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Master Psychology

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Specialization: Instruction, Learning, and Development

A MASTER THESIS PSYCHOLOGY:

The Full Potential Growth-Model

Goodbye, Underachievement – Hello, Full Potential!

An evaluation study about the opinion of educational professionals on a theoretical framework of giftedness that minimizes underachievement by means of a mastery goal orientated educational setting.

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List of Abbreviations

ABC^{R}	Autonomy - Bonding - Competence - Resilience
DDE	Data Driven Education
FPG-model	Full Potential Growth-model
HU	Hogeschool Utrecht, University of Applied Sciences
ICT	Information and Communications Technology
PD	Professional Development
PGO	Performance Goals Orientation
POinactie	Primary Education on strike/in action. In Dutch: Primair Onderwijs in actie
SHBD	Specialist Giftedness and Differentiation; In Dutch: Specialist Hoogbegaafdheid & Differentiatie
STR	Student Teacher Relationship

Summary

For the post-bachelor education in giftedness of Hogeschool Utrecht, the Full Potential Growth [FPG]-model was designed to help teachers overcome underachievement among gifted students. In the current study educational professionals (N = 60) were asked about (1) the possible side-effects of the current educational system on achievement, (2) features of the FPG-model, and (3) its potential value in practice. Data gained from the online survey was analysed through descriptive statistics, and multiple ANCOVA's to check for differences among different groups of professionals. An explorative Factor Analysis was used to find constructs within the model that could be taught in differentiated Professional Development [PD] to teachers. Results indicated that professionals recognized the problems given by the researcher. They appreciated the features of the FPG-model and saw its potential to assist teachers with underachievement and *Passend Onderwijs*. However, concerns were raised about the feasibility of individual learning trajectories for children, and about the practical implementation of the FPG-model. Accordingly, a pragmatic approach – with plenty of best practices and collaborative learning in formal and informal professional development – was advised by the participants. No significant differences in opinions between educators were detected that could be explained by specific characteristics (age, work experience, proximity to the gifted and professional development in giftedness). Therefore, no grounds were found that indicate that differentiated professional development should be developed to facilitate various educational groups. Tailor-made team professional development, however, was recommended to attune to the different needs and learning objectives of school teams and foster implementation.

Word count: 248

Key-words: Giftedness, underachievement, Professional Development, full potential, growth mindset, mastery goal orientation, lack of attachment to school, self determination

Preface

The spearhead of the educational policy of the University of Applied Sciences Utrecht (in Dutch: Hogeschool Utrecht [HU]) is to intertwine education, research, and relevance to the actual daily practice of teachers. Therefore, this research is conducted to answer questions from the work field, and to facilitate teachers in their daily practice.

As an educator of the post-bachelor education: Specialist Giftedness and Differentiation (in Dutch: Specialist Hoogbegaafdheid & Differentiatie [SHBD]) of the HU, I often see course members struggle with an effective transfer of their chosen definition of giftedness to the concrete execution in the form of educational procedures and activities. Thus, there seems to be a missing link between inserting theory into practice. In particular, participants of the SHBD-course are interested in how they can most effectively guide the underachieving and/or unmotivated gifted children in their actual practice. This particular information induced me to further research this inability to provide adequate educational support for gifted underachievers and work towards a solution that fosters high achievement.

The results of this master thesis will be merged in the post-bachelor education SHBD to enhance the quality of the course, and is, therefore, a part of the quality control. Even more, it enhances the competencies of course members of the SHBD, and so, facilitates them in the execution of their job as a specialized gifted school teachers. Consequently, fostering children's' achievements in school careers.

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1. Introduction

In 2008, Sharon Dijksma, the then state secretary of Education, Culture and Science, introduced a policy plan to foster excellence and giftedness in primary education. This was necessary, because the Netherlands had the ambition to develop into a knowledge society (Dijksma, 2008a). However, at that time, about 10% of all primary school students performed below their expected levels in language and maths. And more strikingly, the larger the cognitive talent, the higher the percentages of underachievement were found. In example between 30-60% of gifted students with IQ-scores of 130 or more were underachieving (Dijksma, 2008b). Therefore, Dijksma encouraged schools to address their *'silent reserve of learning capital*', in order to stop the loss of talent.

Due to this increased attention, the educational world became more attentive towards the needs of gifted children (Dekker, 2014; Doolaard & Oudbier, 2010; Haenen & Mol Lous, 2014). It led to a vast amount of literature, many innovative gifted educational programs, like (full time) gifted classes and challenging school packages (i.e. *plusklassen*, children's university, Levelwerk, Acadin, etc.). As well as a large pool of inspiring community-based websites, workshops and specialized post bachelor and master degrees of teacher training in giftedness (e.g. SLO *informatiepunt Onderwijs & talentontwikkeling*, Centre for Gifted Research Nijmegen, ECHA-training, Universities of applied sciences, Novilo-courses, etc.) (Gubbels, Segers, & Verhoeven, 2015).

In spite of all this, a large number of students, to this day, still perform, either below their expected cognitive levels (Bakx, De Boer, Van den Brand, & Van Houtert, 2016; Dekker, 2014; Doolaard & Oudbier, 2010; School aan zet, 2012) or, are simply not motivated to succeed in school (Dekker, 2014; Gubbels et al., 2015; Inspectie van het onderwijs, 2017). This problem is also reflected in the lasting low numbers of high achievers that the Netherlands produces in comparison to other nations (Dekker, 2014; Minnaert, 2015; School aan zet, 2012; Van der Steeg, Vermeer, & Lanser, 2011). The average academic achievements of all Dutch students still remain unchanged. Especially gifted students continue to develop less according to national research (Ministerie van Onderwijs, Cultuur en Wetenschap, 2018).

These outcomes affect the daily praxis of teachers with *Passend Onderwijs*. The Dutch law, that requires teachers to appropriately cater for the individual learning needs of all children. However, with the arrival of *Passend Onderwijs*, teachers also indicate that they feel overwhelmed and that they are not equipped enough to cater for the large variety of levels in their classrooms (Adriaens, Van Grinsven, Van der Woud, & Westerik, 2016;

Onderwijscoöperatie, 2016). These feelings of powerlessness, experienced by a lot of teachers, create a big hurdle, and hold teachers back in providing appropriate and challenging education for the gifted high potentials and underachievers. Hence, there is a call for educational reform.

2. Gifted Underachievement

Many educators struggle to convert the complex and multi-layered concept of giftedness into practical actions and identification procedures. Namely, because teachers tend to clarify the construct through theoretical models that focus on competencies and obtained achievements (Gagné, 2008; Heller, Perleth, & Lim, 2005; Mönks & Ypenburg, 1995). As a result of this, schools put emphasis on summative testing, collecting only "hard numbers" from CITO-tests scores and/or IQ results to identify the gifted. By doing so, the identification process of the gifted is done superficially, or worse, incorrectly (Snijders, Zevenboom, & Tammes, 2010) which is further induced by the lack of expertise about giftedness (Hertberg-Davis, 2009; Webb, Amend, Webb, & Goerss, 2013). As a result, gifted low achievers are perceived as not gifted, and are therefore omitted from specific gifted classes. Leaving those students to feel misunderstood, overlooked, unmotivated and unattached (Freeman, 1999; Hallinan, 2008; Inspectie van het onderwijs, 2017; Van Rooij, 2017). More importantly, denying gifted underachievers access to appropriate guidance to overcome their underachievement and to become high achievers.

More recent theoretical models have shifted the attention from a performance perspective to a view of 'being gifted'. High cognitive ability is taken into account, but also intra- and interpersonal aspects of giftedness (Kieboom, 2015; Kooijman-van Thiel, 2008). These experts indicate that the gifted think, feel, act, and perceive their world more intensely and more complex than others (e.g. (Kieboom, 2015; Mendaglio & Tillier, 2006). Typically, gifted students are persistent, energetic, humoristic, have a lot of creative problem-solving skills, and have a tremendous inner drive to explore and create (e.g. (Althuizen, de Boer, & van Kordelaar, 2015; Dewulf, 2015; Kieboom, 2015). Together with strong cognitive capacities gifted children are able to perform at a superior level (Daeter, 2012). Additionally, giftedness is a flexible and a dynamic developmental process that can be hindered or enhanced by environmental catalysts (Kooijman-van Thiel, 2008; Mönks & Ypenburg, 1995). Thus, many models emphasize the positive influence of an encouraging and a supportive environment that enables true talents and high achievements to be exposed. The opposite is

also true, a less encouraging support system does not stimulate high potential, it might even foster underachievement. It should also be noted, that the child's constructive personality traits play a crucial role in revealing their full potential.

However, the above-mentioned crucial indicators of giftedness are often not adequately acknowledged or are completely discarded. Simply because these items are difficult to quantify (Borland, 2005; Ledoux, Blok, Boogaard, & Krüger, 2009) and prone to subjectivity. For instance: How do you test creative problem solving skills? When does a child have a good sense of humour? What are indicators of high motivation? Or when can we speak of an above-average perseverance? etc.

So, schools stick to the elementary details of the concept; measurable performances and outcomes. Consequently, a lot of underachievers go undetected. Those students will never be assigned to specialized gifted programs to facilitate them in reaching their full potential. This is why Borland (2005) advocates gifted education without gifted students to elude difficulties of identification.

This study tries to offer a much-needed solution in the assistance of guiding underachieving students, rather than focussing on terminology or identification procedures. An adaptable framework was created by the researcher for the purpose of facilitating teachers in guiding underachieving gifted students. This framework is called the Full Potential Growth-model [FPG-model] and focuses on basic prerequisites of teachers' competencies that promote talent and excellence, without overburdening teachers.

2.1 Problem Analysis - Three probable causes of underachievement

To tackle underachievement one needs to understand the probable underlying causes. This thesis will discuss three presumptions. The first factor is **the discrepancy in theory and practice**. Despite of all the theoretical input, actually implementing theory correctly, is a difficult hurdle to overcome (Glasgow, Lichtenstein, & Marcus, 2003; Korthagen, 2012; Korthagen & Kessels, 1999; Nuthall, 2004). For instance, the theory of Data Driven Education [DDE] (Dutch: Opbrengstgericht onderwijs) suggests that schools enhance the quality of their education by looking at the progress children make. By doing so, academic achievements of students are monitored, analysed and improved, as well as, gained successes are secured. Though, when DDE is put into practice, it is done superficially and less thorough than is suggested by experts (Ledoux, Blok, Veen, Elshof, & Dikkers, 2015). To illustrate, Ledoux and colleagues (2015) found that teachers put a strong emphasis just on language and maths scores, ignoring other subjects, like i.e. history, geography, science and arts. Subjects in

which precisely gifted underachieving students could show their broad general knowledge or vast specialized expertise.

And although, there is ample attention for collecting and registering data with DDE, there is less consideration for the analyses or drawing up proper conclusions upon them, omitting important signals of underachievement. Because test results not only reflect ability, they also indicate the level of motivation and interest of a particular student. It reflects the (poor) quality of the test, since questions could be interpreted in multiple ways. Or exam questions could simply lack complexity and provide no challenge for a gifted underachiever to outdo themselves. In other words, a low test score does not imply low or average competence or a lack of intelligence. Rather it emphasizes that scores should thoroughly be interpreted to yield valuable information for possibly adjusting learning pathways for underachieving students. In this, underachievers will be more likely to be recognized and catered for.

The second possible factor of the non-acknowledgement of talent can be ascribed to **the lacuna in the professional development of teachers** and is similar to the theory and practice gap. The main focus in professional development activities is on acquiring knowledge. And as a consequence, actual (guided) practice of new competencies is underexposed (Groenewegen, Van Deelen-Meeng, Van Hoffen, & Emans, 2014). Deliberate practice is not guided or tested within the specialized courses (Korthagen, 2012; Korthagen & Kessels, 1999). Yet, undoubtedly, new skills, especially those complex teaching strategies that enable for differentiation (Inspectie van het Onderwijs, 2012; Inspectie van het onderwijs, 2017), need to be strongly instilled by explicit practice over a longer period of time. Particularly, in order to be beneficial and sustainable under (time) pressure (Inspectie van het onderwijs, 2017). Hence, it is uncertain, to what extent the training yields sustainable success in the actual practice of teachers in the guidance of gifted underachievers (Goei & Kleijnen, 2009; F. Korthagen, 2012; Van Veen, Zwart, Meirink, & Verloop, 2010).

Subsequently, a majority of the primary school teachers, about 60%, do not demonstrate the important complex skills needed for differentiation and promoting excellence (Inspectie van het Onderwijs, 2012). In secondary education, HAVO and VWO teachers, who cater for the more able students, less than 30% portray those imperative complex competencies. So, on average, more than half of all educators are not able to cater for the variety of needs of students (Inspectie van het onderwijs, 2012; Groenewegen et al., 2014). Let alone, adequately facilitate the underachieving gifted children.

Last, but not least, the third probable cause of underachievement, demotivation and

lack of attachment in schools of the gifted is **the performance goals orientation** (Pintrich, 2000). This performance goals orientation [PGO] draws on the principle of accomplishments and comparing ability to others within a norm group (Pintrich, 2000; Minnaert, 2015). Visser and Kusters (2017) mention that schools continually check students' academic achievements and promote excellent performances. In this, schools work hard to maintain their excellent status, and offer special honours programs to challenge their gifted students. When a student is happy to work hard in these programs, and is successful, he/she experiences, what Visser and Kusters (2017) call, *positive performance pain*. In these circumstances a PGO is beneficial for students' academic self-concept ("*I am performing far above the level of my peers, I must be doing well*").

On the other hand, it reinforces the constant need to meet high standards. When students are no longer able to meet these expectations, or when they feel the fear of missing out, it leads to a large amount of stress, and students experience *negative performance pain* (Visser & Kusters, 2017). Gifted students, in particular, are potentially at greater risk of suffering from negative performance pain, because they regularly feel pressured to constantly deliver exceptional work (Freeman, 2006; Minnaert, 2015). When those students are faced with setbacks and failure, it has detrimental effects on their academic self-concept. Then, gifted underachievers feel inferior, and it leads to anxiety, avoidance, ineffective learning strategies, causal external attribution and eventually lower grades (Pintrich, 2000; Minnaert, 2015). It alters their self-concept; *"Apparently, I am not so gifted after all.*" Or "*I am incompetent*."

Contradictorily, not all schools have the means to facilitate academic excellence in specialized classes. Some are more conservative and are characterized by the traditional age grouping system (in Dutch: jaarklassensysteem) where children are placed according to birth year and are regularly compared against an age norm group. Generally, those schools work with various methods for language, reading, writing, maths, but also for history, geography, music and social emotional programs. Those methods are based on the general learning objectives (Dutch: Kerndoelen) and start with the average-level in mind. According to Laevers (Heijmans, 2014) working with these general learning objectives is an expression of the old paradigm. He states that these objectives never touch the deeper layers of development and are fairly randomly linked to school years. Although, this approach might suit the average students, it thwarts gifted students trying to accelerate the curriculum at their own pace (Heijmans, 2014; Mooij, 2013; Mooij, 2014). Grade-skipping, advanced acceleration, or individual learning trajectories for the gifted are still not fully accepted (Rimm & Lovance,

2004), or even feared (Borland, 2005; Colangelo, Assouline, & Gross, 2004). Yet, those forms of differentiation allow for excellency and promotes high achievements. And as a consequence, the most able students are held back in their development due to the fear of widening the gap between classmates even further (Mooij, 2013).

2.2 Rationale behind the FPG-model – Overcoming underachievement

As indicated in the previous section focussing solely on performances is not always beneficial to the gifted underachiever. Neither is working from an average baseline in a more traditional educational setting.

In this study the researcher believes that the lacuna in professionalization increases the discrepancy in theory and practice, which fosters a PGO. This because the theory of giftedness is often, by lack of expertise or out of practical reasons, reduced to a one-dimensional operationalization of IQ-scores (above 130) and/or high academic achievements. In conformity to the more recent theoretical models, it is better to have a holistic view on giftedness. Acknowledging specific characteristics like motivation, openness to new experiences, creativity and a wide variety of interests. Above all, conditional factors, like a supportive environment and constructive coping mechanisms of the gifted child, determine whether potential giftedness is translated into academic success (Bakx, 2019). With that in mind, a literature research generated important building blocks to facilitate gifted high potentials and minimize underachievement. These findings were used by the researcher to assist teachers with *Passend Onderwijs* and overcome gifted underachievement by creating the Full Potential Growth [FPG]-model (see figure 5).

The primary focus of the FPG-model lies with the professionalization of teachers' fundamental attributes, which will enable a holistic and broad perspective towards giftedness and underachievement. Essentially, with the implementation of the FPG-model professional development [PD] of teachers is organized in a mixed PD approach, that consists of a combination of traditional theoretical input and practical (guided) practice on the work floor. Plus, emphasizing a Mastery Goals Orientation [**MGO**] in a need-based setting. This in order **to reduce the discrepancy in theory and practice** and **decrease the lacuna in professionalization** by taking into account the diversity of teachers' contexts and catering for underachieving students' individual needs.

Within the FPG-model a teacher is seen as a reflective practitioner that learns from, collaborates with and gets inspired by (educational) partners and resources (as symbolized in figure 1). A teacher is part of a team and a larger organization. Strong synergy between the

three components, seen in figure 1, enable underachievers to benefit from the shared knowledge and team reflexivity. That is why, it is logical to invest in team-learning in addition to traditional external professionalization, because it facilitates and reinforces individual, school and organizational development simultaneously (Decuyper, Dochy, & Van den Bossche, 2010).

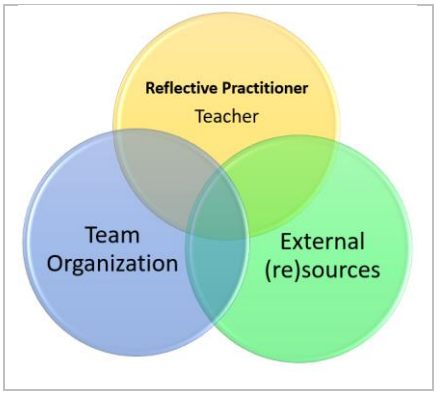


Figure 1:
Venn diagram mixed professionalization

Individual and team learning is done, as shown in figure 2, through basic team learning processes, like sharing, co-construction and constructive conflicts. In addition boundary crossing (benchmarking and collaboration with external experts), team reflexivity (double loop learning) and team activity (implicitly learning throughout team activities) create shared responsibility over the wellbeing and academic achievements of gifted underachievers.

In mixed PD activities, as promoted by the FPG-model, teacher teams will seek and receive theoretical and practical input that they put into practice and then, collaboratively, evaluate the process and obtained results. To guarantee optimal learning within a team, and enhance the performances of gifted underachieving students, an effective quality control policy is essential. Therefore, with the implementation of the FPG-model, attention for drawing up conclusions, interpreting and weighing results up to generate new hypotheses, are of crucial essence in the continuous learning cycle of teachers and students.

Moreover, the output gained from the team-learning is cyclical fed back into the PD-system as input for a new learning cycle (Decuyper et al., 2010). Allowing teams not only to register the learning output, but also use the output in future development.

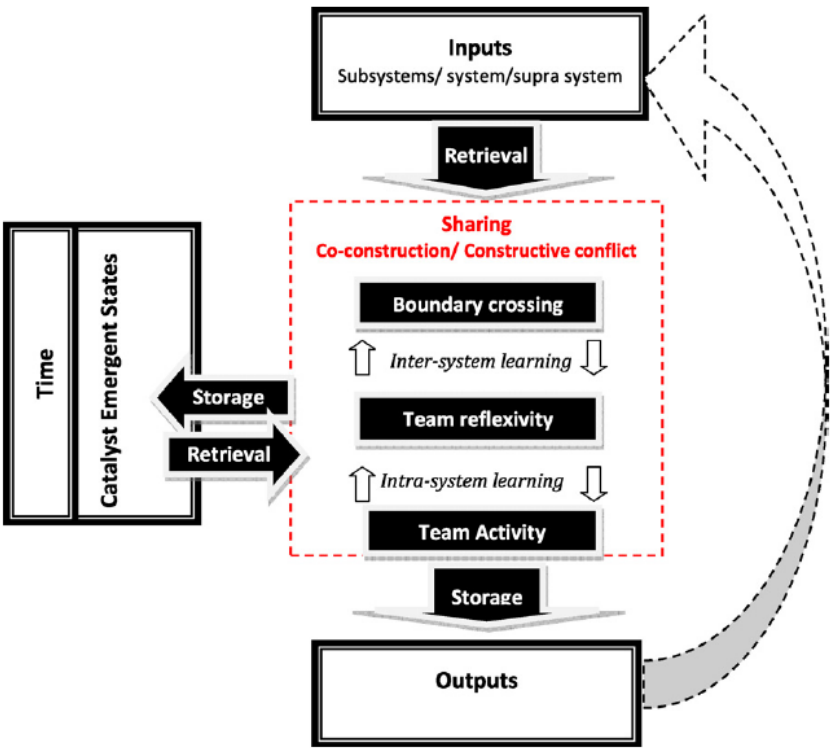


Figure 2:
Integrative systemic model for team learning (Decuyper et al., 2010, p. 115)

And so, with the use of the FPG-model, school teams share the responsibility of helping underachieving students, using students' input concerning their educational needs and desires in a collaborative support system of colleagues and the students' environment (see figure 3). PD is then placed in- and outside the school environment mixed with internal and external input. Yet again, when there is a symbiosis between the underachieving child, the school and their environment, it is more likely that the true potential value of the child is recognized and utilized.

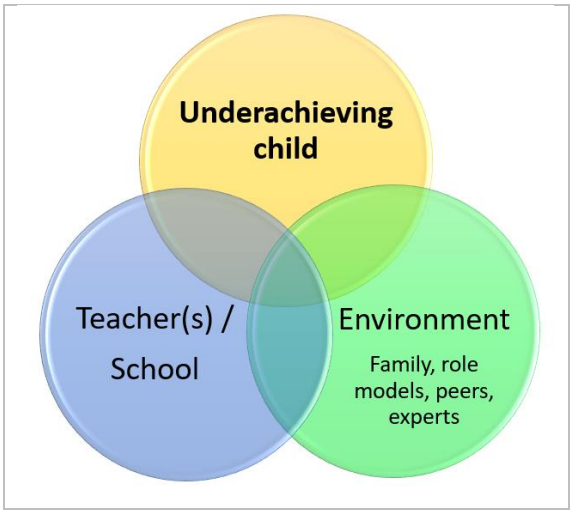


Figure 3:
Venn diagram collaboration support system

Furthermore, when PD is placed in the daily contexts of teachers, it enables teachers to use embedded professionalization to practise with authentic examples from their daily practice. So PD becomes more meaningful to them. Subsequently, *reflection* and *enactment* occurs upon items from the **personal** domain (teacher's knowledge, beliefs and attitude), the domain of **practice** (the professional experimentation in the classroom), the **external** domain (input of others; deprivatised practice, training, literature, etc.) and the domain of **consequence** (the outcomes salient to the teacher). During the enactment process the teacher applies new insights and acts consciously, thoughtfully and well-reasoned (Clarke & Hollingsworth, 2002) which is in conformity with the principles of the FPG-model. Herein, the teacher's professional growth is determined by a constant process of attunement and consideration. Resultantly, decreasing the theory and practice gap and allowing for a holistic view of a gifted underachieving student. This way of PD will positively impact their pedagogical knowledge and practices in dealing with underachievement (OECD, 2015) and thus positively affect underachieving students.

The way in which educators are professionalized is cyclic, in collaboration, and attuned to the learners needs. The FPG-model, therefore, advises educators to have a Mastery Goal Orientation [MGO] and a growth mindset. It dissolves the need to identify or label students, directly minimizing the theory and practice gap in regard to identification processes. Furthermore, a needs-based approach assesses students' risks and protective factors, like strengths and weaknesses, to provide preventative information on how to set out an appropriate and challenging learning pathway (Burger-Veltmeijer & Minnaert, 2011), rather than looking at achievements and remediation. This not only holds for the gifted underachieving student, but also applies to the teacher and school team; what does an individual teacher or school team need to adequately facilitate gifted students to help them perform again?

With the FPG-model the teacher, the student and its environment are important contributors of the learning process of the underachieving gifted child, as depicted in figure 2. By working collaboratively everybody contributes to the learning trajectory of the gifted underachieving student, rather than solely looking at the (lack of) performances. In order to make good use of the cognitive capital of young (underachieving) potentials, it is important to strengthen the STR by validating and understanding the student's situation, empowering student's motivation to learn again, and providing trust and opportunity to let the student take ownership over its personal learning trajectory.

To minimize underachievement a good functioning support system can positively influence the significant environmental factors, as well as the characteristics of the underachieving gifted child (the personality traits, coping mechanisms, talents and motivation) by providing appropriate and tailor-made guidance through Triple Feed (Feed up, back and forward). The natural factors (cognitive aptitudes and capabilities of the child) are fostered by a positive and preventative approach, allowing for maturation and growth.

Underachievers tend to drop out when they experience a lack of autonomy (Miserandino, 1996), therefore, within the FPG-model, students are encouraged to take part in the decision making process of their learning pathways, giving them more sense of autonomy (Stroet, Opdenakker, & Minnaert, 2013). Simultaneously, the intrinsic motivation of underachieving students increases when learning suits their interests (Garn & Jolly, 2014). When teachers provide trust and empathy, the STR becomes stronger and has positive effects on the motivation and academic achievements of children (Garn, Matthews, & Jolly, 2010; Garn & Jolly, 2014; Roorda, Koomen, Spilt, & Oort, 2011).

Below, figure 4 illustrates the rationale behind the FPG-model to counteract upon the three probable causes of underachievement and stimulate high potentials.

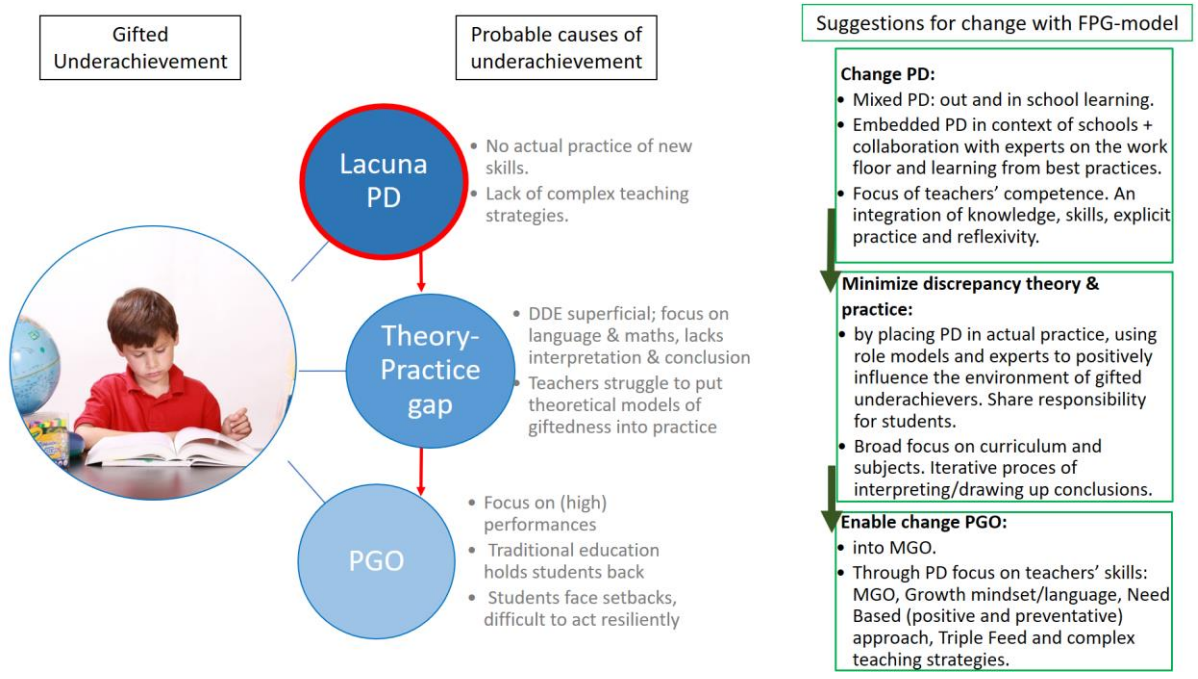


Figure 4:
Conceptual model of the three probable causes of underachievement and the suggestions for change through professionalization of teachers

The FPG-model uses a metaphor of a small barn (child's supportive environment) next to a tree (the child) to symbolise the underachieving gifted student. Illustrative, the magnitude of a child's potential is affected by both natural determinants (*the tree* – genes, aptitude) and nurturing factors (*the roots and the surroundings* – upbringing, education). The barn holds specific supportive traits that teachers use to assist underachieving children in their maturation process and helps them utilize their full potential.

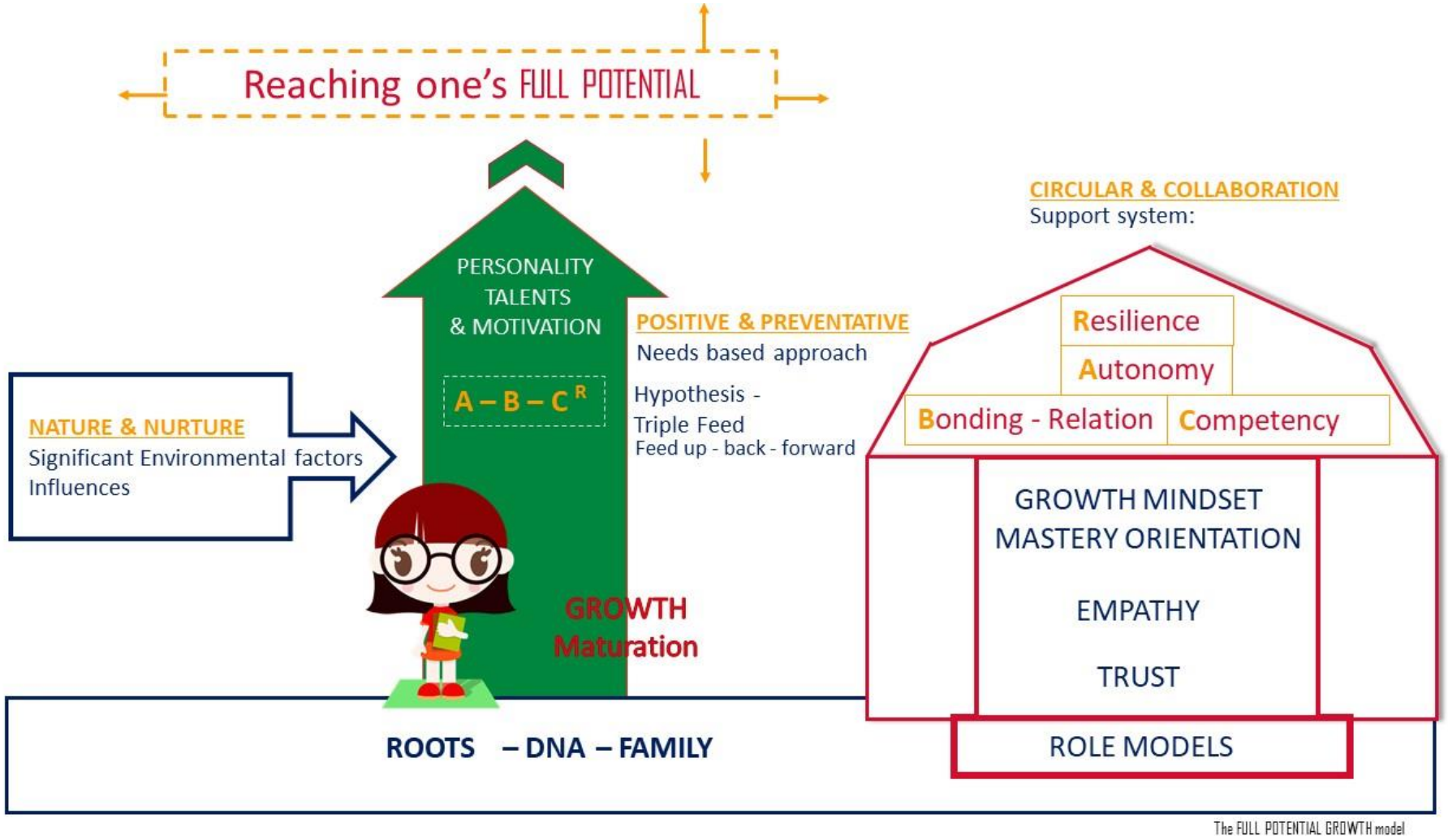
The barn provides educators (and parents) the necessary applied suggestions to translate the concept of giftedness into concrete actions based on talent development-orientated views. The didactical and pedagogical actions are constantly construed with the **basic features of the FPG-model** in mind:

- Growth mindset and a mastery orientation;
- Empathy;
- Trust;
- Role models;
- the A-B-C^R components (**A**utonomy, **B**onding/relatedness, **C**ompetence (Ryan & Deci, 2000) and **R**esilience (Bernard, 1995; Cassidy, 2015);
- Positive and preventative approach;
- Circular approach and collaboration

Derived from the above-mentioned **main features** of the model (see figure 5), the FPG-model also distinguishes **practical suggestions** that can be applied in classrooms ("*items of applications*" given in appendix H). An explanation of the features and the items of applications were presented in a video, narrated in Dutch, to participants of this study (https://www.youtube.com/watch?v=hItKSIRYTfU).

Figure 5:

The Full Potential Growth-model



2.2.1 The main features of the support system of the FPG-model

In order to reduce the **discrepancy in theory and practice** a pivotal point in the use of the FPG-model is that teachers **stop identifying** the gifted in a dichotomous manner and sparsely use the term giftedness. Simply, because selecting and identifying the gifted according to theory is a difficult task (Gilman, Lovecky, Kearney, Peters, Wasserman, Silverman, Rimm, 2013; Bloemink, 2018). Hence, the FPG-model encourages professionals to stay open-minded for potential talent to be exposed at any time and not make inferences based on incidental test results alone (Borland, 2005).

The initial focus of the model is to work on personality, talents and motivation of the underachieving child first, rather than straightaway attending to the cognitive developmental needs. Because emotional wellbeing and neurocognitive functions play an essential role in improving school achievement and reducing underachievement (Van Batenburg-Eddes & Jolles, 2013). So, in order to learn, students must feel safe and acknowledged. A prerequisite of the FPG-model is that the fundamental attitude of teachers is focussed on **providing trust, showing empathy and compassion** to facilitate the underachiever.

The social component of teachers' professional behaviour takes a big part in dealing with underachievement (Baker, Bridger, & Evans, 1998) in the FPG-model. Particularly, because gifted students, in contrast to regular students, attach greater importance to the pedagogical and interpersonal competencies in teachers, than that over the didactical competencies (De Boer, 2011; Ledoux, 2016). Teachers, however, erroneously think that didactical skills are of crucial importance to those children (Roiha, 2014). Gaining insight into the professional behaviour of teachers is the basic principle of the PD-activities by the means of the FPG-model.

Subsequently, the model is based on **relatedness** and feeling connected with others, because many underachievers have lost this connection. Relatedness is a basic psychological need that facilitates learning (Fullan, 2015; Ryan & Deci, 2000). Likewise, when teachers share and collaborate with others, and utilize this newly acquired knowledge in their practice, professionalization has a big chance to be effective (Doppenberg, 2012; Van Veen et al., 2010), but also stimulates the feeling of relatedness within the teachers themselves, too.

Similarly, important **role models** and good examples are important to gifted learners (Bland, Sowa, & Callahan, 1994; Cruess, Cruess, & Steinert, 2008). Especially underachieving children benefit and learn from careful modelling. Namely, because it induces trust, meaningful learning and empowers the ACB^R of underachieving students; Autonomy-

Bonding/relatedness-Competence [Resilience]. And so, great role models help restore the self-image of underachievers, and helps them achieve excellence again (Grassinger, Porath, & Ziegler, 2010; Zuo & Tao, 2001).

The basic features of the model allow for a **positive and inquiry based approach** that leads to more awareness of the inner world of the underachieving child. As mentioned earlier, this initial groundwork is a prerequisite before one can work on academic success. Therefore, the fundamental teachers' attributes take centre stage to diminish underachievement. By focussing on these elementary attributes of teachers and addressing the specific psychological needs of underachieving students, one shifts the attention away from the theoretical, yet difficult to quantify, characteristics of potential gifted students. With this, one bypasses the challenging identification procedures, it evades the lack of theoretical expertise in giftedness and/or underachievement among teachers, and it helps minimize the perceived performance pain among potential gifted children. Thus, narrowing the gap between theory and practice.

2.2.2 Bridging the lacuna in professional development of teachers

The lacuna in the professional development [PD] can be supplemented with activities that improve teaching skills of educators and by coaching on the job. Importantly, it is not the intention of the FPG-framework to omit traditional forms of PD. On the contrary, traditional education has gained great success on the theoretical part of giftedness. Therefore, a mixed PD-approach, where formal education is combined with informal learning practices, merges the best of both worlds. In other words, new knowledge is given through traditional (formal) education, combined with informal, **hands-on and personalized, professional development activities**, like coaching on the job, video interactive guidance, co-teaching, inter- and supervision, and collegial consultations.

This mixed approach fills the lacuna in PD of teachers, because **collaboration** and joint effort in PD creates greater intrinsic motivation in participants. It shifts the perspective from master > mate > apprentice of traditional education to a multiple-shared responsibility in practical and informal professionalization. This means that, within the FPG-model, the notion of 'the teacher is holder of all knowledge' must be abandoned (VanTassel-Baska & Stambaugh, 2005). In accordance with literature (Fullan, 2015; Groothengel, 2016; Voorwinden, 2015), the FPG-model believes that teaching staff who collaborate and display collegial learning, make better decisions on qualitative education, over that of teams that do not show this **reciprocal shared responsibility** about students' results. Eventually this leads to better results and thus minimizes underachievement. On top of that, collaboration helps

minimize the workload (Roiha, 2014) and reduces work related stress among teachers.

In order to facilitate differentiation and help underachievers within *Passend Onderwijs* some attention needs to go to the **explicit practise of the complex teaching strategies**. The Dutch Inspectorate of Education distinguishes complex skills as being able to systematically and adaptively analyse, monitor, attune and guide children (Inspectie van het Onderwijs, 2013). Once educators show these imperative skills in their daily practice, the quality of education will be enhanced. Teachers then become better equipped to deal with the large variety of students in their classrooms, and are able to adjust learning pathways for gifted underachievers and help them to perform or to excel again.

However, Goei and Kleijnen (2009), like Guarra and Wubbena (2017) indicate that teachers are often not aware of their active role in the origin or the maintenance of problematic behaviour of an underachieving child. They tend to minimize their involvement as a contributor and rather attribute problem behaviour of the child externally. So, **awareness** of their role in the transactional relationships with underachievers, is the first step in PD in creating stronger relationships, and a starting point for making new plans to head for change. For this to happen, the FPG-model advises, similar to Hofstetter and Bijstra (2014), a communal PD (team-effort) on how to cater for the special educational needs of students, in a formal and informal way. Through this, educators are able to see their involvement in the maintenance or abandonment of problematic behaviour more clearly in their daily practice, and are able to change their conduct with the help of others.

Furthermore, similarly to co-teaching (Cook & Friend, 1995) the direct input from an expert on the job helps detect individual pitfalls, blind spots and (un)conscious incompetencies within a safe and familiar environment. Or at least, they are perceived as less stressful or distant in comparison to the input and feedback from the more traditional formal education. Correspondingly, **guided practice and coaching on the work floor** is a useful instrument to facilitate transfer of knowledge (Van der Steeg et al., 2011). Directly minimizing the gap between theory and practice and simultaneously enhancing students' performances. Even more so, professional development activities on the work floor can be tailor-made to the specific (training) needs of teachers and their particular practice. Leading to the implementation of sustainable professional behaviour over time (Van der Steeg et al., 2011; Onderwijscoöperatie, 2016).

In the FPG-model, students, parents, teaching staff and external professionals form **a close cooperation**. In that, mutual effort lead to better communication, stronger connections and greater understanding of each other's perspectives (Fullan, 2015). Not only will this

enhance satisfaction rates for the school and its supportive guidance of children (Ledoux, 2016), it will also improve academic results among gifted underachievers (Fullan, 2015; Hattie, 2015). As an essential first step for underachievers is to trust their teacher and enjoy going to school, again. This implies that the student and its environment are actively involved in, and are part of the learning process.

As it takes on a **communal approach**, PD-experts should also view participants (aka educators) as active contributors of learning and achieving success. Critical comments and negative feedback should always be taken seriously and addressed appropriately (Pameijer & Van Beukering, 2015). Because this pivotal information could mean the difference between success and failure of the implementation process.

2.2.3 From a performance goals orientation to a mastery goals orientation

The FPG-model aspires to have educational professionals deviate from the current performance view to **a mastery goals orientation**. In this, educators maintain a growth mindset (Cimpian, Arce, Markman, & Dweck, 2007; Tomlinson, 2015) and use appropriate made-to-measure feedforward (Hattie, 2015; Minnaert, 2015; Pameijer & Van Beukering, 2015) to further gifted students' development. Underachieving students, who demonstrate a discrepancy in ability and actual performances, need personalized information on their progress and connect their (lack of) actions to either success or failure on a task. According to the FPG-model, teachers give underachieving students effective feedback through **Triple Feed** (feedback, feedup and feedforward) (Hattie & Timperley, 2007; Minnaert, 2016) in order to build self-awareness, to create healthy academic self-concepts and to instill effective coping mechanisms essential in overcoming underachievement (Whitley, 2001). So, educators are advised to interpret and discuss children's individual progress with others, instead of only comparing students against a norm. This, to alleviate the stress and the performance pain, frequently seen in underachievers. Allowing students' individual growth, hard work and progress to have a more prominent place in learning of underachievers (Tomlinson, 2015). Resultantly, with this approach confidence in students is restored and creates more adaptive motivational processes, which will lead to higher academic achievements (Dawson & Guare, 2009; Dweck, 1986; Hsieh, Sullivan, & Guerra, 2007; Minnaert, 2015; Pintrich, 2000; Whitley, 2001).

Rather than only focussing on faults and weaknesses, the approach urges educational professionals to have a **positive perspective** on child development, that is focused on talents and strengths, (e.g. (Dewulf, 2015; Seligman & Csikszentmihalyi, 2000; Seligman, 2002). As

mentioned before, underachievers lack self-awareness and feel powerless over their situation. And in this, they have lost sight of their talents and capabilities. However, the FPG-model prioritizes putting strengths to good use and compensate weaknesses in the guidance of underachievers, just as is proposed by Sternberg's definition of being successfully intelligent (Sternberg, 1999).

In the same way, the pedagogical design of the model has a **preventative character**, as opposed to the current remedial teaching style. This, because it is crucial to start fostering talent as soon as possible, so that relative underachievers do not become absolute underachievers over time. And certainly, start well before ineffective coping strategies are strongly instilled in students (DeWitt, 2017).

2.2.4 Needs based approach and A-B-C-^{R} within the school curriculum

The FPG-model reckons that a norm group should not be the starting point of building **a challenging and differentiated curriculum**. Current concept schools in The Netherlands attune to this need for differentiated and personalized curriculum with units and educative ateliers (e.g. Kindcentrum De Hoven, School of Understanding, primary school De Verwondering, Kunskapsskolan Education Nederland). The model encourages schools to pursue this trend. This means schools deviate from the standard norm-grouping classes by offering **individual learning pathways** or **ability grouping/cross-sectional instruction classes** to cater for the underachieving students. In this, schools use unique talents of teachers and share the responsibility of students' development (Van Gaalen, 2017; VanTassel-Baska & Stambaugh, 2005). To add, these personalized learning trajectories, within the FPG-model, allow for mastery, more autonomy and a sense of self-determination among underachieving students (Ryan & Deci, 2000). Making learning become more meaningful for these students (Visser & Kusters, 2017) **(learning to research)**. Resulting in more intrinsically motivated students, whom are less affected by external circumstances, and who are more resilient when faced with setbacks or failures (Visser & Kusters, 2017).

Luckily, there are numerous ICT opportunities available to assist teachers with this type of differentiation (e.g. Snappet, EXOVA, Acadin, Virtual and Augmented Reality, Webquests, Gynzy, Voki, NextLab/GoLabz). Though, noteworthy, the model strongly encourages teaching staff to work on **Student Teacher Relationships** [STR], as it is a vital contributor to student engagement and school success (De Boer, 2011; Groenewegen et al., 2014; Hallinan, 2008; Pameijer & Van Beukering, 2015). Whereas technology is only intended to be supportive, not leading.

In line with the emphasis on STR, another feature of the model is the importance of a well-balanced curriculum that combines subjects with explicit attention for **intra- and interpersonal factors (learning about life)**. Because those influencing factors play such crucial role in the outcome of giftedness, motivation and resilience. Same goes with adequate attention for instilling strong executive function in underachievers (Dawson & Guare, 2009; Veenman, 2013) **(learning to learn)**. Logically, this also means that the curriculum should be adapted and tailor-made to fit the needs and learning goals of individual students. It has a strong emphasise on the **process of learning** rather than solely looking at the end result, which fits the mastery goals orientation of the previous section.

Similarly, within the model, hypothesis testing and getting to know students' needs, preferences and learning orientations provides educators insight in the appropriate instruction and learning activities required for students to succeed (Hattie, 2009; Minnaert, 2015). The FPG-model has collected some practical examples of **regular needs based evaluations** that were submitted to participants of this study for assessment (see appendix J). Through this type of individual, needs based, differentiation educators are able to appropriately cater for the underachieving gifted children at risk (Emerick, 1992).

In order to overcome the inability to produce at gifted level, resilience is of crucial importance within the FPG-model. **Resilience** is the concept of how students deal with adversity and difficulties in their academic life. It determines how well a student recuperates after stress and setbacks (Herrman, Stewart, Diaz-Granados, Berger, Jackson & Yuen,(2011). Bland, Sowa and Callahan (1994) found a large amount of literature on resilience and discovered that characteristics used to describe resilient individuals are congruous with the attributes of achieving gifted children. Distinctive typical components of **resilient gifted students** are control, accepting challenges, desire to learn, reflectiveness, commitment to self and school, and a sense of independence. Logically, it should thus be noted, that not only a contributory environment is essential for the manifestation of giftedness, also the child's constructive personality traits play a crucial role in revealing their full potential. Teaching underachievers to become more resilient, by implementing the features of the FPG-model and enhancing social cognition, will help built a healthier self-image, instil effective coping mechanisms and enable more motivation and achievement. Underachieving gifted students will experience more control and with time will increase their resilience (Van Batenburg-Eddes & Jolles, 2013) and their performances.

2.3 A summary of the FPG-model

Altogether, the FPG-model provides educational professionals a less directive and more flexible teaching approach in a mastery goals orientated program, that is communicative and aligned within a social network and with positive role models. It offers a preventative perspective on the development of children. As well as, putting emphasis on individual growth, differentiation, and personalized learning pathways to ensure talent to blossom (again).

The above-mentioned items of application do not apply to students alone, but also to the educational professionals themselves, with the same considerations towards their needs, demands and talents. By doing so, the purpose of the FPG-model is not to simply overload the educational world with yet another model. Its purpose is to offer a complementary model that emphasizes basic teachers' prerequisites, and proposes some practical suggestions, yet is flexible enough to fit the needs and the potential of all whom are involved.

2.4 Present study – Research questions

Given the fact that the FPG-framework is based on well-established theories it is interesting to see from the educators' perspective whether the FPG-model has potential to be successful in practice. Accordingly, this study is particularly interested in whether professionals recognize the stated problems (discrepancy theory & practice, lacuna in PD and negative side-effects of PGO) presented by the researcher. But also, to ask participants about their opinion concerning specific features of the FPG-model, and its perceived value.

Secondly, *Passend Onderwijs* still remains on the professional development agenda (Ledoux, 2016). This thesis wants to seize upon this professional development opportunity, by helping educators with *Passend Onderwijs* and the underachieving gifted students.

In conclusion, the answers of this present study may lead to more insight into the opinions of educational professionals, concerning the current view in education in the light of talent development. To add, it is to supplement the scant available research on underachievement of gifted students. And finally, the results can be used in enhancing PD regarding gifted education and underachievement. It might also contribute to future research into the effectiveness of the implementation of specific gifted programs, particularly concerning underachievement.

So, due to the insufficient ability to give rise to Dutch potentials (Van der Steeg et al, 2011; Dekker, 2014; School aan zet, 2012), a certain urgency drives one to seek out a well-

assorted solution. In order to do so, the following main question is addressed in this thesis:

> *Can classroom teachers be assisted with 'Passend Onderwijs' by using the Full Potential Growth-model to enhance motivation and diminish underachievement among Dutch gifted primary school students?*

Deduced from this main question the following sub questions are construed:

1. Do professionals in education recognize the problem (discrepancy theory & practice, lacuna in PD and negative side-effects of PGO) concerning underachievement and the lack of motivation in Dutch primary school students?
2. Are the practical suggestions, necessary to enhance students' motivation and talent (e.g. curriculum/resources, organisational prerequisites, available time/facilitation, professional development), given by the educational professionals, in line with the suggestions provided by the FPG-model?
3. How do the educational professionals interpret and value the features of the FPG-model? What underlying factors can be detected in the 22 items of application of the model?
4. Can individual differences between educators, in regard to the opinion and interpretations of the problem analysis, the FPG-model and its potential value, be explained by work experience, specialized training and job description/proximity to gifted children and age?
5. Do professionals think that the FPG-model is to be beneficial to facilitate talent and motivation? Do they believe the gifted would benefit more from the model than other children? Does it have the practical implications to succeed in the current educational system? What suggestions are given to ease the implementation of this model?

2.5 Differences among participants explained

Features of the FPG-model are commonly addressed by gifted specialists. It is therefore expected that, in this study, the variance in opinions could be explained by job proximity to the gifted child, and by specialized gifted training in PD. Additionally, differences can probably also be explained by the years of work experience of participants. Since it is expected that experienced educators are more receptive to the ideas of the FPG-model and its potential value in improving students' learning outcomes, than their less experienced colleagues. For the reason that, according to Gerritsen and colleagues (2014) in general teaching experience has a positive influence on students' academic achievements. Starters, on the other hand, are expected to be more conservative towards elements of the

FPG-model, while they might already be overwhelmed by the amount of work that comes with their job (Billingsley, 2004; Gerritsen, Plug, & Webbink, 2014). Let alone, dealing with a large diversity in educational needs. Juniors might therefore be less susceptible to the approach of the model.

Age, too, might have an effect on the opinion about the model in relation to work experience, proximity and professional development. For that, older educators hold more intrinsic motives towards the execution of their job, than that younger, more externally driven, colleagues, do (Kooij, 2010). An external drive fits a performance orientated school system. Whereas, intrinsically driven (older) educators might put more emphasis on growth, process and individuality, which is emphasized in the FPG-model.

Thus, the FPG-model anticipates to make custom-built PD, in the form of specialized (in)formal learning communities, that addresses particular information to specific educational groups of professionals.

3. Method

3.1 Participants

Participants were recruited through several posts on social media, i.e. Facebook and Linked-in (on personal page of researcher, as by a news-item in a '*Giftedness*-group' and as an item in a '*Passend-onderwijs*-group' (both on Linked-In)). Participants showed their 'initial willingness to participate' by commenting on the post or liking the message. After that, participants received a Linked-in connection-request, which they needed to accept, in order to receive further private correspondence about this specific study. Furthermore, additional participants, from within the professional network of the researcher, were personally invited by a direct e-mail invitation. The majority of participating participants responded through the recruitment add in the '*Giftedness*-group' on Linked-in.

After contact was confirmed, participants were informed about the purpose, aim and implications of the study in an e-mail. Before entering the online survey, participants were asked to sign the online consent form. The participants were located across the Netherlands. The data was collected between September and October 2016. All participants acted strictly on a voluntarily basis and received no incentive or reward after completion of the questionnaire. It took the participants approximately between 40 to 60 minutes to complete the full questionnaire, including the time to watch the videos.

Table 1:
Overview of the distribution of participants within the different categorical groups

Group variables (*N* = 60)	***n***
Gender	
Female	52
Male	8
Work Experience	
Junior 0-4 years	9
Experienced 5-15 years	20
Senior > 16 years	31
Proximity to the gifted	
Management	11
Teacher	14
Specialist giftedness	35
Professional development (PD) in giftedness	
None	23
Short	13
Intense	24

Initially, 71 participants took part in this study, of which, 2 entries were deemed unusable, due to the selection requirements (selection criteria: a) ≥ 18 years; b) work experience in education, and; c) not ≥ 4 years absent from the educational sector). For the present study 69 educational professionals (11 male, 58 female) served as participants. Of which, about 90% of participants completed the majority of the survey questions (70% or more questions were filled in). The other 9 partial participants (10%) were excluded from the survey. Consequently, 60 useable data entries (8 male, 52 female) remained.

The participants varied across four domains, namely age, work-experience, job description/proximity to the gifted and expertise in giftedness through specialized PD.

The ages of participants ranged from 23 years old to 67 years, with a mean age of 45 years (*SD* = 11). The years of **work experience** ranked from junior (0-4 years), experienced (5-15 years) and senior (16 years and up). Respectively, the junior group was the smallest (9 participants, 15%), whereas the experienced group counted for 33% of the total participants (20 participants), and the senior group was the largest group with 31 participants (52%). Within the senior category, 2 participants were recently (less than 4 years) retired from the educational sector. A large majority of all the participants currently work in education. The other 11 participants, who did not work in education at the moment, either work indirectly for the educational sector (as a counsellor, advisor or trainer of teachers) (8 persons), or had recently (less than 4 years) stopped working in the educational sector (3 persons).

Participants were also assigned to classifications concerning the **proximity** in which they worked with gifted students. On a scale of proximity to the gifted, the management-

group was presumed to have less contact with gifted children, than the group of specialized experts. It is important to note, that 36 participants indicated that they had multiple tasks covered in their job description (up to four different tasks/functions). Half of those participants said to have two functions, namely regular classroom teacher and teacher of the gifted. About a third, primarily coaches, indicated to have three job titles. Two people said to have four tasks assigned to them. In case of dual tasks overlapping between the indicated job categories, the highest rank outweighed the other. For example, a regular classroom teacher and a coach of the gifted was then assigned to the highest category, in this case the gifted specialist category, would overrule the teacher category. The job descriptions were distinguished into three categories from low to high proximity, videlicet a) management/educationalist/regular coach – 11 participants; b) teacher (primary and/or secondary school)/pedagogical adviser – 14 participants; c) gifted specialist/teacher of gifted class/coach gifted/psychologist/remedial educationalist – 35 participants.

About 22% of the participants (13 individuals) had followed some short term **PD in giftedness** (either individually or collaboratively with his/her school colleagues, duration of less than a year). Forty percent of the participants (24 people) had attended an intensive PD-program in giftedness (≥ 1 year of post-bachelor/post-academic course) and could be classified as experts in the field of giftedness. About 38% of the professionals (23 participants) indicated that they had never received any formal training in regards to the topic giftedness and could be classified as untrained in the matter.

3.2 Instrument

An online survey was created in Qualtrics. Questions were based on an extensive literature research into giftedness and underachievement. The survey was pretested by six professionals before emitting it to the participants. Five of those professionals worked in education. One person of the test panel was not employed in the educational sector. As a layman, he could interpret the model and questionnaire on clarity and general understanding. The professionals' advice was integrated and used to fine tune the survey.

The survey (see Appendix H) was distributed across four sections that each measured specific parts of this thesis.

Section 1 – Consent & Demographics

This section contained the informed consent form and collected demographic information. It included six questions that covered general information about background

variables: gender, age, employment in education, job description, work experience in education and amount of professional development in giftedness.

Section 2 – Problem Analysis

To ensure that participants commenced from the same starting point, as well as, establishing common language, participants watched an instructional video (5.45 minutes) before answering the questions. The video refers to the problems ascribed to underachievement and demotivation given by the researcher (links to videos, see appendix H).

The first question contained eight statements, of which participants were asked to what extent they agreed with the problems as provided by the researcher (on a 5-point scale + a *n.a.*-option) in relation to underachievement in gifted students. The items were related to the theory and practice gap (2 statements), the performance goals orientation (4 statements), and professional development (PD) (2 statements). The statements were along the lines: "*The performance goals orientation draws too much attention to obvious achievements.*" And: "*With PD there is ample room for theories on giftedness, but rarely attention is given to the translation of these theories into practice*." With a Cronbach's α of .77 the eight items were deemed reliable to measure the same construct (the problem analysis).

The second question asked participants in a dichotomous way (yes – not (hardly) necessary) whether they believed a change/adaptation, in their opinion, is necessary nowadays to minimize underachievement and lack of motivation in classes. People were also asked to provide possible suggestions in case a change was needed.

Section 3 – Features of the FPG-model

This section commenced with another video of 4.28 minutes created by the researcher. The video included information about the main features of the FPG-model (Growth mindset/mastery goals orientation, trust, empathy, role models, A-B-C^R , positive and preventative approach, and circular collaboration) and forms of application (22 selected items, e.g. needs based assessment, focus on process, individual learning trajectories, differentiation, balance between cognition, flexible cognition and personality traits, coaching on the workfloor, self-assessment teachers, etc.).

At first, participants rated 22 items of application of the model on a 4-point scale, to indicate how much they value particular items. To illustrate, a selection of rated items is given here: "*omitting the dichotomous identification process, the preventative approach, needs based assessment, working with individual learning trajectories, collaboration, explicit practice of complex teaching skills, coaching on the job*". All items were related to the

suggestions provided by literature regarding talent development, growth mindset, appropriate feedback, circular approach, coaching on the spot, and so forth.

Consecutively, in the two open-ended questions of this section, participants were asked to either remove or add items on the list.

In the **final, fourth, section** – **Implications** of the survey a third video was embedded. The video elaborated on the possible implications of the use of the FPG-model in practice (4.09 minutes), correspondingly to the information given in paragraph 1.4. The participants were given an overview of suggested examples, compiled by the researcher based on the literature review (see appendix J), for evaluation and feedback. Participants indicated suggestions to be (un)familiar, (in)concrete, (im)practical, and/or otherwise. Additionally, participants were encouraged to provide suggestions of their own.

With a Likert type question (5-point scale) the participants also rated nine statements on the potential value of the model, if it is to be implemented into practice. The nine statements were equally divided into three categories: potential value for the gifted students, potential value for all students (regular/not-gifted), and potential value for the school. The statements on the potential value for the students (the gifted and the not gifted children) were as followed: "*The FPG-model will enhance performance. …will minimize demotivation. …will facilitate guidance*.". The three remaining statements asked about the potential value of the model for the school and teachers: "*The FPG-model will help me become a better teacher. …will cause for an enhancement of the quality of teaching staff. …has potential to be implemented in schools*".

A total score of all nine statements were calculated into an "Overall score of the potential value of the model" by calculating a sum score of the nine statements. Three separate variables were taken from this overall score, by adding up the scores of the three specific statements per category. Resulting in the following variables: potential value for the gifted students, potential value for all children, potential value for the school/teachers, with respectively the following Cronbach's alpha's .87, .90 and .79. This "overall potential value"-variable had a Cronbach's $\alpha = .93$.

At the end of the questionnaire participants completed the sentence: "*The FPG-model is…"*. This open question provided participants the opportunity to freely express, in their own words, their opinion and interpretation of the model.

Finally, participants could indicate if they wanted to be kept informed about future developments of this study and the FPG-model by providing their contact details.

3.3 Measures

The obtained quantitative data was directly imported from Qualitrics into IBM SPSS (version 24). The raw data was assigned to a numeric values system. **For section 1 – Consent & Demographics** the demographic variables of participants, concerning the categorical Independent Variables [IV] work experience, job proximity to the gifted, and PD on giftedness, were each assigned into three levels. The higher the score (max. 3 points) the closer the participant was related to the gifted, or had more work experienced, or was higher educated on the topic of giftedness. The lowest score (1 point) indicated lower levels of direct involvement with the gifted (e.g. management-level, no specific training and less than 5 year work experience). Two points were assigned to those participants, who fell into the average categories (for example, regular classroom teachers, short term PD and 5-15 years of experience).

For section 2 - Problem Analysis the raw data of the Likert scale statements were given new values in SPSS in order to be processed across the Dependent Variables [DV]. The *n.a.*-option got 1 point assigned to it in SPSS, *absolutely disagree* 2 points, *disagree* 3 points, 4 points for *somewhat (dis)agree*, 5 points *agree* and the maximum 6 points was appointed to *absolutely agree*-option. Total scores of the 8 statements were then calculated per participant by adding up all 8 scores into one Problem Analysis-DV.

The answers in the additional comment box were not processed in SPSS, but in NVivo Pro 11 of QSR International. The open ended answers and comment boxes were categorized according to the 'organized shoe box-method' (Harinck, 2014). This method entails that the researcher searches for group headings in the data. Initially, all answers were openly coded. In a second run of analysing the answers, categories were compared against each other to find underlying concepts through axial coding (Baarda et al., 2013; Bazeley & Jackson, 2013). Then group headings were placed in order of magnitude. The categorization results are displayed in separate tables in appendix I.

The dichotomous question of section 2, where participants indicated whether a change in education was necessary in order to overcome underachievement and demotivation in schools, was converted in SPSS as followed: *no / hardly necessary* was awarded with 1 point, *yes*-answers got 2 points. The suggestions for change (from the open comment box) were categorized in NVivo.

The perceived value of the main aspects of the FPG-model in **section 3 – Features of the FPG-model** were calculated as followed; a *full disagreement (flop*) on a particular item

corresponded with a 1-value in SPSS, a 2 accounted for a *lesser flop*, 3 points for a *lesser top*, and a 4 indicated a *top*-score (*full agreement)*. Initially, this question had a 5-point design, but experts in the pilot test suggested to change it to a 4-point version, in order to steer away from possible golden mean answers. Through this, participants were forced to rank either positive, positively neutral, negatively neutral or negative. By using this even ranking system, it was presumed that the results would lead to better discriminative outcomes of particular items, and thence, would be more to the model and in future PD-activities. Whereas, the other multiple-choice ratings in the questionnaire remained on a 5-point scale, because these outcomes were intended to be more informative, and so, the middle option of the 5-tier range was to indicate an average level, e.g. *somewhat agree*, *slightly/average visible*, *fairly recognizable*.

After assigning values in SPSS, total scores per participant were calculated into the Main Aspects of the model-score, simply by adding all the individual 22 scores into this new variable.

The data from **section 4** – **Implications** about the given examples were processed in SPSS as individual variables (*(un)familiar, (in)concrete, (im)practical, and/or otherwise*). The "otherwise"-option was categorized in NVivo by putting them into categories.

In SPSS the question on the potential value of the model was given value 1 for the *n.a.*-option, *absolutely disagree* 2, *disagree* value 3, 4 points for *somewhat (dis)agree*, 5 points *agree* and the maximum value of 6 was appointed to *absolutely agree*-option. Then total scores were computed for each variable (potential gifted-DV, potential all children-DV, potential school-DV) by adding the scores of the three statements per category (gifted, all children, school), and by adding up all the nine scores into an Overall potential score-DV.

The answers of the complete-the-sentence-question were collected and organized in NVivo by putting similar answers together, creating specific categories.

3.4 Statistical Analyses

Preliminary analyses were performed to ensure assumptions for the tests were met. Including normally distributed data (Shapiro-Wilk Test, histograms, Q&Q-plots, outliers), independence, linearity of regression (scatterplots), homogeneity of variances (Levene's Tests), and homogeneity of regression slopes (ANCOVA including interaction effects). The results section will only mention these checked values in case assumptions were violated. Overall, an alpha level of significance was set at .05.

Overall, data was fairly normally distributed, though some skewness and kurtosis was detected. As the sample size was relatively small ($N = 60$) and of unequal sizes (see table 1), it

was difficult to interpret the normality only by the means of graphics, therefore the Shapiro-Wilk tests were a decisive factor.

Parametric tests require data to be on an interval level. Though, there is some debate about Likert scales to be treated as ordinal or interval measures (Field, 2009). However, parametric tests are sufficiently robust to violations of normality when analysing Likert scale responses (Sullivan & Artino, 2013). Similarly, due to the very small sample size ($N = 60$) caution is recommended with the analysis of the Factor Analysis results.

For sections 2, 3 and 4 multiple statistical analyses were carried out. The categorical IV's from **section 1 – consent & demographics** were used in some of these analyses (work experience, job proximity to the gifted, and PD on giftedness).

For **section 2 – Problem Analysis** an ANCOVA was computed to assess mean differences in the Problem Analysis-score across the different levels of the three categorical IV's. To make valid inferences about the possible effects IV's might have on the opinion towards the stated problems given by the researcher (and the other DV's investigated in this thesis), the influence of age was controlled for by using it as a covariate. In that, an older person is more likely to have more work experience and knowledge about teaching, in comparison to their younger counterparts. Therefore, potentially, causing this older person to outperform (aka score higher than) the younger, less experienced, participants on the DV's. This puts the reliability of the inferences of this thesis at risk. To control for this risk and to make sure that possible effects were not unexpectedly influenced by 'age', the covariate was used.

In **section 3 – Features of the FPG-model** the Main Aspects of the model-DV was analysed by an ANCOVA across the different levels of IV's. Meanwhile, checking for the effects 'age' on the DV. Furthermore, an explorative Factor Analysis (Principal Axis Factoring) was conducted, in order to make qualitatively determinations on whether items of the FPG-model would strongly load together in factors. In that, particular constructs could be detected among the 22 main aspects of the FPG-model and, of which could be taught in themed PD activities.

Initially, a paired sample t-test was considered to compare the mean scores between colleagues and participants in the execution of key elements of the FPG-model in teachers' behaviour. However, the required assumptions were not met. Instead a Wilcoxon Signed test was executed to detect whether the practical application of the main aspects of the model, differed among colleagues and the participants themselves.

The potential values of the model- DV's in **section 4 - Implications** were analysed by

multiple ANCOVA's across the different levels of IV's, whilst controlling for age, to investigate whether groups differed from one another in their perception about the potential value.

Additionally, a Wilcoxon Signed test was executed, to find out if mean differences could be detected between the potential success for gifted students against the value for all students. A paired sample t-test was initially considered, however, the required assumptions were not met. Therefore, a non-parametric test was used instead.

4. Results

This chapter provides the outcomes of the analyses of the data. The results are presented following the sections of the questionnaire (problem analysis, main aspects of the FPG-model and potential value in practice).

4.1 Problem Analysis (Section 2)

4.1.1 Recognition of the stated problems

As depicted in table 2, educational professionals (N = 60) recognized the stated problems concerning the theory and practice-gap, DDE, and professional development as part of talent development in schools (M = 38.95, SD = 4.58, range 27-48).

Table 2:
Descriptive Means and Standard Deviations on recognizing the stated problems of underachievement in education (N = 60)

	M	SD
Overall agreement on Problem Analysis (total score PA)	38.95*	4.58
Theory is often insufficiently/incorrectly executed into practice	5.12**	.72
Insufficient explicit practice on work floor in PD	5.00	.88
With DDE too much focus on absolute underachievement	4.90	.97
With DDE too much focus on language and math	4.83***	.92
With DDE too much focus on performances	4.83	.89
With DDE too much focus on obtrusive behaviour in children	4.77	.89
Education hardly provides room for talent development	4.75	1.00
In PD insufficient attention for translation of theory into practice	4.75***	1.05

Score per statement, range 2-6
* sum score of 8 statements combined, min 8 – max. 48, range 27-48;
** min. 1 – max. 6, range 3-6;
*** range 1-6

The largest score was seen in the presence of a theory and practice gap in education, followed by the limited explicit practise in PD on the work floor and the large focus of DDE on absolute underachievement, language and math, and on obvious performances and obtrusive behaviour of students.

4.1.2 Remarks about the problem analysis

Nearly one third of the participants gave additional remarks concerning the supplied problem analysis (see table 14). In total 30 references were assigned into categories, and corroborated the above mentioned results. Half of those references were directed towards professional development. Participants indicated that professional development is now mostly done on an individual level and less within team collaboration. Participants suggested, it would be better if teams were guided and facilitated with the implementation of gifted education to guarantee continuity. One remark added: "*Schools want quick and easy solutions. As a result of that, probably caused by heavy workload, it misses sustainability and great depth*." Other comments were assigned to the recognisability of the given explanations of underachievement and demotivation. For example: "*This is the reason, why I left my job as a teacher*."

4.1.3 Differences in opinion explained

Three separate one-way analysis of covariances [ANCOVA]s were conducted to determine if a statistically significant effect could be detected of the three different IV's (namely 1) job descriptions in proximity to gifted students; 2) work experience; and 3) professional development) on the scores of recognizing the stated problems of underachievement, whilst controlling for the covariate age.

Assumptions were met sufficiently, and data was fairly normally distributed. Except for the work experience category (see table 3).

At the junior level, answers were not normally distributed ($W(9) = .83$, $p = .04$). In order to double check this violation of normality, z-scores were calculated. The z-scores indicated significant skewness and kurtosis levels. Presumably due to the small number of participants in the junior category ($n = 9$) the assumption of normality of this group was violated. Despite that, the analysis was still carried out, because Levene's test for the work experience group on the problem analysis items being insignificant ($F(2,57) = .23$, $p = .80$).

Table 3:
Descriptive Means and Standard Deviation of Work Experience IV on the overall score on recognizing the stated problems of underachievement in education with covariate age (N = 60)

		M	SD
Work Experience:			
Junior 0-4 years*	(*n* = 9)	37.89*	1.32
Experienced 5-15 years	(*n* = 20)	39.56	1.02
Senior ≥ 16 years	(*n* = 31)	38.69	.94

* $W(9) = .83$, $p = .04$. Skewness ($z = 2.29$, $p = .01$), kurtosis ($z = 2.53$, $p = .01$). Homogeneity of variance tested not significant: $F(2,57) = .23$, $p = .80$

Table 4 displays the estimated marginal means and standard error of these three separate ANCOVA's of the problem analysis. No significant statistical differences were found in the levels of job description/**proximity** to the gifted (management, teachers, specialized experts) on the scores of the problem analysis after controlling for age, $F(2,56) = .01$, $p = .99$. Neither were there any significant differences for **professional development** (none, short term, intensive) $F(2,56) = .97$, $p = .39$. Similarly, no differences were detected in the **work experience** group (0-4 years/junior, 5-15 years/experienced, ≥ 16 years/senior) $F(2,56) = .74$, $p = .48$. Indicating that the different groups, after correcting for age, did not have statistically significant effects on the way professionals reflect on the stated problems of underachievement in education.

Table 4:
Estimated Means and Standard Error of three IV's on the overall score on recognizing the stated problems of underachievement in education with covariate age (N = 60)

		Adj. M	St.Error	95% Confidence Interval
Proximity to gifted students:				
Management	(*n* = 11)	39.41	1.41	36.31 – 41.97
Teachers	(*n* = 14)	38.95	1.29	36.37 – 41.53
Specialized experts	(*n* = 35)	38.89	.81	37.27 – 40.51
Professional development in giftedness:				
None	(*n* = 23)	38.88	.78	36.93 – 40.84
Short PD	(*n* = 13)	40.41	1.28	37.85 – 42.98
Intensive PD	(*n* = 24)	38.22	.94	36.33 – 40.11
Work Experience:				
Junior 0-4 years	(*n* = 9)	38.38	1.58	35.21 – 41.55
Experienced 5-15 years	(*n* = 20)	40.07	1.11	37.85 – 42.29
Senior ≥ 16 years	(*n* = 31)	38.40	.91	36.58 – 40.21

4.1.4 Suggestions for change

When asked what suggestions are needed in education in order to minimize underachievement and demotivation, 53 professionals (90%) provided suggestions (see table 5). The remaining 10% indicated a change was necessary, but were unable to provide suggestions at the time of the survey.

Table 5:
Suggestions given by participants for changes in education necessary to overcome underachievement and demotivation – open comment box (N = 53)

	Number of references
Given suggestions by 53 participants:	**133**
1. Changes in curriculum	27
More compacting & enriching, ICT for individual and personalized learning, omitting age-grouping system, etc.	
2. STR-communication related suggestions	23
Student as active co-creator of learning, listening to student's input, needs based learning, strengthen student-teacher relations, etc.	
3. Professional Development	18
Specific PD on giftedness & talent development, creating more teacher's awareness on effect of own actions on behaviour child, etc.	
4. Organisational factors	11
More money, more time and better organisational preconditions.	
5. Change in attitude of teacher	9
Awareness of changing roles of teachers and teachers' attitude towards giftedness	
6. Other suggestions	45
eg. Change of education/schools/educational concepts, collaboration and partnership, from control to more trust, attention for talent development, role mode of teachers, etc.	

In order of magnitude, the suggestions concerning change of curriculum were the most prevalent, followed by recommendations to strengthen STR. Furthermore, suggestions were made concerning professional development. It is important to note, that none of the participants chose the option: "*I think a change is not/hardly necessary.*" Consequently, this indicates that the qualitative input supports the results found in the quantitative results, in that participants recognize the need for change concerning underachievement and demotivation. Participants suggested a varied and cross-sectional curriculum, that breaks with the traditional age-grouping system and caters for more differentiation. Furthermore, suggestions were on strengthening STR and PD in giftedness and differentiation, awareness of the effect of teacher's actions on students' performances, and collaboration and team-teaching.

4.2 Features of the FPG-model (Section 3)

4.2.1 Appreciation of the model

Descriptive statistics indicated that the participants scored high on the overall score of the 22 items of application of the FPG-model (*M* = 79.97, *Mdn* = 82, *SD* = 6.78, *N* = 60). The items could be scored as low as 22 points and as high as 88 (min. = 56, max. = 88). Close to three-quarters of the participants rated the 22 items on average with 77 points or higher, indicating a good appreciation of the given 22 applications of the model. Though, this also implied that the original data was negatively skewed, with skewness of -1.21 (*SE* = .31) and kurtosis of 1.50 (*SE* = .61).

4.2.2 Differences in opinion explained

In order to use parametric tests, the original data, concerning the appreciation of the model, was transformed with a Log10 procedure to alleviate the non-normality (see table 6 for the Shapiro-Wilks test results).

Table 6:
Shapiro-Wilks tests for normality of three IV's after transformation on the total score of the applications of the FPG-model (N = 60)

		After transformation		
		W	df	*p*
Proximity to gifted students:				
Management	(*n* = 11)	.93	10	.46
Teachers	(*n* = 14)	.87	12	.06
Specialized experts	(*n* = 35)	.95	34	.10
Professional development in giftedness:				
None PD	(*n* = 23)	.95	23	.35
Short PD	(*n* = 13)	.85	13	.03*
Intensive PD	(*n* = 24)	.94	20	.28
Work Experience:				
Junior 0-4 years	(*n* = 9)	.89	9	.18
Experienced 5-15 years	(*n* = 20)	.93	18	.17
Senior ≥ 16 years	(*n* = 31)	.96	29	.33

* *Z*-scores after transformation are still skewed (*Z* = -1.98) at *p* =.01, but not kurtosis, *Z* = .65 at *p* =.26 (*n* = 13). Homogeneity of variance of the transformed data of the PD category tested not significant: *F*(2,57) = .73, *p* = .49

After this procedure, all variables, but one (the short term PD-category), met the assumptions of normality. As did the other assumption checks, including linearity, homogeneity of variances, and homogeneity of regression slopes. Thereupon, it was decided

to proceed with the parametric tests to examine the transformed data and find out whether the educational professionals differed in the interpretation of the main aspects of the model. To do so, three separate one-way ANCOVA's were conducted.

As seen in table 7, the main effects of the independent variables (proximity, professional development and work experience) showed no significant differences between group means adjusted for the effect of age. It yielded F ratios of respectively $F(2,56) = 1.03$, $p = .36$ for **proximity** to the gifted; $F(2,56) = .32$, $p = .73$ for **professional development** (none, short term, intensive); $F(2,56) = 1.07$, $p = .35$ for **work experience** (0-4 years/junior, 5-15 years/experienced, ≥ 16 years/senior). Showing that the transformed mean scores on the overall ratings of the 22 items of application of the FPG-model could not significantly be predicted by group factors, even after controlling for age.

Table 7:
Estimated Means and Standard Error of three IV's on overall ratings of the transformed (Log10) items of application of the FPG-model with covariate age (N = 60)

		Adj. M	St.Error	95% Confidence Interval
Proximity to gifted students:				
Management	(*n* = 11)	.90	.12	.67 – 1.13
Teachers	(*n* = 14)	.70	.10	.49 – .91
Specialized experts	(*n* = 35)	.85	.07	.72 – .98
Professional development in giftedness:				
None	(*n* = 23)	.84	.08	.68 – 1.00
Short PD	(*n* = 13)	.88	.11	.66 – 1.09
Intensive PD	(*n* = 24)	.78	.08	.62 – .93
Work Experience:				
Junior 0-4 years	(*n* = 9)	.76	.13	.51 – 1.02
Experienced 5-15 years	(*n* = 20)	.93	.09	.75 – 1.11
Senior ≥ 16 years	(*n* = 31)	.77	.07	.62 – .92

4.2.3 Remarks about the key aspects of the model

The qualitative analysis of the data (see table 16) showed, that eight participants (out of 16 participants that gave an answer in an open text box) expressed their concerns of the feasibility of the implementation of the model in to actual practice. They argued that the current educational system would need to change considerably, in order for the model to be successful in practice. The practical implications for the individual learning trajectories, especially, raised doubts among these participants.

When asked if participants would drop any key elements from the model, 10 from the

47 comments provided suggestions for alterations. One of those participants proposed to only use Dutch terminology and exclude any English wording. Six other participants suggested to remove the individual learning trajectories from the model. Three people were indecisive and pointed out, that they needed more time to further inspect the FPG-model, to make up their mind whether or not to delete any items. Whereas, 34 of the 46 participants who replied, said they would not remove anything.

A large majority of the total participants of this study (fifty participants) gave an answer to the question: "*Would you add anything to the model?*". Of those participants, half stated they did not (yet) have any recommendations to add to the model. The other half provided suggestions on teacher level (professional development in the model and giftedness, identification of the gifted/labelling students by teachers), student level (working with peers and help students make their own learning trajectory), organisational factors, role of social and school network, and mix of process- and result-orientated learning.

4.2.4 Underlying constructs of the model

An explorative Factor Analyses [FA] was conducted to discover possible subsets of variables that reflect underlying constructs in the separate 22 items of application of the FPG-model to use in PD (see table 8). A Principal Axis Factoring-method was used, with a Varimax (orthogonal) rotation. An examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO=.70). Bartletts's test of sphericity was significant (χ^2 (231) = 622.01, $p < .0001$). The majority (20 items) of the diagonals of the anti-image correlation matrix were also over .50.

Two items (ability grouping/cross-group working and individual learning trajectories, in Dutch: *jaarklas-doorbrekend werken* and *individuele leerlijnen*) were below .50. Eigenvalues for the components in the data were obtained in an initial analysis. This revealed seven components with an eigenvalue of greater than 1. Though the scree plot was slightly ambiguous, it showed another point of inflexion with five components. After inspection of the five and seven components, it was justified to extract only four components in the final analysis. Subjectively, the factors seem to share a similar construct, and 46.78% of the variance could be explained by the four factors.

Table 8:

Principal Axis Factoring – Varimax rotation based on 22 items of application of the FPG-model. Rotated Factor Matrix of correlated items

		Factor Loadings			
		1. Teacher/team orientation	2. Educational provision	3. Fundamental objective of education	4. Individualized education
1.	Circular collaboration/collegial consultation	.83			
2.	Personal coaching (in class/on the work floor)	.77			
3.	Explicit training of the (complex) teaching skills in class	.75			
4.	Collective approach with environment of child	.69			
5.	Self-assessments teacher	.67			
6.	Differentiated and varied curricula	.58			
7.	Preventative approach - Start school year introductory interviews	.47			
8.	During school year: check well-being child	.37			
9.	Course integrated education	.31			
10.	Learn to study		.89		
11.	Learn to research		.67		
12.	Learn to live		.56		
13.	Fundamental attitude teacher: Growth mindset – Compassion – Trust – Role model		.48		
14.	Balance between development of cognition, flexible cognition & personality traits		.41		
15.	Challenging learning environment/creating appropriate learning conditions			.38	
16.	Fundamental objective education: Autonomy - Bonding - Competencies - Resilience			.69	
17.	Needs assessments/Hypotheses testing			.59	
18.	Focus on positivity and talents instead of reactive conduct			.56	
19.	Process orientated education			.28	
20.	Ability grouping/Cross-group working				.87
21.	Individual learning trajectories				.39
22.	Abandon dichotomy (omit labelling gifted/not gifted)				.32
Percentage of Variance		28.03%	8.58%	6.09%	4.08%
Eigenvalues		6.63	2.30	1.80	1.44

Table 8 reproduces the results of the FA. The items seem to fall into the following categorical constructs, namely 1) teacher/team orientated aspects, α = .84; 2) educational provision/curriculum, α = .78; 3) fundamental objective of education, α = .67; 4) individualized education, α = .52. The first two factors were deemed reliable with Cronbach's α > .7. Factor 3 and 4 had poor reliability with Cronbach's α < .7. If item 'process orientated education' was deleted from factor 3 Cronbach's α would reach α = .71.
If item 'abandon dichotomy (omit labelling gifted / not gifted)' in factor 4 was deleted, the alpha level would only slightly increase, but remain at poor reliability level of α = .55.

4.3 Implications of the FPG-model (Section 4)

4.3.1 Potential value of the model

This study was also interested in how educational professionals perceived the potential of the model in the future when implemented in schools. More than half of the professionals (*N* = 56) perceived the model to be successful in schools (55%, *M* = 44.64, *SD* = 6.18) by giving high scores on the overall potential value of the model. Three other participants raised doubts about the practical application of the model. They commented in the open answer boxes, that the provided suggestions accompanied by the model would not efficiently be able to bridge the gap between theory and practice. The remainder 40% agreed moderately on the overall potential of the model in practice.

Further exploration itemized the total potential value into separate indicators of success. The results of this investigation showed that more than 60% of the participants thought the model could contribute to the enhancement of the quality in teaching and in teaching staff. Whereas 37% of the participants were moderately convinced the model would attribute to the quality of teaching. Additionally, the FPG-model was thought to be beneficial for the gifted students (65% agreed), as well as for all – regular – students (61% agreed).

4.3.2 Differences in opinion explained

To see whether opinions about the potential of the FPG-model could be predicted by differences in educational professionals multiple one-way ANCOVAs were conducted to determine statistically significant differences between the groups, whilst controlling for age. Some of the data were not distributed normally on initial inspection (by the means of the Shapiro Wilk tests). After converting the data into Z-scores (see tables 11 and 12), all the

levels for kurtosis and skewness fell within the -1.96 – 1.96 level ($\alpha > .05$) Furthermore, the normality checks and Levene's tests were carried out and the assumptions were met.

The results of the three ANCOVA's (between-subjects factors: Work Experience, Proximity to gifted and PD in giftedness; covariate: age) indicated no main effects, after controlling for the effects of the covariate, on the OVERALL sense of potential value of the model.

Table 9 displays the estimated marginal means (corrected means) and standard errors of these three separate ANCOVA's on the OVERALL sense of potential of the FPG-model. No significant statistical differences were found in the levels of job description/**proximity** to the gifted (management, teachers, specialized experts) on the scores of the potential value after controlling for age, $F(2,56) = 1.98$, $p = .15$. Neither were there any significant differences for **professional development** (none, short term, intensive) $F(2,56) = .32$, $p = .73$. Similarly, no differences were detected in the **work experience** group (0-4 years/junior, 5-15 years/experienced, ≥ 16 years/senior) $F(2,56) = 1.07$, $p = .35$. Indicating that the different groups, corrected by age, did not have statistically significant effects on the way professionals perceive the potential value of the model when implemented in practice.

Table 9:
Estimated Means and Standard Error of three IV's on rating the OVERALL potential value of the FPG-model with covariate age (N = 56)

		Adj. M	St.Error	95% Confidence Interval
Proximity to gifted students:				
Management	(*n* = 10)	43.44	1.94	39.56 – 47.33
Teachers	(*n* = 12)	47.87	1.83	44.20 – 51.53
Specialized experts	(*n* = 34)	43.86	1.07	41.72 – 46
Professional development in giftedness:				
None	(*n* = 23)	45.22	1.34	42.52 – 47.91
Short PD	(*n* = 13)	42.96	1.75	39.46 – 46.46
Intensive PD	(*n* = 20)	45.08	1.42	42.22 – 47.93
Work Experience:				
Junior 0-4 years	(*n* = 9)	45.35	2.12	41.09 – 49.61
Experienced 5-15 years	(*n* = 18)	42.35	1.55	39.24 – 45.45
Senior ≥ 16 years	(*n* = 29)	45.85	1.25	43.34 – 48.36

On closer inspection of the data, other one-way ANCOVA's were carried out, to check whether the separate groups interpreted the model's potential differently for **gifted students** and/or **all students** (see Estimated Means in table 10).

Table 10:
Estimated Means and Standard Error of three IV's on rating the potential value of the FPG-model for GIFTED and for ALL students, with covariate age

	Potential value for GIFTED students *(N = 57)*			**Potential value for ALL students** *(N = 56)*		
	Adj. M	St.Error	95% Confidence Interval	Adj. M	St.Error	95% Confidence Interval
Proximity to gifted students:						
Management	14.27	.65	12.97 – 15.56	14.26	.80	12.67 – 15.87
Teachers	16.36*	.64	15.09 – 17.64	15.56	.76	14.04 – 17.07
Specialized experts	14.73	.37	13.98 – 15.48	14.61	.44	13.72 – 15.49
Professional development in giftedness:						
None	15.22	.47	14.27 – 16.17	14.95	.55	13.86 – 16.04
Short PD	14.25	.62	13.01 – 15.50	14.17	.71	12.74 – 15.59
Intensive PD	15.18	.49	14.20 – 16.16	14.90	.58	13.75 – 16.06
Work Experience:						
Junior 0-4 years	15.41	.77	13.86 – 16.95	14.61	.85	12.91 – 16.31
Experienced 5-15 years	14.61	.55	13.50 – 15.71	13.67	.62	12.43 – 14.91
Senior ≥ 16 years	15.10	.46	14.18 – 16.02	15.46	.50	14.46 – 16.47

* Borderline statistically significant, with a small effect $F(2,53) = 3.21$, $p = .048$, $\eta 2\ p = .11$. Comparing the estimated marginal means showed that teachers relatively rated the value for gifted students higher, than managers and specialized experts rated the model for gifted students. Post hoc tests showed there was no significant difference between the teachers and managers ($p = .07$) and between specialists and teachers ($p = .07$).

It appeared in one ANCOVA that the proximity in job description did predict differences in the way educational professionals rated the potential value of the model for **gifted students**. Although, significant levels were only marginal and negligible, $F(2,53) = 3.21$, $p = .048$ with a very small effect size $\eta 2\ p = .11$. Comparison of the estimated marginal means in table 10 (corrected means) showed that teachers rated the value for gifted students slightly higher ($M = 16.36$, *St.Error* = .64, 95% C.I. 15.09-17.64) than managers and gifted specialists rated the potential value for the gifted ($M = 14.27$, *St.Error* = .65, 95% C.I. 12.97-15.56 and $M = 14.37$ *St.Error* = .37, 95% C.I. 13.98-15.48 respectively). However, Bonferroni post hoc tests revealed no significant statistical differences between the scores of teachers and managers ($p = .07$) and between teachers and gifted specialists ($p = .10$). The other ANCOVAs neither showed any statistically significant differences in the potential influence the model could have on **the gifted students**, as interpreted by the different groups of educational professionals, controlled for age. Results in the PD-group yielded $F(2,53) = .90$, $p = .41$, and in the Work Experience-group $F(2,53) = .44$, $p = .65$. The potentially added value for **all students** found no statistically significant difference, after controlling for age,

between subject groups. Proximity $F(2,52) = .81$, $p = .45$; PD in giftedness $F(2,52) = .44$, $p = .64$; Work experience $F(2,52) = 2.24$, $p = .12$.

4.3.3 Suggestions for implementation

When asked to supply practical and hands-on tips for the implementation of the model in schools 51 participants provided suggestions (table 22). In general, a large majority of the comments consisted of ideas for practical materials to use in class with children, like the International Primary Curriculum [IPC], 4x Wijzer, TASC-wheel by Belle Wallace, Mindset cards, Acadin and the taxonomy of Bloom. Also, people brought up references to literature, websites and exemplary schools. As well as, suggestions for professional development activities and organisational preconditions, like for instance: "*Think big, start small*" (see table 23). Suggesting taking smaller steps in PD and the implementation process, but with high hopes and high standards. Eight participants pointed out to the necessity of being aware of the practical execution of the model, and stressed the importance of a strong transfer of theory into practice. "*A model is still a theory. The art is to kindle enthusiasm in people, and get them to start the laborious process of putting it into practice.*" Some other eight participants added the need to take into extra consideration for a) the organisational prerequisites, b) securing quality control and c) attuning professional development and implementation activities to the needs and standards of the schools. Furthermore, six remarks were addressed within the scope of the urgency to change the educational school system and work environment/climate. To illustrate this: "*It (the FPG-model) requires a complete different way of thinking, than most teachers are accustomed to at the moment. This way of thinking needs to grow over time, as well as, to be strongly instilled in the professional development activities of the FPG-model.*".

Participants were asked to complete the sentence: "*The FPG-model is…*". Seven percent of the participants did not respond, the other 93% of the participants did reply, positively. Six participants answered in a slightly reserved manner (see table 24). Markedly, all of these six respondents were employed as gifted specialists with either no or short term PD in giftedness. Furthermore, their average age was 50, and all, but two, had worked more than 16 years in education. To exemplify their reservations, one said: "*In principle it is well thought through, yet I fear that it is too complex (and abstract) for many teachers, students and parents*.". Eight other participants saw the potential of the model, but also emphasized the danger of remaining just a theory. "*The FPG-model is… a model. A model provides insight.*

The power of the model resides behind the model: What are the suggestions for actions? What are human pitfalls to sabotage change?".

The other large majority of the participants, about 75%, created sentences that could be classified as promising and/or successful. For instance, 17 references were directed towards the capacity that the model could have for all students to flourish in schools. Others mentioned in the effect of: " *a chance*", "*an eye-opener for teachers*" or "*a foundation to grow*". One specialist even said: "*a beautiful practical execution of my dreams for better education*."

4.3.4 Update on future development of the model

Finally, 44 people (nearly 75%) indicated, that they wanted to be updated on the future proceedings of the FPG-model and this study (table 26). To see whether particular groups were more interested in the future developments than other groups, averages were calculated and compared among the groups. Results suggested that the group of participants with no specific giftedness PD were, relatively, the most interested in the sequence of the FPG-model. More than 80% of the none PD participants wrote down their contact details. Similarly, within the group of gifted specialists, 77% provided their email address. In the end, both the group of senior and junior professionals had similar percentages (resp. 77% and 78%). Whereas, the 5-15 years of work experience category, and the management/educationalists/regular coaches category had both the lowest stay-in-touch-response-rate (respectively, 65% and 64%).

5. Discussion

The main question of this particular study was to examine if classroom teachers can be assisted with *Passend Onderwijs* by using the FPG-model to minimize underachievement among gifted primary school students. To answer this question, the study enquired about possible underlying factors of the current educational system that might contribute to the cause and maintenance of underachievement. Furthermore, aspects of the FPG-model and its potential effect in practice were evaluated by educational professionals to see if it can be a solution for gifted underachievers.

Firstly, it was expected that professionals would validate the problem analysis on underachievement as presented in this thesis (theory-practice gap, lacuna in PD and performance orientation). Results confirm this assumption, because participants believed that the theory and practice gap exists and often results in incomplete or incorrect implementation of theory into the classrooms. The participants also saw a lacuna in PD. They indicated that

there is little room for explicit (guided) practice on the work floor. Participants suggested more collaboration between individuals during PD courses to prevent discontinuous learning and obtain more grip on the quality control of education for the gifted. This is in line with the principles of the FPG-model, that advises supervised practice and more collaboration in practical learning communities. Additionally, participants confirmed that the current remedial teaching style puts more attention towards the boisterous children and the absolute underachievers, than on the more socially adapted students. This validates research, in that Dutch teachers are good at pulling children up toward the middle, yet struggle to give rise to already high achievers (Dekker, 2014; Inspectie van het onderwijs, 2017; Ledoux et al., 2009). Moreover, it endorses an opportunity for the FPG-model, while it has a positive, preventative and needs based approach that supports personal growth in underachieving children.

Yet, in opposition to what was expected, educational professionals do hold similar beliefs, regardless of work experience, proximity to the gifted or PD, about the limitations on talent development caused by the current educational system. Then again, in light of the recent developments of the strikes (Dutch: POinactie), the participants' agreement on the given statements were not very surprising, either.

Secondly, it was speculated that educational professionals would suggest change towards didactics, student behaviour, resources, curriculum-related aspects, professional development, and organisational preconditions. This expectation was partially confirmed. Professionals did mention change of curriculum the most and were specifically directed at the level of practicality and to a lesser degree on organisational aspects. Perhaps this was due to the fact that the majority of participants worked directly with children and would benefit the most from practical suggestions. Organisational aspects were mentioned by participants, though, it did not have the highest rank on the list of suggestions, as was anticipated (Onderwijscoöperatie, 2015). A plausible argument for this, could be that participants were asked to think beyond suggestions that hinted on more time, money and support. However, looking at the other findings of this thesis, it just might mean that educational professionals are simply more interested in suggestions that have a pragmatic focus (Collinson, 2004).

Additionally, participants recommended strengthening STR, and enhancing communication in which students are seen as active co-authors of learning. These findings verify the advice of Pameijer and Van Beukering (2015) who see learners in a similar way. Unknowingly, participants were validating social aspects of the FPG-model beforehand. In that, strengthening relationships, collaboration and communication are key contributors to

minimize underachievement and demotivation within the model.

Thirdly, it was assumed that most professionals would appreciate the components of the FPG-model, because some elements can be seen as quite self-evident and fairly common in current practices. As with the above mentioned results, these assumptions were met. The participants were indeed positive about the model. At the same time, the concept of providing socially desirable answers (Harris & Brown, 2010; DeWitt, 2017; Stokking, 2015) and the difficulty of self-assessment (Baarda et al., 2013) were also possibly reflected in these results. To counteract this effect, and as was suggested by some of the participants, coaching on the job and co-teaching might alleviate this problem. For this reason, the PD within the FPG-model will contain a diversity of activities to raise more self-awareness and on the effect that educators' behaviour has on students' performances (e.g. 360° feedback, Workplace Big 5 assessment, co-teaching, video interactive coaching, etcetera).

What is more, results revealed no main effect of specific characteristics among the independent groups on the key elements of the model. Suggesting that more expertise, closer proximity to gifted children, or seniority does not imply (perceived) better performances or greater appreciation of the model. This perhaps implies that differentiated PD is not a necessity or requirement to educate professionals on this matter. On the other hand, the fact that professionals do not differ in opinion, does not automatically mean that they show similar professional behaviour in practice. Therefore, PD must take on a person-orientated approach.

In general, the FPG-model is overall well received by the participants. Six participants did express some concern about the integration of the model into the current educational setting, especially regarding the individual learning routes. These doubts were raised by a few, but they might represent the feelings of a larger group of teachers. So, this apprehensiveness should be taken seriously. This can be done by abandoning individual learning from the model, or by gradually implementing personalized learning trajectories in schools for those teams that want to maintain them. At the very least, the implementation of the FPG-model should contain plenty of guided practice in complex teaching skills, room for collegial consultations, many examples of best practices to adequately educate professionals on this matter. This phased approach allows teachers to be better equipped in the future to facilitate differentiation and offer more personalized educational routes for underachieving students. Importantly, this shows the flexibility of the model that aims to complement current practices and help teachers to effectively guide gifted underachievers.

The 22 important applications of the model were mathematically processed and subjectively assigned into 4 categorical constructs. Namely, 1) teacher/team orientated

aspects; 2) educational provision/curriculum; 3) fundamental objective of education; 4) individualized education. Of which, educational provision was the most favourite construct, and individualized education the least favourite. Both categories fit well with the idea that teachers are pragmatic (Collinson, 2004) and struggle with individual differentiation within *Passend Onderwijs* (Hofstetter & Bijstra, 2014; Meijer, 2009). Notably, the very least favourite item was '*omitting labelling children*'. This suggests that classification procedures should be maintained. Though, with the principles of the model in mind, teachers are encouraged to cyclically monitor these procedures and regularly reassess children's development in collaboration with colleagues. In particular, to see if relative underachievers are still challenged enough, too.

Fourthly, it was hypothesized that differences in the perceived value of the model could be explained by specific characteristics of the educational professionals. However, just like the aforementioned findings of the extensive analyses, the results did not reveal any significant statistical differences in proximity, neither for professional development in giftedness, nor for work experience. Similarly, no obvious patterns were detected in the qualitative data. Possibly, these results show that the self-evidence of the FPG-model drive educational professionals to interpret the model similarly, despite different backgrounds. On the other hand, these results might also be affected by the small sample sizes and the irregularity of the independent group variables. Resulting, in that the true differences between professionals are not powerful enough to be reflected in the data. Howbeit, the results indicate, that participants seem to be favourably disposed, at the moment, towards the ideas and teaching approaches of the FPG-model. Conceivably, perhaps due to the job strikes, teachers validate a readiness for change in education and are therefore possibly more receptive to the concepts of the FPG-model. In anyway, for now, there seems no immediate cause to develop differentiated PD targeting specific educational professionals.

The final question of this study was to find out whether the FPG-model could function as a tool to minimize demotivation and enhance performances. It was thought that gifted experts would think that the model would be more beneficial to the gifted than to regular students. However, this was not the case. Rather, at first sight, it seemed that teachers rated the potential value for the gifted (marginally) higher than managers and gifted specialists did. Though, at closer inspection, results indicated a borderline *p*-value. After a post hoc test, this result was discarded. Intensive training on giftedness or long work experience neither yielded significant effect.

Generally, the results indicate that the model has the potential to enhance motivation

and performances of the gifted students. Yet, perhaps more surprisingly, similar agreement was found for the estimated positive effect on all students. These findings might contradict the research of De Boer (2011), in which she discovered that gifted students have different desires for learning and value other competencies in their teachers, than their non-gifted counterparts. Obviously, this study did not question students, and therefore, it is plausible that teachers hold different perceptions on this matter (Guerra & Wubbena, 2017; Roiha, 2014). Yet, based on the extensive literature on giftedness and the message that it conveys (the gifted feel, act and perceive the world more intensely and differently than others), it is remarkable that educational professionals did not propose a differentiated approach for different children. A possible explanation for this could be that educators are indeed familiar with the constructs of the FPG-model. They might not see any distinction between gifted students and other children, because the key elements of the model are basic prerequisites, self-evident and are therefore probably applicable to all children.

Notably, some participants worried about the practical implementation of the model. They emphasised the necessity of staying attentive to a possible theory and practice gap. They opted for strong knowledge transfer with a direct link to practice, accompanied by good professional support and attuning PD activities to the needs of the schools. And where collaboration, best practices and hands-on materials are easily accessible and shared. These suggestions fit well with the literature on successful and durable implementation of innovation in schools (Groenewegen et al., 2014; Pameijer & Van Beukering, 2015).

In line with these findings, Minnaert (Baars, 2017) argues that innovation and new concepts in schools require time to grow and evolve over the years. When these considerations are appropriately addressed, the participants do see the potential of the model in practice. Which was also reflected by the fact that three-quarter of the participants wanted to be kept updated on future developments of the model.

This thesis was directed at finding a solution for challenging gifted underachieving children, and get information necessary to develop differentiated PD to assist different educational professionals in the use of the FPG-model. Based on the data, no indication was found that differentiated PD is necessary, for now. Though, according to the participants, PD does, however, need to be attuned to and catered for the needs and possibilities of schools.

Additionally, the aim of the study was to not overburden teachers. Although, the participants were not explicitly asked about the workload that could be induced by the implementation of the model, it is likely that the framework will not immediately reduce the tasks at hand. More than that, it probably will raise the workload initially, because change

requires time, effort and dedication. Therefore, it is important to take the extra investment in workload into account when implementing the model. Despite that, the results do indicate a willingness to introduce the model into practice.

These results cautiously indicate that the model contributes to current practices and is a good addition to the existing clarifying models. It does not imply that the FPG-model substitutes previous models. Nevertheless, it is a good supplement for the educational world, that can facilitate teachers though applied practical suggestions in an effort to produce more high achievers.

6. Limitations and future research

This thesis adds to the current knowledge on underachievement and demotivation in giftedness and introduces innovation to the educational field. Nonetheless, some limitations of this study should be considered. For one, the participants were recruited online on a voluntary basis and/or by personal invitation. Therefore, because it relied on a purposeful sample of volunteers, inferences beyond the present study are limited. The fact that the majority of the participants agreed to statements and that no apparent differences between subject groups were detected, might be caused by this purposeful sample of volunteers. It is advisable to select participants in the future randomly or by approaching complete school teams, in order to alleviate the risk of bias through strong opinions of such volunteers. It is also not clear, whether the high percentages of interest in the follow-up of this study, was caused by these focussed participants or by the model itself.

Another recommendation is to look closely at the distribution of participants across the independent group-variables. Now, groups were unevenly arranged, and some were exceptionally small, which could compromise the validity of the study. In addition, in the future the classification of the group '*proximity to the gifted*' should be reconsidered, as the ranking system now only looked at the job title. This unintentionally led (only in a few cases) to gifted specialists with minimal PD or limited time spent in close proximity to the gifted. In this, participants classified as gifted specialists might not have been such experts in comparison to other gifted specialists. In future analyses, indicators of little experience or minimal expertise should weigh into a lower ranking classification.

The complementary videos within the questionnaire might come across as directive, and therefore might explain, too, why there were no differences found among professionals. On the other hand, the videos did provide a good opportunity to introduce the model and its

implications. And for that reason, perhaps led to the lack of variance in answers of participants. In the future, researchers should consider the risks and benefits of using such videos in their study. Either way, perhaps a better option for this study was to find schools that wanted to pre-test the model in their classrooms and check the effectiveness of the approach, rather than only asking participants about their opinion. Then, the drawback of self-assessment could also have been compensated by the means of observations in the classroom by researchers.

However, the results of the quantitative analyses matched the findings of the qualitative part, which contributes to the reliability of the study. For future research it is strongly suggested to ensure triangulation to increase the validity of the study.

In general, Borg (2001) cautions readers to be careful with inferences when reading articles on beliefs and opinions, because they might not reflect reality. Hence, a practical follow-up study, in which the FPG-model is actually being tested and teachers are trained in awareness and the principles of the model (Guerra & Wubbena, 2017), is highly recommended.

7. Conclusions

This thesis contributes to the already existing literature on giftedness and supplements the research on the underachievement of gifted students. The results of this study illustrate that a niche is found in education, which allows for unconventional methods and ideas of teaching to be explored. Moreover, this research seems to point out that educational reform is within reach to increase talent development.

The results indicate that underachievement has not been sufficiently addressed, yet. In particular this is due to the theory and practice gap and the lacuna in PD. Importantly, this thesis shows that these items remain on the agenda. Essentially, this study points out that it is of crucial importance to match new knowledge (and concomitantly new behaviour) to the needs and requirements of students, parents, teachers and other educational professionals. In order to bridge the void in the perceived theory and practice gap, formal PD must blend within informal learning activities on the work floor. In that, teachers are facilitated to turn new theory into practice, and to instil sustainable patterns of new behaviour. Co-teaching, team collaboration, and sharing expertise among professionals enable teaching staff to learn from others in a pragmatic way. It also provides an opportunity to raise awareness, synchronize words and actions, as well as, increase shared responsibility in gaining results.

Unexpectedly, results revealed that the model could not only be beneficial to the underachieving gifted child, but could facilitate all students to flourish. Then again, this result does suit one of the principles of the FPG-model, to not identify the gifted in a dichotomous way, but to be open-minded for potential to flourish at any given moment. Through this, children get the chance to show their aptitude over time, enabling them to mature and evolve.

There seems no immediate reason to assume that differentiated PD activities are necessary to better facilitate educational professionals in their daily practice. However, the findings do point out, that a successful implementation of the model requires ample attention for differentiation among schools. The PD of the FPG-model should be tailor-made to cater for the specific learning objectives of each team.

Equally, dealing with personalized and individual learning trajectories requires more time and effort on the part of teachers. While some educators remain sceptical about the idea of working with individual learning routes, others believe that working towards personalized education in a phased transition is conceivable. Depending on the demands of the schools, differentiated learning routes are omitted, or are partially or slowly introduced into the curriculum. At the very least, small steps and a lot of time are necessary to enable a sustainable implementation. Of course, organisational prerequisites should be in order and cyclic quality controls make DDE possible.

Furthermore, the features of teachers' conduct (growth mindset, showing empathy, provide trust and being a role model) are essential competencies that might feel natural and self-evident to professionals. Therefore, the ideology behind the model will probably not fizzle out quickly, after the thrill of the introduction, which sometimes happens with other innovations. Yet, conversely, at the same time, this simplicity and naturalness can also be its pitfall.

Conclusively, it can be said that the FPG-model can transition to the realization phase. Thence, a naturally followed step is to test the model in the actual practice. Only then, the main question of the present study can truly be answered. For now, this study shows that the model has a good foundation to grow in practice. Participants believe the FPG-model is able to assist teachers with *Passend Onderwijs* and to enhance performances of all children, not only for the underachieving gifted students. In this, the FPG-model has potential value to be an additional asset that contributes to the educational world, theoretically as well as practically.

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Appendix A

Shapiro-Wilk test results on the potential for gifted students

Table 11:

Shapiro-Wilks tests for normality of three IV's on scores on the potential value of the model for GIFTED students, converted into Z-scores (N = 60)

		Skewness				Kurtosis			
	W	Skewness	*SD*	*Z*	*p*	Kurtosis	*SD*	*Z*	*p*
Proximity to gifted students:									
Management	.37								
Teachers	.02*	-.29	.64	-.46	.32	-1.52	1.23	-1.24	.11
Specialized experts	.62								
Professional development in giftedness:									
None PD	.01*	-.61	.48	-1.27	.10	-.04	.94	-.04	.48
Short PD	.23								
Intensive PD	.09								
Work Experience:									
Junior 0-4 years	.45								
Experienced 5-15 years	.13								
Senior ≥ 16 years	.02*	-.59	.43	-1.36	.09	.21	.85	.25	.40

* Shapiro Wilk tests are significant at $p \leq .05$. *Z*-scores are calculated for skewness and kurtosis and fall with the -1.96 – 1.96 range at $\alpha = .05$.

Appendix B
Shapiro-Wilk test results on the potential for all students

Table 12:

Shapiro-Wilks tests for normality of three IV's on scores on the potential value of the model for ALL students, converted into Z-scores (N = 60)

		Skewness				Kurtosis			
	W	Skewness	*SD*	*Z*	*p*	Kurtosis	*SD*	*Z*	*p*
Proximity to gifted students:									
Management	.72								
Teachers	.05								
Specialized experts	.02*	-.34	.40	-.84	.20	-1.03	.79	-.13	.45
Professional development in giftedness:									
None PD	.01*	-.65	.48	-1.36	.09	-.51	.94	-.58	.29
Short PD	.63								
Intensive PD	.08								
Work Experience:									
Junior 0-4 years	.16								
Experienced 5-15 years	.32								
Senior ≥ 16 years	.002*	-.70	.43	-1.60	.05	.76	.85	.90	.18

* Shapiro Wilk tests are significant at $p < .05$. *Z*-scores are calculated for skewness and kurtosis and fall with the -1.96 – 1.96 range at $\alpha = .05$.

Appendix C
Factor Analysis results

Table 13:

Factor loadings based on the 22 items of application of the FPG-model

	Factor Loadings			
	1	2	3	4
Circulaire samenwerking/collegiale consultatie	.83	.31		
Persoonlijke coaching (in de klas/op de werkvloer)	.77			
Leerkrachten oefenen expliciet de (complexe) vaardigheden in de klas	.75			
Gezamenlijke aanpak met omgeving	.69			
Self-assessments leerkracht	.67			
Gedifferentieerd en afwisselend lesaanbod	.58			
Preventieve benadering - Start schooljaar gesprekken	.47			
Gedurende het schooljaar: check welbevinden kind	.37			
Vakgeïntegreerd onderwijs	.31			
Leren Leren		.89		
Leren Onderzoeken		.67		
Grondhouding leerkracht: Groei mindset - Begripvol - Vertrouwen - Rolmodel zijn		.48		
Balans tussen ontwikkeling van cognitie, flexibele cognitie & persoonlijkheidsfactoren		.41		
Uitdagende leeromgeving/juiste (leer)condities scheppen		.38	.38	
Basisdoelstelling onderwijs: Autonomie - Binding/relaties - Competenties - veeRkracht			.69	
Needs assessments/Hypothese(s) testen			.59	
Focus op positiviteit en talenten i.p.v. reactief handelen		.36	.56	
Procesgericht onderwijs				
Jaarklas-doorbrekend werken				.87
Leren Leven		.56	.35	.58
Individuele leerlijnen	.33			.39
Loslaten dichotomie (niet categoriseren in wel/niet hoogbegaafd)				.32

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 5 iterations.

Appendix D
Social media item – Request for participation

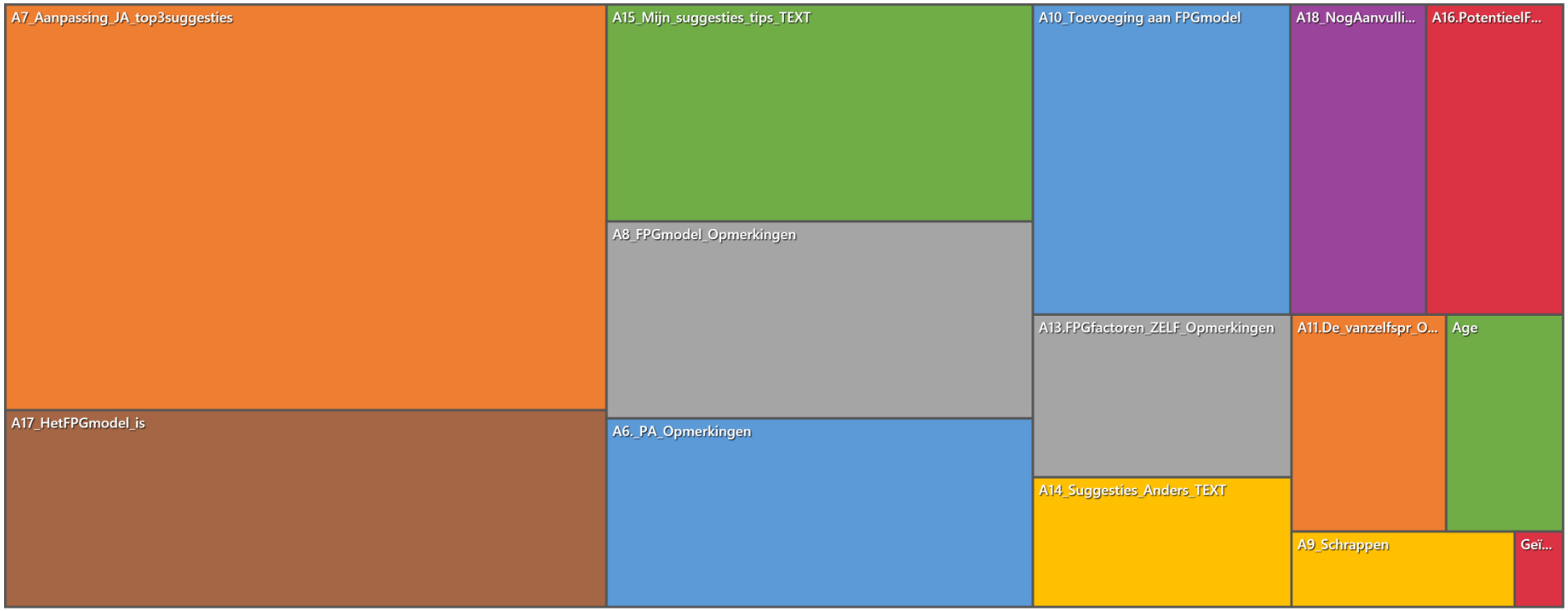
Figure 6:

News item on social media – request for participation:

Appendix E
Nodes structure based on amount of references

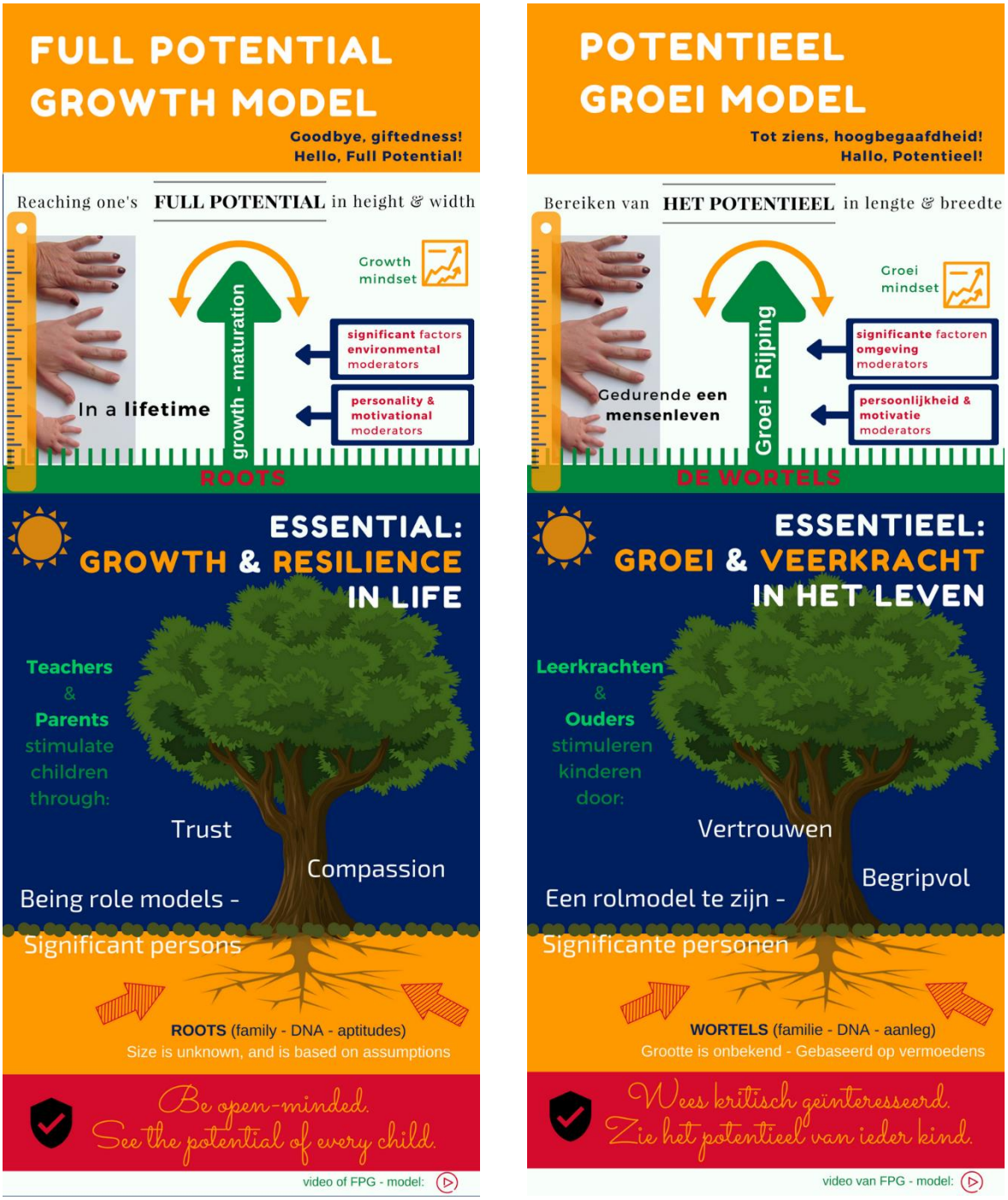
Figure 7:

Qualitative data analysis - Nodes by number of codes



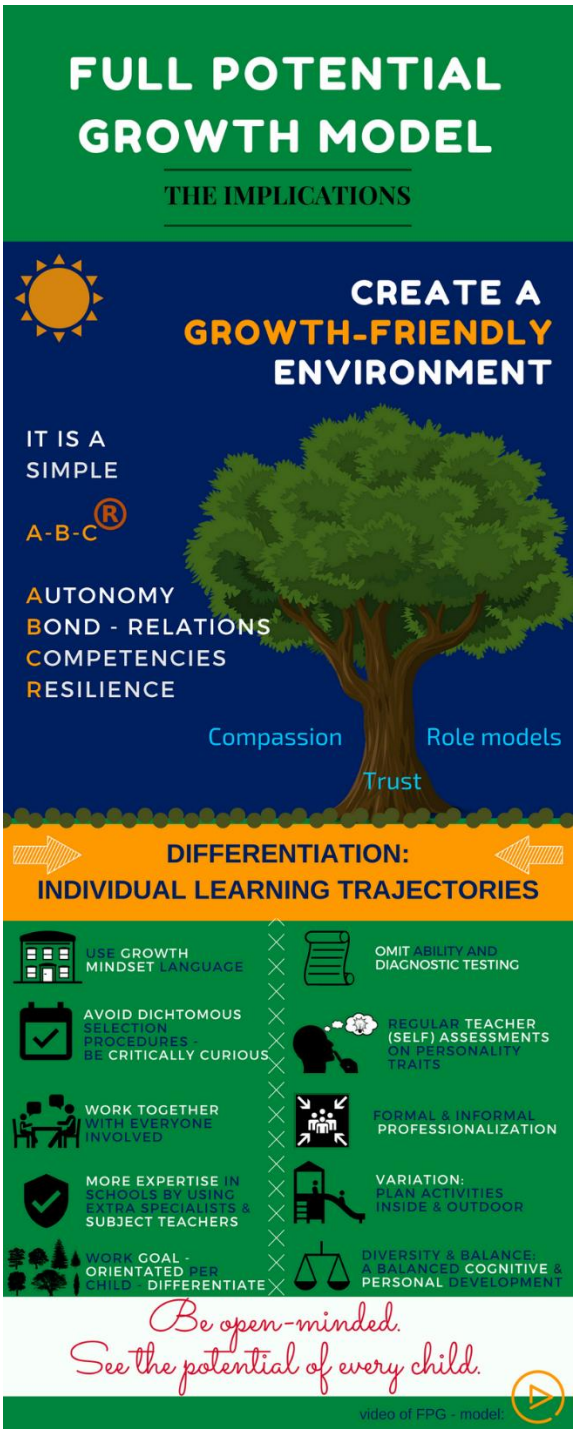
Appendix F
Infographic FPG-model

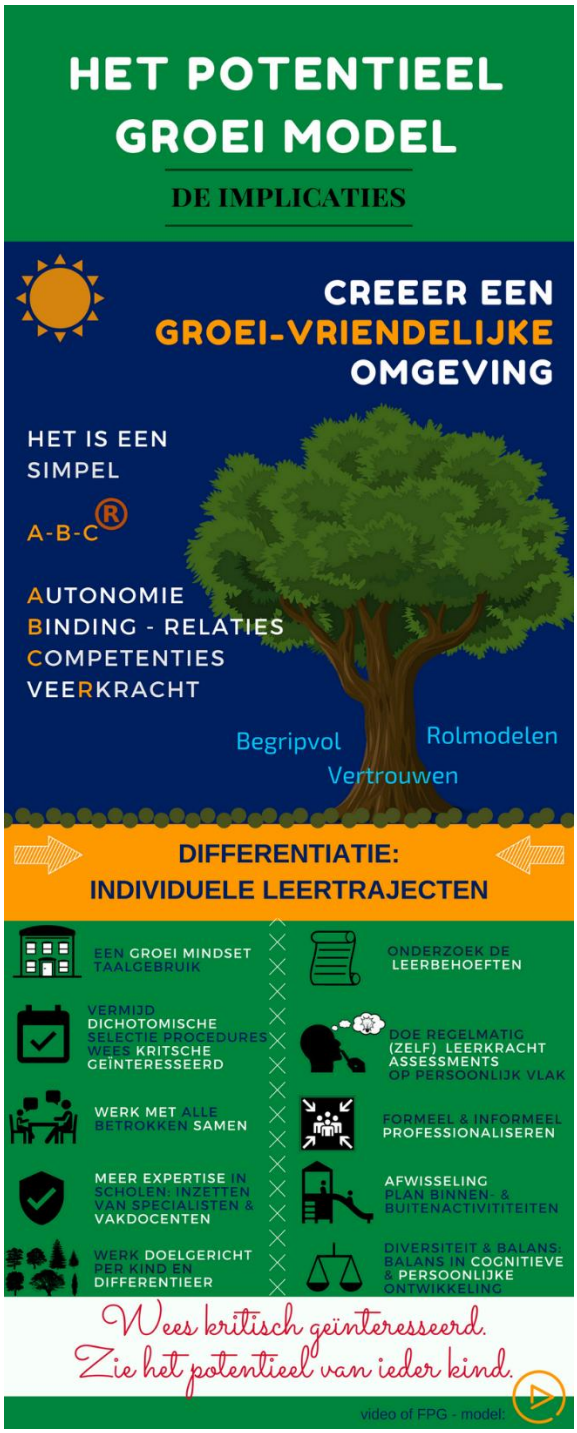
Figure 8:
Infographic The FPG-model English & Dutch version



Appendix G
Infographic Implications of the FPG-model

Figure 9:
Infographic The implications of the model English & Dutch version.





Appendix H
Online survey – Qualtrics

Supplement 1:

Online questionnaire exported from qualtrics

--- INFORMED CONSENT ---

Uw feedback op het nieuwe Full Potential Growth-model.
Tot ziens, Hoogbegaafdheid – Hallo, Vol Potentieel!
Verantwoordelijke onderzoeker: Mirjam Zevenboom

Beste Deelnemer,

Bedankt dat u wilt deelnemen aan dit onderzoek.

Wat is het doel van dit onderzoek?
De verkregen informatie uit dit onderzoek zal gebruikt worden om het Full Potential Growth-model [FPG-model] te verbeteren en te valideren. Uw mening, ervaring en expertise als onderwijsprofessional (en mogelijk eindgebruiker van het model) is voor mij zeer waardevol.

Wat is het FPG-model?
Het FPG-model is een benaderingsmodel ten behoeve van het preventief en positief (h)erkennen en stimuleren van talent in het (basis)onderwijs. Het bevat geen dichotome selectieprocedure. Er wordt op circulaire wijze gekeken naar het kind en de (leer)omgeving. Het FPG-model richt zich op het ontwikkelen van cognitieve competenties en persoonlijke talenten, in relatie met en tot anderen. De omgeving bestaat uit diverse rolmodellen, die meelevend en niet-oordelend zijn. Deze significante personen geven kinderen het vertrouwen om in een veilige omgeving te werken aan autonomie, relaties, competenties en veerkracht. Het FPG-model hecht grote waarde aan het proces van leren, het werken met individuele leerdoelen vanuit een groei-mindset van kinderen en leerkrachten.

Wat kunt u verwachten?
Het onderzoek bestaat uit 3 onderdelen *(Probleemanalyse - Het FPG-model - De implicaties voor het onderwijs).* Elk onderdeel start met een video, gevolgd door enkele vragen. Beantwoord deze vragen zo eerlijk mogelijk. Uw feedback zal richting geven aan de verdere ontwikkeling van het model, alsmede het model gebruiksklaar te maken voor de onderwijspraktijk.
Ik verwacht dat het onderzoek geen gevaar of ongemak met zich mee zal brengen. Het invullen van de enquête en het bekijken van de video's zal in totaal +/- 30 minuten in beslag nemen.

In verband met de video's raad ik u aan om deze vragenlijst op een pc of laptop te maken en bij voorkeur niet met Internet Explorer (maar bijv. Firefox-Modzilla, Google Chrome, e.d.). Indien een filmpje niet in de vragenlijst afgespeeld kan worden, opent u dan de link in een **nieuw tabblad of venster**, zodat u gemakkelijk terug kan keren naar de enquête.
De vragenlijst is *mobile-friendly*, dat wil zeggen, dat u de enquête ook met uw mobiele telefoon of tablet kan invullen.
In het kader van de **leesbaarheid** is gekozen voor de term *hoogbegaafde leerlingen* (zonder daarbij onderscheid te maken in de verschillende nuances van deze niet-homogene groep kinderen).

Uiteraard, is **uw medewerking strikt vrijwillig.** U mag op elk gewenst moment en zonder opgave van reden **stoppen** met uw deelname.
De gegevens en resultaten van het onderzoek zullen **anoniem** en **vertrouwelijk** behandeld worden.

Zodra het onderzoek is afgerond, ben ik bereid de resultaten met u te delen. Heeft u nog behoefte aan meer

informatie over dit onderzoek, nu of in de toekomst, neemt u dan gerust met mij of met één van de supervisors contact op.

Contactpersonen:
Mirjam Zevenboom, m.s.zevenboom@student.utwente.nl
Supervisors:
Dr. T.H.S. (Tessa) Eysink, t.h.s.eysink@utwente.nl / 053-4893572 Dr. H. (Hans) van der Meij, h.vandermeij@utwente.nl /053-4893656

Voor eventuele klachten over dit onderzoek kunt u zich wenden tot het secretariaat van de Commissie Ethiek van de faculteit Behavioural Sciences van de Universiteit Twente:

Klachten/ Ethische Commissie:
J.N. (Jasmine) Verenjans-Van der Weerd, j.n.vanderweerd@utwente.nl / 053-4893611

Bij voorbaat dank voor uw tijd en medewerking.

Met vriendelijke groeten,

Mirjam Zevenboom

Door op de JA knop te drukken, verklaart u, dat u op een duidelijke wijze bent ingelicht over de aard, methode, doel en belasting van het onderzoek, en dat u instemt met uw deelname aan dit onderzoek. U begrijpt ook dat uw deelname strikt vrijwillig is.

- ○ Ja
- ○ Nee

De volgende vijf vragen dienen voor de statistische verwerking van dit onderzoek.

1.
Ik ben een ...

- ○ Vrouw
- ○ Man

2.
Wat is uw leeftijd? (minimaal 18 jaar)

3.
Bent u momenteel werkzaam in het onderwijs?

- ○ ja
- ○ nee

3.2.
U bent momenteel **NIET** werkzaam in het onderwijs. Welke stelling beschrijft uw situatie het beste?

- ○ Ik sta **zelf niet** voor de klas, maar de **doelgroep** waar ik mee werk **wel**.
- ○ Ik ben (altijd) werkzaam geweest in het onderwijs. Ik ben nu met **pensioen**.
- ○ Ik heb wel les gegeven, maar ik ben (**minder dan 4 jaar** geleden) **gestopt** in de onderwijssector.
- ○ Ik heb wel les gegeven, maar ik ben (**meer dan 4 jaar** geleden) **gestopt** in de onderwijssector.
- ○ Ik ben **werkzoekende** in het onderwijs. Ik heb hiervoor wel een korte periode (**minder dan 4 jaar**) les gegeven.
- ○ Ik ben **werkzoekende** in het onderwijs. Ik heb hiervoor wel een langere periode (**meer dan 4 jaar**) les gegeven.
- ○ Ik ben **werkzoekende** in het onderwijs. Ik heb (nog) **nooit** les gegeven.
- ○ Ik heb (nog) **nooit** les gegeven.
- ○ Anders:

3.3.
Ik werkte als ...

- ☐ leerkracht primair onderwijs [PO]

- ☐ intern begeleider PO
- ☐ bouwcoördinator/middenmanagement PO
- ☐ directeur/bestuurder PO
- ☐ specialist hoogbegaafdheid PO, bijvoorbeeld plusklasleerkracht of coördinator hoogbegaafdheid
- ☐ coach/trainer/begeleider, specialisme hoogbegaafdheid
- ☐ coach/trainer/begeleider, ander specialisme
- ☐ docent pabo (of andere hbo- of wo-instelling
- ☐ docent voortgezet onderwijs [VO]
- ☐ onderwijskundige
- ☐ (GZ)psycholoog/orthopedagoog
- ☐ docent universiteit/professor/hoogleraar
- ☐ anders, namelijk:

3.1.
Ik werk als ...

- ☐ leerkracht primair onderwijs [PO]
- ☐ intern begeleider PO
- ☐ bouwcoördinator/middenmanagement PO
- ☐ directeur/bestuurder PO
- ☐ specialist hoogbegaafdheid PO, bijvoorbeeld plusklasleerkracht of coördinator hoogbegaafdheid
- ☐ coach/trainer/begeleider, specialisme hoogbegaafdheid
- ☐ coach/trainer/begeleider, ander specialisme
- ☐ docent pabo (of andere hbo- of wo-instelling
- ☐ docent voortgezet onderwijs [VO]
- ☐ onderwijskundige
- ☐ (GZ)psycholoog/orthopedagoog

☐ docent universiteit/professor/hoogleraar

☐ anders, namelijk:

4.
Hoeveel jaar **werkervaring** (*in totaal*) heeft u in het **onderwijs**?

○ 0-4 jaar

○ 5-15 jaar

○ 16 jaar of meer

5.
Heeft u een **specialistische opleiding** gevolgd ten behoeve van **hoogbegaafdheid**?

☐ Nee

☐ Ja, een teamscholing

☐ Ja, kortdurende opleiding van minder dan een jaar

☐ Ja, intensieve opleiding van een jaar of langer (post-hbo of master)

☐ Ik heb (uitgebreid) wetenschappelijk onderzoek gedaan

5.1.
Welke opleiding(en) heeft u gevolgd?

☐ Alice Bekke & Partners - Specialist Hoogbegaafdheid en Excellentie

☐ Cedin - Specialist Excellent Talent en (Hoog)begaafdheid

☐ Fontys Practitioner (Hoog)begaafdheid

☐ Hogeschool Utrecht - Specialist Hoogbegaafdheid & Differentiatie

☐ Master SEN

☐ Novilo - Talentbegeleider Basisonderwijs

☐ Novilo - Talentbegeleider Zelfstandigen

☐ Novilo - Talentbegeleider Gevorderden

☐ Radboud Universiteit ECHA - post hbo variant

☐ Radboud Universiteit ECHA - post academische variant

☐ Slim Educatief - Specialist Begaafdheid SE/ZOO

☐ Slim Educatief - Specialist Begaafd & Speciaal

☐ SonEdutraining - Leergang Specialist Hoogbegaafdheid

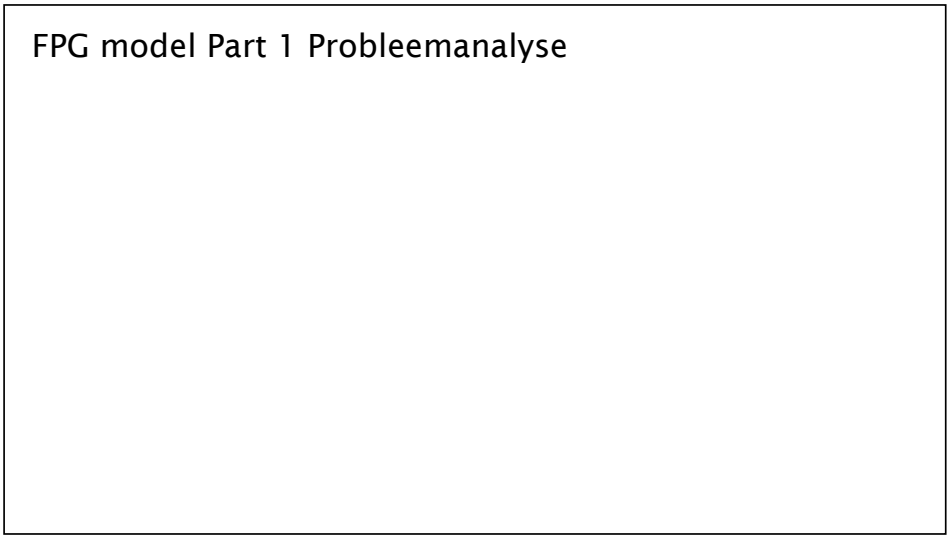
☐ Wijssein - Specialist Meer- en Hoogbegaafdheid

Anders

Het volgende onderdeel gaat over de probleemanalyse:

Onderpresteren en demotivatie van hoogbegaafde leerlingen in het onderwijs.

Bekijk eerst het filmpje **Full Potential Growth-model - Probleemanalyse** (part 1), u kunt daarna de vragen beantwoorden.



Indien de video **niet zichtbaar** is in dit scherm, klikt u dan op de link naar youtube.

OPGELET: Open de link met behulp van de RECHTER MUISKNOP in een nieuw tabblad of venster. U kunt dan naderhand gemakkelijk terugkeren naar deze plek in de enquête.

(https://youtu.be/KKUWqHIK1P8)

6. In hoeverre bent u het met de gegeven problematiek eens?

	n.v.t.	helemaal niet mee eens	niet mee eens	enigszins	mee eens	helemaal mee eens
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○
	○	○	○	○	○	○

6.1. Eventuele opmerkingen:

7.

Met betrekking tot de gegeven problematiek:

Welke **verandering/aanpassing** zou u adviseren om onderpresteren en demotivatie in de klas tegen te gaan? *(Ervan uitgaande dat er voldoende tijd, geld en ondersteuning beschikbaar is)*

○ Er is **geen/nauwelijks verandering/aanpassing** nodig.

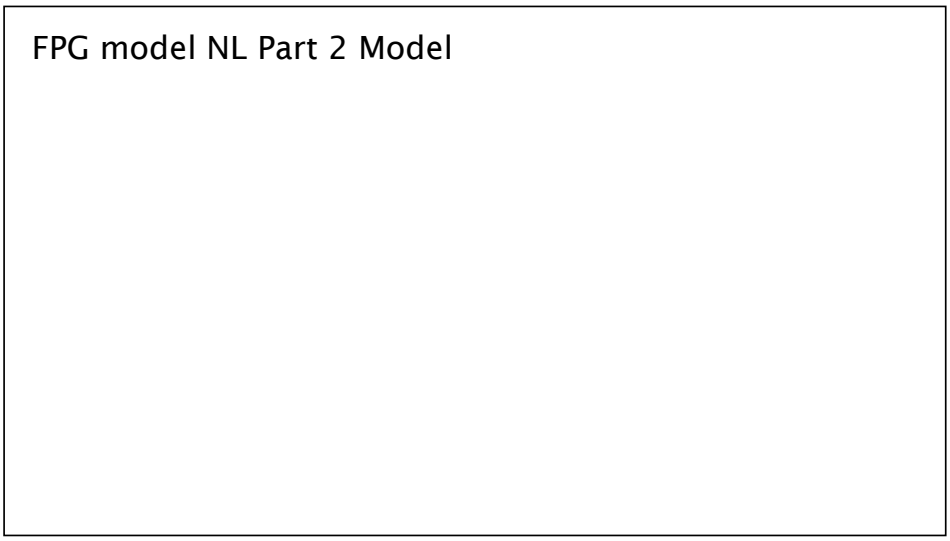
○ Een aanpassing is **wenselijk**, maar ik kan **niet** direct een **suggestie bedenken**.

○ Mijn **voornaamste suggestie(s)** voor verandering/aanpassing van het onderwijs **is/zijn** ...

Maximaal 3 suggesties:

.

Het volgende onderdeel gaat over **het Full Potential Growth-model**.
Bekijk eerst het filmpje **Het FPG-model** (part 2), u kunt daarna de vragen beantwoorden.



Indien de video **niet zichtbaar** is in dit scherm, klikt u dan op de link naar youtube.

OPGELET: Open de link met behulp van de RECHTER MUISKNOP in een nieuw tabblad of venster. U kunt dan naderhand gemakkelijk terugkeren naar deze plek in de enquête.
(https://youtu.be/peeMtpeL0Bo)

8.
Hieronder staan de **belangrijke aspecten** van het FPG-model beschreven.
Wat vindt u van deze items?

Als een item u **zeer aanspreekt**, geeft u dit item **4 sterren = Top**
Als een item u **nauwelijks aanspreek**t, geeft u dit item **1 ster = Flop**
Items die **geen echte top of flop** voor u zijn, geeft u **2 of 3 sterren = Neutraal/twijfel**

(Ervan uitgaande dat er voldoende tijd, geld en ondersteuning beschikbaar is)

1. Loslaten dichotomie - signaleringsprocedure (kinderen niet categoriseren in wel/niet hoogbegaafd)
2. Grondhouding leerkracht: Groei mindset - Begripvol - Vertrouwen - Rolmodel zijn
3. Basisdoelstelling onderwijs: Autonomie - Binding/relaties - Competenties - veeRkracht
4. Preventieve benadering -Start schooljaar: ouders/verzorgers - kind - leerkracht gesprekken
5. Gedurende het schooljaar: check welbevinden kind m.b.v. vragenlijst (bijv. KINDL of Kidscreen)
6. Needs assessments (Wat heb jij nodig?)/ Hypothese(s) testen (Wat werkt voor jou?)
7. Focus op positiviteit en talenten i.p.v. reactief handelen bij problemen
8. Uitdagende leeromgeving/juiste (leer)condities scheppen
9. Balans tussen ontwikkeling van cognitie, flexibele cognitie & persoonlijkheidsfactoren
10. Gedifferentieerd en afwisselend lesaanbod
11. Jaarklas-doorbrekend werken m.b.v. speciale instructiegroepjes op ontwikkelingsniveau
12. Werken met individuele leerlijnen
13. Procesgericht onderwijs (minder focus op eindresultaat/product)
14. Vakgeïntegreerd onderwijs (taal- en rekenonderwijs koppelen aan andere vakken) of projectonderwijs
15. Leren Leren (aandacht voor: metacognitieve vaardigheden, executieve functies, etc.)
16. Leren Leven (aandacht voor: persoonlijkheidsontwikkeling, talent ontdekken, ontspanning, relaties, welbevinden, etc.)
17. Leren Onderzoeken (aandacht voor: onderzoeksvaardigheden, nieuwsgierigheid, kritische houding, 21th century skills, etc.)
18. Gezamenlijke aanpak: met collega's, professionals, ouders/verzorgers, leerlingen observeren & plan van aanpak maken
19. Leerkrachten oefenen expliciet de (complexe) vaardigheden in de klas (samen met een collega of coach)
20. Circulaire samenwerking/collegiale consultatie
21. Persoonlijke coaching (in de klas/op de werkvloer)
22. Self-assessments leerkracht (bijv. talent ontdekken, analyse van sterke persoonlijkheidsfactoren, Appreciative Inquiry, welbevinden, etc.)

8.1. Eventuele opmerkingen:

9.
Zou u iets uit het model willen **schrappen**?

10.
Zou u iets aan het model willen **toevoegen**?

11.
De volgende vragen (11 t/m 13) gaan over de kernaspecten van het FPG-model: *Groei-mindset - begripvol - vertrouwen - rolmodellen - autonomie - binding/relaties - competentie - veerkracht - positieve en preventieve aanpak - circulaire samenwerking*.

Een **mogelijk kwetsbaar element** van het model kan zijn dat de kernaspecten als **vanzelfsprekend** gezien worden of **sociaal wenselijk** zijn.

Bijvoorbeeld: Iemand kan zeggen dat hij/zij begripvol is en vertrouwen geeft, terwijl het gedrag (onbewust) wantrouwend en afwijzend is.

Of:

Iemand kan zeggen dat hij/zij autonomie stimuleert, maar daar (onbewust) nauwelijks ruimte voor geeft in de klas.

Als u naar **uw collega's** in het algemeen kijkt:
Herkent u dan bovenstaande **voorbeeldomschrijvingen** in uw onderwijspraktijk?

- ○ n.v.t.
- ○ niet/nauwelijks herkenbaar
- ○ enigszins herkenbaar
- ○ redelijk herkenbaar
- ○ goed herkenbaar
- ○ zeer goed herkenbaar

11.1. Eventuele opmerkingen:

12.

Als u naar uw collega's in het algemeen kijkt:

Laten zij dan in hun dagelijks handelen zien, dat zij beschikken over **vaardigheden** die **overeenkomen** met de **kernaspecten** van het model?

In het dagelijks handelen **van mijn collega's** zijn de kernaspecten over het algemeen **....**

	n.v.t.	niet/nauwelijks zichtbaar	soms zichtbaar	gemiddeld zichtbaar	frequent/vaak zichtbaar	(bijna) altijd zichtbaar
groei-mindset	○	○	○	○	○	○
begripvol zijn	○	○	○	○	○	○
vertrouwen geven	○	○	○	○	○	○
rolmodel zijn	○	○	○	○	○	○
autonomie versterken	○	○	○	○	○	○
focus op binding/relaties	○	○	○	○	○	○
competentie vergroten	○	○	○	○	○	○
stimuleren van veerkracht	○	○	○	○	○	○
positieve benadering	○	○	○	○	○	○
preventieve aanpak	○	○	○	○	○	○
circulaire samenwerking	○	○	○	○	○	○

13.

Probeert u nu een inschatting te geven van **uw eigen handelen**:

Laat **u** in uw dagelijks handelen zien, dat u beschikt over **vaardigheden** die **overeenkomen** met de **kernaspecten** van het model?

In **mijn** dagelijks handelen zijn de kernaspecten over het algemeen **…**

	n.v.t.	niet/nauwelijks zichtbaar	soms zichtbaar	gemiddeld zichtbaar	frequent/vaak zichtbaar	(bijna) altijd zichtbaar
groei-mindset	○	○	○	○	○	○
begripvol zijn	○	○	○	○	○	○
vertrouwen geven	○	○	○	○	○	○
rolmodel zijn	○	○	○	○	○	○
autonomie versterken	○	○	○	○	○	○
focus op binding/relaties	○	○	○	○	○	○
competentie vergroten	○	○	○	○	○	○
stimuleren van veerkracht	○	○	○	○	○	○
positieve benadering	○	○	○	○	○	○
preventieve aanpak	○	○	○	○	○	○
circulaire samenwerking	○	○	○	○	○	○

13.1. Eventuele opmerkingen:

Dit laatste onderdeel gaat over de praktische implicaties van het FPG-model voor het onderwijs.

Bekijk eerst het filmpje **FPG model - De implicaties** (part 3), u kunt daarna de volgende vragen beantwoorden.

FPG model NL Part 3 Implicaties

Indien de video **niet zichtbaar** is in dit scherm, klikt u dan op de link naar youtube.

OPGELET: Open de link met behulp van de RECHTER MUISKNOP in een nieuw tabblad of venster. U kunt dan naderhand gemakkelijk terugkeren naar deze plek in de enquête.

(https://youtu.be/Mnq8-oFTYB0)

14.
Het FPG-model is een basisraamwerk/visie van waaruit de schoolcontext ingevuld wordt. Het model biedt ruimte voor flexibiliteit en een vrije invulling van het onderwijs.

*Het lesaanbod moet echter wel recht doen aan: het A-B-C^{R}

*de basisgrondhouding van de leerkracht (groei-mindset, vertrouwen, begripvol en rolmodel)

*de positieve & preventieve aanpak in combinatie met de circulaire samenwerking

Enkele voorbeelden staan in **dit document:** FPG-model praktische implicaties/voorbeelden

(Mogelijk bent u nog niet bekend met alle items. De lijst dient ter inspiratie om de praktische kant van het model te illustreren.)

Wat **vindt u** van **deze gegeven suggesties/voorbeelden**?

(*Er zijn meerdere antwoorden mogelijk*)

- ☐ Het document bevat voor mij (veel) **onbekende** suggesties
- ☐ Het document bevat voor mij (veel) **bekende** suggesties
- ☐ Het document bevat **te weinig concrete** suggesties
- ☐ Het document bevat **genoeg concrete** suggesties
- ☐ Het document bevat **grotendeels onpraktische** suggesties
- ☐ Het document bevat **grotendeels praktische** suggesties
- ☐ **Anders**:

15.

De concrete invulling van het model is essentieel voor de leerkracht. Vandaar dat deze vraag een beroep doet op **uw ervaring en expertise**.

Welke **tips** en **suggesties** heeft u voor het FPG-model, zodat mensen er concreet mee aan de slag kunnen in de klas/op school?

(*Denkt u hierbij aan praktijkvoorbeelden en concrete materialen, zoals namen van scholen, boeken, methoden, programma's, leermiddelen, websites, personen, e.d.*)

- ☐ Mijn **concrete tip(s)** is/zijn:

16.

Deze vraag gaat over het **potentieel** van het FPG-model. In hoeverre bent u het met de volgende stellingen eens?

Ik denk, dat het FPG-model (in de toekomst) ...

	n.v.t.	helemaal niet mee eens	niet mee eens	enigszins	mee eens	helemaal mee eens
... **potentieel heeft** om **geïmplementeerd** te worden op scholen.	○	○	○	○	○	○
... **hoogbegaafde** kinderen zal **stimuleren** om te **excelleren** (prestaties verbeteren).	○	○	○	○	○	○
... **alle** kinderen zal **stimuleren** om te **excelleren** (prestaties verbeteren).	○	○	○	○	○	○
... **demotivatie** bij **hoogbegaafde** kinderen zal **verminderen**.	○	○	○	○	○	○
... **demotivatie** bij **alle** kinderen zal **verminderen**.	○	○	○	○	○	○
... zal helpen om **hoogbegaafde** leerlingen **beter te begeleiden**.	○	○	○	○	○	○
... zal helpen **alle** leerlingen **beter te begeleiden**.	○	○	○	○	○	○

	n.v.t.	helemaal niet mee eens	niet mee eens	enigszins	mee eens	helemaal mee eens
... zal helpen om een (nog) **betere leerkracht** te worden.	○	○	○	○	○	○
... voor een **kwaliteitsverbetering** (op team-niveau) zal zorgen op (onze) **school**.	○	○	○	○	○	○

16.1. Eventuele opmerkingen:

17.
Maak de zin af.

Het Full Potential Growth model is ...

18.
Zijn er zaken of aspecten die u nog wilt aankaarten ter verbetering van het FPG-model? Of heeft u vragen en/of opmerkingen rondom het model?

☐ Nee

☐ Ja

*. Dit is het einde van de vragenlijst.

Om **de enquête af te ronden**, dient u nog op *volgende (>>)* te klikken. U krijgt dan het bericht: uw antwoord is geregistreerd.

De filmpjes en het document met praktische voorbeelden in deze survey behoren tot de prototype-versie van het model. U kunt deze materialen gebruiken, **mits** met **bronverwijzing** en **onder vermelding** dat het om een **prototype** gaat.

Mocht u geïnteresseerd zijn in het verdere verloop van dit onderzoek en het FPG-model, laat dan hieronder uw gegevens (naam en e-mailadres) achter.

Dank u wel voor uw tijd en feedback! Met vriendelijke groeten,
Mirjam Zevenboom

Uw naam en e-mailadres:

-. Helaas!

Op basis van uw gegeven antwoord, voldoet u niet aan de doelgroepbeschrijving voor dit onderzoek. Ik dank u hartelijk voor uw bereidheid tot participatie.

Mocht u toch nog meer informatie willen ontvangen over het Full Potential Growth-model, of heeft u vragen over dit onderzoek, neem dan gerust contact met mij op:

(m.s.zevenboom@student.utwente.nl).

U kunt ook uw e-mailadres achterlaten, als u doorklikt naar de volgende pagina.

Met vriendelijke groeten,

Mirjam Zevenboom

**.
Zou u op de hoogte gebracht willen worden van het definitieve Full Potential Growth-model? Noteert u dan hieronder uw naam en e-mailadres.

Om uw gegevens te **bevestigen**, dient u nog door te klikken (**>>**), totdat het bericht: uw antwoord is geregistreerd in beeld verschijnt.

Na afronding van het project, neem ik dan contact met u op. **Uw naam en e-mailadres:**

Appendix I
Results node-structure NVivo

Supplement 2:

Organizational overview of node-structure given to the qualitative data

Table 14:

Structured results; The FPG-model: Problem analysis

	Probleem analyse	
	Number of people	Number of references
Heeft u nog opmerkingen omtrent de probleem analyse?	**19**	**30**
-**Opleiding - Professionaliseren**:		**15:**
--Afhankelijk van opleidingsinstituut		2
--Afhankelijk van persoonlijke leervraag cursist		1
--Gebrek expliciet oefenen		1
--Specialisme - Sharing - Team:		**5:**
*Gebrek aan elkaar feedback geven		1
*Gebrek aan teamscholing		3
*Specialist niet HBleerlingen begeleiden maar groepsleerkracht - Collegiale samenwerking		1
--Tijdsaspecten mbt scholing:		**4:**
*Quick fix-keuzes ivm werkdruk		2
*Verandering vergt lange adem		2
--Theorie - Praktijk -gap		2
-DDE is goed, mits met juist kennis en tijd	3	
-Leerkracht-onderbuikgevoel - voelen zich persoonlijk aangevallen	3	
-**Herkenbaarheid**:	**2:**	
--Herkenbaar - maar ook goede voorbeelden		1
--Volledige herkenning - reden uit onderwijs		1
-Curatieve aanpak	2	
-Focus op gedrag	2	
-Gebrek aan goede doelen HB-leerlingen	1	
-Geen gehoor bij bestuur voor ambities	1	
-Focus op cijfers - prestaties	1	

Table 15:
Suggestions for change education to overcome underachievement & demotivation

	Probleem analyse	
	Number of people	Number of references
Welke verandering/aanpassing zou u adviseren om onderpresteren en demotivatie tegen de gaan? (Top 6)	**53**	**123**
1) Curriculum:		**27:**
-Cognitie combineren met fysiek leren		1
-Compacten en verrijken		4
-Concrete doelen voor HB-leerlingen		1
-**Digitale leermiddelen voor zelfstandig gebruik leerlingen:**		**2:**
--Digitale leermiddelen inzetten voor zelfstandig werken		1
--Acadin gebruiken		1
-Gepersonaliseerd lesaanbod		3
-Leerlingportfolio voor andere vakken -dan taal en rekenen		1
-Lesaanbod met hogere orde denkvragen		1
-Meer aandacht creatief denken - vakken		2
-Meer methodisch werken		1
-Meer uitdaging		1
-Nieuwe vakken		1
-Onderzoekend leren		1
-Uitgeverijen moeten verrijkende leerstof rijker maken		1
-**Vakoverstijgend - projectmatig werken:**		**7:**
--Vakoverstijgend – projectmatig werken		6
--Met meer samenhang van disciplines		1
2) STR - communicatie		**23:**
-Student Teacher Relationship		4
-Leerlingparticipatie		10
-Luisteren naar het kind		5
-Needs assessment Leerling		3
-Welbevinden leerkrachten en kind centraal		1
3) Professionaliseren-Opleiden		**18:**
-Professionalisering – Opleiden		2
-Bewustwording mbt effect eigen handelen leerkracht op leerlingen		2
-Docenten oefenen expliciet met leerlingen motiveren		1
-Docenten pabo trainen 'loslaten' - niet elke leerlingen doet met alles mee		1
-Empathie training docenten		1
-Hogere opleidingsniveau leerkrachten		1
-Leerkrachten leren relatie gedrag en leren		1
-Leren van succesverhalen		1
-Meer project en praktijk scholing		1
-Opleiden leerkrachten om differentiëren - individueel werken te kunnen ondersteunen		2
-Specifiek trainen op HB en excellentiebevordering		4
-Teamscholing		1
4) **Organisatorische factoren:**		**11:**
-Meer tijd, geld en organisatorische factoren om goed les te geven		11
5) **Verandering van de leerkracht:**		**9:**
-Nieuwe leerkrachtattitude – rol		9
6) **Overige suggesties voor aanpassing onderwijs:**		**35:**
-Aanpassing onderwijs		10
-Bekwame leerkrachten voor de klas		2
-Deel vd week met ontwikkelingsgelijken werken		3
-Elke school een HB specialist		1
-Goede overdracht po - vo		1
-Groei-mindset communicatie		1
-Leerkrachten beoordelen op cito-scores		1
-Leerlingen in de klas houden		1

Table 15 Continued:
Suggestions for change education to overcome underachievement & demotivation

	Probleem analyse	
	Number of people	Number of references
-**Partnerships:**		**9:**
--Collegiale communicatie – Team-teaching		6
--Ouderparticipatie		2
--Brede betrokkenheid: bestuur/inspectie/leerling/leerkracht		1
-**Loslaten:**		**7:**
--Meer differentieren en methode loslaten		3
--Methode loslaten		3
--Jaarklassensysteem meer loslaten		1
-**Ruimte voor talentontwikkeling:**		**3:**
-- Ruimte voor talentontwikkeling nodig		1
--Ruimte voor hoger tempo - instructie, feedback, leerstof		2
-Vroeg signaleren - testen		3
-**Voorbeeldgedrag leerkracht:**		**2:**
-- Leerkracht staat model		1
--Overtuiging potentieel als lk		1
-Pedagogische klimaat		2
-Meer analyseren		1

Table 16:
Structured results; Comments on the 22 items of application of the FPG-model

	Kernaspecten FPG-model	
	Number of people	Number of references
Heeft u nog opmerkingen omtrent de kernaspecten van het model?	**16**	**20**
-**Haalbaarheid:**		**8:**
--Haalbaarheid		1
--Huidige onderwijssysteem op de schop		3
--Individuele aandacht niet haalbaar door randvoorwaarden		1
--Individuele leerlijn nog niet haalbaar		1
--Randvoorwaarden nodig		2
-Didactiek vs pedagogiek		2
-Moeilijk om hier niet mee eens te zijn		2
-Signaleren-diagnostiek blijft nodig		2
-Eindverantwoordelijk altijd bij lk en ouders, niet leerlingen		1
-Individuele leerlijn niet alleen cogn. ook sociaal-emotioneel vlak		1
-Opleiding zou hier meer invulling aan moeten geven		1
-Preventie en positiviteit is erg belangrijk		1
-Voor alle leerlingen van belang - lk andere rol aannemen		1
-Welbevinden wel belangrijk, maar niet een vragenlijst welbevinden		1

Table 17:
Structured results; Delete items of application of the FPG-model

Zou u iets willen schrappen aan het model?	**46**	**47**
Nee - niks schrappen uit model		34
Ja - schrappen - wijzigen		10
Onduidelijkheden nog – Ik weet het nog niet		3

Table 18:
Structured results; Add items of application of the FPG-model

Zou u iets willen toevoegen aan het FPGmodel?	**50**	**60**
- (Vooralsnog) geen toevoeging FPG-model		26
-Toevoegen FPG-model:		**34:**
--Leerkracht-niveau:		**15:**
*Suggestie training FPG - terminologie		6
*Leerkracht is bepalend		**4:**
• Leerkracht is bepalend		1
• Gesprekken vs checklist		1
• Positive STR		2
*Signaleren-Categoriseren		**4:**
• Signaleren – categoriseren van leerlingen		3
• Twice Exceptionals/dubbel geëtiketeerd		1
*Vertaalslag naar praktijk		1
--Leerling-niveau:		**7:**
*Leerling eigen leerplan leren maken		3
*Veerkracht aanleren		1
*Ontwikkelingsgelijken-Samenwerken		3
--Organisatorische schoolfactoren:		**5:**
*Organisatorische schoolfactoren		4
*Wie is waar verantwoordelijk voor		1
--Rol omgeving		4
--Mix proces-en opbrengstgericht:		**2:**
*Mix van proces- en opbrengstgericht werken		1
*Talentontwikkeling in creatieve muziek sport vakken		1
--Uiterlijk van het FPG-model zelf		1

Table 19:
Structured results; Comments on the self-evidence factor of the FPG-model

	Kernaspecten FPG-model	
	Number of people	Number of references
Heeft u opmerking omtrent de vanzelfsprekendheid van het model?	**17**	**33**
-**Easier said than done:**		**18:**
--Makkelijker gezegd dan gedaan		8
--Intentie is er wel. Doen is moeilijker		7
--Kwetsbaarheid-Vertrouwen docent		3
-Persoonsafhankelijk		6
-Professionaliseren op zelf		5
-Overtuigingen-vooroordelen		3
-HB specialisten wel beter in ABC-R		1

Table 20:
Structured results; Comments on participants' own ability of executing the main features of the FPG-model in practice

Zijn er opmerkingen omtrent het dagelijks handelen die overeenkomen met de FPG-kernaspecten (van u zelf en/of collega's)?	**15**	**19**
-Vanuit andere werkcontext ingevuld		6
-Professionaliseren op zelf		4
-HB specialisten wel beter in ABC-R		2
-Ervarenheid		2
-**Belemmerende omgevingsfactoren:**		**2:**
--Belemmerende omgevingsfactoren		1
--Mis mogelijkheid tot collegiale samenwerking		1
-Intensie is er wel, maar praktijk is lastiger		1
-Bereik niet alle leerlingen als rolmodel		1
-Gêne, ongemakkelijkheid om positief over zelf te zijn		1

Table 21:
Structured results; Additions to the practical implications

	Implicaties	
	Number of people	Number of references
Heeft u nog aanvullingen op de lijst 'FPG-model praktische implicaties/voorbeelden?	**10**	**12**
-Organisatorische randvoorwaarden		**8:**
--Organisatorische randvoorwaarden		3
--Nieuwe impuls zakt op schoolniveau na verloop van tijd weg		1
--Think Big-Act Small (denk groot, begin klein)		3
--Tijd		1
-Nog steeds een Theorie-Praktijk kloof		3
-Concrete aanvulling op lijst		1

Table 22:
Structured results; Suggestions/tips for a practical implementation of the model into practice

Welke suggesties/tips heeft voor een concrete invulling van het model, zodat collega's er concreet mee aan de slag kunnen?	**51**	**89**
-Concreet lesmateriaal		**31:**
--Concreet lesmateriaal		19
--4xWijzer - TASC wiel		3
--Acadin		2
--IPC		1
--Mindsetkaartjes		3
--Taxonomie Bloom		3
-Verwijzing Literatuur-Websites		11
-Professionaliseringsactiviteiten		**16:**
--Professionaliseringsactiviteiten		8
--Aansluiten bij wensen-niveau school		3
--Opleiding		2
--Organisatorische randvoorwaarden		1
--Think big, start small		2
-Collegiale samenwerking suggesties		7
-Best Practice voorbeeld FPG-model geven		5
-Personen		4
-Kind staat centraal - STR		4
-Geen suggesties bekend		3
-Voorbeeldscholen		3
-Jaarklasdoorbrekend systeem nodig		2
-Omgeving betrekken		2
-Externe test waar leerkracht aan kan toetsen		1

Table 23:
Structured results; Comments on potential value of the model in practice

Welke opmerking heeft u ten aanzien van het potentieel het model?	**21**	**27**
-Praktische invulling - Transfer theorie naar praktijk		8
-Think big, start small:		**8:**
--Aansluiten bij wensen-niveau school		2
--Kwaliteitszorg implementatie + borging		3
--Organisatorische randvoorwaarden		1
--Rekening houden met werkdruk		2
-Schoolsysteem - werkklimaat moet anders		6
-Opleiding		3
-Model ogenschijnlijk te simpel - daardoor risico		1
-Toepasbaar voor alle kinderen		1

Table 24:
Structured results; Finish the sentence – The FPG-model is…

	Implicaties	
	Number of people	Number of references
Het FPG-model is...	**56**	**63**
-Mogelijkheid om -alle- talent te stimuleren		17
-Basis om te groeien		**10:**
--Basis om te groeien		2
--Mooie stap in ontwikkeling onderwijs - houd het praktisch		8
-Concrete uitvoering - opzet voor beter onderwijs		5
-Een kans		3
-Middel om leerkrachten te begeleiden		2
-Nog niet haalbaar		2
-Oog voor complete ontwikkeling - voorkomt dichotonomie		2
-Prachtige kijk op jezelf en het kind - uitgangspunt onderwijs		2
-Sluit aan bij blinde vlekken van onderwijs		2
-Veelbelovend		2
-Vooruitstrevend		1
-Waardevol		1
-Zoals HB-onderwijs les wordt gegeven		1
-Behoeft nog extra informatie -dan alleen model		1
-Duidelijk en veelomvattend model		1
-Een databank voor materialen HBleerlingen		1
-Een model... niet meer dan dat. Theory-prakijk		1
-Eye-opener voor leerkrachten		1
-Groeiproces zichtbaar		1
-Herkenbaar voor de praktijk		1
-innovatie waar onderwijs mee moet leren omgaan		1
-Juiste manier om uit te groeien tot gelukkig mens		1
-Mooi bedacht - maar te gecompliceerd		1
-Om taak als rolmodel invulling te geven		1
-Recht doet aan de uniciteit van ieder kind		1
-Slijpsteen voor de geest		1

Table 25:
Structured results; Suggestions for improvement of the FPG-model

Zijn er nog aspecten die u nog wil aankaarten ter verbetering van het model?	**10**	**12**
-Graag contact houden hierover		3
-Behoefte aan Best Practice voorbeelden		2
-Theorie is goed. Twijfel praktijk		**2:**
--Theorie is goed, twijfel over praktijk		1
--Intensieve begeleiding bij invoering model		1
-Model geeft input voor gesprek over handelen lk		1
-Ook van toepassing op maatschappij		1
-Percentage WOdiploma in PA discutabel		1
-Schoolsysteem zit nog vast in oud patroon		1
-Verplichte stof PABO		1

Table 26:
Structured results; Interested in a follow-up on the FPG-model

Bent u geïnteresseerd in het vervolg?	**44**	**44**
Ja, ik ben geïnteresseerd in het vervolg van het FPG-model		44

Appendix J

Examples for implementation FPG-model

Supplement 3:

Examples practical suggestions for implementation of the FPG-model

Het huidige **Full Potential Growth-model** wil een brug slaan tussen de theorie en de praktijk. Hieronder volgen enkele voorbeelden/suggesties voor de praktijk (in **4 thematieken**):

Preventieve benadering - Voorkomen is beter dan genezen:

- Bij aanvang schooljaar een kennismakingsgesprek met leerkracht, ouders/verzorgers en kind. Met behulp van vragenlijst over thuissituatie, ervaringen in vorige klas en wensen/verwachtingen voor aankomend schooljaar bespreken;
- Op meerdere momenten voortgangsgesprekken met leerlingen en ouders/verzorgers voeren;
- Het welbevinden van het kind in kaart brengen (KINDL of Kidscreen vragenlijsten);
- Feedback vragen aan kinderen met betrekking tot de invulling van het onderwijs;
- Kinderen mede regisseur/co-investigators laten zijn van hun eigen onderwijs (Pameijer)

Positieve aanpak - Werken vanuit talenten:

- Needs Asssessment - Wat heb jij nodig om...? (Dit geldt voor alle betrokkenen: kind/ouders/verzorgers/leerkrachten/team);
- Triple Feed (Feed up-Feed back-Feed forward (Hattie)), meer aandacht voor procesgerichte feedback;
- (H)erkennen van persoonlijke kwaliteiten en talenten;
- Toolkit Talent-kaartjes (Dewulf, Beschuyt & Pronk);
- Kinderkwaliteitenspel (CPS), Kwaliteitenspel en groeimeter (SLO, !mpulse en UniC);
- Quiz Analytische, Praktische en Creatieve intelligenties van Sternberg (SLO);
- Fixie en Growie (Floor Raeijmaekers);
- Junior Coachkaarten;
- Trots-portfolio (Ingelmunster-school)

Jaarklas-overstijgend en/of vakgeïntegreerd onderwijs - Gevarieerd & gedifferentieerd lesaanbod:

- Ateliers, Leerpleinen, Instructiegroep, Onderzoeksgroep;
- Exova-programma;
- TASC-wiel - Projectmatig onderwijs
- Voorbeeldscholen: Kindcentrum De Hoven, School of Understanding, primary school De Verwondering, Kunskapsskolan Education Nederland, etc.

Professionalisering - Een beter leerklimaat begint bij de leerkracht:

- Coaching op A-B-C$_R$ en Groei-mindset, begripvol, vertrouwen en rolmodellen;
- Kennis vergroten over leerlijnen primair onderwijs en positieve & preventieve aanpak;
- Collegiale consultatie - Circulair observeren en gezamenlijk plan van aanpak maken;
- Team Appreciative Inquiry - School Team Dynamics;
- Video interactie begeleiding;
- Self-assessments voor leerkrachten (Workplace Big5, Seligman- Talents & Strenghts Questionnaire, Talent in Actie-vragenlijst)