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'I usually never got involved': understanding reasons for secondary students with visual impairments leaving mainstream schooling in Germany

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ABSTRACT

The study aims for identifying the driving forces that lead German children with VI to switch from mainstream schooling to special schooling. The results are intended to provide more understanding from the perspective of these students about how school settings for students with and without visual impairment can be designed with as few barriers as possible to meet these students' specific needs. Six female and four male students, who have been schooled inclusively during their school career and then made the decision to be educated in the upper *Gymnasium* (grammar school) classes at a special school participated in the present study. It is apparent that all of the students had extensive experiences of exclusion in mainstream schooling. The results show perceived barriers on the school and instructional-organisational level, as well as problems on the level of social-emotional relationships with fellow students and teachers. It is evident that the perception of barriers increases with the length of school attendance and that private supplementary involvement is described as the most important resource. In consideration of the results a two-level model of school inclusion barriers for children with VI is presented.

Theoretical background

Due to ratification of the UN Convention on the Rights of Persons with Disabilities (CRPD) by the German Government, the German educational system is also called upon to make a contribution towards overcoming the exclusion of marginalised and discriminated social groups. Against this background, this study focuses on the perceived barriers for children with visual impairment (CWVI) in Germany[1] Although educational decision-making has already been a main topic of educational research for a longer period of time in Germany, students with special educational needs (SEN) are hardly ever considered (Rabenstein and Gerlach 2016, 206). The needs of young people with visual impairments have not been taken into account up to now. There are currently no known studies that reconstruct educational decisions at the transition of the secondary education first stage (ISCED 2)[2] to the secondary education second stage (ISCED 3) from the perspective of CWVI in Germany.

Consequently, this study addresses the issue of secondary students with VI who pursue the objective of the general higher education entrance qualification. All participants received continuous mainstream schooling during the ISCED 2 and have decided at the transition to ISCED 3 to leave the mainstream school in favour of a special school. The target perspective is identifying the individually perceived barriers in mainstream schools in order to promote awareness (Article 8 CRPD) as to how the joint school settings can be designed as inclusive as possible for students with and without VI.

In line with the CRPD, the UNESCO (1994) emphasises that no children having SEN are allowed to be excluded from mainstream schools. The normative orientation in this educational policy paradigm has been largely unquestioned in the international inclusion discourse for some time (Yell 1995). In this sense, McLinden et al. (2016, 180) state within an Anglo-American context that 'the majority of children and young people with vision impairments but no additional disabilities are now educated in mainstream settings.' However, this does not apply to Germany: The German inclusion discourse still lacks a standard definition as to what is meant by inclusion (Ahrbeck 2014, 7). Against the background of a segregated tradition in the German school system, a special characteristic of the debate in German is that inclusion has been closely bound to the question of the special school's right to exist (Giese 2021) and that there is a more vehement dispute about how to interpret the CRPD in Germany than in other European countries (Ahrbeck et al. 2018, 219).

In the overall international comparison, it can be established that 'Germany with its highly differentiated special school system has taken a special path' (Klemm 2009, 5), which has been critically commented on within the scope of the *UN Special Report on the Right to Education* (Muñoz 2007), within the State Party Review by the UN Committee on the Rights of Persons with Disabilities (2015), as well as the National CRPD Monitoring Mechanism (German Institute for Human Rights 2019, 33).

In Germany, people with disabilities have the opportunity to choose whether they want to attend a mainstream or a special school. More precisely, their parents do so because of the *parental right of choice*. The educational system distinguishes between eight different types of impairment with CWVI as the smallest group. For each type of impairment, there are numerous research institutions and a large number of special schools. When people with VI attend mainstream schools, they are supported by visiting teachers of the disabled students' support services 'to enable these children to access the curriculum alongside their sighted peers' (McLinden et al. 2016, 180). Whereas 42.3% of all pupils in need of special education received inclusive education at their local mainstream schools during the 2018/2019 school year in Germany, this number was as high as 51.1% in the category of VI. Since the federal states of Germany are each in charge of organising their own school systems, it should be noted that this number varies greatly depending on the federal state as well as the age of the child. In the federal state of Schleswig-Holstein, for example, 100% of all students with VI attend mainstream schools, but in the state of Hesse, this figure is just 17.5% (KMK 2020).

The low incidence in the latter state, as well as the differences between the federal states in special and mainstream schools, allow us to presume that the special educational expertise is not available in the same quality everywhere in Germany, because the number of qualified teachers is also low (Ravenscroft and Giese 2020). If the goal is schooling at a special facility for CWVI, this usually occurs at a boarding school, as was

also the case for all subjects in this study. Seen in the light of this background, developing strategies for how the schooling of CWVI can better succeed in mainstream schools appears to be especially relevant (Douglas, Hewett, and McLinden 2019, 144).

State of research

In the international research literature, the results of Bishop and Rhind (2011) show that barriers – independent of the institution and the year of attending (high) school – are frequently created through a lack of qualified teachers. This situation is reflected by Opie, Deppeler, and Southcott (2017, 282) in their case for secondary students with VI attending mainstream schools in Australia. In everyday school life, there is evidence that it is especially problematic when accessible learning materials are not available due to short-term lesson planning. Long distances to the educational facilities are among the frequently mentioned barriers, as well as non-functioning agreements with the teachers (Hewett et al. 2017; McCarthy and Shevlin 2017; Whitburn 2014). This problem is additionally complicated by 'the lack of classroom teacher understanding of vision impairment' (Opie 2018, 85). Even though cooperation with the teachers is basically seen as helpful, a large part of the responsibility for the individual's learning process lies with the CWVI. This finding is also explicitly emphasised by Jessup et al. ('Fitting In or Feeling Excluded', 2018), as well as by de Verdier (2016) and Whitburn (2014). Moreover, CWVI are frequently mentioned as acting as the only advocate on their own behalf (Hewett et al. 2017).

In addition, the lack of technical equipment is noted (Simui et al. 2018): 'A lot of maths teaching is visual'; 'I didn't know of a program which would allow me to write the proper [mathematics] notations […] nor was my screen reader capable of reading these back at the time' (McCarthy and Shevlin 2017, 1017). On the whole, CWVI require more time for learning due to inadequate technical equipment, inaccessible learning materials and a lack of long-term lesson planning than their sighted peers (Jessup et al., 'Being noticed', 2018), which sometimes also leads to the loss of peer contacts (Hewett et al. 2017). Furthermore, they speak of difficulties with the curriculum that are not due to their lack of abilities but based on their restricted access to it (de Verdier and Ek 2014) and 'the limited extent of ECC delivery' (Opie 2018, 86).

de Verdier (2016), as well as Jessup et al. ('Bn', 2018), emphasise the importance of social relationships as an additional factor. According to de Verdier (2016), students who show a high degree of stamina, social competence and above-average cognitive abilities are considered to be included in a good way. Jessup et al. ('FIFE', 2018) show that many CWVI have experiences with bullying by peers and teachers, but there is a lack of individual and institutional strategies for handling this appropriately. In addition, interaction with the disabled students' support services, experienced both as an individual resource and as a barrier, is often limited (Opie 2018, 80). As a whole, the long-term study (1st to 9th grade) by de Verdier (2016) shows that pedagogic measures by the teachers to socially include the CWVI decrease continuously as the grade level increases. Overall, it is interesting to note that many CWVI in mainstream schools speak about feeling lonely, isolated and different (Opie, Southcott, and Deppeler 2017, 2376; Ruin, Giese, and Haegele 2021) and report about psychosomatic complaints which arise through the reworking of lesson contents and social relationships with peers (de

Verdier 2016). There have not been any explicit studies on the subjective reconstruction of barrier and placement decisions by CWVI in the transition to ISCED 3 to date.

Study design

In order to reconstruct the perception of barriers experienced by CWVI in mainstream schools, this explorative study uses qualitative survey and analysis methods. The methodological approach was to find a research perspective that traces the 'everyday actions of members of society in different situations [in this case, schooling in a mainstream school]' (Flick, Kardorff, and Steineke 2018, 106) with detailed descriptions (Denzin and Lincoln 2018). These descriptions are 'not about doubling or "copying" reality' (Flick, Kardorff, and Steineke 2015, 106), but reconstructing social reality (or realities) by analysing the data obtained with qualitative collection and analysis methods (Flick 2018).

Sample

The data were collected in April 2019 at a privately owned state-approved special school for students with visual impairments in the federal state Hesse. This school pursues a school concept with the same objective of the general higher education entrance qualification (German: *Allgemeine Hochschulreife*). This is the only upper secondary school for CWVI aimed at receiving the undergraduate degree in the German-language area. Due to the large drawn area, the school is a boarding school which is attended by all students with very few exceptions.

On the whole, six female and four male students in the age group between 17 and 19 years (average age: 18.5 years) participated in the study from the upper level of the Gymnasium (grade 12). All participants gave informed consent, but their names were changed for the verbatim quotes. All subjects plan to do the Hessian centralised school leaving examination (*Abitur*) and were attending the boarding school at the time of the data collection. According to the social law in Germany all respondents were officially classified as visually impaired and did not have any other impairment. Since the study aims to identify perceptions of educational barriers for CWVI in mainstream schools, the participants were learners who were inclusively schooled at mainstream schools close to their homes during the entire ISCED 2 and explicitly decided to switch to a special school at the transition to ISCED 3 (in autumn 2018) and with it consented to the associated boarding school residence. After all of the students who met these conditions had been contacted, the ten students who agreed to participate were included in the study.

Data collection and analysis

Following the approach of Rabenstein and Gerlach (2016), the educational decisions for or against mainstream schools were not seen as cost-effectiveness considerations but as optimisation processes which run through the entire school career. For the reconstruction of these optimisation processes, the *episodic interview* with a semi-structured interview guide was used (Flick 2011). This strives for 'changes from the respondents' viewpoint but without exclusively focussing on the biographical processes' (Flick 2011,

278). The episodic interview aims for 'stories about situations in which interviewees have had certain experiences' (Flick 2011, 274); it was also chosen because the interviewer works as a teacher at the school in addition to his function as a researcher and had already known all of the participants at the time of the survey. At the time of data collection, there was no teaching relationship between the students and the researcher. In order to avoid socially desirable responses and ensure confidentiality in each interview, particiapants were told that their statements would be strictly anonymised and that they were not expected to emphasise certain perspectives . The personal and confidential relationship was intended to allow a deeper access to the individually relevant barriers in the mainstream school system which manifest in the episodic stories.

Every interview was digitally recorded and transcribed. The evaluation was conducted with the MAXQDA 2020 software based on content-related structuring of qualitative content analysis with deductive-inductive category formation; this is explicitly recommended for the evaluation of episodic interviews (Kuckartz 2016, 98). In the supercategory of Statements on Barriers and Resources, *general statements* on joint instruction which showed up in the students' subjective reconstruction were collected. The other supercategories of *School and Instruction Organisation, Disabled Students' Support Services, Teachers* and *Peers* – as well as the questions in the interview guide – were formed deductively, with reference to the research status, as well as the researchers' everyday knowledge. The differentiation of the category system with the subcategories was carried out inductively in the concrete examination of the material (cf. Figure 1). In the coding process, four independent coders were involved, whereby parts of the material has been coded a number of times at the beginning of the process. In order to create conformity between the codings, a 'procedural approach' in the sense of a consensual coding has been chosen, whereby different assignments were discussed until a common consensus could be reached (Kuckartz 2016, 44).

Results

In order to discuss the results in a structured way, these three thematic focal points are covered in the following section: (a) *General statements on mainstream schooling*, (b) *Perceived barriers on school- and/or instruction-organisational level* and (c) *Perceived barriers on the level of social-emotional relationships*.

General statements on mainstream schooling

In response to the question about resources and barriers in mainstream schooling, most students reported that the perceived barriers increased in the course of the school career and especially within the context of the educational transitions.

> Yes. Well, everything was still normal back in elementary school. Everything was still good back then. I really was on good terms with everyone and got along well with everyone. And it was just like this the other way around. And then the tide turned in middle school.
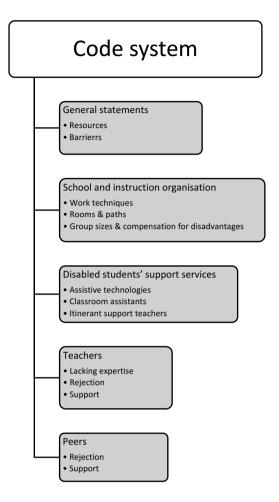>
> (Tim #81)

Figure 1. Code system.

While the mainstream schooling was also described as unproblematic in part during the 5th and 6th grades, the perceived barriers increase successively starting at the 7th grade and escalate in view of the final examinations.

> So the key experience was also simply that the examination year at the middle school was very, very stressful. So it was really totally stressful. Where I really had to get up at five in the mornings to do the homework and study in the evenings until ten so that I could somehow carry it off. This was then really much, much more stressful. (Franziska #148)

As Jessup et al. ('FIFE', 2018) also show, private supplementary involvement – partially with the support of parents or friends – is the most important resource for overcoming these barriers. For example, Kian reports that when he did not see something during the classroom instruction, 'My buddy who sat next to me gave it to me, and I practically wrote down whatever I hadn't seen; I listened and also additionally worked through everything again at home' (Kian #37). In this sense, almost all of the respondents reported on an enormous amount of time that – beyond the homework itself – was necessary for following up on the classroom instruction.

> *But when you have nine hours of school during the day and have to study and do homework, this simply doesn't work anymore at some point. And then I was also missing quite a bit of the material, especially in maths and so on. (Anna #27)*

The private support system reaches its limits over the course of time, which is expressed in an exponential experience of stress. Kian (#135) reports that the pressure increased so much that 'I really broke down at some point; my nerves were frazzled, especially because of the visual impairment, in trying to deal with the entire situation, and then also with all the school stress.' Within this context, it appears to be a problem for which special educational support systems such as the mobile special educational service or the personal assistance was not always capable of offsetting the strains. In almost half of the cases, the mobile special educational service even proved to be an additional barrier:

> *Well, she first somehow changed three times and then only came once every three months or so at the end because she simply didn't have the time or the trip was too long or something like that. […] Yes and when she was here, she sat down and looked at things, and that was about all. So she really didn't help me much. (Larissa #122)*

The personal assistance is also described ambivalently because it makes contacts with the peers more difficult and it 'still isn't a substitute for functioning social structures' (Sarah #139). From the CWVIs' perspective, their positive effectiveness seems to depend not only on organisational reliability but also on the inner acceptance by the CWVI and the complex social structure existing between the CWVI, peers and teachers. Nevertheless, *all* of the respondents describe their time at the mainstream schools as an important life experience despite predominantly negative experiences 'because especially at the university or the later job there also may not be so many people who explicitly concentrate on you or make sure that you somehow get things served to you in the bite-sized way you need them. This is why – even though it wasn't a nice experience – it was still an experience from which you could learn, I would say, for your later life' (Max #133).

Perceived barriers on the school and/or instructional-organisational level

With regard to the subcategories of work techniques, rooms, paths and class sizes, as well as compensation for disadvantages, *all* of the respondents reported on excluding experiences; these were primarily perceived in the maths-natural sciences, artistic and sports subjects. For example, Anna describes that it is difficult 'when you must somehow draw parabolas in maths under the reading device on thick paper' (Anna #77) and Franziska describes that she cannot see pastel colours but 'many things [were] marked with colours in the written exams. And I always got the assignments completely wrong' (Franziska #42). *All* of the respondents also reported on inaccessible presentations of information and that it is hardly possible to prepare transcripts of them. It sometimes wasn't possible to use the specially prepared A3 (11.7 x 16.5 inches) copies because the 'table was about, for all I know, about as long as an A4 (8.3 x 11.7 inches) sheet. So how should I work there with an A3 page and a notebook and whatever else?' (Julius #103). Or 'the teachers often forgot to copy something in a large size' (Max #33). In addition, 'looking at the board as frontal teaching in the form of copying from the board […] was already always quite difficult' (Susanne #25). The respondents also complained about this in relation to instruction with overhead or other projectors.

Additional barriers were described within the context of aids which could not compensate for the inadequacy of frontal instruction.

> So yes, there were barriers in any case. They had a projector. And I had the board camera. But it didn't have such a good resolution so that I could see it correctly. (Franziska #126)

The change of teachers, the transport of the aids, the principle of a teaching room for different subjects and the related change of rooms are described as problems 'because I never knew where I had to go. And I was always really stressed. […] You somehow always had to hurry so that you didn't lose the connection because you otherwise just wouldn't be able to manage' (Katharina #65).

> It's clear that all of this carrying stuff around and setting it up, and then putting it away also always takes time. You can't always immediately go out to play with the others during the break but have to go lock things away in an extra room and so on. So this is quite complicated. (Max #91)

Within this context, the lockable cabinets were also perceived with ambivalence. On the one hand, it was mentioned as positive when the classroom teacher 'made the effort for me to get a cabinet […] because going back and forth, back and forth the entire time gets very annoying at some point' (Kian #87); but, on the other hand, the laptop also needs to 'be locked up […]. And this always screwed everyone up because the teachers arrive delayed and you normally stay inside. And this also always led to complications somehow' (Katharina #57).

A further topic (Susanne #189) is 'that the classes are simply too big' and 'when you are in such a big class, they can't just concentrate on one student' (Max #33). Furthermore, many respondents reported on barriers in the granting of compensation for disadvantages, which was either refused or set too low in the work:

> […] So I didn't get any extra time in the written exams; I took notes on everything during the standard time but I obviously had much less time to work on it because I simply needed much longer for reading. (Anna #23)

Larissa's experiences indicate that school-organisational barriers also exist the granting of compensation for disadvantages and that teachers actively refuse to do this as a result:

> So I had my classroom teacher, who was actually the worst, since in the end – he somehow no longer wanted any compensation for disadvantages in the work since it was somehow too strenuous for him. So I actually always got more time. And once they had 60 minutes of time, so I should have gotten 90. And then he allowed everyone to write for 90. (Larissa #63)

The interviews show that *all* of the respondents have experienced massive barriers on school and instructional-organisational level. But at the same time, this ambivalent result also shows that the extent to which these barriers are actually perceived as an obstacle seems to strongly depend on which informal (peers and parents) and/or school (teachers, mobile special education services and personal assistance) resources were the available in overcoming these barriers.

Perceived barriers on the level of social-emotional relationships

However, the interviews also show that the social relationships with fellow students and teachers play a decisive role for the individual experiences of the students with VI. Within this context, it is conspicuous that two-thirds of all respondents got the impression that

their teachers had no special educational expertise 'because only, only you know how it works, which doesn't really mean that your class or your teacher knows how to deal with it' (Anna #89). Yet, half of the interviewees also reported that the teachers were not willing to adapt to the situation and that they became a barrier themselves 'when they don't accept the visual impairment and so they also feel, I think, overwhelmed by it. And this means that they don't prepare their lessons accordingly for the person, such as making extra copies and the like' (Franziska #162).

In addition to the lacking expertise, the teachers' actions were also characterised by intolerance, indifference or active exclusion when Katharina 'usually somehow never got involved' in sports class. 'Because the teacher said, well, since you can't see anything, it's better if you don't participate' (Katharina #25). It was reported in six interviews that the preparation of teaching material was explicitly refused. Even the use of aids was prohibited 'because the teachers didn't want me to use the system. Above all, especially using the laptop since I could be doing something different after all or playing some type of game on it. Yes, I could actually record on it or whatever.' (Susanne #65).

In this process, the responsibility for the situation was given to the students:

> Yes, in font size 8. [...] I said: 'What should I do now? I can't even read that at all. Should I now go out somewhere? Should I listen? What should I do?' And he said: 'Well, it's not my fault if you can't, if you see badly.' I said: 'Yes, but you're the teacher; you should support me. I want to learn something here.' (Kian #45)

In addition to the teachers, peer relationships have also been experienced as a barrier. In almost all of the cases, there were reports of rejection by the peers and active mobbing actions, for example, when Sarah 'was pushed down more often during sports just because it was so funny to simply push down the blind girl since she can't defend herself and also didn't have friends anymore. Exactly.' (Sarah #123). In three cases, the teachers knew about mobbing by the peers but didn't do anything about it or were even perceived as making the situation worse:

> In maths, for example: 'Yes, even a blind man with a crutch can see that.' And this is obviously in front of my fellow students. So they directly already noticed this again: 'Aha, now we have a teacher who also sees this whole thing like we do! Can we somehow get together with him or, yes, even cooperate somehow." (Tim #97)

But at the same time, the peer relationships show an ambivalent picture. Where functioning friendships exist, they are described in particular as a main resource:

> But since my friend gave me such good support, this was really great. Without her, I would never have managed like this in life. She read so much to me from the board when I didn't catch it at times. [...] I got all of the things copied from her, so I could then catch up. That was really brilliant. (Franziska #126)

On the whole, it should be emphasised that an especially strong significance is attached to the social-emotional setting.

Discussion

It is apparent that the switch of the school system at the end of the ISCED 2 must be understood as the result of a long-term, differentiated and ambivalent assessment

process (Rabenstein and Gerlach 2016). First of all, it is apparent that all of the students in the present study had extensive experiences of exclusion in mainstream schooling – which is in keeping with international findings (Opie et al. 2017, 278). A fundamental aspect appears to be that the perception of barriers increases with the time of school attendance and the respondents' specific needs are simultaneously shown less and less consideration (de Verdier and Ek 2014; de Verdier 2016). The most important resource is a private supplementary involvement that frequently becomes ruinous (Jessup et al. 2018). As a result of the increased overburdening, as well as due to the personal devaluation by peers and teachers, psychosocial problems and an eroding sense of self-worth occur. Furthermore, if special educational support measures such as those described by Opie (2018) fail or even have a counterproductive effect, a multicausal system failure occurs. At the same time, it should be noted that these overwhelming exclusion experiences attest to a highly ambivalent learning potential because, as Anna (#85) expresses it, they help 'in somehow getting through real life.' The main findings from international studies are also reflected in the current investigation, even though the direct comparison of the German school system with its special path should be seen critically since the international studies dealt with other countries and their dissimilar school systems, as well as with different age cohorts.

Since CWVI represent a very heterogeneous group, we agree with de Verdier (2016) that an inclusive educational system must pave the way for all students instead for only the most cognitive and socially competent students. The results show that the adequate description of perceived barriers for secondary students with VI in mainstream schools requires an explanatory model that explicitly takes into account the barriers creating reduced curriculum access (McLinden et al. 2016, 194) and the social-emotional needs of the CWVI. For this purpose, we present a two-level model for discussion, which is depicted as two overlapping ellipses (cf. Figure 2).

On the school and instructional-organisational level, this involves the appropriate selection of classrooms, the class size, the paths within the educational institutions, compensation for disadvantages and long-term lesson planning, as well as considering the work techniques of the respective students (accessible learning materials and teaching styles).
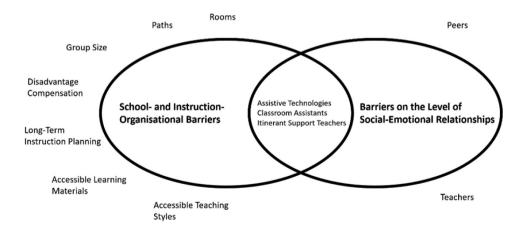

Figure 2. Two-level model of school inclusion barriers for CWVI.

On the level of social-emotional relationships, this involves relationships with both the peers and the teachers; these should be characterised by reciprocal acceptance, appreciation and an emphatic understanding of vision impairment by the classroom teacher (Opie 2018, 85). Since the results show that especially the special educational support measures are assessed with ambivalence by the CWVI, the two circles meet at this interface. On the one hand, this should be organised by the schools; however, their effectiveness appears to be strongly dependent on the inner attitude which the CWVI, their teachers and their classmates have towards these measures. This also highlights the multi-faceted tension between 'access to learning' and 'learning to access' (McLinden et al. 2016), which is not only an issue of equal access to the curriculum but also a question of how those involved evaluate these measures in social-emotional terms.

In the process, the two levels are not intended to be hierarchic but interdependent. Individual aspects can amplify each other reciprocally up to a certain point; but they can also reciprocally compensate for each other. In this model, the mainstream schooling fails if barriers perceived on *both* levels in the long term cannot interactively compensate for each other. In the sense of optimising the inclusive educational offers for CWVI, this model can be used to systematically look at the individual aspects of mainstream schooling in order to make people aware of the potential barriers in mainstream schooling – so that there will no longer be statements like the following, in which Susanne (#173) directly quotes the director with the words: 'We are a normal school for normal people. And there is no place for you here.'

Limitations

There are obviously limitations to this study. It should be mentioned that due to its design, we only interviewed students who left mainstream school and decided to attend a special school with boarding school accommodation. This preselection does not give a voice to students who saw no reason to leave mainstream school, so it also may indicate restricted results and shows that additional research should be conducted. Consequently, further studies should survey CWVI with additional disabilities in order to cover the majority of people with VI, as well as children with hearing impairment, to clarify whether there is something like a collective experience of exclusion that extends beyond the individual types of impairment.

Conclusion and implications for the practice

In terms of an outlook, we would like to discuss what conclusions can be drawn from the results for practical application. In general, these results make it clear that it is necessary to raise awareness regarding the specific needs of students with VI among all those involved – precisely because this is the smallest group of people with disabilities. Qualifications for (prospective) teachers and school administrators should be developed so that they can acquire basic knowledge about the specific needs of CWVI. Teachers should learn about the negative potentials that teaching methods developed for sighted learners can have for students with disabilities. This would also include teachers becoming familiar with the most important aids in order to reduce their rejection of them. In addition, training must be developed to sensitise teachers and students so that they

recognise and combat bullying. Further research into the details of such training would be required. The focus of the content for these in-service training courses could be based on the results discussed above and the two-level model of school inclusion barriers for CWVI.

Notes

1. The criteria for visual impairment according to German social law include three degrees of visual impairment: VI is defined as a visual acuity between 0.3 and 0.05 in the better eye with the best possible correction (ICD-10-GM Categories 1 and 2). Severe VI is defined as a visual acuity between 0.05 and 0.002 in the better eye with the best possible correction (ICD-10-GM Category 3). Blindness is defined as the best-corrected visual acuity of 0.02 or less in the better eye or a visual field restriction to no more than the central 5 (ICD-10-GM Category 4). In this article, we use the acronym CWVI (children with visual impairments) to refer to all children with a visual impairment (umbrella term).
2. For international understanding, we use UNESCO's terms of the International Standard Classification of Education.

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References

Ahrbeck, B. 2014. *Inklusion. Eine Kritik* [Inclusion. A criticism]. Stuttgart: Kohlhammer.
Ahrbeck, B., J. Badar, J. Kauffman, M. Felder, and K. Schneiders. 2018. "Full Inclusion? Totale Inklusion? Fakten und Überlegungen zur Situation in Deutschland und den USA." [Full Inclusion? Total Lnclusion? Facts and Reflections upon the Situation in Germany and the USA]. *Vierteljahresschrift für Heilpädagogik und ihre Nachbargebiete* 87 (3): 218–231. doi:10.2378/vhn2018.art23d.
Bishop, D., and D. J. A. Rhind. 2011. "Barriers and Enablers for Visually Impaired Students at a UK Higher Education Institution." *British Journal of Visual Impairment* 29 (3): 177–195. doi:10.1177/0264619611415329.
de Verdier, K. 2016. "Inclusion in and Out of the Classroom: A Longitudinal Study of Students with Visual Impairments in Inclusive Education." *British Journal of Visual Impairment* 34 (2): 130–140. doi:10.1177/0264619615625428.
de Verdier, K., and U. Ek. 2014. "A Longitudinal Study of Reading Development, Academic Achievement, and Support in Swedish Inclusive Education for Students with Blindness or

Severe Visual Impairment." *Journal of Visual Impairment & Blindness* 108 (6): 461–472. doi:10.1177/0145482X1410800603.

Denzin, N. K., and Y. S. Lincoln. 2018. "Introduction: The Discipline and Practice of Qualitative Research." In *SAGE Handbook of Qualitative Research*, edited by N. K. Denzin and Y. S. Lincoln, 1–26. Los Angeles: SAGE.

Douglas, G., R. Hewett, and M. McLinden. 2019. "Transition from School to Higher Education: Research Evidence and Best Practice." In *Routledge Handbook of Visual Impairment*, edited by J. Ravenscroft, 143–158. London: Routledge.

Flick, U. 2011. "Das Episodische Interview." [The Episodic Interview]. In *Empirische Forschung Und Soziale Arbeit*, edited by G. Oelerich and H.-U. Otto, 273–280. Wiesbaden: Verlag für Sozialwissenschaften.

Flick, U., E. von Kardorff, and I. Steineke. 2018. Qualitative Forschung [Qualitative Research]. Hamburg: Rowolth

Flick, U. 2018. *An Introduction to Qualitative Research*. Los Angeles: SAGE.

German Institute for Human Rights. 2019. "Analyse: Wer Inklusion will, sucht Wege: Zehn Jahre UN-Behindertenrechtskonvention in Deutschland." [Analysis: If you want Inclusion, look for Ways: Ten Years of the UN Disability Rights Convention in Germany]. Accessed 20 January 2020. https://www.institut-fuer-menschenrechte.de/fileadmin/user_upload/Publikationen/ANALYSE/Wer_Inklusion_will_sucht_Wege_Zehn_Jahre_UN_BRK_in_Deutschland.pdf

Giese, M. 2021. "Research on Visual Impairment and Blindness in German-speaking Countries – A Special Path?" *British Journal of Visual Impairment* 39 (1): 3–5. doi:10.1177/0264619620982391.

Hewett, R., G. Douglas, M. McLinden, and S. Keil. 2017. "Developing an Inclusive Learning Environment for Students with Visual Impairment in Higher Education: Progressive Mutual Accommodation and Learner Experiences in the United Kingdom." *European Journal of Special Needs Education* 32 (1): 89–109. doi:10.1080/08856257.2016.1254971.

Jessup, G., A. Bundy, A. Broom, and N. Hancock. 2018. "Fitting in or Feeling Excluded: The Experiences of High School Students with Visual Impairments." *Journal of Visual Impairment & Blindness* 112 (3): 261–273. doi:10.1177/0145482X1811200305.

Jessup, G., A. Bundy, N. Hancock, and A. Broom. 2018. "Being Noticed for the Way You Are: Social Inclusion and High School Students with Vision Impairment." *British Journal of Visual Impairment* 36 (1): 90–103. doi:10.1177/0264619616686396.

Klemm, K. 2009. "Sonderweg Förderschulen: Hoher Einsatz, wenig Perspektiven." [Special Path of the Special Needs Schools: Much Effort, few Perspectives]. Accessed 20 January 2020. https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/GP_Sonderweg_Foerderschulen.pdf

KMK (Kultusministerkonferenz). 2020. "Sonderpädagogische Förderung in Schulen: 2009 Bis 2018." [Special educational support in schools: 2009 to 2018]. Accessed 07 July 2020. https://www.kmk.org/fileadmin/Dateien/pdf/Statistik/Dokumentationen/Dok223_SoPae_2018.pdf

Kuckartz, U. 2016. *Qualitative Text Analysis. A Guide to Methods, Practice and Using Software*. Weinheim: Beltz.

McCarthy, P., and M. Shevlin. 2017. "Opportunities and Challenges in Secondary Education for Blind/vision-Impaired People in the Republic of Ireland." *Disability & Society* 32 (7): 1007–1026. doi:10.1080/09687599.2017.1337564.

McLinden, M., G. Douglas, R. Cobb, R. Hewett, and J. Ravenscroft. 2016. "'Access to Learning' and 'Learning to Access': Analysing the Distinctive Role of Specialist Teachers of Children and Young People with Vision Impairments in Facilitating Curriculum Access through an Ecological Systems Theory." *British Journal of Visual Impairment* 34 (2): 177–195. doi:10.1177/0264619616643180.

Muñoz, V. 2007. "Report of the Special Rapporteur on the Right to Education: Mission to Germany (13-21 February 2006)." Human Rights Council A/HRC/4/29/Add.3. Accessed 20 January 2020. https://digitallibrary.un.org/record/595224/files/A_HRC_4_29_Add-3-EN.pdf

Opie, J. 2018. "Educating Students with Vision Impairment Today: Consideration of the Expanded Core Curriculum." *British Journal of Visual Impairment* 36 (1): 75–89. doi:10.1177/0264619617730861.

Opie, J., J. Deppeler, and J. Southcott. 2017. "'You Have to Be like Everyone Else': Support for Students with Vision Impairment in Mainstream Secondary Schools." *Support for Learning* 32 (3): 267–287. doi:10.1111/1467-9604.12169.

Opie, J., J. Southcott, and J. Deppeler. 2017. "'It Helps if You are a Loud Person': Listening to the Voice of a School Student with a Vision Impairment." *Qualitative Report* 22 (9): 2369–2384.

Rabenstein, K., and J. M. Gerlach. 2016. "Sich entscheiden als praktisches Tun: methodologische Überlegungen einer praxistheoretischen Erforschung der Elternwahl zur inklusiven Schule." [Decision Making as Practical Doing. Methodological Considerations of a Praxeological Research of Parents' Choice of Inclusive Schools]. *Zeitschrift Für Qualitative Forschung* 17 (1–2): 205–219.

Ravenscroft, J., and M. Giese. 2020. "Was ist eine qualifizierte Lehrkraft im Förderschwerpunkt Sehen? Ein Diskussionsaufruf vor dem Hintergrund aktueller Herausforderungen in der Lehrkräfteversorgung." [What Is a Qualified Teacher in the Development Need of Vision?]. *blind-sehbehindert* 140 (1): 338–345.

Ruin, S., M. Giese, and J. A. Haegele. 2021. "Fear or Freedom? Visually Impaired Students' Ambivalent Perspectives on Physical Education." *British Journal of Visual Impairment* 39 (1): 20–30. doi:10.1177/2F0264619620961813.

Simui, F., S. Kasonde-Ngandu, A. M. Cheyeka, J. Simwinga, and D. Ndhlovu. 2018. "Enablers and Disablers to Academic Success of Students with Visual Impairment: A 10-Year Literature Disclosure, 2007–2017." *British Journal of Visual Impairment* 36 (2): 163–174. doi:10.1177/0264619617739932.

UN Committee on the Rights of Persons with Disabilities. 2015. "Concluding Observations on the Initial Report of Germany." *CRPD/C/DEU/CO/1*. Accessed 20 January 2020. https://digitallibrary.un.org/record/811105/files/CRPD_C_DEU_CO_1-EN.pdf

UNESCO. 1994. "The Salamanca Statement and Framework for Action on Special Needs Education: Adopted by the World Conference on Special Needs Education: Access and Quality." Accessed 23 February 2020. https://unesdoc.unesco.org/ark:/48223/pf0000098427

Whitburn, B. 2014. "'A Really Good Teaching Strategy': Secondary Students with Vision Impairment Voice Their Experiences of Inclusive Teacher Pedagogy." *British Journal of Visual Impairment* 32 (2): 148–156. doi:10.1177/0264619614523279.

Yell, M. L. 1995. "Least Restrictive Environment, Inclusion, and Students with Disabilities: A Legal Analysis." *Journal of Special Education* 28 (4): 389–404. doi:10.1177/002246699502800401.