# How teaching assistants are supporting gifted students: an exploratory qualitative research

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# **Table of contents**

Summary	
Introduction	
Theoretical framework	6
Method	13
Results	16
Conclusion	22
Discussion	25
Bibliography	27
Appendix A	32
Appendix B	34
Appendix C	
Appendix D	37

# **Summary**

Onderwijsassistenten zijn sinds de komst van passend onderwijs niet meer weg te denken uit het Nederlandse onderwijsveld. Passend onderwijs heeft als doel om voor elke leerling geschikt onderwijs te vinden wat in de buurt is. Voor hoogbegaafde leerlingen is niet elke school geschikt. Hoogbegaafde leerlingen hebben andere onderwijsbehoeften dan niet hoogbegaafde leerlingen. Deze diverse groep leerlingen kan ondersteund worden door onderwijsassistenten. Dit onderzoek gaat in op hoe onderwijsassistenten het beste hoogbegaafde leerlingen kunnen ondersteunen in de dagelijkse praktijk. Belangrijke bevindingen zijn dat onderwijsassistenten hoogbegaafde leerlingen op onderwijs-, gedrags- en sociaal-emotioneel gebied goed kunnen ondersteunen. Daarnaast komen er een aantal suggesties voor vervolgonderzoek naar voren om deze groep leerlingen beter te kunnen ondersteunen.

#### Introduction

In 2014, the Dutch educational system implemented 'passend onderwijs' (appropriate education; befitting education). This nationwide program replaced and streamlined programs for special education. Municipalities could now decide on the best way to assist students. School boards in a specific region would join together in 'samenwerkingsverbanden' where they would ensure appropriate education for all students (Ledoux & Waslander, 2020). The goal of 'passend onderwijs' is appropriate education for all students, close to their home, preferably in their local neighbourhood. This meant that regular schools needed to provide education to students who would previously have been sent to special educational schools. As a result, more and more people were needed in the classrooms to accommodate all the different needs of the students, which caused more teaching assistants to be hired. In the first years of 'passend onderwijs', special educational schools saw a decline in the number of students being admitted. However, in the last few years more and more students have been admitted to special educational schools (De Boer, 2020).

In regular and inclusive education, there has been a rise in the number of teaching assistants being used (Chambers, 2015; Douglas et. al., 2016). Teaching assistants are being used mostly to provide aid or extra instruction to students with extra needs, even if they are assigned to the whole classroom (Vogt et. al, 2021). There has been a lot of research done on what the roles of teaching assistants are and what helps in the communication between teachers (Giangreco, 2021; Webster & de Boer, 2021). However, inclusive education is not only about keeping students in the regular classroom who have lower attainment, but also students who are talented or gifted. Students who are not challenged enough in cognitive areas can underachieve (Hately & Townend, 2020).

Creative gifted students can also underachieve and develop behavioural problems or act out (Kim, 2008; Kim & VanTassel-Baska, 2010; Guilbaut & McCormick, 2024). There are quite a number of schools being established for gifted children throughout the Netherlands (Van Gerven, 2021). However, to reach these schools, children have to leave their neighbourhood, thus defeating the purpose of 'passend onderwijs'. This raises the question, that maybe teaching assistance can be put to use aiding gifted and talented students in regular education, so that they can also go to a school in their neighbourhood. There is currently not much research on the topic of teaching assistance aiding gifted and talented students, which shows the importance of this research.

Gifted students can also have problems on educational or behavioural aspects. These students are called twice-exceptional or 2e. Despite their high intelligence, these students have specific learning disabilities, ADHD, ASD or another diagnosis (Beckman et. al, 2024). There is currently limited, but growing, research on how these students can thrive best in a regular inclusive classroom and what kind of support they need (Minnaert, 2022). Since teaching assistants mainly help with behavioural problems (Webster et. al, 2010), they could also assist these 2e students.

This research will provide insight into what teaching assistants can do in aiding gifted and talented students in regular education and also how they can support twice exceptional students. The research question is 'How can teaching assistants support gifted and talented students?'. To answer this question there are a few subquestions. The first sub-question is: 'what are the needs of gifted students in the classroom'. The second question, to get an insight into the opinion of TAs, is 'what do teaching assistants find important in aiding gifted and talented students?'. To get an idea of what TA's currently do, the third sub-question is 'How are teaching assistants currently supporting gifted and talented students?'.

Firstly the educational needs of talented and gifted students will be given and then the roles of teaching assistants. By conducting interviews with different teaching assistants we get an insight into how they think they could help students who need to be challenged more than they currently are in their classroom.

#### Theoretical framework

In this framework a working definition of giftedness will be described, focusing on the Dutch educational setting. Also the educational needs of gifted students will be described. The roles of teaching assistants will be described, as well as what there is for current research on teaching assistants supporting gifted students.

#### Giftedness and education

There is no scientific consensus about the definition of giftedness (McBee & Makel, 2019). In the educational field, there is sometimes spoken about the 20% of best achieving students (Doolaard & Harms, 2013). Often, the score of an intelligence test is looked at. An IQ that is above 130 is considered 'gifted', which is around 2-3% of the population (Doolaard & Harms, 2013). Sternberg (1993, in Verschuren & Koomen, 2016) described 5 criteria in his Pentagon Model defining giftedness. These are (1) excellence, the behaviour is superior to peers, (2) rarity, the behaviour is rarely seen in the population, (3) productivity, the talent has potential to become productive, (4) value, the behaviour must be valued by the population and (5) demonstrability, the behaviour must not be hidden. Other researchers say that motivation plays an important role as well. Drent and van Gerven (2012) name the model of Renzulli that contributes giftedness to motivation, creativity and intelligence. This model gives a broader definition of giftedness. Mönks added a second layer to the model to contribute to the different environmental influences that could play a role in the development of giftedness in a child (Smeets et. al, 2023).

In the Netherlands, the educational system traditionally doesn't focus much on giftedness (de Boer et. al, 2013). This can be attributed to the general Dutch thinking of 'don't stick out' and

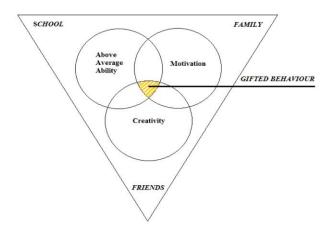
'good is good enough'. PISA results show that there is a big middle group of students that fare really well, but that the lower and upper parts of the spectrum don't do as well (PISA, 2009). There have been multiple accommodations for gifted students in the Dutch educational system, ranging from full-time education to pull-out groups and extra-curricular activities. However, teachers in general have little knowledge on how to properly support and identify gifted students in their classroom (de Boer et. al, 2013).

There has been a shift in general opinion about giftedness in the Netherlands (van Gerven, 2021). Before, giftedness was mainly accredited by having a high IQ-score and good grades, but more recently, giftedness is also accredited to motivation and creativity (Renzulli, 1985, Kieboom & Venderickx, 2019).

Next to having a high IQ score, showing signs of creativity and motivation, other characteristics can also be attributed to gifted students. These characteristics are: a good language use and comprehension, is creative and resourceful in solving problems, matures fast, loves challenges, has commitment to the task, can be a perfectionist, is intuitive, needs a certain level of autonomy and is social competent (Drent & van Gerven, 2012).

For this research we take Renzulli's three ring model, who uses a combination of intelligence, motivation and creativity as a combination for giftedness, as a baseline for the definition of giftedness. This is because it is a widely accepted model for giftedness in the Dutch educational system at this moment. A graphic explanation of Renzulli's model and the addition of Mönks layer can be seen in figure one.

Figure 1



Renzulli's three ring model

#### Twice exceptional students

Twice exceptional students are students that have gifted abilities but also learning or behavioural disabilities. The definition of twice exceptional students has changed from time to time (Renzulli and Gelbar, 2019). The current most used definition of twice exceptional in the academic world is from Reis et. al (2014):

'Twice-exceptional learners are students who give evidence of the potential for high achievement capability in areas such as specific academics; general intellectual ability; creativity; leadership; AND/OR visual, spatial, or performing arts AND also give evidence of one or more disabilities as defined by federal or state eligibility criteria such as specific learning disabilities; speech and language disorders; emotional/behavioral disorders; physical disabilities; autism spectrum; or other health impairments, such as ADHD.' (Reis et al., 2014, p. 222)

Twice exceptional students are found to have high levels of negative emotions, low self-perception and adverse interpersonal relations. They also have high levels of motivation, coping and

perseverance. A high level of academic frustration was also found with these twice exceptional students (Beckman and Minnaert, 2018). Twice exceptional students need to be challenged in their zone of proximal development (Burger-Veltmeijer and Minnaert, 2023). If they are challenged correctly, they can develop their maximum potential.

Renzulli and Gelbar (2019) state that for education 2e students, the main focus should be on their strengths. Burger-Veltmeijer and Minnaert (2023) propose the Strength and Weakness Heuristic for assessing the needs for twice exceptional students. This method is about using qualitative, descriptive and quantitative tools to get a full profile of the students abilities. Its goal is to discover any abilities that might be masked by learning difficulties or giftedness.

#### **Educational needs of gifted students**

There are no specific educational needs of gifted children, all gifted children are different, however all gifted children need to be challenged constantly. Characteristics of gifted learners are: Fast in comprehension, making big leaps and jumps in their learning, having a good memory, having a broad interest, having good problem solving skills, can use newly learned knowledge, can integrate new knowledge with existing knowledge and having an analytic mind (Drent & van Gerven, 2012).

Accommodating to the different learning styles of gifted students can be achieved through various methods. Problem-solving is an important role in their learning (Byrka, 2022). Methods such as advanced classes, pullout groups, clustering, acceleration, and compensation are effective in supporting students. Additionally, enriching the program is also a way to accommodate the gifted students' needs. Enrichment of the program involves delving deeper into the materials or broadening the program to fit to the needs of the gifted student (Verschueren & Koomen, 2016).

Effective enriching assignments feature open-ended questions, creativity, and are in alignment with their zone of proximal development (Drent & van Gerven, 2012).

Reis et al. (2021) outlined several enrichment pedagogy strategies for gifted students, including strength-based learning opportunities, critical and creative thinking, problem solving, fostering interest, independent and small group projects, differentiated instruction and integrating depth and complexity.

Bloom's taxonomy can be a useful framework for designing assignments for gifted students (Termeer, 2011). Particularly, the upper three levels of analysis, synthesis and evaluation. Effective implementation often requires grouping gifted students for part of the time (Rogers, 2009). Providing daily challenges, offering regular opportunities, varying subject-based learning, enabling collaboration with peers and differentiating instruction pace were also identified as best practices when working with gifted students (Rogers, 2009).

Additional approaches for gifted students include a top-down approach, student-led discussions, concept-oriented instruction, independent study and problem-based learning (Little, 2018).

#### **Teaching assistants**

Teaching assistants are people that support teachers and students. There has been a lot of international research done into teaching assistants. Most of this research focused on defining the roles of teaching assistants, but finding no clear set of defined roles for teaching assistants. A literature review by Sharma and Salend (2016) looked into 61 international studies regarding teaching assistants. They found different roles for teaching assistants: from non teaching tasks, such as administrative tasks, to personal care support and monitoring students during non-

classroom activities. Other studies found that teaching assistants play an important role in decision making regarding pedagogical and educational aspects without consulting with the teachers. Most teaching assistants are also supporting students with educational needs instead of regular students. Other researchers described the roles of teaching assistants as repair, support and heuristic. The support role focuses on keeping the learner engaged and motivated, the repair function focuses on fostering independence when students are having difficult times and an heuristic role that encourages students to think for themselves and develop learning strategies (Radford et. al, 2015).

In Dutch context, the role of TA is called 'onderwijsassistent'. This translates literally to educational assistant. The role of teaching assistants in the Netherlands is slightly different from other countries. In the Netherlands, teaching assistants follow a four year course to become a teaching assistant. This course is sometimes combined with people who want to work in daycare or with people with disabilities. The PO-raad (2019) described the role of teaching assistant as a person who provides educational support, helps students, does organisational tasks and optionally aids students with their personal care. There are different levels of teaching assistants, with the lowest level following instruction of the teacher and the highest level acting on their own insights with consulting the teacher.

Existing research shows that twice exceptional students can have behavioural problems, so we look into teaching assistants aiding students with behavioural problems a little more. A Catalan study revealed the different roles of teaching assistants in inclusive classrooms (Jardi et. al, 2021). Sometimes the teaching assistants were called once a student was 'on edge', while other teaching assistants were always in the classroom, which was experienced as the best option, in case one student needed to step out of the classroom there would always be another adult present. Teaching assistants however are not always prepared to deal with misconduct in the classroom (Leslie, 2018;

Jardi et. al, 2021). A study into teaching assistants working with students with ASD revealed that students with ASD required unique teaching strategies. Also, TAs can scaffold social interactions for students with ASD (Page and Ferret, 2018). By doing so, teaching assistants are providing students with aid on educational, behavioural and social tasks.

The research question of this study is 'How can teaching assistants support gifted and talented students?'. The first sub-question is: 'what are the needs of gifted students in the classroom'. The second question is 'what do teaching assistants find important in aiding gifted and talented students?'. The third sub-question is 'How are teaching assistants currently supporting gifted and talented students?'.

# Method

This research is an explorative research into teaching assistants providing support to gifted and talented students. For this research, four teaching assistants from the general area of the Northern Nederlands were interviewed. They all worked in regular education schools in the provinces of Groningen and Drenthe in the Northern Netherlands. The age ranged from 21 years to 61 years and experience from 3 years to 20 years. The participants worked at three different schools, more detailed demographic information can be seen in table 1 and 2. One of these schools, where R2 worked, is a regular school but with special focus on gifted students.

 Table 1

 Information of the participants

Participant	Age	Years of experience	Working in grades	Highest form of education
1	61	20	3-8	MBO 4
2	21	3	2-6	MBO 4
3	35	12	3-8	MBO 4
4	50	16	3-8	MBO 4

 Table 2

 Information of the schools

School	Place	Denomination	Child centre	Number of students
1	Groningen	Christian/Catholic	No	209
2	Assen	Christian/Protestant	Yes	444
3	Winschoten	No denomination	No	160

## Sample

The sample used for the participants was a convenience sample. In total there were 4 interviews conducted of semi-structured nature with open-ended questions. The interviews had a duration between 19 and 36 minutes and were recorded and transcribed. The interviews were held in Dutch. The participants all signed an informed consent form before their participation and can withdraw from the interview anytime they feel not comfortable. The interview plan can be found in attachment A.

#### **Analysis**

For content analysis, all interviews were analysed with an online tool, atlas.ti. For analysis, conventional content analysis was used (Hsieh and Shannon, 2005). Based on the theoretical framework and existing literature, a few codes were established before reading the interviews. Some of these pre-established codes were creativity (regarding students characteristics), eager to learn (regarding students characteristics), and supporting students with learning disabilities.

The coding consisted of the following parts: All interviews were read completely - open coding - preliminary codes were created - codes were revised - categories were made - final codes were made. An example of how the codes were made and put together in themes can be found in attachment D. The first round consisted of open coding. This was done using Atlas.ti (2023). After the first round, codes were revised and grouped together into themes. During the coding process, recurring themes within and between interviews were counted to see the importances of the themes. Different codes were grouped in categories and sub-categories. These categories were changing during the coding process. Sub-categories were split into other categories to create a better understanding of the underlying themes. For example, during the first round of coding

fragments were given the codes 'roles' or 'tasks'. These codes were later combined to 'tasks'. Also all codes regarding the attitude of supporting gifted students were grouped together, same for all characteristics given to gifted students. The group characteristics, it was split into characteristics for gifted students, characteristics for gifted students with behavioural problems and characteristics for gifted students with learning disabilities. After making a final list of codes, all interviews were looked at again and coded properly. It was checked then if all codes were mutually exclusive and exhaustive.

## **Ethics and validity**

Before starting with the interview, all participants signed a consent form. In this consent form stated the research objectives, procedures and how the data will be stored. All participants could withdraw from the research at any time. All participants were made anonymous. All respondents were given a code, R1 through R4, for respondent 1, 2, 3 & 4.

For this exploratory research a small number of participants sufficed. To ensure internal validity, intersubjectivity was used to form the basis for this research. All interview questions were designed and evaluated with the other researchers. All researchers had an interview guide to structure the interview, but had the freedom to ask other related questions. To ensure external validity, quotes and fragments from the participants were used during the analysis of the (sub-)themes.

#### **Results**

During the coding process there were several themes identified. The four main themes identified are 'how teaching assistants describe gifted students', 'what teaching assistants think of supporting gifted students', 'how teaching assistants support gifted students' and 'what are difficulties when supporting gifted students'.

#### How teaching assistants describe gifted students

Teaching assistants give a lot of different characteristics to gifted students and twice exceptional students. Teaching assistants describe gifted students as: eager to learn, searching for depth in the materials, needing short instructions, can be bored easily, fast in comprehension, thinking differently and creative. Teaching assistants give the following characteristics to only twice exceptional students; needing more guidance in behaviour, being more focused on themselves, can be frustrated, need more practice, benefit from compensation for certain tasks, and can have performance anxiety. The described characteristics also have implications for how they work with gifted students. One participant said that "Supervised practice was not needed... at least less [than non gifted students]" (R3). Another participant said that instructions needed to be "short and concise" (R2). Two participants (R1 & R3) stated that gifted students can become "bored" and that was something that "needs to be prevented".

Teaching assistants also describe some differences between working with gifted students and non-gifted students, such as that gifted students have a different way of thinking and require more incentives to learn by themselves instead of telling them how to do something.

"I'm not going to tell them everything. They know that too. Try first to read it on your own, what do they mean, what do they want to know? What do I need to do? So that's very different, because with a student that has lower scores, you point more in the right direction, you show them first and then you do it together. So that is definitely a different way." (R4)

#### What teaching assistants think of supporting gifted students

Teaching assistants were asked their opinion on supporting gifted students and if they thought that was necessary. All TAs interviewed said that supporting gifted students was very necessary, but that it was not always done at schools. Three TAs had previously worked at schools where gifted students weren't supported, or that their school recently started supporting gifted students. One TA (R2) stated that "I do the supporting and [name] goes more in depth [with gifted students]". In this case is the other person a *leerkrachtondersteuner*. This concept was also described by another teaching assistant at another school. At that school, one teacher was available one day a week for gifted students who needed more challenges. It is described as important that gifted students get proper assistance.

<sup>&</sup>lt;sup>1</sup> A person with teacher qualifications, but performing tasks of a teaching assistant

"... In the past I have seen that children who have high scores get bored. And then you definitely need to put a teaching assistant with these children, or someone else. There have been complaints before, that those children get bored and that they don't know what to do. Luckily then teacher [name] was brought to life to work one day in the week with those students, from all grades. You should have that at all schools, because of all the different levels of the children." (R1)

One TA (R2) also described that they preferred working with gifted students because of their "eagerness to learn" and "in-depth conversations". The TA said that students were very "willing to talk to them about different topics during their time working together." The TA used this also to their advantage during the time of support "We chat a little and then they can continue" (R2).

Two TAs also identified problems working with gifted students (R2 & R3). One TA missed "good methods [for working with gifted students]" (R3). They made the exercises themselves and wished there was a "budget available" (R3) so that they could make an 'ongoing educational module' (R3) for gifted students.

The importance of working with gifted students was also identified to 'prevent decline' (R3) and with teaching assistants so that there was time for "search for depth into the materials" (R2), because that was not always possible with the whole classroom.

#### How teaching assistants are supporting gifted students

The teaching assistants that were interviewed had differences and similarities when working with gifted students. All four teaching assistants said that they worked mostly outside of

the classroom. Two teaching assistants said that they "preferred to work outside the classroom" (R2, R4). One teaching assistant said that it was important to "look at the space [available] and task on hand" (R2) to determine what the best place is to work with a certain student. All TAs said that they take groups of students with them for support as well as individual students. One TA (R2) said that "the teacher does group 3 and I do group 2". This was the case for a combination group of grade 1 and second year kindergarten. In this case, the teaching assistant performs a teacher task by teaching the whole group of kindergarten students.

TAs use different materials for working with gifted students. One TA (R1) said the following thing about supporting gifted students

"Yes, one day a week we have teacher [name] for that. He works with gifted students, or students who can take on more. I don't work with them a lot. Sometimes I help them with Rekentijgers, or with an assignment from the special teacher." (R1)

This illustrates that the TA does not work a lot with gifted students, but helps them sometimes. It also illustrates that a teacher gives gifted students special assignments. Another TA (R2) stated that "[students] get an extra history assignment" and "[assignments] are self made". Another TA (R3) also said that he "makes lessons [himself]" for gifted students, because "there aren't many good methods on the market". Another TA (R2) supports this idea by saying "There are simply no materials yet". One TA (R2) also said that they used the extra materials provided by regular methods. This TA also said that they used the input from the students:

"But sometimes a kid has a very good idea to research something that interests them very much. I think that we should support this child and we shouldn't say that we [teachers] come up with the assignment." (TA2)

TA's use different strategies when working with gifted students. One teacher described their strategies as follows: patience, creativity and humour.

"Yes, Patience ... creativity, to describe it another way if they don't get it, you want to find another way to explain it. Also a little bit of humour, you want it to be fun that they go with you." (R4)

Another TA (R2) said that they talked with "I-statements, or say like I see this" to scaffold for students when supporting them. This TA also said that they "focus on their strengths" and "look at what they are good at and give them space to do that as well". For strategies when students are getting frustrate or don't know what to do, one TA (R2) described the following:

"I take them personally with me and then we chat a little about normal things. And then eventually I get the assignment. And then I ask them if they want to continue." (R2)

This fragment illustrates that the TA uses distraction to get students to work again. They also regularly "ask questions and follow-up questions" to help students with their task. One TA (R4) also says that it is important to "search for fun ways to make it clear … because you can explain it twenty times the same way but that doesn't make it fun if they don't get it".

#### What are difficulties when working with gifted students

While working with gifted students, teaching assistants described several necessities and difficulties they experienced. These difficulties are sometimes a lack of insight or knowledge and there is need for more preparation.

"Yes, a bit more insight. I must say I find it difficult sometimes. I am not gifted myself. Gifted children think differently. I have a son who is gifted, so I know that it works differently. I cannot always keep up. I don't think like these kids. So I find that difficult sometimes." (R4)

"What do I need to explain? Can I think of something fun with that?" (R4)

Working with gifted students was described as more challenging, because of the extra preparation that was needed. A teaching assistant described it as "I need to think about the questions I am going to ask" (R2).

All the relevant themes from the interviews were illustrated by quotations from the participants of the study. The four main themes were 'how teaching assistants describe gifted students', 'what teaching assistants think of supporting gifted students', 'how teaching assistants support gifted students' and 'what are difficulties when supporting gifted students'. These themes and reactions will be interpreted and connected with the theoretical framework in the next chapter.

#### **Conclusion**

The research question of this thesis is 'How can teaching assistants support gifted and talented students?' The first sub-question was: 'what are the needs of gifted students in the classroom?'. The second question was 'what do teaching assistants find important in aiding gifted and talented students?'. The third sub-question was 'How are teaching assistants currently supporting gifted and talented students?'.

#### What are the needs of gifted students in the classroom?

Teaching assistants describe several needs of gifted students in the classroom or during their support. The commonly used method of supervised instruction was not necessary for gifted students. Instruction for gifted students needs to be short and precise. They can become bored and thus need to be challenged more than in a regular classroom is possible. Enriching the program for gifted students was also found in other research (Drent & van Gerven, 2012). Gifted students also benefit from a quicker pace in the learning materials, since they are described to have a faster comprehension of the learning materials. This can also be done by going more in-depth into the learning materials, this was also described by Drent & van Gerven (2012).

For gifted students with learning disabilities, i.e. twice-exceptional students, it is important to focus on their strengths and sometimes compensate for their weaknesses. This is inline with the strength and weakness heuristic of Minnaert and Burger-Veltmeijer (2023). By detailing the strengths and weaknesses of these students, teaching assistants have a better overview of what works for that student. Twice exceptional students with behavioural problems need to have guidance for their behaviour, this can be done in social skills lessons or one-on-one practice.

Scaffolding social skills was also found to be effective for students with ASD (Page & Ferret, 2018).

#### What do teaching assistants find important when supporting gifted students?

Teaching assistants find different things important when supporting gifted students. The most important thing is that there is someone available to work with these students. Teaching assistants described that it was important to find different ways of teaching or explaining the subject. To take time for individual students' needs was also something that was described as important. Taking time to talk about a students' interest was a way to help them concentrate more because they had room to talk about what was on their mind. To go in-depth and give students freedom to research something of their own interest is also described as an important part of working with gifted students, which was also found in the literature, describing enrichment as an important part of gifted education (Verschueren & Koomen, 2016; Reis et. al, 2021).

#### How are teaching assistants currently supporting gifted students?

Teaching assistants are supporting gifted students in different ways. Even when supporting gifted students, they focus on students who fall behind. That teaching assistants are mainly working with students who fall behind was also found in other literature (Sharma & Salend, 2016; Vogt et. al, 2021). Most teaching assistants worked, or preferred to work, outside of the classroom. This contradicts the finding of the study of Jardi et. al (2021) who stated that it was best practice that the teaching assistant was present in the classroom at all times.

During the support, teaching assistants tend to let gifted students think first before aiding them. If the student does not reach the answer, the teaching assistant often gives 'I-statements' or uses phrases such as 'I see this'. The teaching assistant also uses follow-up questions to help the student further understand.

An interesting finding of the interviews was that at two schools it was a person with teacher qualifications that went more in-depth with the gifted students. At the first school, the teaching assistant sometimes worked with gifted students when helping them with their tasks. These tasks came from a teacher that is appointed one day a week to work with gifted students. At the other school, the teaching assistant worked with gifted students, because they worked at a school for only gifted students. This teaching assistant mainly helps the students that fall behind. At this school, there was also a teacher that was assigned multiple days to work with the gifted students to go more in-depth.

Another subject that was found across multiple schools was that the materials for the gifted students were mainly selfmade. In two of these cases, this was done by the teacher. The teaching assistant helped students with these tasks however. In one case, the assignments were made by a teaching assistant. All stated that missing materials was something that needed to be worked on, however this was not something that was found in the literature.

Teaching assistants can help gifted students on all aspects of their education and personal being. By helping students with their educational tasks and scaffolding social situations, in and outside of the classroom, teaching assistants take on a more complete role. This role can best described as the repair, support and heuristic role (Radford et. al, 2015).

#### **Discussion**

#### Limitations

This research had several limitations. The sample of this study is relatively small, the main input came from two teaching assistants and two other teaching assistants gave comments on certain topics. Because of this, the conclusion can not be generalised to the whole population of teaching assistants who work with gifted students. The whole process of the research took place in a relatively short period of time, lasting from the beginning of February till the end of May. Because of this, several possible participants did not respond and there was no space to wait for their response. The creation of the interview guide was limited by the amount of literature that was available on the subject.

#### Suggestions for further research and future practice

This exploratory research into teaching assistants supporting gifted students and twice exceptional students scratched the surface of this important topic. With this research, several new themes emerged and are worth looking into.

Firstly, the educational needs of gifted students are difficult to describe, however, to accommodate the learning needs of gifted students is easier. This research found several roles teaching assistants can have when supporting gifted students, from scaffolding social situations to supporting educational difficulties and challenging assignments. The moments of support are viewed from the perspective of the teaching assistant in this research. The qualitative analysis of the support moments and the view of the students are also worth researching, same as the strategies used during these moments.

Secondly, the teaching assistants talked about missing methods and creating assignments themselves. A suggestion would be to compare the assignments of different teachers working with gifted students to create best practices and research their effectiveness. Research about materials that are available and looking into their effectiveness is also important. However, research shows that all gifted students have different needs, it is important to look at those needs and cater to it (García-Martínez et. al, 2021).

Thirdly, this research was conducted on a small scale. Practices of three schools and four TAs were used. To conduct this study on a larger scale with a bigger sample size will give a more detailed view on teaching assistants supporting gifted students.

Lastly, there were two types of schools in this research, a school for gifted students and regular schools. At the first school, all students were surrounded by peers, while at regular education the students are mixed with other students. Research showed that gifted students benefit from being surrounded by peers (Rogers, 2009), but this defeats the goal of inclusive education where all students are mixed and can go to the same school.

For future practices, teaching assistants can support gifted students in an heuristic way on educational, behavioural and social-emotional levels. It is important to look at each student's individual needs and preferred learning styles to achieve the best outcome.

This research makes a start with hopefully more research into teaching assistants supporting gifted students and twice exceptional students so that they can also take part in inclusive education. By having teaching assistants taking on an heuristic role in supporting gifted students not only on educational topics but also on social and behavioural issues, a step closer to inclusive education is being made.

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# Appendix A

Question	Inquiry		
General questions			
Can you introduce yourself shortly?			
How long have you been working as a TA?	What is your education/ qualification? When did you study to become a TA?		
How long have you been studying to become a TA?	How long have you been doing an internship for?		
How would you describe students with additional needs?			
How does a day of being TA look like?	Could you tell us some more about it? What are examples of tasks you would do? Do these tasks take place in or outside of the classroom?		
How do you perceive your role in the classroom ?	How would you describe this role specifically for students with SEN? How would you describe this role specifically for students without SEN?		
How would you describe the competencies you need as a TA?	How does this come back in our daily work with students with SEN? How does this come back in our daily work with students without SEN?		
What are the usual challenges you run into as a TA?	How does this come back in our daily work with students with SEN? How does this come back in our daily work with students without SEN?		
Many research shows that TA's are mostly used for students who fall behind. What is your opinion on supporting students who need more challenges or are gifted?			
How do you work with the teachers?	What are your expectations regarding collaboration and guidance?		
	What does a discussion/ meeting between		

	you and the teacher look like, and how often does it occur?			
If you have worked in both regular and special education, what differences do you notice in general?				
Gifted students				
Are there gifted or talented students that you are currently supporting?				
What do you need for aiding gifted and talented students?  Would you aid students who need more challenge different than students who need extra support	Who do you think is responsible for providing that need?			
Students with gifted abilities can show behavioral problems such as social separation and academic frustration. How would you support them?				
Gifted students can have dyslexia, this results in having problems with reading. They can feel very frustrated about this and feel incompetent. How would you support this student?				

# Appendix B

#### **TOESTEMMINGSFORMULIER**

"Exploring teaching assistants' role and collaboration with main teachers in Dutch special schools"

#### PED-2324-S-0053

- Ik heb de informatie over het onderzoek gelezen en de gelegenheid gehad hierover vragen te stellen.
- Ik begrijp waar het onderzoek over gaat, wat er van mij wordt gevraagd, welke consequenties deelname kunnen hebben, hoe mijn gegevens zullen worden behandeld en wat mijn rechten als deelnemer zijn.
- Ik begrijp dat deelname aan het onderzoek vrijwillig is. Ik kies er zelf voor om deel te nemen. Ik kan op elk moment stoppen met deelnemen. Als ik besluit te stoppen, hoef ik niet uit te leggen waarom. Stoppen met deelname zal geen negatieve gevolgen voor mij hebben. Ik begrijp dat na de hieronder aangegeven geldigheidsdatum de toestemming onmiddellijk wordt ingetrokken en alle gegevens worden verwijderd.
- Omdat voor dit project mijn persoonlijke gegevens nodig zijn, moet ik daar apart toestemming voor geven.
- Hieronder geef ik aan waar ik toestemming voor geef.

<u>Loestemming om deel te nemen aan het onderzoek:</u>			
[] Ja, ik stem ermee in om deel te nemen, deze toestemming is geldig tot 28-05-2024			
[] Nee, ik geef geen toestemming om deel	I te nemen		
Toestemming om audio-opnames te make	n tiidens het onderzoek		
] Ja, ik stem ermee in om audio-opnames		onderzoek	
Nee, ik geef geen toestemming om audi			
[ ] 1400, in goor goor toootoriiriing on addi	to opniamed varining to maken		
Volledige naam deelnemer:	Handtekening deelnemer:	Datum:	
Volledige Haarif deelifierher.	riandlekening deememer.	Datum.	
Volledige naam van de aanwezige	Handtekening onderzoek:	Datum:	
onderzoeker:			

De onderzoeker verklaart dat de deelnemer uitgebreide informatie over het onderzoek heeft ontvangen.

U heeft recht op een kopie van dit toestemmingsformulier

# Appendix C

"Het verkennen van de rol van onderwijsassistenten en de samenwerking met leerkrachten binnen speciale scholen in Nederland"

PED-2324-S-0053

#### > Waarom ontvang ik deze informatie?

U wordt uitgenodigd om deel te nemen aan dit bachelorproefschriftproject. Het onderzoeksproject heeft als doel onderwijsassistenten en hun rollen en hun samenwerking met leerkrachten in Nederlandse speciale scholen te onderzoeken. Dit bachelorproefschriftproject wordt begeleid door professor Run Tan. Vijf bachelorstudenten zullen hun bachelorscripties schrijven binnen dit project. Alle betrokkenen bij het onderzoek zijn afkomstig van de faculteit Gedrags- en Maatschappijwetenschappen van de Rijksuniversiteit Groningen. Het project start aan het begin van februari en zal worden afgerond eind juni 2024.

#### > Moet ik deelnemen aan dit onderzoek?

Deelname aan het onderzoek is vrijwillig. Echter, uw toestemming is nodig. Lees daarom deze informatie zorgvuldig door. Schroom niet om vragen te stellen indien iets onduidelijk is. Pas daarna beslist u of u wilt deelnemen. Als u besluit om niet deel te nemen, hoeft u niet uit te leggen waarom en er zullen geen negatieve gevolgen voor u zijn. U heeft te allen tijde dit recht, ook nadat u heeft ingestemd om deel te nemen aan het onderzoek.

#### > Waarom dit onderzoek?

Onderwijsassistenten worden steeds vaker ingezet om de inclusie van leerlingen met verschillende behoeften te ondersteunen in algemene of speciale schoolsituaties. Dit project beoogt te onderzoeken hoe Nederlandse onderwijsassistenten hun rollen definiëren en hoe zij samenwerken met leerkrachten in speciale schoolsituaties. Dit zal helpen om het begrip en de kennis van studentleerkrachten over onderwijsassistenten te vergroten, een groep die zelden is onderzocht in de Nederlandse context. Daarnaast zal het ook waardevolle inzichten opleveren die essentieel zijn voor het ontwikkelen van richtlijnen voor een alomvattende definitie van de rollen van onderwijsassistenten in speciale onderwijsomgevingen. Dit draagt bij aan het overbruggen van de kloof tussen onderzoek en praktijk, zowel op nationaal als internationaal niveau.

#### > Wat vragen we van u tijdens het onderzoek?

Er zal een eenmalig interview worden afgenomen dat ongeveer 30 minuten duurt. Het interview zal worden opgenomen op een recorder voor gegevensverzameling. Het interview zal bestaan uit vragen zoals 'hoe ziet uw dag eruit als onderwijsassistent' of 'hoe communiceert u met de leerkracht', met als doel te onderzoeken hoe u uw rol als onderwijsassistent definieert en hoe u samenwerkt met de leerkracht.

#### ➤ Wat zijn de gevolgen van deelname?

Uw deelname aan het project zal bijdragen aan een beter begrip van en kennis over onderwijsassistenten, als een belangrijke groep professionals die de dagelijkse leerervaring van leerlingen met verschillende behoeftes in speciale omgevingen ondersteunen. Dit is vooral waardevol omdat kennis over deze groep sterk ontbreekt in onderzoek, beleid en praktijk in de Nederlandse context. Het zal ook het publiek helpen om enig begrip te krijgen van de rollen van onderwijsassistenten en hoe zij samenwerken met de leerkrachten. Dit zal toekomstige leraren en andere professionals informeren over hoe ze beter kunnen samenwerken met onderwijsassistenten om zo de inclusie van leerlingen met verschillende behoeften beter te kunnen ondersteunen.

#### > Hoe zullen we uw gegevens behandelen?

De interviewgegevens zullen alleen worden gebruikt om de bachelorscripties te schrijven voor onze vijf studenten die bij het project betrokken zijn. Dit betekent dat de informatie enkel zal worden verzameld, voorbereid en geanalyseerd door onze vijf bachelorstudenten. De interviewgegevens en transcripties worden opgeslagen in een nieuwe 'Y'-opslagmap van de universiteit die is aangemaakt door de hoofdonderzoeker en alleen de vijf studenten en de hoofdonderzoeker hebben er toegang toe. Ondertussen hebben alle deelnemers recht op inzage, rectificatie en verwijdering van hun persoonlijke gegevens tot de datum waarop de deelnemers anoniem worden gemaakt. Eind juni, wanneer het project is afgerond, worden alle interviewgegevens verwijderd. De deelnemers aan het interview zullen niet naar hun echte naam worden gevraagd tijdens het verzamelen van de gegevens, maar tijdens het transcriberen en analyseren van de transcripties van het interview zullen we een andere kleur toekennen aan elke individuele leerkracht (bijv. rood aan leerkracht één, zwart aan leerkracht twee) als pseudoniem om uw identiteit te beschermen, maar tegelijkertijd kunnen we de kleur later koppelen aan de individuele leerkracht om later uw persoonlijke gegevens te herleiden en te verwijderen.

Als u geïnteresseerd bent in deelname aan dit onderzoek, neem dan gerust contact op met Run Tan door een e-mail te sturen naar r.tan@rug.nl.

# Appendix D

