

# Shifting Perspectives: Embracing Strengths in Supporting Students with Special Educational Needs and Disabilities

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## Executive summary:

- Students with special educational needs and disabilities (SEND) often have uneven profiles with relative strengths compared to their difficulties but most of them require additional support in the classroom that extends beyond good quality teaching.
- In most countries students with SEND require an assessment and diagnosis to access this support. Currently these assessments, the diagnosis as well as the support they receive has a narrow concentration on their difficulties or what they cannot do well and there is a lack of focus on the broader profile of the student.
- Evidence from the science of learning shows that focusing on students' strengths can provide alternative ways to success and help improve students' self-efficacy, self-esteem and overall wellbeing and reduce stigma overall.
- Therefore, the field of SEND should be rebalanced so that there is an equal focus on strengths as well as difficulties. This necessitates enhanced teacher training to raise awareness of these strengths and their potential for achieving optimal educational results.

## Introduction

Students with special educational needs and disabilities (SEND) are individuals who possess learning difficulties or disabilities that may be related to physical, cognitive, emotional, or sensory difficulties, and these can affect a student's ability to access education and make progress in line with their peers. As such, many students with SEND require additional educational support beyond just good quality teaching, including specific targeted interventions. These are often referred to as tier 2 and tier 3 interventions.

Tier 2 interventions are often provided in small-group sessions in the classroom during independent work or during times that do not conflict with other critical content areas. Tier 3 interventions provide intensive remedial sessions for individual students with more significant needs or whose needs are not sufficiently met by Tier 2 supports. These tier 2 and tier 3 interventions often target abilities or skills that students struggle with. In most countries, students would require an assessment and an independent development plan or Education Health and Care plan before they are able to access the support.

Although the definition of learning difficulties and criteria for identifying special needs may vary across different legal and medical systems, in many educational systems across the world the support students with SEND can receive is defined by a deficit or medical model which focuses on identifying difficulties or shortcomings within the individual and on remediation or correction of these difficulties through interventions. However, the deficit model has been criticized for its narrow focus on weaknesses and drive towards symptom reduction as these actions may potentially stigmatize individuals with SEND and underestimate the potential of students with SEND (Lalvani, 2015). While it is critical to recognize the challenges students face in the classroom, pinpointing their strengths and what they excel at can be instrumental in overcoming these difficulties. As such, many educators and advocates in the field of special education advocate for a more inclusive and strengths-based approach that recognizes and builds upon the unique abilities and talents of individuals with SEND.

Indeed, there is wide variability within the outcomes and the experiences of individuals with SEND (Charman, 2014; Conti-Ramsden et al., 2009; Van Herwegen et al., 2011). This variability is shaped by genetic variability, variance in experiences, and how both genes and environment shape neural plasticity and as a result the nervous system and structures. In addition, many types of SEND are characterised by uneven cognitive profiles. For example, whilst many students with Down syndrome might have language delays and short-term memory problems, they often have a good ability to recognize and remember visual information as well as good social skills and emotional understanding (Silverman, 2007). Similarly, autistic individuals often excel in specific skills like pattern recognition, attention to detail, or rote memory but may struggle with social communication, flexible thinking, and understanding abstract concepts (Mitchell & Ropar, 2004; Remington et al., 2019; Charman 2014). The plasticity of the nervous system means that there is adaptivity and thus the possibility for areas of strength to compensate for some learning difficulties or allow for alternative cognitive pathways. For example, students with weak working memory abilities but good rote verbal memory can often learn information by heart rather than work out problems. Alternatively, their good rote verbal memory could be exploited to help them use mnemonics to work out problems (Banikowski & Mehring, 1999).

## A strength-based approach

A strengths-based approach acknowledges and builds upon the inherent strengths and positive qualities of individuals, recognizing that everyone possesses distinctive abilities and assets that can be utilized to achieve personal growth, development, and success.

Strength-based approaches often include the following dimensions: 1) identification of strengths, 2) agency and self-determination, and 3) growth mindset (Hodgens & Clifton, 2004). In the first step, a strength-based approach would focus on actively identifying and acknowledging individuals' strengths, talents, and abilities across various domains, such as academic, social, emotional, and practical skills. It is important to not only focus on the students' character strengths (e.g. being very kind or social) but also on their cognitive strengths (e.g., have good rote memory abilities despite showing working memory difficulties) and to appreciate the interplay between these two. Next, a strength-based approach empowers individuals to take an active role in their own development and problem-solving processes. It emphasizes individuals' agency and capacity to effect positive change in their lives. Finally, it encourages a change in behaviour. People with a growth mindset believe that their abilities are not fixed or predetermined, but rather can be developed and expanded over time with persistence and hard work. A strength-based approach promotes resilience and a growth mindset by encouraging individuals to view challenges and setbacks as opportunities for learning and growth. Strength-based approaches often involve capitalizing on students' existing positive knowledge and interests to scaffold their learning. Therefore, it is important to identify the student's current abilities and determine the appropriate starting point, instead of solely concentrating on the learning gaps.

### A strength-based approach: Evidence from educational neuroscience

Whilst self-determination theory can explain that focusing on strengths can help support a sense of belonging, confidence and self-esteem, health and well-being, social relationships and interactions, and activities and participation, there is currently limited evidence on how a strengths-based approach supports better learning or changes in the brain. However, there are a few insights from educational neuroscience.

It is well recognised that the synapse between two brain cells gets stronger the more often they are activated together and that the connection gets weaker when the activation between two brain cells gets decoupled (also called long-term depression) (Bortfeld & Bunge, 2024). As such, it has been argued that focusing on strengths, i.e. existing connections and making them stronger, might be a more efficient way to overcome learning difficulties than creating new connections or trying to repair connections that are related to difficulties (which would include breaking existing 'faulty' connections and repairing them). Indeed, neural reuse theory argues that activating existing neural networks associated with strengths can facilitate the acquisition of related skills and knowledge. For example, studies have shown that motor skills, such as fine motor control and coordination, play a role in language development. Neural circuits involved in motor control may be repurposed for language-related functions, such as articulation and speech production, leading to enhanced language skills in individuals with strong motor abilities (see discussion Anderson, 2010).

Focusing on existing pathways, i.e. strengths, can also bolster students' self-efficacy or their beliefs in the ability to succeed which in turn has been linked to motivation and can lead to increased engagement and better learning outcomes. Indeed, it has been found in several countries that expectations around learning outcomes for those with learning needs can be low (Shifrer, 2016; Woodcock, 2014; Woodcock & Hitches, 2017). Evidence from growth-mindset interventions are mainly positive and show that changing the growth mindset of parents (Andersen & Nielsen, 2016) and students themselves (Janssen & van Atteveldt, 2022) can improve educational outcomes for typically developing students. However, studies that focus on improving the growth mindset of students with SEND are scarce (de Carvalho & Skipper, 2019; Gaudion, & Pellicano, 2016). While these studies may not directly measure changes in brain connectivity, improvements in cognitive skills and academic achievement suggest underlying neurobiological mechanisms at work.

### Examples from neurodevelopmental disorders

It is often argued that classroom environments should be kept as simple as possible for autistic individuals. Due to their sensory processing differences, autistic people may struggle to learn in busy classrooms (Marco et al., 2011). To improve focus and reduce distractions, unnecessary background information should be minimized to help the child concentrate on specific learning tasks. Yet, research has shown that some autistic individuals have increased perceptual capacity and that they can process more information at any given time than neurotypical individuals (Remington et al., 2009; Remington et al., 2012). Remington and colleagues (2019) showed that autistic individuals were less engaged in a learning task when there was no

visual background information presented and that when irrelevant visual background information was presented, they remembered both information about the task at hand as well as the background information presented. They also did not find that there was a negative impact of presenting relevant visual background information. These studies show that rather than a deficit, this increased perceptual capacity can be harnessed, in that increasing the amount of task-relevant information presented might potentially increase opportunities for learning.

A second example comes from individuals with Williams syndrome, a rare genetic condition, who have mild to moderate learning difficulties, with IQ scores often between 50 and 70 (Mervis & John, 2010). Overall IQ scores mask an unusual cognitive profile of relatively strong linguistic ability and poor visuospatial ability (Farran et al., 2024). Despite their overall learning difficulties, individuals with Williams syndrome have good verbal short-term memory abilities and a strong musical affinity. Although evidence is still scarce, it has been argued that songs and mnemonics can help individuals with WS to overcome certain difficulties related to independence and learning. For example, there is anecdotal evidence that individuals with WS can maintain focus on a "musical" activity for significantly longer durations compared to non-musical activities. In addition, their good memory for lyrics and affinity for music means that they can learn facts through singing songs (e.g. remembering counting names and numerical facts).

A final example comes from students with dyslexia. It is often thought that students with dyslexia have specific difficulties with decoding of words. The use of the deficit model has led to a narrow focus of research on this deficit and led to interventions or classroom practices that focus on phonological awareness training or tools like visual arrays that target these specific difficulties (Rappolt-Schlichtmann et al., 2018; Van Herwegen et al., 2024). However, research that has focused on dyslexia more broadly has shown that students with dyslexia have wider issues with temporal processing, both in language and in music (Flaugnacco et al., 2015), whilst they may have very good pitch (Overy, 2003). Indeed, it has been shown that emphasizing auditory rhythmic information in both non-speech and speech stimuli is equally effective in enhancing phonological awareness in children with dyslexia as directly targeting phonology (Thomson et al., 2013). As music training can improve phonological awareness and reading abilities in children with dyslexia, interventions for children with dyslexia may soon prioritize strengths such as music and rhythm rather than target reading difficulties (Flaugnacco et al., 2015).

## Conclusion and implications

Despite the longstanding existence of strength-based approaches, little progress seems to have been made in the realm of special educational needs. Referrals for assessments and support still predominantly focus on deficits rather than strengths. Seeing the evidence from intervention studies and neuroscience, a more careful balance needs to be struck in policies and practice between emphasizing children's strengths, whilst also acknowledging and addressing their needs and difficulties. This balance ensures that interventions are both responsive to individuals' needs as well as empowering, allowing them to experience success and growth. This would facilitate the reinforcement of existing brain connections with the establishment of new ones. By leveraging students' strengths alongside addressing areas of challenge, educators can deliver comprehensive support that optimizes learning potential and fosters positive outcomes.

This means that a whole-person centred approach is required (Chatterjee Singh et al., in press). Education should become more flexible and policy makers and practitioners should recognise that different students have different strengths and weaknesses. As such policies and practices surrounding students, including the programmes and curricula, should be reimaged to ensure that students with different strengths are afforded the opportunities that they need to thrive. This is especially important for students with SEND who currently are at greater risk to have lower educational outcomes than their peers (Tuckett et al., 2021) and reduced employment opportunities (Nuffield Trust, 2023).

Although not inherently a strength-based approach, the International Classification of Functioning, Disability, and Health (ICF), developed by the World Health Organization (WHO) incorporate elements that can align with a strengths-based perspective, particularly in its emphasis on functioning and participation rather than solely on deficits or impairments. The ICF provides a holistic view of individuals' functioning and acknowledges the importance of environmental and personal factors in shaping their experiences. By considering both an individual's abilities and limitations within their broader context, the ICF framework can support a more comprehensive and person-centred approach to assessment, intervention, and support planning.

One important way the educational context can be changed is to equip teachers and schools with the tools to recognize the strengths as well as difficulties students experience and how these profiles relate to different SEND groups. This will allow teachers to build on the unique strengths children with SEND may have. For example, teachers often rely on verbal expression

as an indicator of cognitive or academic ability (Gini et al., 2021) but this assumption might result in teachers not spotting strengths in non-verbal abilities (and vice versa). As such, teachers first require more training with regards to how to recognise and support students with SEND in the classroom (Van Herwegen et al., 2024).

Finally, it is important to invest in more research in this area as it is currently not clear what particular strengths should be cultivated as well as how they can be nurtured to provide the best outcomes for students with SEND.

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