



Learning Disabilities and Treatment: What Do We Need to Support Students and Their Families?

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Opinion Article

Reading, writing and arithmetic are cultural techniques that enable access to a self-determined life in modern societies. However, not every child learns these cultural techniques sufficiently at school. In addition to intellectual disabilities, various barriers such as specific learning disorders like dyscalculia and dyslexia make it difficult to acquire the necessary skills. Specific learning disorders often occur because of developmental impairments and are frequently associated with psychic problems such as expectations of failure, avoidance of tasks and unfavorable behaviour in group processes such as lessons in school. Another frequently neglected group are so-called twice exceptional students, students with high intellectual potential that cannot be adequately developed due to certain barriers.

Often the child's behaviour attracts attention at first. A child does not pay attention, does not listen, annoys others, etc. How teachers deal with such behaviour depends largely on their

competencies. Children who do not complete a task or do not complete it correctly may give the impression that they have not been paying attention. This impression can result from various causes. They may be inattentive. There can also be various reasons for this: they may be more interested in something else now, they may have difficulty concentrating because of ADHD or a neurological disorder, for example. Perhaps they cannot hear properly, perhaps their memory is overwhelmed by too much information, etc.

Petra calculated the sum $60+70=67$. She hadn't made a mistake, because when we asked her to repeat the task, she said $60+7$. She had a cold and couldn't hear as well as expected. In any case, it makes sense for the teacher to intervene in a different way. Teachers can observe the behaviour, but how they interpret it, depends on their knowledge of various risk factors and the child's

situation, as well as their own attitudes.

This is described in a model of Blömeke, Gustafsson, & Shavelson (2015) [1], that frames the observable behaviour of teachers. They attribute this to situation-specific skills. What teachers perceives is interpreted by them and lead to decisions and thus to observable behaviour. „Until today, this theoretical approach has had a lasting impact on the discourse on modeling and assessment of competencies” [2].

Working with children with barriers requires skills in various disciplines. Different contents are emphasized in teacher training. Prospective mathematics teachers and prospective teachers of students with special needs focus on different aspects of teaching [3]. Their skills can complement each other. However, this is not easy because it also requires communication skills between different disciplines. Therefore, it is a task of the university study to prepare prospective teachers for collaboration.

This can not only lead to a better understanding of the language used in the respective profession but also open our eyes to barriers from the respective perspective. From a mathematics education perspective, for example, the focus may be on the content structure of a worksheet. The worksheet may include opportunities for differentiation or may prevent them. From a special education perspective, attention may be paid to the fact that laminating the worksheet makes it reusable but can also make it much more difficult to read because the surface can reflect light depending on how it is illuminated. This is just one example of the many possible barriers. If one is aware of barriers, they can be easily overcome. Cooperation between different disciplines helps to encourage openness to further interpretations of behaviour.

In the course of discussions about UDL (Universal Design for Learning), the focus is shifting to learning conditions and methods that are designed to prevent barriers from arising in the learning

process in the first place (e.g. Rapp, 2014) [4]. „The problem is not the learner; the problem is the conditions of learning“ says Rich Powers in a lecture (4. 11. 2025, FAK of Education, University of Hamburg). Broadening the perspective on possible barriers to learning conditions and thus on teachers' skills can also have a positive effect on the learning opportunities of twice-exceptional students. The so-called masking effect makes it difficult for teachers to recognize students' potential and barriers. Thus, high potential prevents the barrier from becoming visible, and the barrier prevents high potential from being demonstrated. However, when barriers go unrecognized, the performance of the students often falls below their potential [5,6].

Once barriers are identified, it is possible to develop appropriate methods of compensation. However, this can only be the first step. Particular in the case of specific learning difficulties, learning therapy intervention is often required that goes beyond addressing the psychic situation of the students alone. Mostly affected students have developed learning gaps. Often they show also survival mechanisms: Especially in mathematics lessons students focus on procedures rather than on understanding. Without the development of conceptual understanding, however, these are only temporarily helpful. What we need is collaboration of different disciplines to broaden the perspective of the own profession and openness for different risk factors and their

treatment that go beyond “existing conceptualizations of teachers' professional knowledge” [2].

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