Evaluating a teacher-delivered character strengths intervention:

Teacher experience and impact on student engagement in elementary education

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Abstract

Background: School programs that focus on children's pre-existing positive qualities (i.e., character strengths) may be well positioned to foster student engagement. Elementary school-based character strengths research is limited, however, and there remains much to be investigated regarding classroom implementation, particularly implementation by the teacher. Impeding this research area is a lack of evidence-based resources to support teachers during implementation. Accordingly, the present study developed and evaluated an online character strengths toolbox to facilitate autonomous teacher delivery of a classroom strengths intervention. It was hypothesized that (1) the toolbox would enable teachers to deliver a character strengths intervention and (2) that this would enhance student engagement.

Methods: A *process evaluation* was conducted to determine the extent to which the toolbox enabled teachers to implement a character strengths intervention, as well as the teachers' qualitative experience delivering the intervention. An *outcome evaluation* was conducted using paired sample t-tests to determine the quantitative impact of the intervention on student engagement. Participants in this mixed-methods evaluation study included three teachers and their students (N= 50 students; ages 8-11).

Results: *Process evaluation* revealed that teachers were able to use the toolbox as intended to deliver an effective classroom character strengths intervention. Weekly teacher logbooks suggested a sufficient degree of implementation fidelity and teacher interviews provided the first account of a teacher voice in school-based character strengths research. *Outcome evaluation* revealed that the intervention had a significant positive impact on student engagement when data from all students were combined. No significant differences in engagement before and after the intervention were found for the individual classes. Results provide the first empirical evidence of a fully teacher-delivered character strengths intervention enhancing engagement in an elementary student population.

Conclusions: Providing teachers with practice-oriented resources to guide them through autonomous delivery of a classroom character strengths intervention may serve as one promising means of fostering student engagement in elementary education. Implications for research and practice are discussed. The findings presented here may facilitate research and development of school programs that strive to promote important educational outcomes (e.g., engagement) by enabling teachers to focus not only on what students must improve upon, but also on the pre-existing positive qualities that children naturally bring with themselves into the classroom.

Keywords: character strengths, engagement, intrinsic motivation, teacher implementation, relatedness, positive education, elementary education

Student engagement is a fundamental construct in education with widespread implications for research and practice. There is consensus that student engagement is positively associated with healthy social-emotional competencies, increased wellbeing, academic achievement, and long-term outcomes such as school completion and work success (Fredricks, Blumenfeld, & Paris, 2004; Upadyaya & Salmela-Aro, 2013; Pietarinen, Soini, & Pyhältö, 2014; Christenson, Reschly, & Wylie, 2012). Nevertheless, a significant proportion of students remain disengaged at school. Approximately one quarter of students (aged 15)— across 28 OECD countries— have been classified by PISA as having a low sense of belonging in school, and approximately one fifth as having low participation (Willms, 2003). In the context of Dutch education, it was found that elementary students were insufficiently engaged in approximately one tenth of their lessons and secondary students in one fifth of their lessons (Dutch Inspectorate of Education, 2014). A major explanation for the relatively low engagement rates observed in high school, compared to earlier school years, is that the increased emphasis on assessment and other external motivators diminishes students' intrinsic motivation to learn (Wigfield & Cambria, 2010). Unsurprisingly, students tend to follow a trajectory by which they become less intrinsically motivated, and increasingly disengaged, as they progress through the school grades (Eccles, Lord, & Buchanan, 1996; Otis, Grouzet, & Pelletier, 2005). It follows that researching and developing intervention strategies to bolster students' intrinsic motivation in elementary school may serve to sustain their level of engagement in subsequent school years.

School-based positive psychology (i.e., positive education) programs that focus on students' character strengths— defined as pre-existing positive qualities that arise naturally, feel authentic, and are intrinsically motivating to use (Brdar & Kashdan, 2010)— are well positioned to foster engagement in the elementary school years (Quinlan, Swain, Cameron, & Vella-Brodrick, 2015; Quinlan, Vella-Brodrick, Gray, & Swain, 2018; Madden, Green, & Grant, 2011; Norrish, Williams, O'Connor, & Robinson, 2013; Buck, Carr, & Robertson, 2008). Previous research in elementary education has demonstrated that character strengths interventions may lead to significant increases in student engagement, as well as positive affect, life satisfaction, hope, class cohesion, and academic performance

(Madden et al., 2011; Quinlan et al., 2015; 2018; Rashid et al., 2013). In one study it was found that elementary school students who participated in a six-session character strengths intervention experienced a greater sense of competence, autonomy, and relatedness compared to a control group of students who did not participate in the intervention (Quinlan et al., 2018). It is well documented in self-determination theory (SDT) research that the fulfillment of an individual's innate psychological needs for competence, autonomy, and relatedness is a precondition to intrinsic motivation and, in turn, optimal engagement (Ryan & Deci, 2000; Reeve & Halusic, 2009). It is thus unsurprising that character strengths programs, which have been shown to positively impact the building blocks of intrinsic motivation— that is, competence, autonomy, and relatedness— serve as a promising avenue for enhancing engagement in school settings.

The benefits resulting from school strengths programs are commonly associated with the following intervention components: developing a common language for character strengths (Rashid et al., 2013; Niemiec, 2017); exploring and identifying the character strengths that are most natural, important, and meaningful to the students (i.e., students' signature strengths) (Proctor et al., 2011; Rashid et al., 2013; Madden et al., 2011); encouraging students to use their signature strengths more often and in new ways (Proctor et al., 2011; Rashid et al., 2013; Madden et al., 2011); developing students' character strengths through various activities and strengths-related goal setting (Quinlan et al., 2015; Madden et al., 2011; Rashid et al., 2013; Madden et al., 2011); and fostering teachers' ability and motivation to recognize character strengths in their students (Quinlan et al., 2018). Previous research suggests that school-based character strengths interventions may be further improved by investigating the teacher's involvement in the intervention, particularly by increasing focus on their role and influence during implementation (Rashid et al., 2013, Quinlan et al., 2018).

Although it has been found that teachers can largely influence the success and sustainability of classroom interventions (Han & Weiss, 2005), there is a paucity of school-based character strengths intervention studies involving teachers as the primary intervention deliverer. Moreover, to date, no studies have investigated the impact of a teacher-delivered character strengths intervention on student

engagement in elementary education. A key barrier to research on teacher-delivered strengths programs is the lack of evidence-based resources available to support autonomous teacher implementation. Supporting teachers to implement core positive psychological concepts in the classroom (e.g., strengths of character) has been highlighted as a critical step forward for positive education research in the Netherlands (Elfrink, Goldberg, Schreurs, Bohlmeijer, & Clarke, 2017), and for positive education in general (Shankland & Rosset, 2017). The first Positive Education Program (PEP) in the Netherlands resulted in significant benefits for students, teachers, and overall school climate; however, the program largely focused on teacher training workshops and the lack of practical strategies and activity-based resources was explicitly identified by teachers as a key barrier to their ongoing implementation of the program (Elfrink et al., 2017). Accordingly, the present study developed and evaluated a practice-oriented (online) toolbox to enable elementary school teachers to autonomously deliver a classroom character strengths intervention. The evaluation was conducted in terms of (1) the teachers' qualitative experience using the toolbox to deliver the intervention and (2) the quantitative impact of the intervention on student engagement.

Theoretical Framework

Character Strengths Interventions and Engagement

Positive psychology may be viewed as a strengths-based psychology, founded on the idea that individuals— including children and adolescents— can employ their character strengths to lead more meaningful, fulfilling, and engaging lives (Seligman, 2004). Character strengths may be simply viewed as positive personality traits that have moral value (Peterson & Seligman, 2004). One empirically validated framework for character strengths that is widely used in research, including the present study, is Peterson and Seligman's (2004) Values in Action Inventory of Strengths (VIA-IS) classification. The VIA-IS classification provides a structural model for character that includes 24 cross-culturally valid character strengths associated with the six virtues categories: (1) *Humanity* includes kindness, social intelligence, and love (2) *Wisdom* includes creativity, curiosity, judgment, love of learning, and perspective, (3) *Temperance* includes forgiveness, self-regulation, prudence, and humility, (4) *Transcendence* includes

hope, humour, gratitude, spirituality, and appreciation of beauty and excellence, (5) *Justice* includes leadership, fairness, and teamwork, and (6) *Courage* includes zest, bravery, perseverance, and honesty (Peterson & Seligman, 2004). The 24 character strengths are considered to be the psychological ingredients—that is, the processes or mechanisms— that define the virtues (Peterson & Seligman, 2004). For example, the virtue of wisdom can be achieved by exercising strengths such as creativity, curiosity, and love of learning. Appendix A provides a complete list of the virtues and character strengths that comprise the VIA-IS classification. Character strengths interventions based on the VIA-IS— which typically provide participants the opportunity to explore all 24 strengths and identify and develop those which are most intrinsic to them—have been shown to promote numerous positive outcomes, including engagement, in both youth and adults (Lavy, 2019; Theodora, Ghielen, Van Woerkom, & Meyers, 2018; Schutte & Malouff, 2019). All character strengths research discussed in the present study has made use of the VIA-IS classification.

The theory behind the VIA-IS is such that each individual expresses all 24 character strengths, albeit to varying degrees; therefore, each individual (or student) has a unique strengths-profile with different signature strengths (Linkins, Niemiec, Gillham, & Mayerson, 2015). Based on multiple years of research and scholastic collaboration, Peterson and Seligman (2004) have delineated various theoretical criteria for a strength to be considered someone's signature strength. Among others, these criteria include a sense of ownership and authenticity ("this is the real me") when using the strength; a feeling of excitement while displaying it; a rapid learning curve as themes are attached to the strength and practiced; a feeling of inevitability in using the strength; and intrinsic motivation to use the strength (Peterson & Seligman, 2004). It follows that using one's signature character strengths is a fulfilling experience which promotes a positive self-identity that is in accordance with one's intrinsic interests, self-motivations, and personal values. Although the Values in Action Institute website provides a validated questionnaire to determine one's signature character strengths, Proctor and colleagues (2011) suggest developing general school-based strengths interventions, allowing students to explore the entire VIA-IS and to self-identify with several strengths that are most natural and intrinsic to them— as was done in this study.

Considering the intrinsic nature of character strengths, it is unsurprising that there is a growing body of evidence showing that interventions involving the identification and development of an individual's signature character strengths may promote positive outcomes (e.g., engagement) by satisfying that individual's intrinsic needs for competence, autonomy, and relatedness (Linley et al., 2010; Quinlan et al., 2015; 2018). Competence, autonomy, and relatedness—according to self-determination theory (SDT)—are considered to be innate psychological needs that must be fulfilled for a student to be optimally engaged at school (Reeve & Halusic, 2009). Specifically, SDT posits that when an individual's psychological needs for competence, autonomy, and relatedness are fulfilled, then that individual will become more intrinsically motivated and, consequently, will be more likely to seek out novelty, to challenge themselves, and to engage in learning activities (Ryan & Deci, 2000; Reeve & Halusic, 2009). SDT further suggests that intrinsic need satisfaction is preconditional to engagement; that is, optimal engagement occurs *only* when the learning context provides opportunities for students to fulfill their needs for competence, autonomy, and relatedness (Reeve & Halusic, 2009; Christenson et al., 2012). The present paper adopts this self-deterministic perspective of engagement. It views character strengths interventions as a strategy for enhancing student engagement by increasing their sense of competence, autonomy, and, in particular, relatedness.

Character Strengths Interventions and Intrinsic Need Satisfaction

Previous research has uncovered two mechanisms by which character strengths interventions may satisfy one's intrinsic psychological needs, thereby enhancing engagement: (1) by using one's signature strengths in the pursuit of self-concordant goals (Linley et al., 2010) and (2) by strength-spotting (Quinlan et al., 2015; 2018). Firstly, Linley and colleagues (2010) demonstrated that signature strengths usage is positively related to wellbeing, goal pursuit, and intrinsic need satisfaction in a college student population. Specifically, their analyses revealed that using one's signature strengths (as indicated by participant self-reports) was associated with increased goal progress, which in turn was associated with increased wellbeing and competence, autonomy, and relatedness need satisfaction (Linley et al., 2010).

Linley and colleagues' (2010) conclude that strengths usage may be an important part of an affective learning cycle, whereby strengths-related goal progress leads to wellbeing and intrinsic need satisfaction which, in turn, motivates sustained effort (i.e., engagement) and leads to further goal progress.

Secondly, in addition to using one's own strengths to pursue goals, interventions which involve strength-spotting (i.e., recognizing, explaining, and appreciating strengths in other people) may also satisfy students' psychological needs, particularly their need for relatedness (Quinlan et al., 2015; 2018; Komazawa & Ishimura, 2016). In general, students' relatedness to teachers and peers largely contributes to their level of engagement at school (Skinner, Furrer, Marchand, & Kindermann, 2008; Furrer & Skinner, 2003). Accordingly, Quinlan (2013) hypothesized that strength-spotting by students and teachers would enhance peer-to-peer and teacher-student relationships, thereby enhancing students' intrinsic need satisfaction and level of engagement at school. Quinlan and colleagues (2015) have provided support for this hypothesis using the 'Awesome Us' character strengths program. The 'Awesome Us' program consisted of six researcher-led sessions that focused on teacher and peer support by emphasizing strength spotting, its importance, and how it can be practiced on an ongoing basis, in addition to various other intervention components (Quinlan et al., 2013; 2015). It was found that, compared to business-as-usual control groups, the 'Awesome Us' program led to significant increases in elementary student engagement and intrinsic need satisfaction, among other positive outcomes (Quinlan et al., 2015). The results of Quinlan and colleagues' (2015) study should be interpreted cautiously, however, as the 'Awesome Us' program did not exclusively focus on strength-spotting activities. The program also included activities related to strengths-related goal setting and using strengths in friendships, for example. Quinlan and colleagues (2018) found further evidence attesting to the importance of strength-spotting during school-based strengths interventions, particularly strength-spotting by the teacher.

Teacher strength-spotting— measured in terms of teachers' attitudes toward identifying strengths in others, frequency of practice, and motivation for noticing strengths— has been shown to significantly mediate student outcomes following a classroom strengths intervention (Quinlan et al., 2018). Approximately half of the impact of Quinlan and colleagues' (2018) 'Awesome Us' program on

engagement, competence, and relatedness need satisfaction was mediated by teacher strength-spotting. Moreover, 76% of the program's benefits for autonomy need satisfaction were mediated by teacher strength-spotting (Quinlan et al., 2018). This finding clearly demonstrates the potential interpersonal benefits of school-based strengths programs and provides further support for Niemiec's (2017) claim that part of the value of the VIA-IS is in providing a vocabulary, or 'common language', that enables individuals (including students and teachers) to discuss, recognize and appreciate character strengths in themselves and in others on an ongoing basis.

Although research is beginning to uncover the mechanisms underlying successful character strengths interventions, there is still much to be learned about their sustainable implementation in the school context. In a review of school-based character strengths programs, Lavy (2019) links character strengths to critical 21st-century educational competencies and asserts that these types of programs are underused and understudied in educational research relative to other contexts. Lavy (2019) emphasises the need to further examine the impact of school-based character strengths programs, the various factors impacting sustainability of the program, and its long-term effects on students' cognitive, intrapersonal, and interpersonal competencies. Increasing focus on the teacher may serve as a promising research avenue in the development of school-based character strengths programs (Quinlan et al., 2018). Research indicates that the success and sustainability of classroom interventions may be largely determined by the teacher, as they have a consistent presence in the classroom and thus the potential to integrate the program into the curriculum and daily classroom practices (Han & Weiss, 2005). Previous character strengths intervention studies, however, have involved teachers to a limited extent and have reported no firsthand experiences regarding their involvement during (and after) the intervention. Further investigating the teacher's involvement during implementation has been identified as an important step forward for school-based character strengths research (Quinlan et al., 2018), and is the focus of the following section.

Teacher Implementation of School-Based Character Strengths Interventions

In a review of twelve systematically evaluated school-based positive psychological interventions, Waters (2011) highlighted teacher implementation as a common factor that may positively impact the success of the intervention, as teachers have an ongoing relationship with students and can embed the concepts in the classroom on an ongoing basis. Previous classroom intervention studies that have focused solely on VIA-IS character strengths, however, have involved teachers only to a very limited extent, with only two empirical studies involving the teacher as the primary intervention deliverer. Firstly, Proctor and colleagues (2011) provided preliminary evidence of a teacher-delivered character strengths intervention (i.e., 'Strengths Gym') having a positive impact on student outcomes. 'Strengths Gym' consisted of a general character-strengths based program that provided students with the opportunities to explore the entire VIA-IS, to self-identify with their signature character strengths, and to partake in various strengths-related activities (Proctor et al., 2011). It was found that the 218 young adolescents (aged 12–14) who participated in 'Strengths Gym' showed larger gains in life satisfaction relative to the 101 students who did not partake in the program (Proctor et al. 2011). Secondly, in the context of elementary school, Rashid and colleagues (2013) conducted three interventions and concluded that the intervention involving the classroom teacher as the primary deliverer resulted in improvements in student social skills, parent reported problem-solving behaviour, and teacher reported academic performance, compared to the other two interventions which were delivered by outside professionals (Rashid et al., 2013). Although the above two studies demonstrated teachers to be effective deliverers of VIA-IS character strengths programs, neither study investigated the impact of the intervention on student engagement. To date, previous studies investigating the impact of character strengths interventions on elementary student engagement have involved professional coaches and researchers as the primary intervention deliverer (Madden et al., 2011; Quinlan et al., 2015; 2018). No studies have previously investigated the impact of a teacher-delivered character strengths intervention on engagement in the context of elementary education— nor have there been any publications including the teacher's voice.

Another gap in school-based character strengths research relates to the teacher's qualitative experience delivering the intervention. Previous teacher-delivered strengths intervention studies have failed to include the teacher's voice and have provided little information regarding the teacher's perception of the intervention and the various factors facilitating and hindering their ability to implement the intervention effectively and ongoingly. Further investigating the teachers' qualitative experience delivering a strengths intervention may aid the development of character strengths programs that are increasingly practicable and sensitive to the elementary school context, and thus more effective for promoting positive student outcomes. A notable obstacle that is impeding further investigation into teacher-delivered character strengths interventions is a lack of user-friendly and accessible resources to support teacher implementation (Furlong, Gilman, & Huebner, 2014). Although positive psychology programs have been successfully implemented in various privately funded schools, their success may be at least partially attributed to having more resources and less curricular demands compared to the reality that many public schools face (Furlong et al., 2014; Halliday, Kern, Garrett, & Turnbull, 2019). Unsurprisingly, there may be teachers seeking to integrate positive psychological concepts, such as character strengths, into their classroom whom do not have the support, sufficient knowledge, and/or the practical resources to do so (Shankland & Rosset, 2017).

This lack of practical positive psychological resources has been explicitly identified by elementary school teachers in the first school-wide Positive Education Program (PEP) implemented in the Netherlands (Elfrink et al., 2017). Overall, the findings from Elfrink and colleagues' (2017) pilot study were encouraging as it was found that PEP positively impacted student wellbeing, teachers' awareness of student strengths, and overall school climate. Teachers were enthusiastic about the positive education program and in interviews reported being inspired by the positive psychology workshops and the theory underlying a strengths approach; however, teachers repeatedly identified the lack of practical strategies and activity-based resources as a key barrier to ongoing implementation of the program (Elfrink et al., 2017). Teachers emphasized the need for more connection between the theory taught in the workshops and their daily practices and activities. Further, teachers expressed the need for activity-based resources

that can be implemented on a "bottom-up" basis to ensure flexibility and local adaptation (Elfrink et al., 2017), a characteristic that is often emphasized in school-based positive psychology research (Halliday et al., 2019; Furlong et al., 2014; Elfrink et al., 2017). Altogether, the findings from Elfrink and colleagues' (2017) pilot study were encouraging, however, they highlight the necessity of providing teachers with activity-based, practical resources that are rooted in research and can be used on a bottom-up basis to support their ongoing implementation of school-based positive psychology.

The Present Study

As part of a larger Positive Education Program (PEP) being implemented in the Netherlands, the present study developed and evaluated an (online) activity-based resource to guide elementary school teachers through a six-week VIA-IS character strengths intervention—herein referred to as the *character strengths toolbox (CST)*. Considering previous research by Proctor and colleagues (2011), Rashid and colleagues (2013), and Quinlan and colleagues (2015; 2018), the CST aimed to promote student engagement by providing teachers with materials and activities for students to explore all 24 VIA-IS character strengths; to self-identify with the 3-5 strengths that feel most natural, meaningful, and intrinsic to them (i.e., their signature strengths); to develop their strengths through various activities and strengths-related goal setting; and to foster their awareness of strengths in self and others. Additionally, the CST aimed to develop teachers' strengths awareness and strength-spotting skills by providing them with strength-spotting activities and practical strategies to use throughout the intervention period, as increased teacher strength-spotting is associated with greater student engagement (Quinlan et al., 2018). An overarching objective of the CST was to create a common language for character strengths in the classroom. The common language helps bring positive behaviour to the surface and it can be used by teachers and students on an ongoing basis as a framework for recognizing and discussing a wide range of positive qualities, both in themselves and in each other. This is an important aspect of VIA-IS interventions that is presumed to contribute to their interpersonal benefits (Niemiec, 2017).

The present study investigated the following research question: *To what extent did the CST enable teachers to implement a character strengths intervention as a means of enhancing student engagement in elementary education?* A process and outcome evaluation of the CST was conducted to answer this question at two levels: the teacher level and the student level. At the teacher level, the following two sub-questions were explored: *To what extent did the CST enable teachers to implement a character strengths intervention (research question 1)?* and *What was the teachers' qualitative experience delivering the CST intervention across a six-week period (research question 2)?* Teacher interview transcripts, weekly logbook information, and follow-up questionnaire data were analyzed and used to answer these two research questions (*process evaluation*). It has been argued that qualitative methods should be used more regularly in positive psychological research to better understand the contextualized live experience of participants and their social environment (Hefferon, Ashfield, Waters, & Synard, 2017). However, previous research on teacher-delivered strengths interventions in elementary education is very limited and has provided no qualitative information from the teacher. To address this research gap, the present study included interviews to explore and characterize the experience of three elementary school teachers as they used the CST to autonomously deliver a six-week character strengths intervention in their classroom. In addition to interviews, weekly teacher logbook information and a follow-up questionnaire were used to gain further insight into the teacher implementation process.

At the student level, the following sub-question was investigated: *To what extent did the CST impact student engagement after a six-week implementation period (research question 3)?* A within-subject, pretest-posttest design was used to compare student engagement before and after the CST intervention (*outcome evaluation*). Previous research in elementary education suggests that engagement may be enhanced when (1) students are given opportunities to identify and develop their character strengths through activities such as goal setting (Madden et al., 2011; Quinlan et al., 2015), (2) students recognize character strengths in others, particularly their classmates (Quinlan et al., 2015: 2018), and (3) teachers recognize character strengths in their students (Quinlan et al., 2018). Accordingly, as shown in Figure 1, it was hypothesized that student engagement would be greater, on average, after teachers used

the CST across a six-week period to accomplish the abovementioned (three) activities. Further, it was expected that any changes in engagement before and after the intervention period would be at least partially mediated by the fulfilment of students' intrinsic needs for competence, autonomy, and, in particular, relatedness (Figure 1). Based on the results of this process and outcome evaluation, implications are discussed for researchers and practitioners seeking to better understand teacher-delivered character strengths interventions, their impact on critical student outcomes such as engagement, and how they may be successfully and sustainably implemented by the teacher.

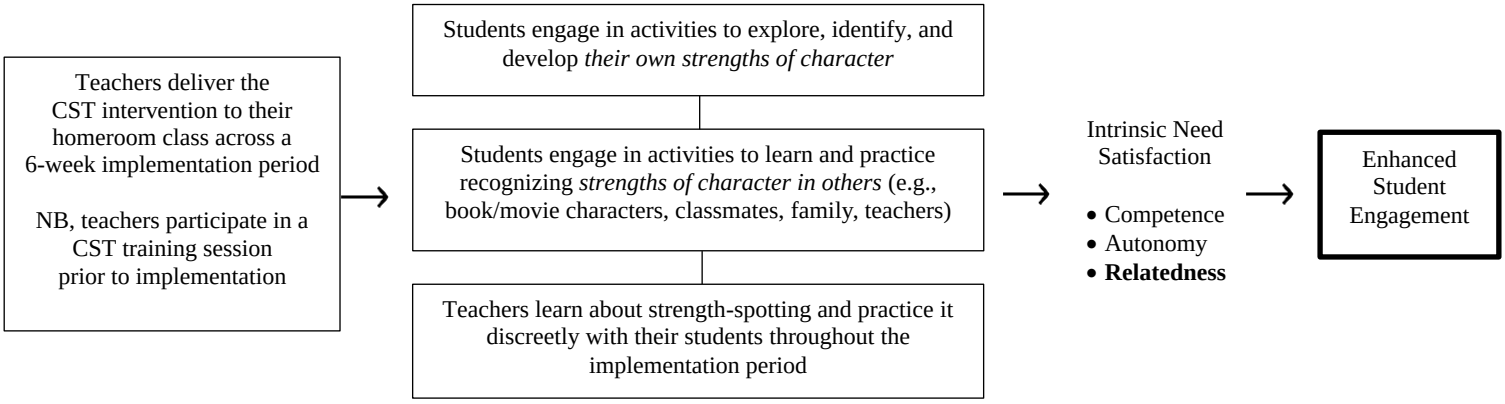

Figure 1. Theoretical model of the Character Strengths Toolbox and its intended student outcomes

Methods

Participants

Participants in the present study initially included four teachers and their respective homeroom classes (68 students) at a public elementary school in the Netherlands— hereafter referred to as *the school*. One teacher was excluded as he or she was unable to complete the intervention due to personal reasons unrelated to this research. Further, one Grade 4 student was excluded as he or she was absent for the pre-intervention engagement measurement. Consequently, three teachers and 50 students (N=50) were included in the final analysis and results (Table 1). Informed consent was given by all participating teachers and by at least one parent of each student included in the study.

Student participants were primarily of Dutch nationality and included 27 females (54%) and 23 males (46%) between the ages of 8 and 11 (M = 9.65, SD = .770). Teacher participants were all of Dutch nationality and included 2 males and 1 female aged 21, 32, and 61. The school was purposively selected for the present study as its teachers already had a basic theoretical understanding of school-based positive psychology and were seeking practical support to apply the concepts further. Teachers at the school had previously received a positive education intervention consisting of four study days and eight positive education seminars. The seminars and study days focused on wellbeing, engagement, values, and positive psychology in general. Teachers were inspired by the concepts but expressed the need for more resources to support their practical implementation of positive psychology. None of the participating teachers were familiar with the VIA-IS classification. Each of the three participating teachers implemented the CST with the students in their homeroom class (Grades 3-5).

Table 1

Distribution of student participants across grades

Grade (age)	3 (8-9)	4 (9-10)	5 (10-11)	Total
Number of Students	12	24	14	50
Percentage of Total	24.0	48.0	28.0	100.0
Percentage Female	58.3	54.2	50.0	54.0
Percentage Male	41.7	45.8	50.0	46.0

Materials

Character Strengths Toolbox (CST)

The CST was designed to enable teachers to autonomously deliver a brief character strengths intervention by guiding them through a six-week implementation plan. The CST was provided to teachers in a user-friendly Google Classroom format that could be easily accessed online and used without the necessity of having a researcher present. Teachers could communicate with each other as well as contact the first researcher through the Google Classroom platform if needed. As shown in Appendix B, the contents of the online CST consisted of five components: (1) an introductory document with concise theoretical information to consolidate teachers' knowledge of character strengths and engagement

research; (2) a six-week plan for teachers to follow, including activities, strategies, worksheets, and supplementary resources (e.g., online videos and links to learn more about the individual character strengths on the official Values in Action website); (3) additional materials including character strengths cards, classroom posters, and a document containing strengths-related activities and classroom interventions for the teacher to use during and after the intervention on a bottom-up basis, (4) a weekly logbook for teachers to record their progress and comments at the end of each week, and (5) a list of academic references that were used to develop the contents of the CST.

The contents of the six-week plan were based on previous character strengths intervention research. Week 1 focused on raising teachers' awareness of the 24 VIA-IS character strengths and developing their strength-spotting skills and positive attitude towards a strengths approach, as this has been evidenced to support student engagement (Quinlan et al., 2018). Weeks 2-5 were largely based on Quinlan and colleagues' (2015) 'Awesome Us' strengths program, thereby focusing on exploring and identifying students' activity strengths (Week 2); exploring and self-identifying with various VIA-IS character strengths that are personally meaningful (Week 3); setting personal strengths-related goals (Week 4); and making strength shields and discussing how strengths may be used in relation to other people (Week 5). Week 6 focused on ongoing implementation and involved student feedback and students inputting their own ideas for future strengths activities, as this has been shown to increase their ownership and 'buy-in' to positive psychological interventions (Halliday et al., 2019).

In addition to having a specific focus, each week included one objective and various program components to help the teacher achieve that objective, thereby guiding them throughout the implementation process. Appendix C provides an overview of the weekly foci, objectives, and program components used to achieve the objectives. Further, each week included brief theoretical information, practical strategies, a classroom activity, and extra materials (e.g., worksheets and character strengths cards and posters with age-appropriate explanations of the different strengths). Teachers could use the activity ideas directly or adapt them to fit their current practices and/ or students' needs, while staying within the confines of each weekly objective. In addition to achieving each weekly objective, an

overarching goal of the CST was to create a common language for character strengths that the teachers and their students could use at school on an ongoing basis to better recognize strengths in self and others— thereby promoting the interpersonal benefits associated with character strengths programs.

Semi-Structured Teacher Interviews

Semi-structured interviews were conducted individually with each of the three participating teachers after the intervention was completed. Teacher interviews varied between 45 and 60 minutes in duration. Based upon Nielsen and Randall's (2013) evidence-based model for process evaluations, the interviews examined three categories: (1) the quality of the implementation, including the CST's features and the specific weekly activities that were carried out, (2) the various factors facilitating and hindering implementation, and (3) teachers' perception toward the CST intervention, particularly their perception of its impact on themselves and on their students.

Regarding Category 1, teachers were asked questions such as "What strengths-related activities from the CST did you find the most (and least) successful for your students?" and "What features of the CST supported your ability to implement a character strengths intervention and how might it be improved?". Regarding Category 2, teachers were asked questions such as "How did the CST intervention fit in with the culture and conditions of your classroom and school?" and "Can you comment on any factors that may have affected the implementation process (in general and for specific students)?". Regarding Category 3, teachers were asked about the impact that the CST may have had on themselves as teachers and/ or on their students. In terms of impact on teachers, teachers were asked questions such as "Did you notice a shift in your own strengths awareness and/ or motivation to notice strengths in your students? and "Can you comment on how frequently you recognize and/ or talk to students about their character strengths now compared to before the intervention?". Regarding impact on students, teachers were asked questions such as "Did you perceive any impact on your students' ability or motivation to recognize strengths in self or other?" and "Did you notice students being more aware of their strengths and/ or trying to use them more often?".

Teacher Logbook

A weekly logbook was used to determine the fidelity of teacher implementation, that is, the extent to which teachers achieved the weekly objectives by using the CST as intended. The logbook was used to gather specific information about what aspects of the intervention were and were not implemented that week. Additionally, the logbook required teachers to provide information regarding (1) the extent to which their students were engaged in the strengths activities for that week, (2) the extent to which they felt that they attained the goal for that week, and (3) the amount of time that they spent on strengths activities for that week. Regarding student engagement, teachers were asked at the end of each week to respond on a 5-point Likert scale to the question "*On average, how engaged were your students in this week's strengths activities?*" (1= very low engagement, 5= very high engagement). Regarding goal attainment, teachers were asked at the end of each week to respond on a 5-point Likert scale to the question "*To what extent do you feel you have achieved the goal for this week?*" (1= the goal was not at all achieved, 5= the goal was fully achieved). The objective was considered to be sufficiently achieved if teachers responded to this statement with a score of 3 out of 5 or greater. Regarding time spent, teachers were asked to record the number of minutes they spent on strengths activities for each week. Although 45 minutes was strongly recommended, a minimum of 30 minutes per week on average across the six weeks was considered to be a sufficient amount of time spent on strengths-related activities. Moreover, if teachers adapted any of the weekly activities, they were asked to explain in the logbook how and why they adapted the activity, and to what extent they were still able to achieve the weekly objective with the adapted activity. The logbook also allowed teachers to provide any additional comments they might have had for that week. The logbook was provided to teachers in the Google Classroom and in hard copy.

Follow-Up Questionnaire

Approximately one week after the interviews, teachers completed a follow-up questionnaire regarding their experience using the CST. The follow-up questionnaire included two parts. The first part provided practical information about the different aspects of the CST that the teachers found helpful or

unhelpful for them and their students. For example, teachers were asked questions such as such as "How did you find the balance between theory and practice?" and presented with the options (1) too much theory/not enough practical activities, (2) too many activities/ not enough theory, and (3) there was a good balance between theory and practice. The second part of the questionnaire included 10 statements relating to the teacher's behaviours and attitudes regarding character strengths. Teachers were asked to respond on a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree) to questionnaire items such as '*Compared to before the intervention, I recognize my students' strengths more frequently now'*, '*It is important for schools to develop a common language for character strengths'* and '*This toolbox helped me bring character strengths into my classroom'.*

Leuven Involvement Scale for Young Children (LIS-YC)

The LIS-YC (Laevers, 1994) was used to measure student engagement in classroom learning activities before and after the six-week intervention period. Laevers (1994) developed the LIS-YC as an assessment tool for measuring activity-based engagement in elementary student populations. The LIS-YC is completed by the students' homeroom teacher based on their observations of each student's level of engagement during classroom learning activities. In this way each student is assigned one engagement score per assessment. The LIS-YC is comprised of two components. The first component is a list of 'signals' that describe aspects of engaged behaviour. These signals include concentration, energy, creativity, posture, and satisfaction. The second component consists of a five-point scale that determines the student's level of engagement. The five-scale ratings are as follows: no activity (1 point), frequently interrupted activity (2 points), more or less continuous activity (3 points), activity with intense moments (4 points), and sustained intense activity (5 points) (Laevers, 2015). Teacher training is required prior to use of the LIS-YC. Training involves reading the LIS-YC manual and watching extensive training videos with detailed examples of students exhibiting the five levels of engagement. All teachers in the present study had been previously trained to administer the LIS-YC and had used it to assess student engagement

numerous times prior to this research. Interrater reliability of the LIS-YC has been established at 0.90 (Spearman) and is therefore satisfactory (Laevers, 2015; Ishimine & Tayler, 2014).

Procedure

Prior to implementation, teachers participated in an approximately 60-minute introductory training session to familiarize them with the CST and how it was intended to be used. In addition to learning about the CST and its contents, teachers in the training session were introduced to the theory underlying VIA-IS character strengths interventions and their potential benefits for students (this information was also included in the CST). For example, it was explained to teachers that effective strength-spotting may improve relationship quality and foster students' sense of competence, autonomy, and relatedness, thereby positively impacting student engagement. The training session was held approximately two weeks before the start of the intervention to give teachers time to ask questions and to further acquaint themselves with the CST structure and contents prior to implementation. The CST intervention was delivered to students in six weekly-sessions (approximately 45 minutes per week) during normal school hours by the students' home-room teacher. Between the designated sessions, teachers were encouraged to use a strengths vocabulary and to engage their students in various character strengths activities (e.g., spotting character strengths while reading books and watching videos). The researcher visited the school at least once per week throughout the intervention period to provide support as needed; however, all components of the CST were delivered solely by the teacher. Two to three days after the intervention was completed, teachers individually participated in 45-60-minute semi-structured interviews. After the interviews, teachers were sent a brief follow-up questionnaire regarding their experience using the CST. The follow-up questionnaire was completed online by the participating teachers and then submitted anonymously to the researcher. Teacher logbooks were submitted to the researcher in hard copy. All teachers were thanked for their effortful participation.

Data-Analysis

Teacher Experience: Process Evaluation

Interviews were audio-recorded, transcribed, and inductively analyzed using the qualitative data analysis and research software, Atlas.ti. A coding scheme was developed based on the three categories of Nielsen and Randall's (2013) model for process evaluations. These categories included (1) the quality of the implementation, including the CST's features and the specific weekly activities that were carried out, (2) the contextual factors facilitating and hindering implementation, and (3) teachers' perception toward the CST intervention, particularly their perception of its impact on themselves and on their students. Representative sample quotations from the teacher interviews are provided in the results section for each coding category. In addition to interviews transcripts, the process evaluation results consisted of data from the weekly teacher logbook and the follow-up questionnaire.

Student Engagement: Outcome Evaluation

Teachers used the LIS-YC (Laevers, 1994) to measure each student's level of engagement before and after the intervention. Each student was given a score from 1-5 based on their level of engagement during a pre-specified learning activity. Pre- and post-test engagement scores were taken during the same learning activity (i.e., during the same class period) and by the same trained teacher. Mean student engagement measurements that were taken before and after the six-week intervention were compared using paired-sample t-tests with a 95% confidence interval. Four paired-sample t-tests were conducted: one for the Grade 3 class (n=12); one for the Grade 4 class (n=24); one for the Grade 5 class (n=14); and one for the three classes combined (N=50).

Results

Teacher Experience: Process Evaluation

A process evaluation was conducted to determine the extent to which the CST enabled teachers to implement a character strengths intervention (research question 1) and to acquire an in-depth

understanding of the teachers' qualitative experience of the delivery process (research question 2). The process evaluation involved the analysis of data from the weekly teacher logbooks, interview transcripts, and an online follow-up questionnaire completed anonymously by each teacher.

Teacher Logbook Data

Table 2 provides a summary of the weekly logbook data for the average of all three participating teachers. On average, across the six-week intervention, teachers indicated that students were 67.4% engaged in the weekly character strengths activities (3.37 out of 5). Further, teachers reported that they attained 68.4% of the weekly goals on average (3.42 out of 5). Notably, teachers indicated that students were most engaged in Weeks 2, 4, and 5 and teachers were most able to achieve the goal in Weeks 1, 2, and 4. Teachers spent an average of 41.44 minutes on strengths activities each week (~92% of the target 45 minutes). Weeks 3 and 6 had the lowest mean engagement, goal attainment, and time spent. Overall, these results indicate that teachers were sufficiently able to use the CST as intended to implement a brief character strength intervention that engaged the majority of their students (research questions 1).

Table 2

Logbook: weekly student engagement, goal attainment, and time spent on strengths activities (average)

Week	Student Engagement (SE) (5-point scale)	Goal Attainment (GA) (5-point scale)	Time Spent per Week (TS) (Minutes)
1	-	4.00	35.00
2	3.67	3.67	58.33
3	2.83	2.83	37.00
4	3.50	3.83	40.00
5	3.83	3.17	48.33
6	3.00	3.00	30.00
Mean	**3.37**	**3.42**	**41.44**

Note. SE, GA, and TS scores were calculated based on the average of all teacher logbook responses (N=3) for each week. Week 1 SE data is not included as it focused on teachers' strengths awareness and did not involve student participation.

Table 3 provides a summary of weekly logbook data for the three teachers individually. Each teacher achieved an average weekly goal attainment (GA) score of 3.17 out of 5 or higher, and an average weekly student engagement (SE) score of 3 out of 5 or higher. Further, each teacher spent a minimum of

30 minutes per week on strengths activities. As shown in Table 3, the Grade 4 teacher spent the most amount of time on strengths activities each week on average (50.83 minutes per week). The Grade 5 teacher spent the second most amount of time (43.33 minutes per week) on strengths activities each week and the Grade 3 teacher spent the least amount of time each week (30.17 minutes per week). The Grade 4 teacher also reported the highest level of engagement across the six weeks on average (3.90 out of 5) as well as the highest level of goal attainment each week on average (3.92 out of 5). The Grade 3 and 5 teacher reported lower weekly goal attainment across the six weeks on average (3.17 out of 5). The Grade 5 teacher reported the lowest level of weekly student engagement on average (3.00 out of 5). These results indicate that the Grade 4 teacher had the highest level of implementation fidelity; that is, the Grade 4 teacher delivered the intervention as intended to a higher degree than that of the Grade 3 or 5 teacher.

Table 3

Logbook: weekly student engagement, goal attainment, and time spent on strengths activities (by teacher)

	Grade 3 Teacher			Grade 4 Teacher			Grade 5 Teacher		
Week	SE	GA	Minutes	SE	GA	Minutes	SE	GA	Minutes
1	-	4	10	-	5	45	-	3	50
2	4	3	45	3	4	85	4	4	45
3	2	2	21	3.5	3.5	45	3	3	45
4	3	4	30	5	4.5	45	2.5	3	45
5	4	3	40	4	3	60	3.5	3.5	45
6	3	3	35	4	3.5	25	2	2.5	30
Mean	**3.20**	**3.17**	**30.17**	**3.90**	**3.92**	**50.83**	**3.00**	**3.17**	**43.33**

Note. Student engagement (SE) and goal attainment (GA) scores are on a Likert scale ranging from 1-5. Week 1 SE data is not included as it focused on teachers' strengths awareness and did not involve student participation.

The logbook also indicated that the Grade 4 teacher was the only teacher to complete the VIA-IS questionnaire in Week 1 to explore his own strengths of character. The Grade 4 teacher further indicated that he had a personal conversation with each of his students about their possible signature character strengths during the first week of the intervention. He made more notes in the weekly logbook and was more proactive in reading additional materials and looking for strategies to use with his students. Finally, the Grade 4 teacher spoke more, compared to the other two teachers, about the impact the intervention

had on his own strength-spotting behaviours, as was reflected in his attitude toward identifying strengths in others, his frequency of strength-spotting, and his motivation for noticing strengths in his students.

Teacher Interviews

Semi-structured interviews were conducted individually with each of the three participating teachers to obtain an understanding of their experience delivering the intervention across a six-week period (research question 2). Based upon Nielsen and Randall's (2013) evidence-based model for process evaluations, the interviews examined three categories: (1) the quality of the implementation, including the CST's features and the specific weekly activities that were carried out, (2) the (contextual) factors facilitating and hindering implementation, and (3) teachers' perception toward the CST intervention, particularly their perception of its impact on themselves and on their students. In addition to the above three categories, a fourth category emerged regarding teachers' ideas and input for future usage and implementation of the CST, both in their own classroom and elementary school classrooms in general.

Quality of Implementation. The quality of implementation of the CST intervention was evaluated in terms of (1) its weekly activities and (2) its features and online format. Each of these is discussed individually.

Weekly Activities. The CST included a range of practical activities for teachers to meet the objectives across a six-week period (see Appendix C). Although the logbook data suggested that all three teachers found the weekly activities helpful and engaging for most of their students, interviews revealed that some of the activities were more successful than others. An activity was considered successful in this case when the majority of students were engaged in the activity and appeared to benefit from it, as was indicated by the teacher. The Grade 3 teacher noted that:

> Some weeks were better than other weeks. This mostly depended on time and how busy I was that week. Because our schedule is full. But there was a lot of positive influence, that's why I did it (G3).

Teachers were asked to spend approximately 45 minutes per week on strengths activities. The Grade 3 and Grade 4 teacher agreed that this was a sufficient amount of time for students to complete

most of the weekly activities: “45 minutes was perfect. But, when they were drawing, I let the activity run on a little longer because they liked it more” (G4). However, the Grade 5 teacher noted that “45 minutes wasn’t always enough time for all of the students” (G5). Three themes emerged when discussing the success of the weekly activities: (1) form of expression expected from the students, (2) goal setting, and (3) strengths identification.

Form of expression. All three teachers indicated that the varying success of activities was largely due to the form of expression required from the students; namely, whether the activity involved an artistic or verbal component versus a writing component. Teachers unanimously agreed that the creative activities (e.g., students drawing their own strengths) and the activities involving a verbal component and/ or small group discussions were more successful than the writing activities. For example, when discussing the weekly activities, all three teachers emphasized the success of the activities that primarily involved a strengths-related creative component (i.e., Week 2 and Week 5):

> I could have easily gone on for an hour [in Week 5]. They had to choose one strength and write a few sentences on the shield about how it describes them. Many of them also drew a picture to go with the strength they chose. They liked it. (G3).
>
> Week 2 was good because the students needed to draw something. I think that is what the children in my classroom can do better than writing things down. Because they are 9-10 years old and they're vocabulary is not that good […] and they liked the idea of drawing their strengths. I think drawing is very helpful when students are in Grade 4 (G4).
>
> The children really liked making the shields and the flags in Week 5. They also really liked making the "Me at My Best" collage in Week 2, because they had to create something. Week 6 was more difficult, for example, because they only had to write and think (G5).

The Grade 3 and Grade 4 teacher commented that small group discussions were generally more engaging for the students than writing things down: “[…] talking instead of writing was more effective. I think I was still able to achieve the weekly goal this way” (G3). The Grade 4 teacher noted that “my class is not very good at writing things down because they have difficulty expressing their feelings in words. They can say it, but they sometimes have difficulty writing it down on paper” (G4).

Goal setting. In addition to the more successful drawing and verbal activities, the Grade 4 and Garde 5 teacher commented on the importance of the goal setting activity in Week 4. Regarding the Week 4 activity "Three Stars and One Goal", the Grade 5 teacher stated that "the transfer to goals was good for their development" (G5) and the Grade 4 teacher spoke at length about the benefit of this goal setting activity:

> What was very helpful was "what do you want to achieve, and with which character strengths?". Or "what strengths do you need to achieve your goal?" and "how do you *use* your strengths?" […] Here I have one of the student's activity sheets [for Week 4]. For her goal she wrote that she wants to be a nurse. I think this week was very great […] She chose friendliness, perseverance, and teamwork to help her work toward her goal of becoming a nurse. […] The engagement was very high in Week 4. They really liked the activity [Three Stars and One Goal] and were very engaged during it (G4).

Strengths identification. Several of the weekly activities (particularly in Week 3) involved identifying character strengths in oneself and in others. Students varied in their ability to identify strengths in self and others. The Grade 5 teacher spoke of the difficulty that some of her students experienced identifying strengths in themselves and the importance of supporting them:

> I think it was a great program. But what I saw in my class was that there were 3-4 children who can say a lot about their own qualities, and 9-10 children who had some difficulty thinking about their own strengths. So those children needed a lot of input from me, as the teacher, to help them identify their own strengths (G5).

The students of the Grade 4 teachers experienced less difficulty identifying their own strengths. In general, the majority of students in the Grade 4 class were easily able to self-identify with at least two or three character strengths that were most meaningful and natural to them:

> Most of them could easily pick two or three. I have one child with a developmental language disorder though and it was very difficult for him because he does not know, for example, what Judgment is. He likes the idea and says 'Ah yeah Judgment! That sounds good!' But when I asked him something about *his* strengths, he had a tough time thinking of the strengths that were meaningful and personal to him. But together we could find some of his top character strengths (G4).

All three teachers confirmed that it was easier for students to identify strengths in other people than it was to identify strengths in themselves. Further, the Grade 4 teacher noted that it was easier (and more comfortable) for students to identify strengths in classmates whom they were friends with:

> When it's a classmate the student is friends with, then it is not that difficult... because they are friends and play together in school and out of school. But with the other classmates it was a bit difficult (G4).

Features and Format of the CST. All three teachers had positive things to say about the features and format of the CST. The CST was provided to teachers in an online Google Classroom format that included both theory and practical activities designed for the teacher to move into action quickly. All teachers were appreciative of having practical activities (compared to just receiving workshops and theory) to help them integrate positive psychology into their classroom. Teachers spoke of the balance between theory and practice provided by the CST: "It was not too much and it was not too little. I think it was perfect, and I think every teacher would understand what they need to do" (G4). Additionally, all three teachers liked the online format and found the CST both helpful and user-friendly. The Grade 3 teacher, however, said he experienced a moderate learning curve due to his age:

> I liked it. But I had to get used to it, because I'm not a computer expert. I used it but considering my age you might understand my problems. But overall I liked the idea […] It helped me. It gave me tools. Every time when I thought, "how should I handle this?", "what should I do?", "what shouldn't I do?", then those tools gave me ideas of how to do the activities (G3).

The Grade 4 and Grade 5 teachers found the toolbox very user-friendly with no learning curve required. The Grade 4 teacher stated that, "For me it was very easy to use. Because I am young, and I know how to work well with computers. And Google is not that difficult to use. And I like the idea […] It was very helpful" (T02). When asked about the format of the CST, the Grade 5 teacher stated enthusiastically that:

> It was very easy to use. And when I had a question, I would ask my colleagues and we could use the online toolbox to help us. So that was very handy. Easy (G5).

Perception of the CST Intervention. Teachers were asked to comment on their perception of the intervention, particularly their perception of its impact on themselves and their students. First, teachers' comments on student impact will be discussed, followed by the impact it had on themselves as teachers.

Impact on Students. All three teachers commented on the impact the program had on their students. Three common themes emerged when discussing the impact of the program on students. These

themes included (1) social factors, (2) increased strengths usage, and (3) and an improved understanding of character strengths terminology.

Social factors. The Grade 3 and Grade 4 teacher in particular spoke about the social impact the program had on his students and how exploring and identifying with character strengths made certain students feel more understood by their teacher and classmates. The Grade 3 teacher noted that: “there were students who would say positive things to other students about their strengths”. Further, the Grade 4 teacher spoke at length about the impact the intervention had particularly on the boys in his class:

> I personally spoke with each student. For example, I would ask, why did they choose Creativity? Why did they choose Teamwork? And they gave me an explanation and I think the students felt more understood by me. For example, some of the students chose Creativity and when I said that I recognized it in them, they were like "Aaah thanks". Some of them were boys and they felt like they needed to choose Bravery, for example, because they are boys. But some of them would like to choose Creativity because they like to make crafts or draw, and when they could explain that to me, they were like "Ah okay, thank you"(G4).

Interestingly, when asked about the impact of the intervention on his students, the Grade 3 teacher noticed more of an impact on the social behaviour of the girls in his class: “I noticed an impact on the girls mostly. They were trying to be more friendly towards each other” (T01). The Grade 5 teacher noticed less of an impact on her students and commented that some students found the intervention difficult; however, importantly, she noticed that the students improved across the weeks as they worked together and learned from each other:

> […] the children who found it difficult learned from the children who found it easier. The children who found it difficult for example would say "Oh that's also a part of me!" after watching the other kids who found the intervention easier. So, I think they learned from each other in this way (G5).

Strengths usage. In addition to social factors, the Grade 4 teacher spoke of the impact the program had on some of his students in terms of frequency of strengths usage (compared to before the intervention): “[…] I did notice them using strengths more frequently” (G4). When asked if this was because students were indeed using strengths more frequently *or* if it was due to the teacher being more aware of strengths now, the Grade 4 teacher responded “both” and continued by saying:

> […] I noticed some of the strengths being used more often. I think Creativity, Curiosity, Honesty, Bravery, Teamwork… Forgiveness also. This is not the easiest class to handle. But I saw more Forgiveness [now compared to before the intervention] (G4).

Improved understanding of strengths terminology. All three teachers commented that, at the beginning of the intervention, some of their students had difficulty understanding and remembering the character strengths and their meanings. Notably, however, students' understanding of the strength terminology improved across the six-week intervention period as teachers explained more to their students, and as students engaged more with the language through various activities. For example, the Grade 3 teacher commented that "it slowly became easier for students to understand the terms and by the fourth week they had already been doing this type of work for three weeks and thought 'ah, now I recognize some of these terms' […] so it became easier for them" (G3).

Impact on Teachers. In general, all three teachers spoke more about the impact the intervention had on themselves compared to their students. Teachers' comments mostly revolved around the following three themes: (1) increased strengths awareness, (2) increased strengths terminology usage, and (3) an appreciation for a common language to focus on students' character strengths and positive behaviour.

Strengths awareness. All three teachers spoke about the impact the toolbox had on their general awareness of strengths (both in themselves and in their students). The Grade 3 teacher enthusiastically stated that "it opened my eyes. I had the list of strengths and I watched my students throughout the day […] and I thought 'ah, that student has humour, that student is more critical, and that one more social', things like that" (G3). The Grade 4 teacher was also enthusiastic about his improved strengths awareness due to the intervention. The Grade 4 teacher commented that the CST positively impacted his strengths awareness and curiosity about his students' strengths of character:

> As a teacher you want to know your children best. You can use it [the CST] every year. Because every year they are getting older and they learn more and more about their strengths […] I'm very interested in how this group will develop and, in two years when they are in Grade 6, if they will recognize and remember what they learned about their strengths this year in Grade 4, and if they will think of how they used their strengths across the last two years. I'm really curious (TG4).

The Grade 4 teacher also appreciated becoming more aware of his own strengths. In Week 1, teachers were encouraged to take the VIA-IS questionnaire but only the Grade 4 teacher opted for this. When asked about his experience taking the VIA-IS questionnaire in Week 1, the Grade 4 teacher commented:

> The first week was very interesting. For myself. Because I think I know myself very well. Well, I thought I did. I agree with the results [from the VIA-IS questionnaire], it was very interesting. I was surprised about one of my top strengths, Bravery. It's not how I typically look at myself. It's not that I'm not brave, but I'm not the bravest guy I know [joking]. It was interesting to learn something new about myself (G4).

Strength spotting and language usage. An important theme that emerged in all three teacher interviews was a shift in their strength spotting behaviour and attitude, as facilitated by the common language for strengths based on the VIA-IS. The Grade 3 teacher, for example, commented: "I notice myself using the language more" (G3). The Grade 5 teacher similarly commented: "I think I use the terms more now. You see things in the children, but I didn't use to give it a name. Now it's easier to give it a name" (G5). The Grade 5 teacher continued with several examples of instances across the six-week period in which she and her class focused on spotting strengths such as Kindness and Judgment:

> For example, […] I would say things like 'that was very Kind of you', or I saw that three of my children have high Judgment and I think it's good for me to see that and know that […] Now I can say "Ah, I see that strength in her, or I see that in him" […] I am using the terms more now (G5).

Importance of a common language. All three teachers emphasized the importance of having a common language for recognizing students' character strengths in and out of the classroom. For example, when asked about the usefulness of a common language for character strengths, the Grade 3 teacher commented:

> Strengths are there. They're in you. You're not thinking about it every day, but you know in the back of your mind that they're there. The common language brings them to the surface (T01).

The Grade 4 teacher spoke about the importance of having a common language for strengths and the necessity of developing it over the years, as some of the strength terminology was difficult for some of the younger students to fully understand: "I think the language is very helpful. And I think when you

do this in Grade 6, they will use the language even more than in Grade 4 because their vocabulary skills will be much better at that age" (G4). The Grade 3 teacher also emphasized the importance of developing a common language at this age:

> Teaching them about these terms is helpful at this age, compared to when they are 20 and everything is formed already... I don't expect they will change a lot after that. But, from early on, giving them positive information, positive ideas... I think that that will be useful to them in society, in their mature life (T01).

Contextual Factors Affecting Implementation. Two prominent points emerged when teachers discussed factors that may have affected the success of the intervention: (1) the students' family, cultural, and socioeconomic background and (2) classroom conflicts and a general lack of empathy.

Home environment. When discussing possible factors that may have impacted the success of the intervention, home environment was emphasized by two of the three teachers. For example, the Grade 3 teacher commented:

> I noticed myself using the language more. But not really with all of the students, but that may be due to the low socio-economics status of the area. Many of these words [character strengths] are not common in families here. They don't usually talk about feelings and positive qualities about other people. They're often more negative (G3).

Although all three teachers noticed an improvement in students' understanding of the different strengths, home environment continued to emerge as a factor affecting the success of the activities for some students: "Many parents are only interested in the cognitive side. How is he doing in school? Well, he might have okay results, but he can't behave himself" (G3). Students of these parents may have been less inclined to see the importance of developing non-academic strengths and qualities. For example, when asked to comment on why the intervention to be more or less effective for certain students and not others, the Grade 5 teacher responded:

> […] I think they [the children who it was more effective for] were also those children who speak a lot at home with their parents. The parents of these children provide more at home. And I think the other children are going home from school to play on their PlayStation or computer and that's it. Parents are busy with their own things and not with their children. So maybe it's related to that […] But I think everything was valuable […] And I think if we started it again now it would already be a lot easier for my students (G5).

Although home environment may have impacted the intervention to some extent, teachers unanimously attested to the importance of developing character strengths at this age, particularly for those students who do not have that type of exposure at home. The Grade 3 teacher, for example, commented that: "In this district many families are not that 'positive' […] we should put in the effort" (G3).

Classroom conflicts & lack of empathy. The Grade 5 teacher spoke about ongoing classroom conflicts and the general difficulty her students have empathizing with each other as a factor that may have hindered implementation in her classroom:

> There were questions about how to use strengths in relation to the other people. The children can think about that and they know a lot about that, but when they try to recognize strengths in other people, they are sometimes missing some empathy. It's hard for them to focus on the other person. So maybe it would be better to first focus on the student's empathy […] But maybe that's just for this class. Because we have 14 children and there are a lot of conflicts in this class and the students often lack empathy for each other (G5).

Future of the CST. Although the activities were not equally successful for all students, each of the three teachers were enthusiastic about the CST and the prospect of using it ongoingly, both with their current students and with the students they will teach in the future. Two prominent themes emerged when teachers were asked to give their input regarding future usage of the CST. These two themes included (1) using the CST for classroom group formation activities and (2) using the CST more regularly so the ideas and concepts become easier for the students and more embedded into the classroom culture and language.

Group formation. All three of the participating teachers commented that they thought the CST would be helpful for group formation activities that promote class cohesion, particularly right after holidays and long school breaks. For example, when asked whether or not she will continue to use the CST moving forward, the Grade 5 teacher commented that:

> In January I'm going to teach a different class so maybe I can also do it there. Because I think it's very good. Especially, in the beginning [of the school year] or after you have two weeks of vacation. You can use it [the CST] after the vacation to start fresh and to work on group formation (G5).

More frequent usage of the CST. Using the CST more regularly and allowing students more time to practice the concepts was another common theme that emerged in all three teacher interviews when

discussing future usage of the CST. Some students had difficulty with certain parts of the intervention (e.g., understanding and remembering the strength names and definitions). However, teachers indicated that students' understanding improved across the weeks, and that the CST should be used on an ongoing basis so students may become more familiar with the different character strengths and what they entail. The Grade 4 teacher, for example, commented that:

> I think we should do this every year. Then every year it will become easier. Because then the students will know more about the character strengths, how to use them, and how to better recognize them (G4).

Follow-Up Questionnaire

The follow-up questionnaire consisted of two sections. The first section included five questions and revealed that (1) all teachers appreciated the online Google Classroom format of the CST and found it helpful for bringing character strengths into their classroom, (2) two of the three teachers found it easy to use and one teacher indicated that it was a bit difficult to use, (3) all three teachers indicated that the CST provided a good balance between theory and practice, (4) all teachers indicated that the strengths cards and strengths posters were either 'helpful' or 'very helpful' for completing the weekly activities and, lastly, (5) teachers reported that their students generally found it easier to identify strengths in others than it was for them to identify their own strengths.

The second section of the questionnaire included teachers' responses to 10 statements (Table 4). Notably, all teachers agreed or strongly agreed that they were more motivated to recognize their students' strengths and more aware of their students' strengths than they were before the intervention. Teachers also all agreed or strongly agreed that they now recognize their students' strengths and strengths-related behaviours more frequently than they did before the intervention. Moreover, all teachers agreed or strongly agreed that (1) the CST helped them bring character strengths into their classroom, (2) they would like to continue to use the CST after the research has finished, and (3) they will continue to focus on character strengths in their classroom after the intervention has finished. Finally, all teachers agreed or strongly agreed that it is important for schools to develop a common language for character strengths and

that teachers should do more to focus on their students' strengths of character. Overall, teacher responses indicated a favourable attitude regarding the future and importance of school-based strengths programs.

Table 4

Follow-Up Questionnaire Responses

Statements	***Responses***			***Mean***
1. Compared to before the intervention, I recognize my students' character strengths more frequently.	*4*	*5*	*4*	***4.33***
2. Compared to before the intervention, I am more likely to tell my student when I see them using a strength.	*3*	*4*	*4*	***3.67***
3. Compared to before the intervention, I am more motivated to recognize my students' strengths.	*4*	*4*	*4*	***4***
4. Compared to before the intervention, I am more aware of my students' strengths.	*4*	*5*	*4*	***4.33***
5. Teachers should focus more on their students' character strengths	*4*	*5*	*4*	***4.33***
6. The CST could be helpful for teachers during classroom group forming.	*4*	*4*	*4*	***4***
7. It is important for schools to develop a "common language" for character strengths.	*5*	*4*	*4*	***4.33***
8. This toolbox helped me bring character strengths into my classroom.	*4*	*5*	*4*	***4.33***
9. I will continue to use the CST after the research has finished.	*4*	*4*	*4*	***4***
10. I will continue to focus on character strengths in my classroom after the intervention has finished (this can be with or without the CST).	*3*	*5*	*4*	***4***

Note. Statements were responded to on a 5-point Likert Scale ranging from 1= Strongly Disagree to 5= Strongly Agree. Teacher responses were kept anonymous to the researcher and are thus presented in no particular order.

Student Engagement: Outcome Evaluation

It was hypothesized that student engagement during learning activities would be greater after teachers implemented the intervention (research question 3). Paired sample t-tests were conducted to test this hypothesis; that is, to compare mean student engagement before and after the intervention. Table 5 provides a summary of mean engagement scores and standard deviations pre- and post-intervention.

Table 5

Pre- and post-intervention student engagement scores across the three grades

		Student engagement (pre-intervention)		Student engagement (post-intervention)	
Grade	*n*	*M*	*SD*	*M*	*SD*
3	12	3.167	.807	3.333	.888
4	24	3.375	1.135	3.813	.791
5	14	4.286	.825	4.321	.668
Total	50	3.580	1.066	3.840	.848

Note. Engagement scores are on a scale of 1-5 as indicated by Laevers' (1994) Leuven Involvement Scale for Young Children. Pre- and post-intervention engagement scores were taken one week before and one week after the intervention, respectively.

A paired sample t-test with a 95% confidence interval indicated a significant difference in engagement scores before (*M*= 3.580, *SD*= 1.066) and after (*M*= 3.840, *SD*= .848) the intervention when data from all students were combined; t(49)= -2.045, p = 0.046. These results suggest that the CST had a significant positive impact on student engagement after a six-week implementation period. No significant differences in student engagement before and after the intervention were found for the individual classes, however. For the Grade 3 class, a paired sample t-test revealed no significant differences in engagement scores before (*M*= 3.167, *SD*= .807) and after (*M*= 3.333, *SD*= .888) the six-week intervention; t(11)= -1.076, p = 0.305. For the Grade 4 class, paired sample t-test revealed no significant differences in engagement scores before (*M*= 3.375, *SD*= 1.135) and after (*M*= 3.813, *SD*= .791) the six-week intervention; t(23)= -1.955, p = 0.063. Finally, for the Grade 5 class, paired sample t-test revealed no significant differences in engagement scores before (*M*= 4.286, *SD*= .825) and after (*M*= 4.321, *SD*= .668) the six-week intervention; t(13)= -0.179, p = 0.861. Although there were no statistically significant findings at the class level, it is noteworthy that the students in the Grade 4 teacher's class experienced larger gains in engagement compared to students in the other two classes.

Discussion

The present study aimed to evaluate two aspects of a teacher-delivered character strengths intervention: (1) the intervention process, including the teachers' firsthand experiences of delivering the intervention and (2) the impact of the intervention on student engagement. Teacher delivery in the present study was facilitated by an online toolbox consisting of resources for exploring, identifying, and developing students' strengths of character— based on Peterson and Seligman's (2004) VIA-IS classification of strengths (Appendix A). The study contributes to a growing body of research demonstrating the potential of integrating character strengths into school settings as a means of promoting positive student outcomes. Key findings regarding teacher experience (*process evaluation)* and student engagement (*outcome evaluation)* are discussed first, followed by the study's strengths, limitations, and implications for research and practice.

Teacher Experience

At the teacher level, two questions were explored: *To what extent did the CST enable teachers to implement a character strengths intervention (research question 1)?* and *What was the teachers' qualitative experience delivering the CST intervention across a six-week period (research question 2)?* Regarding the first question, logbook data revealed that teachers, as expected, achieved their weekly objectives and were sufficiently able to use the CST to deliver a character strengths intervention that engaged the majority of their students. This finding is in line with previous research demonstrating that teachers are capable delivers of classroom character strengths interventions (Proctor et al., 2011; Rashid et al., 2013). It also provides further evidence of the benefits associated with providing teachers with activity-based resources designed to enable them to implement positive psychology in the classroom without the need for outside personnel (Elfrink et al., 2017; Shankland & Rosset, 2017). Notably, the CST appeared to enable one teacher in particular to implement a higher quality intervention compared to the other two teachers. This teacher spent more time on activities each week; reported higher weekly goal attainment; and indicated a greater level of student engagement each week compared to the other two teachers.

Regarding the second research question, it became clear through interviews that all three teachers put sufficient effort into the intervention and were enthusiastic about the character strengths activities and their potential for positive student impact. Teacher interviews yielded two prominent themes regarding the future of elementary school-based character strengths programs. Firstly, although teachers were enthusiastic about the importance of integrating character strengths into school settings, they emphasized the difficulty of the program for some students and the need to focus on strengths for a longer amount of time than the six-week period allowed. Some of the meanings of the more abstract strengths (e.g., humility and prudence) were difficult for students to grasp; however, there was noticeable improvement across the six weeks and teachers agreed that, given more time and ongoing practice, the benefits would be even greater for students as they develop their understanding of character strengths and how to better recognize them in self and other. This finding supports Rashid and colleagues' (2013) conclusion that

school-based character strengths programs are most effective when integrated into the curriculum and classroom practices over time (e.g., an entire school year).

Secondly, teachers commented on the social impact the intervention had on themselves and some of their students, largely facilitated by the common language for character strengths. In accordance with Niemiec's (2017) work, teachers highlighted the importance of having a common language for character strengths that they and their students could use during (and after) the intervention period to identify and discuss a range of positive qualities in each other, in family members, in book and movie characters, and so forth. Teachers unanimously agreed that the character strengths activities would be helpful for forging connections between students and promoting class cohesion, particularly at the beginning of the school year and after school breaks and holidays. This finding contributes to a growing body of research suggesting that school-based strengths intervention have not only intrapersonal benefits for students but also interpersonal benefits such as improved class cohesion and a greater sense of relatedness to peers, teachers, and others in their community (Quinlan, 2013; Quinlan et al., 2012; 2015; 2018).

Student Engagement

At the student level, the following question was investigated: *To what extent did the CST impact student engagement after a six-week implementation period (research question 3)?* As hypothesized, a significant increase in overall student engagement was found before and after the six-week intervention period. This finding suggests that providing teachers with resources— including theory, practical activities, strategies, materials, and so forth— to engage their students in a character strengths program may have a significant positive impact on engagement. Teachers indicated that students' understanding of character strengths developed across the intervention period and they unanimously agreed that the benefits for students would likely become more pronounced given more time to integrate the concepts into the classroom environment. Although previous studies have found teachers to be effective intervention deliverers (Proctor et al., 2011; Rashid et al., 2013), the results of the present study are first

to demonstrate that a fully teacher-delivered VIA-IS character strengths program can positively impact engagement in an elementary student population.

Interestingly, the greatest gains in engagement were experienced by the students of the teacher who implemented the highest quality intervention (i.e., the teacher who spent the most time on activities each week, reported highest goal attainment each week, and indicated the greatest level of student engagement each week). This finding suggests that the effectiveness of the CST intervention as an engagement-promoting tool may be influenced by the teacher's quality of implementation, including the degree of integration into the classroom environment. Due to the absence of a control condition, any conclusions should be interpreted cautiously; however, the above results reveal a trend indicating that greater teacher usage, ownership, and classroom integration of a character strengths program may be associated with greater gains in student engagement. This result provides additional support for Quinlan and colleagues' (2018) finding of a *teacher effect* in classroom strengths interventions, suggesting that teachers' strength-spotting attitudes, behaviours, and motivations during strengths interventions can significantly impact their effectiveness in promoting positive student outcomes such as student engagement. In Quinlan and colleagues' (2018) research, approximately half of the intervention's impact on student engagement was mediated by teacher strength-spotting. It is thus unsurprising that, in the present study, the intervention was most successful (i.e., led to greater gains in student engagement) for the teacher who invested more time, learned about his own strengths, and had personal conversations with each of his students about the strengths of character that felt most natural and meaningful to them. Subsequent school-based character strengths research may benefit from further investigating these positive teacher behaviours, how they may be promoted, and their impact on student outcomes.

Strengths and Limitations

A notable strength of the present study was the mixed-methods design, employing both quantitative and qualitative measures to evaluate the CST. It is the first study to include the teacher's voice in a school-based character strengths intervention. In the few studies that have included teachers as

the primary deliverer of a classroom strengths intervention (Proctor et al., 2011; Rashid et al., 2013), no firsthand information was provided regarding their experience delivering the intervention, including an exploration of the different factors impacting teachers, students, and the program's potential for ongoing implementation. The present study aimed to reduce this research gap by interviewing each of the participating teachers individually and exploring the intervention process from their perspective. The qualitative measures were also a notable strength considering a recent publication urging researchers to employ qualitative methods more regularly in positive psychological studies to better understand the contextualized live experience of the participants (Hefferon et al., 2017). Moreover, this study provides the first evidence of a school-based character strengths program being carried out in the Netherlands and serves as a starting point which subsequent character strengths research in the context of Dutch education may build upon. Despite the strengths associated with the present study design, there were some limitations as well.

A notable limitation of the present study was that it used a purposeful sample of teachers and no assignment to control groups, thus limiting the possibility to draw any firm conclusions. Further, the study's statistical power was limited by its relatively small sample size. Although a larger sample size and additional groups may have yielded more statistically relevant results, it was appropriate to use a smaller sample in the present study considering the exploratory nature of the research as well as the novelty of the CST and school-based positive psychological research in the Netherlands in general. Another possible limitation of the present study was that the results were based solely on information provided by the teachers— including observational engagement scores, interviews, weekly logbook information, and questionnaire data. Previous research on elementary school-based character strengths programs has largely employed student questionnaires and self-reports to investigate the intervention's impact on engagement (Quinlan et al, 2015; 2018; Madden et al., 2011). Subsequent research on teacher-delivered strengths interventions may benefit from including student self-reports (and/ or researcher-led classroom observations) in conjunction with observational engagement measures provided by the teachers. Research

involving a combination of student reports, teacher reports, and systematic classroom observations may provide a more rigorous investigation into teacher-delivered character strengths programs.

Implications for Research

Importantly, despite the small sample size, results from the present study indicate a trend that may be important for further research to consider. That is, the benefits of strengths programs are larger for students whose teacher takes greater ownership and invests more time and effort into delivering the program. Further investigating strategies for increasing teacher support and ownership of school-based character strengths programs may serve as a valuable research direction. This could include, for example, teachers mandatorily taking the VIA-IS questionnaire to learn about their own strengths (in the present study it was optional); teachers participating in a strengths program first by themselves to experience the benefits before using the concepts with their students; and teachers participating in additional training sessions prior to (and throughout) the intervention. It has been previously suggested that focusing more on the teacher's own strengths and strengths-related behaviours prior to classroom implementation may boost teacher ownership and commitment to the program (Quinlan et al., 2018) which may, in turn, have a greater impact on the students involved in the program.

Another implication for further research relates to the difficulty that a significant portion of students had self-identifying with strengths that were particularly meaningful to them (i.e., their signature strengths). Further research aimed at improving teacher-delivered strengths interventions may benefit from exploring different strategies which teachers may use to help students identify their signature strengths. Although the VIA-IS for Youth questionnaire is available for children to learn about their signature strengths (Park & Peterson, 2006), it is not available for those younger than 10 years old and it is not always feasible or time-appropriate to complete it at school. School-based character strengths research may thus benefit from an investigation into various methods, other than the VIA-IS questionnaire, that teachers may use to support young students to recognize their signature strengths of character. Strength-identification strategies may include, for example, teachers having informal meetings

with each student before, during, or after school to discuss and explore their signature strengths; reaching out to students' parents, coaches, and so forth to discuss the child's strengths at home and/ or in extracurricular activities; and/ or having students complete a shorter version of the VIA-IS questionnaire. Comparing different types of strength-identification support may serve as an interesting research direction that may allow these programs to reach more teachers and students, especially students struggling to recognize their own strengths of character and who are unable to take the VIA-IS questionnaire.

Subsequent research on teacher-delivered character strengths programs may also benefit from a more rigorous investigation into the social factors associated with the program. In the present study, teachers unanimously attested to the importance of having a common language for character strengths in schools that students could use to recognize and be more aware of strengths in themselves and, especially, in their classmates. Moreover, in line with Quinlan and colleagues' (2018) research, interviews highlighted the importance of using character strengths as a tool for fostering student-student and teacher-student relationships on an ongoing basis and, especially, at the beginning of the school year and after school breaks and holidays in which students and teachers have been apart for some time. These results provide further support for the interpersonal benefits associated with strengths interventions and warrant further research in this arena, particularly in the context of elementary education. The extent to which relatedness need satisfaction mediates other outcome variables (e.g., engagement) after a character strengths intervention, for example, remains to be investigated. Although engagement may be optimized when a student's needs for competence, autonomy, and relatedness are satisfied (Deci & Ryan, 2000), the link between engagement and relatedness in the context of strengths programs remains unclear. Further investigating the relationship between school-based strengths programs and students' sense of relatedness in the classroom— and the extent to which relatedness influences other outcomes variables— may provide a clearer understanding of school-based character strengths programs and the mechanisms by which they work to promote important student outcomes such as engagement.

Finally, although the intervention was successful in boosting student engagement, the absence of a control group precludes any definite conclusions. Subsequent research seeking to better understand the

impact of a teacher-delivered strengths program on student engagement may benefit from including additional groups for comparison. Comparing a teacher-delivered strengths program versus a researcher-delivered program versus regular education (control group), for example, has yet to be investigated and could yield valuable insights into how strengths programs may be optimally implemented in the school context. Comparisons such as this may contribute to a more in-depth understanding of teacher-delivered strengths programs, their impact on important educational outcomes, and the various factors impacting their success and sustainability in school contexts.

Implications for Practice

Qualitative findings yielded several implications for future practice of school-based character strengths programs. Firstly, teachers indicated that the relatively short duration of the character strengths program may not have provided some students with enough time to properly engage with the concepts and to understand the meanings of all the strengths. Although teachers in the present study observed an improvement in their students' understanding of strengths and a moderate increase in their usage of strengths across the six weeks, they emphasized the need for providing their students with more time to learn and engage with the concepts. Teachers highlighted the importance of using the CST and the common language to integrate character strengths into their classroom and school climate over a longer period of time than the six-week period allowed. This finding supports Rashid and colleagues' (2013) conclusion that elementary school-based strengths programs may be most successful when integrated into the curriculum and classroom practices by the homeroom teacher over a longer period of time (e.g., the entire school year). Subsequent school-based character strengths programs should consider this and strive to integrate strengths into the learning environment on a continual basis, rather than only providing weekly sessions to the students.

A second implication for practice relates to the form of expression that was required from the students during activities. Teachers indicated that students found it more helpful to explore the strengths and to express their thoughts about their own strengths in creative and artistic activities (e.g., collages,

posters, strengths shields, etc.) rather than in writing activities. This finding supports previous work suggesting that drawing activities are more suitable in elementary school-based positive psychology interventions as they facilitate expression and keep the student's attention without the potential language limitations involved with writing (Owens & Patterson, 2013). In their research, however, Owens and Patterson (2013) focused on gratitude and 'best possible self' interventions; their research did not include a character strengths intervention. This result is first to demonstrate the importance of considering form of expression (e.g., drawing versus writing) during elementary school-based character strengths interventions. It follows that subsequent strengths programs in elementary education may benefit from considering the form of expression expected from the children and, in particular, providing children with the opportunity to express their thoughts about strengths through a variety of different creative outlets.

A final implication for practice that emerged in the present study was the usefulness of having a practice-oriented toolbox to support autonomous teacher delivery. Teachers appreciated having a user-friendly toolbox rooted in positive psychological research that focused on practical activities that allowed them to move into action quickly— as opposed to only receiving training workshops and theoretical information, a critical point that was highlighted by teachers in the first school-wide positive education program in the Netherlands (Elfrink et al., 2017). Teachers were also enthusiastic about using the CST in the future and further adapting the activities for their classroom. Adapting the activities to the specific educational context constitutes a bottom-up approach and has been previously identified as an important component of school-based positive psychology programs (Halliday et al., 2019; Furlong et al., 2014). It follows that subsequent school-based character strengths programs should consider providing teachers with tools that enable them to autonomously implement positive psychology in their classroom on an ongoing and bottom-up basis. Rather than relying on researchers and outside personnel to deliver the intervention, school-based strengths programs may do well to focus more on supporting the teacher and fostering his or her ability to implement interventions that are sensitive to both the needs of the individual students as well as the context of the school.

Conclusion

The present study is novel in several ways. Firstly, it provides preliminary evidence of a fully teacher-delivered VIA-IS character strengths intervention enhancing engagement in a student population. Secondly, it is the first study to include the teacher's voice regarding their experience delivering a classroom character strengths intervention. Thirdly, it is the first school-based character strengths intervention to be carried out in the Netherlands and serves as a starting point for further research in Dutch educational contexts. The study builds on Elfrink and colleagues' (2017) Positive Education Program pilot study and further highlights the importance of providing teachers with practical tools to enable them to implement positive psychology on an ongoing and bottom-up basis. The study also indicates a trend; that is, the benefits of school-based strengths programs may be larger for students with teachers who take greater ownership of the intervention and invest more time and effort into delivery.

Considering the findings presented here, further research on school-based character strengths programs is warranted regarding (1) the teacher's role and influence during the implementation process, particularly the teacher's role in supporting students to recognize their own strengths of character, (2) methods and strategies for increasing teacher support and ownership of a strengths intervention, and (3) the social factors associated with strengths interventions and the extent to which these factors contribute to the other positive outcomes resulting from the intervention (e.g., engagement). This knowledge may facilitate research and development of school programs that strive to promote positive social-emotional and academic outcomes by focusing not only on what students must improve upon, but also on the pre-existing positive qualities that children naturally bring with themselves into the classroom.

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Appendix A

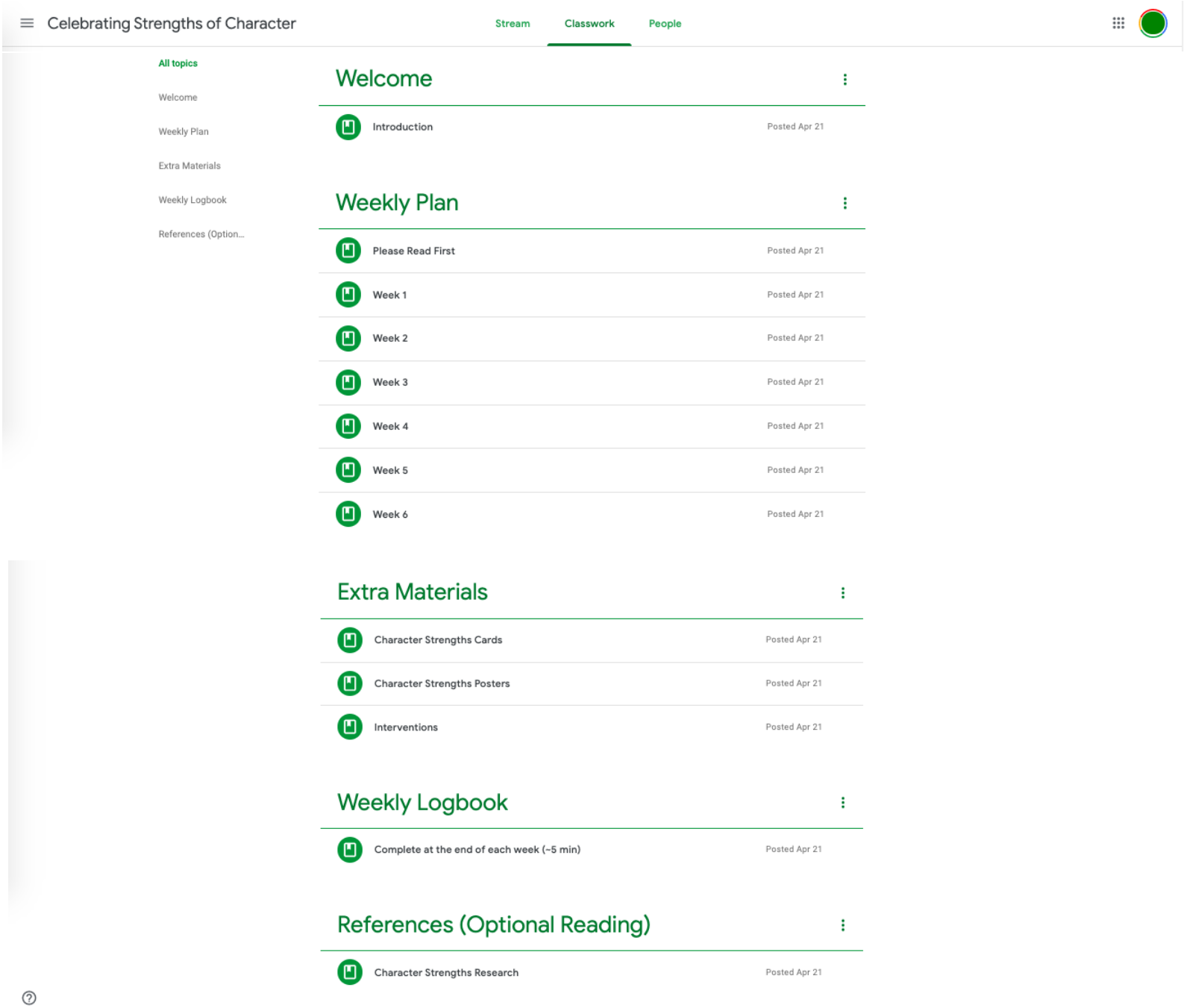
Values in Action Inventory of Strengths (VIA-IS) Classification

Virtues	Character Strengths
Wisdom and knowledge • Cognitive strengths that involve the acquisition and use of knowledge	(1) Creativity [originality, ingenuity] (2) Curiosity [interest, novelty-seeking, openness to experience] (3) Judgment [critical thinking] (4) Love of Learning (5) Perspective [having a "big picture" outlook]
Courage • Emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal	(6) Perseverance [persistence, industriousness] (7) Honesty [authenticity, integrity] (8) Zest [vitality, enthusiasm, vigor, energy] (9) Bravery
Humanity • Interpersonal strengths that involve tending and befriending others	(10) Kindness [generosity, care, compassion, altruism] (11) Love (12) Social Intelligence [emotional intelligence]
Justice • Civic strengths that underlie healthy community life	(13) Fairness (14) Teamwork [citizenship, social responsibility, loyalty] (15) Leadership
Temperance • Strengths that protect against excess and vices	(16) Forgiveness (17) Humility [modesty] (18) Prudence (19) Self-regulation [self-control]
Transcendence • Strengths that forge connections to the larger universe and provide meaning	(20) Appreciation of Beauty and Excellence [awe, wonder] (21) Gratitude (22) Hope [optimism, future-mindedness, future orientation] (23) Humour [playfulness] (24) Spirituality

Note. The terms in square parentheses are variations of the character strengths as indicated by Peterson and Seligman (2004). Students were provided with age-appropriate explanations for each of the different character strengths.

Appendix B

Overview of the contents of the Character Strengths Toolbox (Google Classroom)



Appendix C

Overview of the weekly foci, objectives, and program components of the Character Strengths Toolbox

Focus	Objective	Program components (used to achieve the objective)
Week 1: Focus on Teachers	Teachers explore their own strengths and practice spotting strengths in their students	• Teachers explore their own strengths and take the VIA-IS questionnaire (optional) • Teachers are taught to "spot" strengths by recognizing, explaining, and appreciating the strengths they observe their students using. • Teachers practice spotting strengths in their students across the week and record their observations in a worksheet.
Week 2: Focus on Activity Strengths	Students learn to recognize their activity strengths (not character strengths yet)	• Teachers introduce activity strengths to their students (i.e., any strengths/ personal qualities that students use in hobbies, sports, school, etc.). • Students create collages to show their favourite activities (in and out of school), hobbies, school subjects, etc. This is them 'at their best'. • Students discuss their collages with each other and identify the strengths that they and their classmates are using during their favourite activities.
Week 3: Focus on Character Strengths	Students learn to recognize character strengths in themselves and in others (by linking them to activity strengths)	• Teachers introduce students to the 24 character strengths and explain how we all use them in different ways (and how they are linked to activity strengths). • Students read a book or watch a video clip and practice spotting the character strengths (with the aid of character strengths cards and posters). • Students link their activity strengths to their character strengths. • Students are assigned a 'secret partner'. Across a one-week period, students record the strengths they saw their partner use, when/where they used it, and any positive outcomes that may have resulted from the strengths use.
Week 4: Focus on Goal Setting	Students learn they can use their character strengths to help them accomplish their goals	• Teachers give examples of how strengths can be used to help them accomplish the things that matter to them (i.e., their personal goals). • '3 Stars and 1 Goal': Students record 3 things they already do well (stars), and 1 meaningful thing they would like to improve on or accomplish (goal). • Students select strengths that they want to use to help them achieve their goal. Students write down ideas about *how* the strengths they selected can help them achieve their goal and why that strength is important to them.
Week 5: Focus on Others	Students learn that character strengths can be used with their classmates, teachers, and family members	• Teachers give examples to students about how character strengths can support relationships with peers, teachers, and family. • In groups, students create a shield/flag that shows the 3-5 strengths that are the most meaningful and intrinsic to them (and where they use them). • Students discuss (or present) their shield/flag in groups to increase their awareness of each other's most meaningful and intrinsic strengths. • Students create 'Group Goals' (i.e., ways in which they can use their character strengths in relation to their classmates, teachers, and/ or family).
Week 6: Focus on Integrating	Students and teacher brainstorm ideas to keep character strengths in the classroom	• Teachers organize a brainstorming activity to gather student feedback and ideas for keeping strengths in the classroom (after the intervention) • Students brainstorm in small groups and share one or two of their favourite ideas about how character strengths can be focused on more in the classroom • Teachers record students' ideas to use in the future