ravens-Sieberer and Bullinger (1998) found that the KINDL-R is a reliable, valid and practical instrument to assess the health-related quality of life of children.

Teachers complete the Leerkracht Leerling Relatie Vragenlijst (LLRV)/student-teacher relation questionnaire (Koomen *et al.*, 2007) at pre- and post-intervention. This questionnaire assesses teachers' perception of his/her relationship with an individual. More specifically, the LLRV examines the student-teacher relationship in terms of conflict, closeness and dependency. In this study, the Cronbach's α coefficient was 0.82 at T0 and 0.82 at T1. The reliability of the subscales was good with a range of 0.87-0.93. The criterion validity was assessed to be good (Koomen *et al.*, 2007).

The strengths and difficulties questionnaire (Goodman, 2001) was completed by the children's parents. This 25-item questionnaire measures children's emotional and behavioural functioning. The questionnaire generated five main subscale scores: emotional symptoms, conduct problems, hyperactivity, peer relationship problems and prosocial behaviour. The Cronbach's α coefficient in this study was 0.77 at T0 and 0.72 at T1. The reliability of the subscales was medium to good ranging from 0.59-0.84 except for the subscale "conduct problems" which was poor. The SDQ scores are found to be predictively valid, attesting to the feasibility of the SDQ as a screening instrument (Goodman, 2001).

To measure school climate, parents were also asked to fill out a professionally translated and shortened version of the psychosocial environment profile (World Health Organization 2003). The questions were concerned with the ethos and environment of the school, cooperative learning, participation in decision making and connection with home life. The Cronbach's α coefficient of the PSE questionnaire in this research was 0.98, with the subscales ranging from 0.67 to 0.90.

To examine possible effects on whether and how often children bullied others or were victimised, the children of groups 6-8 (aged 9-12) completed four questions at pre- and post-intervention about the amount and type of bullying behaviour and victimisation they experienced.

2.4 Analyses

The results of the semi-structured interviews were analysed by using the Atlas.ti software. After transcribing the interviews, a coding scheme based on the four categories of the Nielsen and Randall model (2013) was developed by two of the researchers (T.E. and J.G.). After jointly analysing eight interviews, the coding scheme which consisted of eight sub codes was finalised. The next four interviews were coded separately which eventually lead to a satisfactory agreement of 85 per cent with a κ of 0.82. After this, one researcher (T.E.) coded the remaining interviews. Sample quotes from the teachers are provided in the results section with "T" indicating the teacher number.

The results from the standardised questionnaires were analysed by using the statistical package for social sciences. Prior to statistical analysis, the normality of the data was tested using the Shapiro-Wilk test. None of the questionnaires were normally distributed. To investigate differences between pre- and post-intervention, Wilcoxon-test was used to analyse the data. Effect sizes (Cohen's d) were calculated and interpreted based on the guidelines of Cohen (1988), with effect sizes of 0.20 considered to be small, 0.50 to be medium and 0.80 to be large. There was a list wise deletion of missing values.

3. Results

A total of 184 children ($n = 119$ in School A and $n = 65$ in School B) took part in this research study. Table I shows the distribution of pupils across the school grades. There was no significant difference between the two schools in terms of gender, age and distribution across grades.

3.1 Process evaluation

3.1.1 Workshop questionnaires. After the three training workshops the teachers completed a questionnaire concerning their experience of the workshop. The response rate for the life rules workshop and the well-being and engagement workshop were low as a result of time restrictions at the end of the workshop.

Table II indicates participants' mean rating for each workshop. All three workshops were positively evaluated with a mean score > 4.1. Teachers reported being inspired by the workshops: "After the workshops, you remain focussed on those topics for the next few days. In a way you are 'refreshed' " (T06 January). There was, however, some doubt among teacher about the concepts taught during the workshops and how they can be applied into the classroom "We are teachers and teachers are 'doers' instead of 'thinkers'. So we want to move into action real quick without too much theory" (T07 January).

A total of 98 parents completed the evaluation questionnaire for the parent workshop. This workshop was rated positively by parents. In general parents regarded the evening to be "interesting" and "fun". One of the parents commented: "I'm glad that for once it's not about academic achievement but about the well-being of the children". Another parent stated: "This is a must for every parent".

At post-intervention, teachers completed a questionnaire concerning their overall view of PEP. The results from this questionnaire are shown in Table III. The highest rated statements included: "PEP is a valuable addition to our school" (mean = 4.13, SD = 0.61) and "I feel comfortable to continue with PEP next academic year" (mean = 4.13, SD = 0.61).

Teachers recognised the need for further work to be done in the coming year to embed and strengthen PEP within their everyday teaching:

> We've done a lot the past year, but we definitely need some more work in the upcoming years. The fundamental work must become solid, […] it (the concepts of PEP) should become automatic (T13 June).

Teachers also reported looking more consciously at the well-being and engagement of students as a result of PEP (mean = 4.00, SD = 0.730). Whilst teachers rated the statement

Table I.
Distribution of student respondents by grades

Grade (age)	1 (4-5)	2 (5-6)	3 (6-7)	4 (7-8)	5 (8-9)	6 (9-10)	7 (10-11)	8 (11-12)
Total	20	14	23	25	30	25	27	20
Percentage of total	10.9	7.6	12.5	13.6	16.3	13.6	14.7	10.9
Percentage male	70	43	70	48	63	56	26	80

Table II.
Teachers' and parent's mean overall rating per workshop (scale 1-5)

	n	Min	Max	Mean	SD
Values workshop	31	3	5	4.19	0.56
Life rules workshop	16	4	5	4.51	0.42
Well-being and engagement workshop	22	3.7	5	4.48	0.38
Parental meeting	98	2.6	5	4.51	0.43

"PEP made me a better teacher" the lowest (mean = 3.10, SD = 0.98), teachers were more positive about the impact of PEP on their relationship with their students (mean = 3.44, SD = 0.89), the atmosphere in the classroom (mean = 3.87, SD = 0.35) and on the school climate as a whole (mean = 3.81, SD = 0.4). PEP received a mean rating of 7.3 (SD = 0.7) on a ten-point scale.

3.2 Interviews

As part of the process evaluation of PEP a total of 19 interviews were conducted with teachers and principals in February and June 2015.

3.2.1 Quality of implementation: activities. Teachers discussed the range of activities that were implemented as part of PEP during the first year. For example, teachers from School A implemented an activity called "Sun of the day/week" where, every day or week, a child was put central and received compliments from the entire class. Teachers in School B implemented "The golden button" where the keeper of the golden button was anonymous and gave compliments to his or her peers. One of the teachers spoke about the use of the "Sun of the week" activity and how enthusiastic the children were during this activity:

> Currently I'm working on implementing "Sun of the week". Every week the students are asking for it. On Fridays the little sun is going home with one of the students and then it's always the big question: who is it going to be next week? So the students like it a lot themselves but also by being enthusiastic as a teacher it definitely changes the view of the students (T03 June).

Both of the schools combined the use of these classroom activities about compliments with the introduction of a "life rule":

> We now have a very clear life rule: "everybody gets happy from a compliment of mine". In total we came up with five life rules and we want to gradually introduce them at our schools. After the vacation we will continue with the next one (T07 January).

Furthermore, on a whole school level a compliment wall was set up in the hallway of School A. Additionally, Looqin provided a practical resource for the teachers to carry out activities to enhance well-being and engagement: "You can directly extract your aims out of it [Looqin]" (T13 June). Teachers reported that Looqin was easy to use and helped them in observing their students: "[…] it makes you observe in a more targeted way" (T09 June), "It [Looqin] helps you to find solutions" (T03 June) and "Looqin is accessible […] it's a beautiful system" (T30 June).

3.2.2 Perception of PEP. Overall, teachers were positive about the implementation of PEP in their school. There was a notable difference between teachers' comments in

	n	Min	Max	Mean	SD
PEP is a valuable addition to our school	16	3	5	4.13	0.61
I feel comfortable to continue with PEP next academic year	16	3	5	4.13	0.50
PEP made me look more consciously at the well-being and engagement of the students	16	2	5	4.00	0.73
PEP improved the atmosphere in the classroom	15	3	4	3.87	0.35
PEP changed the school climate to a more positive climate	16	3	4	3.81	0.40
PEP improved my relationship with the students	16	1	5	3.44	0.89
I enjoyed working on the different components of PEP	15	3	5	3.73	0.59
The students enjoyed working on the different components of PEP	15	3	5	3.73	0.59
PEP made me become a better teacher	16	1	5	3.19	0.98
I recommend PEP to other colleagues	16	3	5	3.75	0.58
The overall score I would I would give PEP (scale 1-10)	15	6	8	7.27	0.7

Table III. Teachers' mean ratings for end of programme questionnaire (scale 1-5)

February and June 2015. In February, several teachers commented on feeling a little unsure about the application of skills learned in the training workshops into the realities of everyday school life: "In the first half of the year, it is a bit unclear what you have to do". In June, however, teachers were more positive about the implementation of PEP and commented on the contribution it was starting to make at their school:

> I believe that PEP already is a good contribution at our school. But I think that it has to be worked out more of course. […] and that it's not visible yet for all of the children. And for the parents, yes, I believe we can make more progress in the aspect of connections with the parents as well (T13 June).

In general teachers considered it important that the implementation of PEP was a bottom up process instead of an obligatory programme. They appreciated the fact that PEP starts from existing values/visions of the schools:

> […] which topics are important for us? What do we need to do as a team? What do you implement in which grade? You can make decisions fit to the school (T15 June).

Some teachers commented on the fact that the training workshops were not practical enough. Teachers stated that the connection between the content of the workshops and their daily practices was not always visible "The last workshop was very interesting […] the first two workshops, however, I felt like 'what can I do with this [content]?' " (T06 January).

3.2.3 Perception of PEP: impact on children. Teachers spoke about the positive impact of PEP on student well-being. One teacher spoke specifically about children in her class that are often restless in the afternoon: "It's great to see how nice the children are working and how relaxed they are during the afternoons" (T11 June). Other teachers noted the impact of compliments on students' awareness of positive behaviour:

> In grade 8 we are working with compliments and we notice the children to be more aware of the positive behaviour of the other children (T15 June).

> […] every week one child is put central […] it's not only about compliments like "he looks nice" or "he is kind", but more like "why is this person kind?" and "can you give an example of this kindness?" (T07 January).

In addition, teachers noted an improvement in student engagement/involvement in learning. One teacher explained:

> Concerning involvement, in my classroom I see that the students now really want to collaborate with each other. During this collaboration their involvement is very high, and yes this increased involvement leads to an increase in wellbeing as well (T07 January).

3.2.4 Perception of PEP: impact on staff. The teachers and principals stated in the interviews that PEP did not just have an impact on student outcomes but its implementation also lead to a more clear vision amongst the staff. Referring specifically to the training they received in well-being and engagement, teachers referred to its positive impact on how staff observe children and support engagement: "The teachers are very aware of how to observe the children and they are talking with each other about these observations" (T13 June). In addition, teachers noted a change in their awareness of children's skills and also in their awareness of how they react to children:

> I noticed that I'm more aware of the talents of the children. I think I really grew in that aspect (T03 June).

> Yes, more awareness on how to react. I'm much more aware of it now (T07 January).

3.2.5 Contextual factors affecting implementation. The most frequently reported factor that hindered the implementation of PEP was time. Teachers commented on the pressures they

experience on a day-to-day basis completing their current workload and the lack of available time to devote to implementing PEP:

> There is a lot to be done in the same time [apart from PEP]. Reports, observations […] You really want to spend time on it [PEP], but you are just not always able to (T15 June).

Teachers did, however, comment on the importance of incorporating PEP into their normal routine as opposed to seeing it as an add on activity. Changes in staff over the course of the academic year were noted by teachers in one school as another hindering factor. The replacement of staff with substitute teachers made it difficult to embed PEP within the curricula and school meetings:

> It was a troubled year, especially in grade 4-6. A lot of colleagues were sick and it is hard to instruct substitutes to work on it. Substitutes first need some time to get to know the children (T15 June).

3.2.6 Future – vision for the future. All the teachers across the two schools were enthusiastic about the future of PEP and they confirmed they would be willing to continue with PEP in the coming years. Teachers noted that their understanding of PEP improved over the course of the academic year and were enthusiastic about the positive impact of PEP on the children and learning environment:

> I definitely want to continue with PEP, I think everyone agrees with that. You see that PEP generates a lot of good results: the atmosphere is better, the children are more positive and relaxed, which inevitably leads to better learning results (T15 June).

The teachers did, however, state that they would like to have more practical guidelines for implementing PEP-activities, especially because they saw the positive influence of PEP on their students:

> It's very important that it's very clear for the teachers what they can do. In the beginning that was all really uncertain, like: "what are we going to do exactly?" But now when it's clear I definitely see a future for PEP (L20 January).

3.3 Impact evaluation

Results from the standardised questionnaires examining the impact of PEP are outlined in Table IV.

3.3.1 Well-being and health-related quality of life. Children in grade 1-3 completed the Kiddy KINDL-R questionnaire at pre- and post-intervention ($n = 32$). Results showed a significant increase in children's total score and indicated a large effect ($d = 3.46$, $p = 0.00$). These results indicate a significant increase in self-reported well-being and health-related quality of life. Both the subscale scores of physical well-being ($d = -3.69$, $p = 0.000$) and emotional well-being ($d = -3.87$, $p = 0.00$) increased significantly between pre- and post-intervention.

	T0			T1			T1-T0	
	n	Mean	Std	*n*	Mean	Std	*d*	Sign.
SDQ total score difficulties	84	6.226	4.796	117	6.128	5.442	−0.58	0.02
Kiddy KINDL-R total score health-related quality of life	56	2.420	0.171	32	2.730	0.271	3.46	0.00
Kid KINDL-R total score health-related quality of life	124	3.836	0.462	121	3.911	0.480	0.47	0.01
LLRV total score student-teacher relationship	182	120.165	13.800	173	119.624	16.356	−0.14	0.37
PSE total score school climate	49	3.046	0.374	72	3.107	0.432	1.34	0.00

Table IV. Non-adjusted effect sizes per impact evaluation outcome

Children in grade 4-8 completed the Kid KINDL-R questionnaire ($n = 121$). Similar results were shown for this group of children. There was a significant increase in children's total score between pre- and post-intervention which indicates a small- to medium-sized effect ($d = 0.47$, $p = 0.01$). Subscale scores on family (-0.51, $p = 0.007$), friends ($d = -0.41$, $p = 0.029$) and everyday functioning ($d = -0.52$, $p = 0.006$) increased significantly. These results indicate that children felt more pleasant at home, experienced better contacts with friends, and were in general operating better at school at post-intervention.

3.3.2 Student-teacher relationship. Results from the LLRV which measures teachers' perception of his/her relationship with the students showed no change between pre- and post-intervention. Subscale scores, however, revealed a significant change in "closeness" score ($d = -0.46$, $p = 0.003$) which indicated that teachers experienced a higher amount of affection, warmth and open communication with their students at post-intervention.

3.3.3 Strengths and difficulties. A total of 84 parents completed the SDQ at pre- and post-intervention. Results from the total difficulties score indicate a significant decrease between pre- and post-intervention and reveal a medium- to large-sized overall effect ($d = -0.58$, $p = 0.02$). None of the SDQ subscales were found to change significantly.

3.3.4 School climate. The PSE questionnaire was completed at pre- and post-intervention by 49 parents. Results indicated a significant increase in the total school climate score which reveals a large effect ($d = 1.34$, $p = 0.00$). Subscale scores further revealed a significant improvement in "supportive cooperation and active learning" ($d = -1.75$, $p = 0.000$); "forbidding physical punishment and violence" ($d = -1.37$, $p = 0.000$); "not tolerating bullying, harassment and discrimination" ($d = -0.94$, $p = 0.18$); "promoting equal opportunities and participation in decision-making" ($d = -1.15$, $p = 0.001$).

3.3.5 Bullying. The percentages of bullying and victimization show a slight change between pre- and post-intervention. Pupils reported bullying others less at post-intervention (25.4 per cent at pre-intervention vs 23.2 per cent at post-intervention) and reported being bullied less at post-intervention (29.2 per cent at pre-intervention vs 15.4 per cent at post-intervention).

4. Discussion

School frameworks aimed at creating a positive school climate and promoting well-being at the whole school level have not been carried out in the Netherlands to date. The intention of this study was to learn about the implementation process of a whole school framework and potential for change.

The results from this pilot study provide evidence that PEP was well received by the two schools. Both the workshop questionnaires and the interviews indicated that staff and parents were positive about the four components of PEP. All three teacher training workshops were rated positively, with teachers concluding that PEP was a valuable addition to their school and that they would like to continue with PEP the following year. Results from the standardised questionnaires provide preliminary evidence regarding the positive impact of PEP on children's self-reported well-being and on problem behaviour including hyperactivity, emotional problems and relationship problems. There is evidence of a reduction in self-reported victimisation between pre- and post-intervention. The results indicate a larger effect for younger children than for older children on health-related quality of life. This difference, however, was not found for the other outcome measures. So, it can be expected that this change is explainable by the tendency of young children to rate their quality of life higher than older children (Ravens-Sieberer and Bullinger, 1998).

The quantitative results were supported by qualitative evidence from teachers about the positive impact of PEP on children's positive behaviour and engagement in classroom activities. In addition, results from the LLRV standardised questionnaire revealed

significant improvements in teachers' closeness with students, including enhanced affection, warmth and communication. Teachers themselves spoke about the impact of PEP on their awareness of children's skills, talents and their ability as teachers to observe and support student engagement. Parents also reported an improvement in the school climate including enhanced cooperation and active learning and reduced problem behaviour.

Overall, these results provide preliminary evidence regarding the positive impact of the PEP on children's well-being and engagement and on the positive culture within the school. However, due to the lack of a control group, the observed changes cannot exclusively be attributed to PEP. The positive findings from this pilot study are in line with result from an evaluation of the Geelong Grammar School's Comprehensive Model of Positive Education, which adopts a whole school approach to positive education (Vella-Brodrick *et al.*, 2014). Results from the Geelong Grammar School's quasi-experimental study revealed significant improvements in year nine students' (age 14 years) well-being, positive emotions, relationships, meaning, accomplishment, health and school engagement.

Similar to Geelong Grammar School's Comprehensive Model of Positive Education, PEP shows promising results as a framework that adopts a comprehensive approach to well-being and engagement by developing both implicit and explicit strategies to support the embedding of positive psychology within the school system. In a review of positive psychology interventions, Waters (2011) identified the adoption of a whole school approach as essential in order to embed positive education throughout the entire fabric of the school. A whole school approach moves beyond the use of specific programmes conducted within selected classrooms to the adoption of an approach that becomes the general way of life of the school. The results from this pilot study provide an indication that over the course of the year, PEP was gradually integrated into the school's everyday business with teachers becoming clearer about PEP's role in their classroom and school. Central to this was the provision of practical strategies and guidelines to support the roll out of PEP. Teachers repeatedly identified the importance of providing them with positive psychology-based activities (such as "Sun of the Week" and "Golden Button") that can be implemented with children on an ongoing basis.

It is clear that observing well-being and engagement is a unique feature of PEP and that it is not only about gaining skills in the assessment of students. Focussing on well-being and engagement is also about a change in perspective towards pupils. Instead of looking at the weaknesses of the children and trying to address these weaknesses, this approach shifts the focus towards the resources and strengths of the children. The continuous focus on engagement appears to improve the academic achievement of the students as a result of the attention on a "deeper" way of learning (Laevers *et al.*, 2013). Looqin as a system provides a large toolbox of possible interventions and activities to improve well-being and engagement for individual students and the class climate. In this research teachers highlighted the usefulness of Looqin as a practical instrument to observe and support student well-being and engagement. These results are in line with findings from Durlak and colleagues' (2011) meta-analysis of social and emotional skills-based interventions where the most effective interventions were shown to incorporate activity-based learning.

Similar to other whole school interventions developed and implemented in Europe and Australia, e.g. Up, Denmark (Nielsen *et al.*, 2015); Together at School, Finland (Bjorklund *et al.*, 2014); Kidsmatter (Graetz *et al.*, 2008), Australia, Mindmatters (Wyn *et al.*, 2000) Australia, the PEP whole school framework can be characterised as a "bottom up" approach. In an international review of social and emotional skills-based interventions, Weare and Nind (2011) established that this European "bottom up" approach promotes principles of local ownership, empowerment and adaptability and is in contrast to the USA "top down" manualised style. As was highlighted in the evaluation of Up, a whole school social and emotional skills intervention implemented in Denmark, Nielsen *et al.* (2015) the

flexible European style emphasises user involvement that allows for local adaptation. PEP adopts similar European "bottom up" principles. The results from this pilot study revealed the importance of a flexible style that allows for local adaptation, a characteristic what was identified by teachers in this pilot study as important to its success.

5. Limitations

It is important when interpreting the results from this pilot study to keep several limitations in mind.

First, the observed changes in child, teacher and school outcomes cannot be exclusively attributed to the intervention because of the lack of a control condition. Unmeasured environmental characteristics such as socioeconomic position, home environment and ethnic background of the students, as well as normal child development may have impacted changes measured in this study. This study, however, was planned to serve as an investigation into the implementation of PEP prior to moving into a more comprehensive, large scale experimental study on programme efficacy.

Second, the results from the workshops are limited as a result of several teachers and parents not completing the workshop evaluation questionnaires. These unreturned/non-completed questionnaires may have biased the results. Unfortunately, the study design did not allow any conclusion about those who did not want to provide feedback.

Third, a low percentage of parents (54 per cent) signed and returned the informed consent, which lead to a lot of unusable data for the impact evaluation.

Fourth, one could argue that conducting an internal evaluation is less objective than an external evaluation. In this pilot study, however, an internal evaluation was more convenient, efficient and less expensive. In the planned follow-up study the evaluation of the progress in well-being and engagement will be external.

Notwithstanding these potential limitations, the study also had some notable strengths. One of these strengths included the triangulation of data using multiple measures (quantitative and qualitative) and from multiple informants (children, teachers, principals and parents). A recommendation would be to strengthen this triangulation even more by also interviewing the students and parents in the next round of evaluation.

5.1 Implications for future practice and research

The findings from this study underscore the need for practical strategies and activity-based resources to support the whole school implementation of PEP. The need for the connection between the theory of the workshop and the daily practices of the teachers was the key barrier mentioned in the interviews. It is important to start right away with providing teachers those practical strategies and activity-based resources. Observing well-being and engagement using the Looqin system and the use of its practical strategies and resources to support children's development was essential to the success of PEP in the two schools. However, a possible barrier for new schools in adopting PEP might be their change and adjustment to Looqin as the new student tracking system.

Results also revealed the importance of building on the work currently underway in schools and addressing their specific needs. Future implementation of PEP should seek to meet these requirements. More information is required on the integration of PEP within the schools system and the supports required to ensure its sustainability beyond the life of the research project.

Whilst the results from this pilot study of PEP are promising, there is a need for a full-scale evaluation using robust methods to determine the immediate and long-term impact of PEP on children, teachers and the school as a whole. Examining programme impact on social, emotional and behavioural outcomes is critical to determining the overall efficacy of a

whole school positive education framework. To increase the robustness of the methodology the chance of false positive findings will be decreased by testing and reporting the subscale scores as primary outcomes. In addition, given the high prevalence and strong relationship of bullying to adverse well-being and mental health problems (Brown *et al.*, 2011), future research should investigate the impact of PEP on bullying at a whole school level. Furthermore, it is worth investigating the use of Looqin to observe students' well-being and engagement and its impact on students' education outcomes, including academic achievement. To increase the response rate of the informed consent, and thereby increase the amount of usable data, it is recommended to use a passive informed consent instead of an active informed consent. An additional practical recommendation from the principals to increase the response rate is to hand out the informed consent and other questionnaires during the teacher-parent meetings. Due to this handing out there was an increase in response rate for the SDQ and PSE on T1. Finally, the quality of the implementation should be monitored in more detail in order to determine what works for whom and under what circumstances, and to examine the impact of implementation on programme outcomes. As part of this, it is important to gather information about environmental characteristics and other similar social and emotional skills-based initiatives or curricular interventions implemented in the school, how these operate within the PEP framework, and their combined impact on children's outcomes.

6. Conclusion

This study may be unique in its examination of the implementation of a whole school framework aimed at supporting well-being and creating a positive school climate in Dutch primary schools. The findings from this pilot study were encouraging and provide preliminary evidence regarding the positive impact of PEP on children's well-being and problem behaviour, teachers' awareness of children's strengths and overall school climate. Implementation findings highlight the importance of the adoption of a "bottom up" approach that allows for local adaptation and the need for practical, activity-based resources to support whole school implementation. More robust, detailed research on the implementation and impact of PEP will enhance our understanding on the role of whole school positive psychology frameworks in supporting children's well-being and engagement.

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Appendix

Engagement – score

1 = rarely attains to actual activity; stares a lot, absent, apathetic; just brief moments of attention; hard to reach; when active the actions are stereotypical, simple and require minimal effort; mental activity is minimal; understands little.

2 = mostly interrupted activity.

3 = mostly attains to activity with progress in the actions; is there with his mind, but misses the engagement signals: often distractible, limited attention span, not really absorbed or touched by the activity.

4 = the pattern mostly consist of engagement.

5 = concentrated and works continuously most of the time; hard to distract; alert; absorbed and fascinated; mentally active on a high level; appeals to his full potential; acts on the edge of his abilities; enjoys exploring.

? = not enough information, very unclear image or not yet determined.

Well-being – score

1 = does not feel good most of the time; lacks enjoyment; often tensed, misses inner peace; lots of signals of negative experiences; little confidence, low self-esteem; relationships with others are negatively loaded; mainly: not feeling happy.

2 = in the pattern mostly consists with discontentment.

3 = a neutral or mixed pattern, signals of not feeling good; having fun is transitory and not intense; relationships with the environment are not optimal, but also not alarming; not happy nor unhappy.

4 = the pattern mostly consists with well-being.

5 = feels optimal most of the time: enjoys at the highest level; appears to be full of vitality; is relaxed and experiences inner peace; is open for his environment and adjusts to it rapidly; is confident and acts in a resilient manner; is happy and content with himself.

? = not enough information, very unclear image or not yet determined.

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