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Abstract

In the summer of 2011, the Dutch Minister of Education, Culture, and Science presented a letter to the Cabinet, containing the policy objectives for the education of talented, gifted, and highly gifted students. In action plans for primary, secondary, and higher education, in addition to the development of teacher skills, specific measures were announced, which should lead to better education and opportunities for developing the potential of these students. This article gives an overview of the current state of affairs in the Netherlands regarding the Dutch educational system and the education of talented, highly gifted, and outstanding students including which talents are valued and what beliefs people have about gifted individuals. The Minister's objectives for future directions in this regard, as described in the action plans, are also discussed.

Keywords

policies, gifted and talented students, talent development, gifted programs, teacher training, school programs, educational system, teacher effectiveness

In 2009, when the results of an international study of reading, mathematics, and science achievement were published, academic outcomes for Dutch students were relatively good (Programme for International Student Assessment [PISA], 2009). This was somewhat surprising because of the recent discussion in the Netherlands about the *zesjescultuur*, or the culture of C's, and a slight decline in the examination results for the subjects Dutch, English, and Mathematics. Nevertheless, in Europe, only students in Finland obtained better results. Globally, however, it should be noted that other countries are improving, especially Asian countries.

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Rankings of PISA results do not provide any information about the quality of education for gifted students. The Netherlands merits its current position mainly due to the good education of a “broad middle group.” The extremes—the very “weak,” less able, or struggling students, on one hand, and the gifted, highly advanced, or excellent students, on the other hand—do not fare as well (Department of Education, Culture, and Science, 2011b). This fits with what is often said about the Dutch national character: “don’t stick out” and “good is good enough.”

The Dutch culture is negatively criticized as a culture of C’s, in which there is no place for top universities, pioneering research, or leading companies such as Apple, and as a rather egalitarian country where there is no place for those who stand out. This image—especially in recent years—is now a topic of debate. Excellence should be appreciated, in students, teachers, or schools, and possibly lead to characterizing a school as an “excellent school” (Department of Education, Culture, and Science, 2011a). Currently there are different kinds of services for gifted students, such as “schools with gifted profiles” (found in primary and secondary education), schools with the so-called “Leonardo profile” (school-within-a-school), enrichment classes, and pull-out classes. The impetus for all this is the potential economic benefits of gifted education. This is a worldwide trend and the Netherlands is no exception (Standaert, 2008). For the Netherlands to maintain its prosperity, leadership in the development and application of knowledge must be sustained. With this in mind, there is increasingly less room for mediocrity in education.

It is a fact that education in the Netherlands is traditionally less focused on gifted or profoundly gifted and talented students. The common belief is that these students will learn anyway and do not need any additional aid or guidance. And if the learning outcomes are disappointing, the alleged giftedness of the student is questioned. Below, five typical characteristics of Dutch education that may underlie this are described.

First, in the Netherlands, starting at age 3, children may attend preschool education before going to primary school at 4 years of age. During primary education, pupils are in mixed-ability classes, and most teachers are able to direct differentiated instruction, individualized learning and teaching, and are skilled in grouping practices. This, however, does not mean that when teaching in more homogeneous settings, teachers differentiate instruction for gifted learners.

Primary education comprises eight grades, and after the eighth grade, children go on to different forms of secondary education. The Netherlands has a very stratified educational system. Few other countries divide pupils into different types of schools as early as in the Netherlands. Teachers in secondary schools, therefore, hardly differentiate their teaching, because classes are relatively homogeneous.

Simply as a result of population density, it is possible for school types to exist in relatively close proximity. The Netherlands still has a segregated educational system that allows different religious affiliations to maintain similar schools. In addition to regular education, there are also schools for students with special education needs due to learning and/or behavioral problems, both in primary as well as in secondary education.

In secondary education, several mainstream school types can be distinguished: schools that provide practical skills teaching for students with special education needs, three levels of secondary vocational education, higher general education, and preuniversity education. At age 12, students are selected for one of the mainstream school types and this high degree of selection and stratification distinguishes the Netherlands educational system from other systems internationally. For many students, the possibility of higher education is removed relatively early (Scheerens, Luyten, & van Raven, 2011).

Second, Dutch teachers are well educated and well trained, but gifted individuals seldom aspire to become teachers due to the status of the profession. University graduates with top grades or a PhD are rare in schools, and in the past few years they have even become increasingly rarer. In other words, there is a group of gifted students who are smarter than their teachers. Because the student differs in terms of intelligence, thinking, and metacognitive skills, this can lead to misunderstandings and lack of recognition on the part of the teacher (Department of Education, Culture, and Science, 2011d).

Third, school inspections and the publication of inspection results in the media are more for the purpose of preventing a school from becoming a weak school than on the school becoming an excellent school. Students are often criticized for perpetuating the culture of C's. To a large extent the same goes for schools. Ensuring a satisfactory result is the common goal, but where a nine (an A) may be feasible, a seven or six (a C) is often seen as sufficient.

Fourth, schools in the Netherlands are mainly "special education" (*bijzonder onderwijs*)—not to be confused with special needs education—so-called because of their religious affiliation. Special education authority is exercised not by government but by independent boards. More than 70% of primary and secondary education is special education, while less than 30% is categorized as public. This is where the affiliation—whether religious or educational—plays an important role. Distinctions between schools are partly along these lines, in addition to schools distinguishing themselves by the attention that is paid to culture, sports, educational climate, modern facilities, and so on. In other words, there is a wide range of schools, even without going into the levels or mainstream types. Schools are very reluctant to distinguish themselves in terms of quality or in terms of targeting gifted students. When more transparent evaluations of schools in the media began in 2000, it was revealed that all the high-scoring schools barely addressed this target group. There seems to be a kind of modesty involved here, as if it's something that just happens to the school and is not the result of a conscious strategy (Salimi & Ghonoodi, 2012).

Finally, there are many opinions about what comprises good education for gifted students, how to identify and understand these students, and what education and counseling approaches are most effective. The different views have prevented progress in gifted education. When schools decided to focus on gifted students, educators do not know what approaches, methods, or instruments should be used.

As already indicated, there has been a turning point in the Netherlands; interest in excellence is increasing. It has also become apparent that if the Netherlands' (Europe's) economic lead, with its associated prosperity, is to be maintained, then this will come about by the fostering of top talent. The subsequent plans of action and policy proposals put forward by the Department of Education, Culture, and Science (2011a, 2011b, 2011c) are recent, as is the introduction of Schools with a Gifted Profile and Schools with a Leonardo Concept (school-within-a-school). A few years ago, the designation of excellent teachers and schools was unthinkable.

Policy Development in Gifted and Talented Education

Quality education is consistent with and responds to the potential of pupils, particularly the cognitive levels and the potentials of pupils. Other elements also play a role, such as learning style, motivation, talent in areas other than cognitive ability, as well as the possible limitations a student has to deal with. The goal of the current government is to encourage excellent performance from all students and the educational system as a whole. In the action plan and strategic agenda of the Minister and the State Secretary of the Department of Education, various measures have been announced which should contribute to such an ambitious learning culture (Van Bijsterveldt-Vliegenthart & Zijlstra, 2011). Specific measures have been reported concerning a policy focus on the top 20% in primary education, the top 20% in preuniversity secondary education, and the 10% of students in higher education and university who participate in excellence programs (Table 1; Segers & Hooegeveen, 2012). Before the specific measures in these action plans are examined more closely, an overview of policy measures during the years that have preceded this and how these measures were translated into the assignment of projects to many institutions focusing on educational development will be presented.

In the years prior to the establishment of these policies, much had occurred in the Netherlands with regard to the education of gifted and highly gifted students. The Netherlands, like many other countries, has a long history of organizing extracurricular instruction for students with learning disabilities. However, when it comes to students who need differentiated instruction, often only weak performers are considered. For a long time, little attention has been paid to gifted and highly gifted students who can handle more than the standard curriculum, and who also require differentiated instruction. A little over 10 years ago, there was growing dissatisfaction among parents and parental organizations about the large number of gifted children who stayed home from school (absenteeism), which became a critical reason for the government to examine the effects of education on feelings of well-being and the learning results of gifted students.

In 2000, the Department of Education, Culture, and Science established a National High Ability Information Center. The purpose of this center was to provide the government with information about developments and issues in primary and secondary education regarding appropriate education for highly gifted students. This was caused, as mentioned above, by criticism from parents of gifted children as to how schools

Table 1. Summary of Policy Measurements for an Ambitious Learning Culture.

| | |
|---------------------|--|
| Primary education | Appropriate education for 15% to 20 % best-performing students, including gifted students Consolidation of support Science focal points Network of teacher training institutes Network of school counseling institutes |
| Secondary education | More attention for excellent and highly gifted students Appropriate education for the 20% best-performing students, including gifted students Continuous learning from primary to higher education A podium for performance for excellent and highly gifted students More schools with specific programs |
| Teacher expertise | Professionalization of teachers with an emphasis on differentiation and dealing with differences More teachers educated on master level |
| Research | Establishment of a research agenda to improve the education of the gifted |

responded to the pedagogical and didactic needs of their children. There were many problems with gifted education in schools, because the overall impression at that time was that these children did not need any extra educational adaptations. The focus was on pupils who were identified as having learning or behavioral problems. On the other hand, several initiatives were undertaken in schools to better align education for gifted students. The schools did this entirely on their own initiative and based on their own understanding and knowledge, often derived from experiences in countries abroad such as the United States and the United Kingdom. Nevertheless, as a result of the critical questions posed by parents, it became increasingly clear that the egalitarian Dutch culture, as reflected in its educational system, had ensured that educational institutions were not capable of planning for the development or encouragement of the talents of individual students.

One of the first activities of the Information Center was a strengths and weaknesses analysis of gifted primary and secondary education (De Boer & Hulsbeek, 2001). The aim of this analysis was to find out how schools had or had not adapted their curriculum to the needs of gifted students. The results of this analysis revealed many problems. First, there was insufficient recognition or acknowledgment that gifted students had additional educational and instructional needs. For example, schools and teachers made statements such as “we do not have gifted students in our school,” “gifted students need our attention less urgently,” “gifted students already have many possibilities because of their intelligence,” or “they do not need extra attention.” Second, there was a lack of vision and policies in schools regarding gifted education. Thus, teachers

did not have the proper attitudes, knowledge, or skills to motivate, teach, or supervise gifted students. Schools described, for example, how education and care were organized, and in what way attention was paid to differences between students' needs, including learning disabilities, but this was not done for gifted students. Third, the schools that had gifted education initiatives showed a wide variation in the teaching and supervising of gifted students, thus making it difficult to make unequivocal statements about what works. Several schools had made adjustments for gifted students entirely based on their own strengths and in their own ways. However, because there were hardly any guidelines as to how to do this, choices were made as the school saw fit. In some instances, enrichment classes were started, while at other schools, additional curricula were developed for the more able students. There was no consensus that could be detected in terms of structure, and quality varied widely. Fourth, there was insufficient material for different levels of student ability and insufficient resources available to meet the learning needs of gifted students. Schools and teachers created their own additional materials, but most of the time, these materials did not suit gifted learners sufficiently; this was due to the lack of guidelines for the creation of such materials. In the meantime, gifted students did not receive differentiated instruction; the regular curricula were followed.

These findings and the activities of different groups organized by the High Ability Information Center, such as networks and conferences for schools, teachers, specialists within the schools, scientific researchers, and parental organizations, offered opportunities to exchange experiences and share knowledge, and to inform policy makers about what further developments were needed. It also became clear which areas needed more attention, such as school policy development, teacher professional development, and guidelines for the creation of enrichment materials. In relation to these identified gaps in knowledge, several projects were carried out with funding from the government.

Most of the projects were focused on school development and the development of extracurricular materials (e.g., SLO, an institute for curriculum development), combined with the training of teachers in the process of curriculum compacting and enrichment (e.g., Perdix Foundation, an academic teacher training institute at Utrecht University). To assess the impact of different teaching approaches, a number of scientific studies were initiated including comparisons of the learning results of students who were identified as gifted or regular students (Guldmond, Bosker, Kuyper, & Van der Werf, 2003), the effects of acceleration (Hoogeveen, Van Hell, & Verhoeven, 2003, 2005), educational adjustments for gifted students based on international research (Hoogeveen, Van Hell, Mooij, & Verhoeven, 2004), surveys of training opportunities for teachers (Frietman, Groen, & De Boer, 2003), and studies of cooperative relationships between schools and universities in organizing extracurricular programs for gifted students (Backbier & De Boer, 2002). Some of the school projects funded by the government at that time were setting up an appropriate support structure for gifted students with an official care requirement (Bosch-Steijns & De Boer, 2005); recognizing, supporting, and motivating underachieving gifted students in secondary education

(Groensmit & Van Mameren-Schoehuizen, 2005; Van Mameren-Schoehuizen, Groensmit, & Jansen, 2006); the funding of a school project on the development of structural school policy for gifted students with special needs, and the description of examples of best practices in schools for primary and secondary education.

All these activities were applied within the framework of the educational policy called “dealing with differences” and “personalized learning.” The core of the focus of this policy, however, was not just on cognitive or academic giftedness and talent but also on how education can be better aligned with all the talents of students. And because it became obvious that the education was not sufficiently in line with the needs of academic giftedness, questions were asked about developing and supporting all kinds of talent. So in addition to projects for educational improvements for gifted students, several activities and projects on talent development began. There were varying opinions as to how the talent of pupils could be better developed in education (Onderwijsraad, 2004, 2005, 2006, 2007; Van Eijl, Wientjes, Wolfensberger, & Pilot, 2005). Talents such as music, dance, sports, arts, language, poetry, and so on, were seen as just as important as cognitive talent or giftedness (www.talentenkracht.nl; Bakker, Kat, Rovers, Van Schilt-Mol, & Van Vijfeijken, 2009; Sligte, Bulterman-Bos, & Huizinga, 2009). Several universities, a large number of primary and secondary schools, teacher training institutes, and parents associations were involved in these projects. Talent in this context has been defined as a gift, as a natural ability that needs to be developed, and the development of this talent depends on a strong supportive environment. Every child has talent and can be outstanding in certain areas.

So-called “science focal points” (cooperation relationships between universities and at least 20 primary education schools) have existed since 2010 (www.orionprogramma.nl) to bring scientific research into the daily practice of the school. These science focus points have an important function in the early recognition of talents in young children.

The government encouraged schools to “choose sides,” and be profiled as schools with an eye for the talents of students. Along these same lines, schools could also be profiled on the academic giftedness of students. In this context, from 2004 until 2009, the Department of Education, Culture, and Science initiated and funded a CPS project called “Schools With a Gifted Profile in Secondary Education.” The aim of this project was to set up a national network of schools that tailored their education and counseling to the needs of gifted students (De Boer, 2010). This project has been extended until 2013.

With all the information that became available from these projects, some understanding arose as to how to align school curriculum and teaching with gifted students. Although it became clear that several schools showed good results and were effective, the overall results produced no consistent information about what works in schools (Mooij, Hoogeveen, Driessen, Van Hell, & Verhoeven, 2007). School policy and the expertise of teachers, as well as early identification of giftedness, were identified as important indicators of effectiveness. An appraisal of the education of gifted students in primary schools by the Inspectorate of Education (2010) found that although schools

were now paying attention to the needs of gifted students, implementation was still inconsistent. Much depended on the enthusiasm and involvement of only a few teachers within a school.

Educational Adjustments for Gifted Students and Teacher Training

The importance of the implementation of a curriculum that suits the capabilities of gifted students is now recognized by most schools. Studies have shown that many schools are aware of the presence of gifted students within their student population and strive for a curriculum that matches the capabilities of these students. Furthermore, it can be concluded that there is a group of schools that stand out as pioneers in adapting their education to gifted students. Since 2009, appropriate education for gifted and outstanding students has become an important issue on the political agenda. Until 2009, considerations of what education was appropriate for gifted students had only been an educational issue. The educational policies of “dealing with differences” and “personalized learning” along with pressure from parents mandated a differentiated focus for these students. For example, the government has promoted a focus on outstanding students in broad-based, heterogeneous schools, and that focus has ultimately benefitted all students. In this regard, the Department of Education has given preference to an inclusive approach over a segregated approach. In 2009, an explicit economic dimension was added. Domestic economic crisis and the rise of countries on other continents increased the vulnerability of the Netherlands and urged the development of the gifted and the talented. Schools/administrators have been and are strongly encouraged, and even required, to pay more attention to talent. How this should be done in an educational setting, and with what care and support, remains at the discretion of the school. It is a challenge for which public funds have been made available, providing an incentive for various projects. This may explain why, on one hand, a government-funded evaluation study has been carried out focused on schools with a gifted profile, to assess the effect of an integrated approach for gifted educating on school policy, teacher expertise, feelings of well-being, and the learning results of gifted students (De Boer, 2010; De Boer & Minnaert, 2011), while, on the other hand, individual initiatives and private schools continue to be tolerated, and the so-called Leonardo Concept (school-within-a-school and segregated concept) has been monitored for its effects on the learning results of pupils by the Radboud University Nijmegen. Furthermore, the Department of Education has emphasized the importance of best practices by including descriptions and examples on the website of the National High Ability Information Center.

The question now arises as to what schools should do, and which provisions and modifications for teaching highly gifted students should be used in education. Because there are no clear guidelines, there is a large variation in educational provisions. Arrangements that primary schools use for the education of the gifted include (Inspectorate of Education, 2010):

- a. differentiation in their classroom, and/or skipping a grade (40%);
- b. partially continuing with their education in an enrichment group within their own school (possibly combined with point [a]; 19%);
- c. partially continuing with their education in an enrichment group at another school or in a pull-out class (possibly combined with [a] and [b]; 13%);
- d. continuing with their entire education in a special group/class (Leonardo/school-within-a-school concept; 2%); or
- e. other (the school makes no reference to gifted students or does not offer a customized solution; 25%).

In secondary education, about 20% to 25% of the schools have policies concerning the issue of high ability (Van Eijl et al., 2005). Within the various activities that schools use to provide appropriate education for gifted students, we can distinguish the following trends:

- a. the revolving door enrichment model of Renzulli;
- b. a preuniversity enrichment program in addition to the regular preuniversity program;
- c. individual learning pathways through renewal education such as Dalton,¹ or by accelerated completion of the educational program;
- d. science-oriented preuniversity education (Technasium), bilingual education, preuniversity colleges, and so-called junior colleges (partnership between an university and several secondary schools); and
- e. mixed forms based on elements from a, b, c, and d.

Choices that schools make in organizing educational modifications for gifted students are dependent on the opportunities that schools have to develop and implement an integrated supply. In primary education, some 60% of the schools chose a more segregated approach. There is little scientific research on the effects and quality of the above-mentioned educational interventions; thus, there is no reliable data available on this issue. In both primary and secondary education, difficulties with the integration of gifted education are related to issues such as vision and policy development, team involvement, teacher expertise, development of additional teaching materials, use of modern technologies, classroom management, costs, and knowledge about what works. An evaluation study on enrichment and pull-out classes (Veltkamp, De Vrije, & De With, 2011) shows that the offer is mainly directed at the cognitive level, that is, how students are selected. Only a small number of schools explicitly define the organization, the goals, and the evaluation of the enrichment or pull-out classes in their school policies. It further appears that gifted students are offered the challenge program only for part of the week, and that there is limited coordination between the challenge program in the enrichment pull-out class, and the program of education in the regular classroom.

Yet it seems a difficult mission for most teachers to shape the education of the gifted in an integrated way or to coordinate the various learning activities. Sometimes this can be explained by the previously stated belief that gifted students will learn anyway, but in most cases, teachers lack the knowledge and understanding of how to differentiate and align their curriculum to the pedagogical and didactic needs of gifted students (De Boer & Minnaert, 2011; Segers & Hoogeveen, 2012; Van der Grift, 2010). Only very recently in some teacher training programs for primary education has attention been paid to the education of the gifted (Fontys Hogeschool, n.d.). Most teachers in both primary and secondary education can only acquire specific knowledge about teaching gifted students through in-service training courses.

The choice of courses in teaching gifted students is broad. This ranges from in-service training programs at the bachelor's and master's level, such as "Specialist in Gifted Education" by the Center for the Study of Giftedness (CBO) of Radboud University Nijmegen, and accredited by the European Council of High Ability (ECHA), to seminars organized by individual trainers and private practitioners, who have no specific qualifications or education in this field. There is insufficient research about the quality and effectiveness of the various courses. There are no specific requirements for private agencies that offer courses and there are no defined competencies and skills that teachers have to comply with to teach gifted students.

The Netherlands has professional standards for teachers (SBL: Association for the Professional Quality of Teachers, 2012). Teachers' competencies are described through the four roles a teacher fulfills. The following teachers' competencies are distinguished: interpersonal competencies such as good leadership and creating a cooperative atmosphere, pedagogical competencies such as offering a safe learning and working environment, knowledge of the subject matter and methodological competencies such as helping students to acquire the necessary cultural knowledge that every citizen needs to function as a full member of Dutch society, and organizational competencies such as making sure that students can work in an orderly and task-oriented environment. To some degree, these standards are specified for particular groups of students such as students with special needs caused by learning disabilities, but they are not specified for gifted students. Research on what makes teachers effective (Van der Grift, 2010) indicates that less than 60% of teachers in secondary education and about two thirds of the teachers in primary education succeed in optimally aligning their lessons to students, by means of task variation and within-class differentiation. In this research, gifted education was not evaluated and although this study provided information about effective teacher interventions such as provide adequate opportunity for learning, a safe and stimulating learning environment, and teaching students how to learn something and to think on a higher level, these data are not related to effective teacher behavior, characteristics, and competencies with regard to gifted students. As mentioned earlier, there is little scientific research in this specific field.

An exploratory study on how teachers interact with outstanding students in regular classrooms has revealed that teachers, as a part of the learning environment of

students, play an important role in motivating pupils and facilitating excellent performance (Van Veen & Van der Lans, 2011).

Within the evaluation study on schools with a gifted profile (De Boer & Minnaert, 2011), teacher characteristics and competencies related to the education of gifted students were examined. In 2011, the evaluation study on schools with a gifted profile began. This study will continue until the end of 2013 (De Boer & Minnaert, 2011). The plea was made to examine teacher characteristics and competencies related to the education of gifted students. The aim of this study in terms of teacher behavior is to gain insight into the effect that the gifted profile for schools and chosen interventions has on the expertise of teachers and their professional behavior in relation to the education, the instruction, and the guiding of gifted students. The findings of this study will be published after the completion of the study in 2013.

The lack of scientific research on teacher characteristics, attitudes, and competencies related to gifted education may be the reasons why teachers are reluctant to participate in courses, because there are no standards for the teaching of gifted students. In-service providers have the freedom to design courses as they see fit, which means these courses may not reflect best practices for gifted education. Educators have difficulty deciding which courses are the most suitable.

Therefore, the actual development of a professional culture of gifted and talented education is stagnating to a certain extent, and there are too many different approaches for it to be possible to arrive at firm conclusions as to what works.

Governmental Objectives for Future Directions

With the policy objectives announced in 2011 (Department of Education, Culture, and Science, 2011a, 2011b, 2011c) on how to develop an ambitious learning culture in primary and secondary education, along with the focus on the expertise of teachers, suggestions have been provided to strengthen education for excellent and highly gifted students. In these action plans, the government seems to be setting the direction in several domains by means of a number of mandatory rulings.

Some of the primary education objectives outlined are as follows:

- a. more appropriate education in schools for the 15% to 20% best-performing students, including gifted students;
- b. consolidation of the support offered by accredited training institutes, science focal points, and networks of teacher training institutions and school counseling services;
- c. enhancing research and knowledge functions (where CBO assumes the director's role);
- d. further professionalization of teachers in terms of working in an output-based manner (Department of Education, Culture, and Science, 2011c);

- e. more transparency as to how the supply and reinforcement of the demand is articulated; and
- f. more effective use of teaching time in all schools and for all pupils.

Some of the secondary education objectives outlined are as follows:

- a. more attention to excellent and highly gifted students, that is, the achievements of 20% of the best-performing students in preuniversity education needs to further improve;
- b. excellent and highly gifted students need an appropriate education;
- c. throughout their learning careers in primary, secondary, and higher education, excellent and highly gifted students should have their abilities recognized;
- d. excellent and highly gifted students should have a podium for their performance and should be able to demonstrate that it is worth belonging to the top tier of learners;
- e. more schools with specific programs for excellent students such as bilingual, Cambridge English, Technasium, and Beta-excellence schools; and
- f. professionalization of teachers, with more with master's degrees, and incentive experiments, both in terms of identifying and dealing with professional content (the Board of Education recommended requiring teachers to obtain master's degrees and that schools use innovative processes to better serve highly gifted students).

For both primary and secondary education, teacher expertise is an important theme. In the professionalization of teachers, particular emphasis is given to differentiation and dealing with differences, specifically focusing on giftedness, because it is commonly accepted in the Netherlands that even the cognitively strongest students need focused attention, support, and challenge to get the best out of themselves. To monitor these action plans of the government, an organization called "School aan Zet" (Schools take Action) was founded by the Department of Education.

An important issue for the coming years is to establish a research agenda with topics for scientific research to improve the education of excellent and gifted students. In the programming study for the preparation of the call for proposals (Segers & Hoogeveen, 2012), as commissioned by the Department of Education, four themes were identified for which research proposals could be submitted. For this research program, excellence is defined as excellence on the cognitive level, and therefore talent development in, for example, musical or athletic performance falls beyond the scope of this research. The four themes are as follows:

1. (Potentially) excellent students: definition, identification, and motivation;

2. Teachers: differentiation, professionalism, and an ambitious school culture;
3. Programs to promote excellence: what works in education; and
4. System characteristics and policy interventions.

Only accredited universities and research institutions may submit proposals. In October 2012, eight research proposals of the NWO (NWO, 2012) excellence program were granted to be carried out in the period 2012 through 2015. In this respect, the Department of Education has indicated how it would like to honor the proposals vis-à-vis the different sectors: primary education, four proposals; secondary education, three proposals; and higher education, one proposal. Segers and Hoogeveen (2012) indicate that a combination from among the themes is preferred. So, not only “what works” (Theme 2) or “what is the effect” (Theme 3) but also “why, under which conditions, what are active mechanisms,” and “what it required of teachers and school management” (Theme 4), and “what is the effect on academic performance and also on motivation and social emotional development of students” (Theme 1) should be involved.

The titles of the granted proposals are as follows:

- Developmental trajectories to excellence: Examining the interplay between students potential ability, background, motivational, emotional, social, and educational characteristics to explain excellence, University of Amsterdam;
- Does the tide raise all ships? Estimating the impact of an enrichment program on the educational achievement of excellent students using two experiments, University of Amsterdam;
- Enhancing the development of motivation, self-regulation, and achievements for potentially excellent students through an integrated enriched learning arrangement in mathematics and history education, University of Amsterdam;
- Excellent cooperative learning behavior in higher education, VU University Amsterdam;
- Gifted pupils: Who are they, what do they do? Maastricht University;
- Nurturing natural talents: The influence of family, school, and teacher on the expression of giftedness for educational achievement in primary school. A twin study, University of Twente;
- Triggering the motivation of the gifted: Effects on cognitive and motivational differentiation, University of Groningen;
- Advancing successful intelligence development in the upper primary grades, Radboud University, Nijmegen.

The action plans and the research plans are ambitious; however, if the Netherlands wants to maintain its position as a knowledgeable nation, then this seems to be a necessary package of measures for precisely those students who have more than

average cognitive capability to excel. And as research shows (Eyre, 2001), if education for the gifted in schools improves, this will have a positive effect on the education of all students.

Discussion

In this article, the recent policy of the Department of Education, Culture, and Science on the realization of an ambitious learning culture to improve education for gifted and highly gifted students was discussed. It was explained that an economic crisis and disappointing student outcomes for the potentially very best students in an international comparative study were the reasons for announcing various measures that concern primary, secondary, and higher education. Specific attention to the expertise of teachers in terms of effective teaching and the creation of an ambitious learning environment for all students has been called for. It was indicated that scientific research concerning effective teachers has emerged in primary and especially in secondary schools, which shows that teachers are not sufficiently able to deal with differences among pupils. As a result, teachers seem insufficiently capable of fully developing the talents of students.

At the level of the school, the teacher, and the provision of training, research proposals have been made to achieve the government objectives. Here, on one hand, mandates are imposed upon the schools, such as appropriate education for the 15% to 20% best-performing students and, on the other hand, the schools are free to make their choices in terms of the appropriate funds. The question is whether schools—given that there is still a great deal of emphasis on students with learning disabilities—are more willing to invest in the 15% to 20% potentially best-performing students with the promulgation of these new measures. All pupils should perform better, not just the gifted and highly gifted students. Questions about schools in terms of the education for gifted students and the qualities that teachers need to teach them can only be answered by scientific research.

What seems to be clear at this juncture is that there are insufficient opportunities for pupils to excel due to the way the Dutch educational system is presently organized. The fact that teachers have an important role to play is obvious. Two topics in the proposed research agenda, Issues 2 and 3, focus on teacher expertise and learning environments that are effective for gifted and excellent students. With the four themes identified in the research agenda, we can take a huge step forward in realizing the desired ambitious learning culture where students can excel. In sum, a necessary condition for the success of the government's proposed improvements for the education of gifted students is that sufficient attention is paid to the implementation of the findings that will emerge from the 3-year research project and from the various projects established in the schools.

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1. The Dalton Plan is an educational plan created by Helen Parkhurst who was a teacher in the city of Dalton, Massachusetts. The plan was inspired by educational thinkers such as Maria Montessori and John Dewey (Parkhurst, 1922).

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