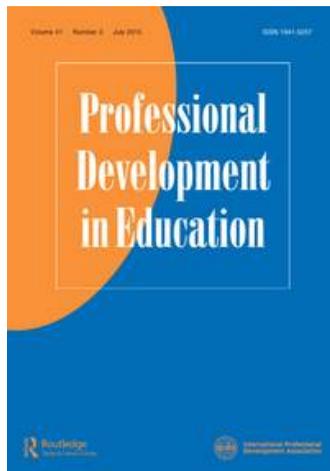


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A strength-based approach to teacher professional development

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Based on positive psychology, self-determination theory and a perspective on teacher quality, this study proposes and examines a strength-based approach to teacher professional development. A mixed method pre-test/post-test design was adopted to study perceived outcomes of the approach for 93 teachers of six primary schools in the Netherlands and the development of their sense of self-efficacy, autonomy, competence and relatedness. Results revealed a statistically significant increase in feelings of autonomy and self-efficacy in coaching others. Taking existing potential of people and institutions as a starting point could be a promising way of (re-)creating flow in teachers and schools.

Keywords: teacher professional development; teacher motivation; learner engagement; quality of working life

1. Introduction

Many teachers leave the field within the first five years (Fischer 2011, Helms-Lorenz *et al.* 2012). According to Minarik *et al.* (2003), the rate at which teachers leave the profession is significantly higher than the departure rate in other professions (see also Borman and Dowling 2008, Ingersoll and Perda 2012). One of the concerns of school policy therefore has to do with retaining effective teachers in schools (OECD 2005). Factors contributing to low retention rates are feelings of stress and burnout (Philipp and Kunter 2013) due to unsatisfying working conditions, work overload (de Jonge and de Muijnck 2002), undesirable student behavior (Geving 2007), lack of support and supervision in the first years in the profession, frustration with respect to not achieving one's own teaching standards and lack of administrative support (de Jonge and de Muijnck 2002, Blase *et al.* 2008). These problems point towards a need for studies focusing on factors related to the prevention of burnout and teacher turnover; for example, through an emphasis on job satisfaction, teacher efficacy and engagement (Pas *et al.* 2012).

The latter aspect has recently received much attention in the field of work and organizational psychology. Following the more general trend in psychology towards a focus on strengths and positive emotions (Seligman and Csikszentmihalyi 2000), characteristic of the approach of positive psychology, scholars in this field have become increasingly interested in employees' optimal functioning and positive experiences at work (Van den Broeck *et al.* 2008). Instead of focusing on problematic

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and troublesome issues related to work, much more attention is currently being paid to personal qualities or strengths of people, and to work engagement (Schaufeli and Dijkstra 2010). Research shows that being attentive to personal and positive aspects of work is more effective with respect to performance than focusing on the prevention of negative aspects such as stress and burnout (Schaufeli and Van Rhenen 2006). Analyzing positive emotions, traits and institutions, positive psychologists have focused on identifying situations in which humans thrive and flourish (Woolfolk Hoy *et al.* 2008, Seligman 2011). Such an environment is precisely what most educators would like the classroom to be. A difficult question, however, is how to organize such environments. How can we create working environments in which both teachers and students can thrive and flourish, environments in which teachers are genuinely engaged, in which they believe they can make a difference to the academic performance of their students, and in which they feel capable of overcoming difficulties and responding to problems with resilience and perseverance?

These questions inspired Korthagen and Vasalos (2008) to develop a professional development approach (the 'Quality from Within' [QfW] approach) focusing on growth, starting from and building on the inner potential of teachers and students. Following the broaden and build model (Fredrickson 2002), teachers' qualities and inspiration are taken as the starting point for further development. Different from most innovations, the approach does not aim at a specific outcome in terms of how teaching should be. The assumption is that if teachers connect with their inner strengths and inspiration as well as those of their colleagues and students, they may start to find their own approaches to effective education. In addition, it is assumed that connecting to inner strengths increases teachers' sense of self-efficacy, a factor often related to burnout (Fisher 2011, Fernet *et al.* 2012).

Although the approach has been implemented many times in many different countries (e.g. the Netherlands, Belgium, the United States) and is often regarded as very successful (Korthagen *et al.* 2013), more evidence-based understanding of the impact on the professional learning of teachers and schools seems needed. The goal of this study is to systematically explore the impact of the QfW approach in order to describe a promising professional development program, to provide evidence of the value of the QfW approach and consequently to provide guidelines for creating working environments in which teachers can thrive and flourish.

2. Conceptual framework

The development of the QfW approach could be described as an ongoing process of integrating practice and theory. While working with teachers in schools, it became apparent that something needed to be done in order for teachers to be able to thrive and flourish. It was also clear that the traditional professional development programs did not seem very successful in accomplishing meaningful and sustained teacher professional growth (see also Holmes 1998, Wei *et al.* 2009). Reasons for this vary between dismissing political and organizational aspects of schools (Fullan 2001, Van Veen *et al.* 2012), ineffective leadership with top-down approaches and fixed goals creating a feeling of external pressure in the teachers (Korthagen 2007), a focus on deficiency instead of growth and the neglecting of the teacher as an active and collaborative participant in designing his or her own professional learning (Van Veen *et al.* 2012).

Related to this is the fact that educational experts and teachers do not really take each other seriously, and that teachers reject innovations regardless of their potential benefits to their teaching practice (Elliot 1991). As a result, teachers often respond by showing patterns of fight (active resistance), flight (attempts to escape from the pressure) or freeze (becoming tensed up). This can lead to emotional exhaustion (burnout, mental fatigue) and a distancing attitude towards the innovation or one's own work (cynicism) (Maslach *et al.* 2001). In order to avoid this, teacher development programs need to focus more on ways in which teachers can prevent or cope with stress, which implies a focus on the underlying psychological mechanisms supporting teacher motivation for (continued) engagement and growth (Chong and Kong 2012, p. 264). These psychological mechanisms are at the core of the QfW approach.

The essence of the approach is to make teachers aware of their core qualities and inspiration, and to support them in enacting these in practice and dealing with the obstacles hindering them from doing so. The underlying idea is that professional behavior becomes more effective and fulfilling when it connects to the qualities and deeper values within a person, particularly if they are in harmony with other aspects such as knowledge and beliefs, but also the (work) environment (Korthagen and Vasalos 2005, Meijer *et al.* 2009). In a multi-layered model (the 'onion model'; Korthagen 2004), six such aspects (or levels) are distinguished: environment; behavior; competencies; beliefs; identity; and personal mission (or spirituality). The sixth level represents personal ideals. Research has shown that the loss of ideals, in other words a disconnection with this sixth layer in oneself, is characteristic of many cases of burnout (Edelwich and Brodsky 1980, p. 14, Freudenberger and Richelson 1980). In Figure 1, questions are formulated to clarify each layer.



Figure 1. The onion model (Korthagen 2004).

The core qualities refer to character strengths that people possess (such as courage, the potential to trust and patience) and that function as a driving force in people's thinking, wanting, feeling and acting. In other words, core qualities are considered a driving force in aligning the inner and outer layers of the model. The example below illustrates how the six levels and their alignment can play a role in teaching:

Kim is a teacher in the fifth grade (environment). She feels she contributes to the world by bringing out the best in children (mission). Hence, Kim sees herself (identity) as a teacher whose main task is to stimulate children's learning and their growth. Today, she teaches geography and believes it is important for her students' motivation to start by looking at their own geographical area (belief). Therefore, she uses her skills to guide her students in making a map of the route they take from their homes to school (competencies and behavior). While doing this, she uses her core qualities of inspiration and trust.

This example also demonstrates how *alignment* between the levels can be achieved. It is assumed that a harmonious connection between the outer and inner levels of the model (thus between aspects situated within the person and aspects related to the external environment) results in an experience of *flow*, a concept coined by Csikszentmihalyi (1990) (Korthagen and Vasalos 2005). Deci and Ryan (2000, Ryan and Deci 2002) call this interaction between a person and the environment a *positive organic-dialogical process* resulting in a high degree of fulfillment of the three basic human psychological needs, being the need for autonomy, for competence and for relatedness. *Autonomy* refers to the need of experiencing the self as the source of one's own behavior and the need of expressing one's authentic self (Ryan and Deci 2002). The personal will and the clear decision-making based on personal values are central to experiencing autonomy (Hodgins et al. 1996). A recent study on teacher motivation revealed that autonomous types of motivation toward work activities are negatively related to burnout, whereas controlled types of motivation positively associate with burnout (Fernet et al. 2008). *Competence* refers to feeling effective in personal, ongoing interactions in the social environment. It implies that humans are born with the need to use their capabilities to influence their surroundings (Baumeister and Leary 1995, Ryan and Deci 2002). The concepts of perceived competence and *self-efficacy* are theoretically related (Fernet et al. 2012). Self-efficacy is defined by Bandura (1997, p. 3) as, 'beliefs in one's capabilities to organize and execute the course of action required to produce given attainments'. In recent studies, scholars found that teachers' capacity to influence others (interpersonal efficacy) and teachers' classroom efficacy are both negatively associated with burnout (Fernet et al. 2012).

The need for *relatedness* refers to a longing for positive relations and engagement with others – that is, to care and be cared for by others – by belonging to a group or community (Ryan and Deci 2002). If a person responds to the demands of a situation in such a way that the three basic needs become fulfilled, this is also personally fulfilling.

This means that environment and person become connected in a positive sense. If the outer layers conflict with the inner layers, the result is disharmony (or non-alignment). This non-alignment or incongruence is often related to experiences of stress, and if this lasts a long time it may result in burnout (Korthagen 2004).

Essential in the QfW approach is, therefore, the promotion of reflection in individuals on the relation between the various onion layers, in order to increase their

awareness of their flow or non-flow states. This is called *core reflection* (Korthagen *et al.* 2013). Core reflection is aimed at:

- (1) promoting awareness of ideals and core qualities related to the situation reflected on, in order to strengthen awareness of identity and mission;
- (2) identifying internal obstacles to acting out the ideals and core qualities;
- (3) promoting awareness of the cognitive, emotional and motivational aspects embedded in ideals, core qualities and obstacles;
- (4) promoting awareness (cognitively and emotionally) of the friction between aims (1) and (2), and the self-created nature of internal obstacles;
- (5) developing trust in the process that comes from within the person;
- (6) supporting inner potential within the situation under reflection; and
- (7) developing autonomy in using core reflection.

In sum, essentially, core reflection develops an awareness of core qualities and ideals, and supports acting on these qualities and ideals as well as overcoming obstacles.

3. The professional development program

In this study, the implementation of the QfW approach was examined in six primary schools between June 2008 and June 2009. The teachers learned to use a reflection and coaching method starting with acknowledging their own core qualities and inspiration and those of their students, and promoting development from there. Moreover, the teachers reflected on their pedagogical views, based on their experiences with this new method. It was assumed that, by using this method, the teachers would become better facilitators of learning for their students and their colleagues. An intervention was implemented at each school, in which a combination of principles was used:

- (1) *Building on the needs and concerns of the participants.* In three one-day group meetings centered on a pedagogical approach based on the concept of ‘realistic teacher education’ (Korthagen *et al.* 2001), concerns that participants encountered in their work were taken as the starting point of the learning process and were addressed according to the principles of core reflection.
- (2) *Practicing in authentic situations.* Teachers practiced the methods of core reflection with their students, in their real work situations. This was partly coached by the trainers (through coaching on the job in the classroom or by working with students in the group meetings).
- (3) *Promoting individual reflection.* Personal reflection by the participants was constantly encouraged, in order to realize deep learning. This reflection was about several topics; for example, recent situations in the teachers’ work, their ideals and beliefs, their core qualities, the obstacles they encountered and so forth.
- (4) *Enhancing/promoting transfer.* Transfer was enhanced/promoted by encouraging participants to continuously apply what they had learned to their teaching practice, both in their work with their students as well as with each other. Moreover, participants practiced inter-collegial coaching in pairs, kept

logbooks for reflecting on their experiences, shared them with the trainers and their colleagues, and read a few Dutch articles on core reflection. In addition, a developmental group was formed, which monitored, guided and supported the development within the school. The group consisted of two to five teachers.

- (5) *Promoting engagement at the team and school level.* Participants were stimulated to reflect on and discuss the collective educational identity and mission of the school as a team. The development of a common language was essential in this process, a language supporting the team's discussions on the relationship between theory, vision and practice at the school level, and also deepening individual reflections. Moreover, the participants were stimulated to make public the learning processes that were taking place; for example, by organizing an information afternoon for parents, other schools, the educational inspectorate and so forth. This helped them formulate a sharper definition of the educational identity of the school, and to critically reflect on what had been achieved and what still had to be achieved.

In sum, what was characteristic for the approach was not just three days of training but the whole ongoing process, with meetings of the developmental group and inter-collegial coaching (see also Attema-Noordewier *et al.* 2012). Finally, in order to fully realize these characteristics of the approach, it is important to mention that the trainers were experienced teacher trainers who for several years had been specifically trained in guiding the learning process using core reflection and the pedagogy of realistic teacher education.

4. Method

4.1. Research questions

Recent empirical studies (Meijer *et al.* 2009, Hoekstra and Korthagen 2011) suggest that awareness of the role of the different levels of the onion model and especially of the alignment between those levels is important for education. These studies focused on individual teacher learning, which provides a modest 'proof of concept' and a starting point for further exploration of the process of teacher professional growth in the context of the QfW approach, which is the focus of this study. The present study was guided by the following research questions:

- (1) What do the participants perceive as the outcomes of the project (for themselves, their students and the school as a whole), and how do these outcomes – according to the participants – take form in daily practice?
- (2) Does their sense of self-efficacy, autonomy, competence or relatedness increase after having taken part in the QfW project?

Insights from this study may be useful for other schools when designing interventions for professional learning.

4.2. Design of the study

During a period of 17 months, this study monitored six primary schools implementing the QfW approach. A mixed-method design (Johnson and Onwuegbuzie 2004)

was adopted, which means that both quantitative and qualitative data were combined to study the outcomes of the program. The method was chosen for reasons of triangulation, complementarity and development (Johnson and Onwuegbuzie, 2004, p. 22). Quantitative data consisted of a questionnaire on the perception of work, and qualitative data were collected using reflective reports of the participants and semi-structured interviews.

4.3. Participants

Participants in this study were 93 primary school teachers from six schools located in six different, small to middle-sized cities (three in the East and three in the middle of the Netherlands). The schools ranged from small (one school with five teachers) to large (30 teachers and two locations). The teachers taught from Kindergarten through Grade Six. Teaching experience ranged from novices to teachers with 25 years or more of experience. Of all participating teachers ($n = 93$), only 61 filled out the questionnaire twice (pre-test and post-test). Hence, the quantitative part of this study is based on the data of these 61 teachers. With respect to the qualitative data, they were collected from a subsample of 24 teachers from four schools. The selection was based on a representative distribution of teachers over categories ranging from highly to less enthusiastic about the approach.

4.4. Data collection

Table 1 provides an overview of the variables, data collection instruments and number of participants.

4.4.1. Fulfillment of basic psychological needs and self-efficacy in coaching others

To assess the fulfillment of teachers' needs and their perceived self-efficacy regarding coaching others, a questionnaire on the perception of work was administered before and immediately after the project. The questionnaire consisted of four subscales: fulfillment of the basic psychological need for *competence* (example item:

Table 1. Overview of the variables, instruments and measurement moments.

Variable	Instrument	Measurement moment	Number of teachers
Fulfillment of basic psychological needs	Questionnaire	Before and directly after the project had ended	61
Self-efficacy in coaching others	Questionnaire	Before and directly after the project had ended	61
Perceived learning outcomes	Semi-structured interview	Half-way through the project, directly after the project had ended and six to eight months after the project had ended	24 20 14
		Reflective report	Twice during the project (after each workshop day)

‘The people at work tell me I am good at what I do’); fulfillment of the need for *relatedness* (example item: ‘I feel I have a bond with my colleagues’); fulfillment of the need for *autonomy* (example item: ‘I feel I can decide for myself how to do my work’); and self-efficacy regarding the principles of coaching central to the QfW approach. The first three scales were derived from a study by Evelein (2005), who presented evidence of the validity and reliability of these scales. The fourth scale measures the teachers’ self-efficacy regarding their own coaching competencies illustrating the QfW approach. This scale consisted of 10 items (example: ‘When I coach other people, I can deal with personal aspects’) and the Cronbach alpha was 0.88. All items were answered on a seven-point Likert scale ranging from (1) ‘not true at all’ to (7) ‘very true’.

4.4.2. *Perceived outcomes of the Quality from Within approach*

To obtain more insight into the perceived outcomes of the QfW approach, data were also collected using reflective reports and semi-structured interviews. The teachers wrote two reflective reports during the time span of the project. The reports focused on perceived learning outcomes and how these would affect the teacher’s daily practice. In addition, teachers were asked to write about aspects that supported or hindered their learning. The reports were both written directly after a training day and emailed to their own colleagues and the trainers.

As for the interviews, a subsample of teachers was selected based on the content of their reflective reports. An analysis of the reports showed that the teachers in the study represented several categories; namely, teachers who:

- A: were positive about the project and seemed to be learning;
- B: were not enthusiastic about the project and seemed to be learning little; and
- C: did not write a reflective report.

Since the interview results should reflect all types of teachers, two teachers from each category were selected randomly. In one school, not one teacher fitted category C. Hence, teachers in that school were chosen from categories A and B. This resulted in a selection of 24 teachers (category A, $n = 12$; category B, $n = 7$; category C, $n = 5$). The teachers not interviewed belonged primarily to category A. Unfortunately, however, due to job changes, holidays and sickness, only 14 teachers could be interviewed at all three measurement moments (halfway through the project, directly after the project had ended and six to eight months later) (category A, $n = 7$; category B, $n = 6$; category C, $n = 1$). Statements with respect to the more longitudinal outcomes of the project are therefore based on data from these 14 teachers. Data from the other teachers were used to provide additional meaning to the results.

The interviews focused on perceived (learning) outcomes of the project. The part of the interviews that focused on the outcomes of the QfW approach followed the onion model. The most important questions of the interview were: what personal outcomes resulted from your participation; do you notice any changes with respect to what you know, what you do, what you desire, feel or want for yourself, for your colleagues or your students; do you notice any changes in the students; and what aspects of the project influenced and determined the outcomes?

To gain an insight into what actually happened during the training days and the coaching-on-the-job experiences, the trainers were asked to fill in an intervention

report in which they were asked to identify: characteristics of the specific intervention in the school; their opinion about the development of the teachers in the school; and their opinion about what was essential in the intervention to make this development possible. These data provided background information for the interpretation of the results.

4.5. Data analysis

For the quantitative analysis, a pre-test/post-test design was selected. Respondents included 61 teachers at six schools (i.e. observations [$n = 122$], nested within teachers [$n = 61$], nested within six schools [$n = 6$]). We included teachers for whom we had both a pre-test and a post-test score. To assess whether the participants showed an increase in the fulfillment of the three basic psychological needs, and/or an increase in their perceived capacity to facilitate colleague and student learning, a multi-factor analysis of variance was computed (Bickel 2007). We were interested in a fixed effect (of time), but also had to take other effects into account (e.g. it was possible that some teachers or schools performed better than others right from the beginning, or that teachers within one school were more alike than teachers in other schools). We therefore tested multiple models and the best fit proved to be the model in which the random intercept was chosen at the teacher level. We discovered a school effect for the autonomy scale only, although not significant. The results can therefore be interpreted as effects of the group of teachers.

The analysis of the interviews followed an inductive approach and was carried out in eight consecutive steps (Cohen *et al.* 2010, p. 472). First, pseudonyms were assigned to the teachers and the schools in order to ensure confidentiality. Second, four interviews were transcribed verbatim (two from category A and two from category B) and scanned to generate categories of learning results. Sensitizing concepts were formulated around the six layers of the multi-level learning model (see Figure 1). Third, relationships were sought between these categories, and working summaries were written on the basis of the data. Fourth, more transcripts were added to refine the scoring categories. Fifth, with the aid of the final scoring model, one researcher and two research assistants independently analyzed two additional interviews. The obtained results were then compared and found to differ in only a few cases, which were then discussed until agreement was reached (Cohen *et al.* 2010). Sixth, negative and discrepant cases were deliberately sought to modify and provide more meaning to the theory emerging around the outcomes and promoting and hindering aspects of the QfW approach. Seventh, to be able to enumerate and report on the different categories, the six levels of the onion model were then condensed into three layers by combining adjacent levels into one scoring category (i.e. Identity, motives and core qualities; Insights and beliefs; and Behavior and competencies). The categories of learning outcomes of the approach were only reported when mentioned by at least 50% of the participants in at least one interview. This was done to increase the representativeness of all participants in the results. Eighth, and finally, to describe whether the teachers reported learning outcomes at one level of the condensed onion model or more, the reports of learning outcomes were coded with a code 1, 2 or 3. As an example, when a teacher reported that she had become more aware of her own motives for teaching in a particular way, but did not mention in what way this increased awareness connected with changed behavior and/or changed beliefs, this reported outcome was coded 1, meaning a learning outcome at one level only. When,

on the other hand, the teacher mentioned a subsequent impact of this learning on changed behavior, this was coded 2; that is, a learning outcome at two levels.

5. Results

In the following sections, we will first provide an overview of the results from the quantitative analysis of the questionnaire data. Next, the results of the qualitative analysis of the interview transcripts will be presented.

5.1. Fulfillment of basic psychological needs and self-efficacy in coaching

Analysis of the questionnaire data showed an increase for the whole group of teachers in the scores on the Autonomy and Self-efficacy scales in coaching between the pre-test and post-test ($p < 0.01$), a small but statistically significant effect ($R^2 = 0.06$ and $R^2 = 0.04$ respectively) (see Table 2). What this means is that teachers feel an increase in the experience of ownership of their behavior. They feel that they have more opportunities to make personal choices, but also feel greater endorsement of others for those choices. In addition, the teachers perceive themselves as more successfully enacting the principles of the QfW approach when coaching students or colleagues.

With respect to the scores on the Competence and Relatedness scales, we note that these scores did not significantly increase at the group level. An explanation might be that these scores were already relatively high to begin with.

5.2 Self-reported learning outcomes

5.2.1. Individual learning outcomes

Table 3 summarizes teachers' perceptions of individual outcomes of the project. Percentages show the total of teachers mentioning these outcomes.

With regard to the learning outcomes at the individual level, Table 3 shows that a perceived increase in coaching skills is mentioned most in the interviews. The reported outcomes are rather similar for the first and second measurement moments and still ring true seven to eight months after the end of the project. An exception is the category 'increased awareness of one's own motives', which is reported considerably less in the second interview (directly after the project ended). Furthermore, one outcome that is remarkably less mentioned three months after the project had ended is 'increased awareness of certain coaching skills'. One explanation could be that when teachers have been participating in the project longer, they are not only

Table 2. Means on the pre-test and post-test for the four scales of the questionnaire.

Scale	Pre-test		Post-test		Time		
	Mean	SD	Mean	SD	<i>b</i>	SE	<i>p</i>
Autonomy	5.11	0.87	5.39	0.71	0.275	0.08	0.001**
Competence	5.64	0.74	5.75	0.71	0.116	0.08	0.159
Relatedness	5.51	0.71	5.63	0.58	0.117	0.07	0.114
Self-efficacy in coaching	4.74	0.89	4.96	0.78	0.231	0.08	0.006**

Notes: SD, standard deviation; SE, standard error.

** $p < 0.01$.

Table 3. Categories, examples and percentages of reported outcomes at the individual level.

Perceived outcomes	Illustrative examples	Interview (%)		
		1 (<i>n</i> = 24)	2 (<i>n</i> = 20)	3 (<i>n</i> = 14)
Increased coaching skills (regarding coaching of students and colleagues): stronger focus on the emotional and motivational side of learning; more structured coaching	‘I ask the children more about how they feel, and what they think. I have noticed that the children are then able to come up with their own solutions’ ‘In conversations with my student teacher, I ask her to describe her experiences and ideas about the situation instead of telling her myself what went right, and what went wrong, and how she should solve this’	75	85	79
Feedback on core qualities (to students, colleagues, parents)	‘I give more and more conscious feedback on core qualities’	63	55	71
Increased awareness of certain coaching skills	‘I became aware of the difference between giving a compliment and giving feedback on core qualities’	58	45	29
New and/or renewed insights into and ideas about learning	‘One learns from positive feedback’ ‘It is better to focus on strengths than on problems’	75	80	64
Increased awareness of one’s own motives	‘I want to contribute to the well-being of the children’ ‘I know better now why I do what I do’	71	30	64
Increased awareness of one’s own professional identity	‘I feel there is more appreciation for me, that my experience really matters’	54	55	57
Increased awareness of one’s own core qualities such as commitment, care, calmness, enthusiasm, honesty	‘I now have tools for looking completely differently at myself and a situation [...] I now decide consciously to get in touch with quality of care, and to look at the positive side of the situation. In this way I see much more, and I feel a much lighter kind of energy’	63	70	50

aware of these coaching skills but are also feeling more competent regarding these skills, and mention just this latter fact. For example, halfway through the project, teachers reported things such as, ‘I know now that I can give feedback on core

Table 4. Number of levels aligned in the reported learning outcomes.

Alignment of the reported outcomes	Interview (%)		
	1 (<i>n</i> = 24)	2 (<i>n</i> = 20)	3 (<i>n</i> = 14)
Three levels	75	70	58
Two levels	12.5	25	36
One level	12.5	5	7

qualities, but I find it hard to practice it in the classroom.’ At the second and third interviews they reported they were actually doing this more frequently in the classroom, and therefore it might be that there was no need to report their awareness of it.

5.2.2. *Aligned individual learning outcomes*

With respect to the alignment demonstrated in the teacher reports of their learning outcomes, Table 4 shows that most teachers reported learning at all three levels of the condensed onion model.

Table 5. Categories, examples and percentages of reported outcomes regarding others.

Learning outcomes regarding others	Illustrative examples	Interview (%)		
		1 (<i>n</i> = 24)	2 (<i>n</i> = 20)	3 (<i>n</i> = 14)
Increased work and communication skills and attitude of the students: better attitude to working and learning; better group work; more independent problem-solving; more understanding of each other’s feelings; giving more positive feedback to each other	‘At days that I use it [core reflection] I notice that the children are working quite well and that their attitude is much better, and their concentration as well’ ‘I believe that this positive approach will lead to better learning outcomes, because if they get this trust they will also use it’	67	60	71
Teachers experience more openness, safety and a deeper engagement in school	‘The barrier to be open to each other has really lowered’ ‘We have grown closer together’	75	65	64
Better management and coaching skills of the school principal	‘When I had a problem and talked to the principal about it, she immediately worked it out with me through core reflection. [...] After five minutes I was ready and knew how to solve it. That was nice’ ‘The principal is much more decisive’	50	45	57

When analyzing the data more closely, however, striking differences were found between enthusiastic teachers and those who were less enthusiastic (categories A and C, respectively). These differences seem to be related to their attitude towards learning in general. When the teachers had an open, learning-oriented attitude, they were more enthusiastic about the project and seemed to learn more from it. Those who had a less open attitude seemed to ‘close up’ already at the beginning, although the positive experiences of colleagues and their enthusiasm almost always started to influence these less enthusiastic teachers after a while. Sometimes, however, this made them more positive on the one hand, but on the other still not very open towards the possibility that they themselves could learn something. An example was a teacher who was convinced that, through her many years of experience in communicating with people in a previous job, the content of the project had little to offer her.

5.2.3. Learning outcomes regarding others

Table 5 shows the most important perceived outcomes of the project regarding the students, the team and the school principals, mentioned by more than one-half of the teachers in at least one interview.

The table demonstrates that, similarly to the individual outcomes, reported outcomes with respect to ‘others’ vary little between the three measurements.

6. Conclusion and discussion

The focus of this study was to gain more insight into the processes of teacher professional growth in the context of the QfW approach. The essence of the approach is, firstly, the acknowledgment of the interrelatedness of cognitive, behavioral, emotional and motivational aspects; and secondly, the assumption that professional behavior becomes more effective and fulfilling, with respect to the three basic human psychological needs (Ryan and Deci 2002), when it connects to the deeper values within a person, particularly if they are in harmony with other aspects within the person, such as beliefs and competencies, and with the (work) environment.

Although the number of participants was limited, we believe that our study shows significant outcomes of the QfW approach. Firstly, with respect to the learning outcomes, findings indicate a statistically significant increase in feelings of autonomy and self-efficacy in coaching others. Also, increased coaching skills, (re) new(ed) insights into and ideas about learning and increased awareness of one’s core qualities were reported. In addition, most learning outcomes showed alignment of two or three levels of the condensed onion model, which means that teachers reported related changes to occur in more than one domain of what Clarke and Hollingsworth (2002) call ‘the teacher’s world’ (see also Zwart *et al.* 2007). The promotion of such multi-layered changes in individuals is one of the key features of the QfW approach.

Regarding the increased sense of autonomy, it is interesting that the competence scale and the relatedness scale did not show significant effects. An explanation for this could be that the scores on these scales were already high to begin with. Another explanation can be found in the fact that the questionnaire measures a general feeling of competence and not a specific coaching competence or other competence directly related to the project. This more specific coaching competence is

measured by the self-efficacy in coaching scale, which did show an increase. A similar explanation could be applied to the fulfillment of the need for relatedness. Future research should delve more deeply into processes and outcomes related to competence and relatedness, as basic need satisfaction has been found to relate positively to vigor and dedication, whereas it has related negatively to emotional exhaustion (Vansteenkiste *et al.* 2007). Hence, these psychological needs may play an important role in teacher turnover and burnout.

As for the increased self-efficacy in coaching, this means that teachers perceive themselves as more successfully enacting the principles of core reflection when coaching students or colleagues. The qualitative analyses of the interviews show a similar result, especially when it comes to experiencing the effectiveness of paying attention to the role of emotions in learning. In almost all examples shown in Table 3, the teachers express this focus on positive emotions, strengths, positive experiences or feelings in general as being important aspects of their learning. 'I feel that there is more appreciation for me, that my experience really matters' and 'It is better to focus on strengths than on problems' are just two of these examples. Although a few teachers found this focus on strengths and feelings awkward, and even the idea of giving attention to feelings and emotions sometimes created resistance in some teachers, the results of this study align with research within other contexts showing the surplus value of being attentive to personal and positive aspects of work (Schaufeli and Van Rhenen 2006). As Cowie puts it:

The evidence from the education field is that how teachers deal with emotions can have a great impact on their personal growth, and the kind of emotional support that they receive from their colleagues and institution can be a major factor in their personal development as a teacher. (2011, p. 236)

Similar results are found in recent research on work engagement. Factors explaining best why some people experience high levels of vigor, dedication and absorption (i.e. the characteristics of work engagement; see Salanova *et al.* 2011) and others do not are shown to be related to daily events such as supportive interaction with colleagues, the daily experience of autonomy and positive feedback (Reis *et al.* 2000, Fernet *et al.* 2012). These are precisely the aspects on which the QfW project focuses.

Lastly, in the interviews factors were mentioned that either promoted or hindered teacher learning within the context of the project. Important aspects that were found to promote teacher learning were that the project should be in line with the school development and culture, and that attention should be paid to the project during the school weeks. The most often mentioned aspects hindering the outcomes were lack of time and being busy, which is a structurally recurring limiting aspect in almost all professional development endeavors. One explanation for this might be that schools are first and foremost organized for student learning instead of teacher learning. Within the daily dynamic of teaching students, time and space for reflection are difficult to find. Optimally attending to teacher learning in schools, 'requires schools to take structural and cultural possibilities and constraints for teacher learning in the entire organization into consideration' (Van Veen *et al.* 2012, p. 23). This seems highly important considering the fact that most factors related to teacher retention have to do with school organizational conditions such as unsatisfying working conditions, work overload, lack of support and supervision in the first years and lack of administrative support (de Jonge and de Muijnck 2002, Blase *et al.* 2008).

Finally, did the QfW project contribute to teacher retention? We do not have specific quantitative data providing evidence that this is indeed the case, but both the above-mentioned data from the questionnaires and the interviews showed increases in factors that are known to correlate positively with job satisfaction and teacher retention and negatively with teacher burnout and loss of ideals. A few quotes from the interviews may further illustrate these positive effects:

Eliciting inspiration for teaching and naming what goes well and identifying core qualities. [...] That helps us get out of the negative spiral.

This is also important for team building. You get to know each other better, and that creates a better atmosphere.

Things go more smoothly in the team and with the children.

I became a better human being. I feel more valuable, more knowledgeable. I discovered that I can mean something to others, to children.

I developed more self-confidence. You grow as a person.

I can make a difference.

We have to realize, however, that these results were not acquired easily. The QfW approach is not a simple, straightforward, traditional approach to teacher development. It is a combination of various innovative perspectives and strategies (cf. Section 3), and trainers need an in-depth training to prepare them for using this approach. The most salient aspect of the QfW approach is that it does not aim at a specific outcome in terms of teaching competencies, but starts from the existing potential in the participants and from their ideals. This may in itself represent an interesting and innovative view of teacher education, a view that is in contrast with most existing approaches in this field. Perhaps the time has come to realize that the problems of teacher turnover and teacher burnout cannot be solved by putting more emphasis on simple interventions aimed at the development of the 'right' teacher competencies. We believe that re-creating flow in teachers and schools is first and foremost a matter of taking people and institutions seriously, and starting from the potential that is already present. The QfW project shows that from this flow many positive effects emerge, also in terms of competencies and even in the students involved. This means that the main problem of educational change may not lie in influencing teachers and schools, but in changing the perspectives and beliefs of those responsible for choosing the aims of projects for professional development.

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