




# **SPECIFIC LEARNING DISABILITIES**

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# **SPECIFIC LEARNING DISABILITY DEFINITION AND TERMINOLOGY**



# WHO DEFINES HEALTH TERMINOLOGY ACROSS THE WORLD?



**World Health  
Organization**



# WHO – FAMILY OF INTERNATIONAL CLASSIFICATIONS

## WHO-Family of International Classifications (WHO-FIC)

### RELATED CLASSIFICATIONS

- International Classification of Primary Care (ICPC)
- International Classification of External Causes of Injury (ICECI)
- International Classification for Nursing Practice (ICNP)
- The Anatomical, Therapeutic, Chemical (ATC) classification system with Defined Daily Doses (DDD)
- Verbal autopsy standards: ascertaining and attributing causes of death
- Technical aids for persons with disabilities - Classification and terminology (ISO9999)

### REFERENCE CLASSIFICATIONS



### DERIVED CLASSIFICATIONS

- International Classification of Diseases for Oncology, 3rd Edition (ICD-O-3)
- The ICD-10 Classification of Mental and Behavioural Disorders
- Application of the International Classification of Diseases to Dentistry and Stomatology, Third Edition (ICD-DA)
- Application of the International Classification of Diseases to Neurology (ICD-10-NA)
- The Startup Mortality List (ICD-10-SMoL)

The World Health Organization's



**International Classification of  
Diseases**

**THE WORLD HEALTH  
ORGANIZATION - ICD**



# 6A03 DEVELOPMENTAL LEARNING DISORDER

## DEFINITION

- Developmental learning disorder is characterised by significant and **persistent difficulties in learning academic skills**, which may include reading, writing, or arithmetic.
- The individual's **performance** in the affected academic skill(s) is markedly **below what would be expected** for chronological age and general level of intellectual functioning, and results in significant impairment in the individual's academic or occupational functioning.
- Developmental learning disorder **first manifests** when academic skills are taught **during the early school years**.
- Developmental learning disorder **is not due to** a disorder of intellectual development, sensory impairment (vision or hearing), neurological or motor disorder, lack of availability of education, lack of proficiency in the language of academic instruction, or psychosocial adversity.



# CHAPTER 6 – ICD 11

## MENTAL, BEHAVIOURAL OR NEURODEVELOPMENTAL DISORDERS

### 6A03 Developmental learning disorder

- **6A03.0** Developmental learning disorder with impairment in reading
- **6A03.1** Developmental learning disorder with impairment in written expression
- **6A03.2** Developmental learning disorder with impairment in mathematics
- **6A03.3** Developmental learning disorder with other specified impairment of learning
- **6A03.Z** Developmental learning disorder, unspecified

### 6A04 Developmental motor coordination disorder





# 6A03 DEVELOPMENTAL LEARNING DISORDER

## TYPES DEFINITION

- **6A03.0 Impairment in reading**
  - Learning difficulties are manifested in impairments in **reading skills** such as word reading accuracy, reading fluency, reading comprehension.
- **6A03.1 Impairment in written expression**
  - Learning difficulties are manifested in impairments **in writing skills** such as spelling accuracy, grammar and punctuation accuracy, organization and cohesion of ideas in writing.
- **6A03.2 Impairment in mathematics**
  - Learning difficulties are manifested in impairments in **mathematical skills** such as number sense, memorization of number facts, accurate calculation, fluent calculation, accurate mathematic reasoning.
- **6A03.3 Other specified impairment of learning**
  - Learning difficulties are manifested in impairments in learning and performance of specific academic skills that are not adequately characterized by one of the other available specifiers.
- **6A03.Z Developmental Learning Disorder, Unspecified**





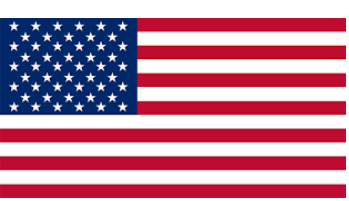
# DEFINITIONS OF SLD – USA/UK/CZECH





# USA DEFINITION OF SLD





# DEFINITION OF SLD IN USA

- Individuals with Disability Act – IDEA (2004)
- Specific Learning Disability
- "(A) IN GENERAL
  - The term 'specific learning disability' means a **disorder** in 1 or more of the basic **psychological processes** involved in understanding or in **using language**, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations."
- "(B) DISORDERS INCLUDED
  - Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia."
- "(C) DISORDERS NOT INCLUDED
  - Such term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage."



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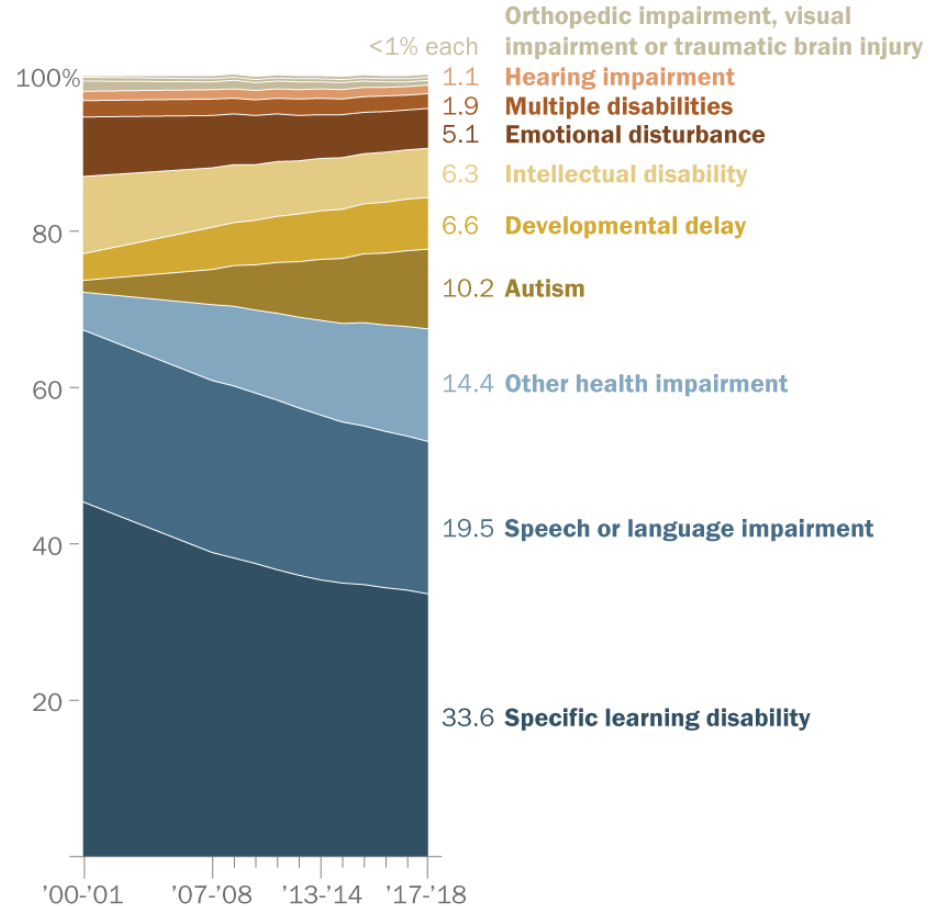


# About a third of disabled U.S. students have a 'specific learning disability,' such as dyslexia

*% of students served in the 2017-18 school year under the Individuals with Disabilities Education Act (IDEA) who have ...*



USA



Notes: "Specific learning disability" includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. Data is for public school students ages 3 to 21 served under IDEA. Source: National Center for Education Statistics.





# NATIONAL CENTRE FOR EDUCATION STATISTICS U.S.

- In 2021–22, the number of students ages 3–21 who received special education and/or related services under the Individuals with Disabilities Education Act (IDEA) was 7.3 million, or the equivalent of 15 % of all public school students.
- Among students receiving special education and/or related services, the most common category of disability was specific learning disabilities (32 %).
- **75% – 80%** of special education students identified as LD have their basic deficits in language and reading.



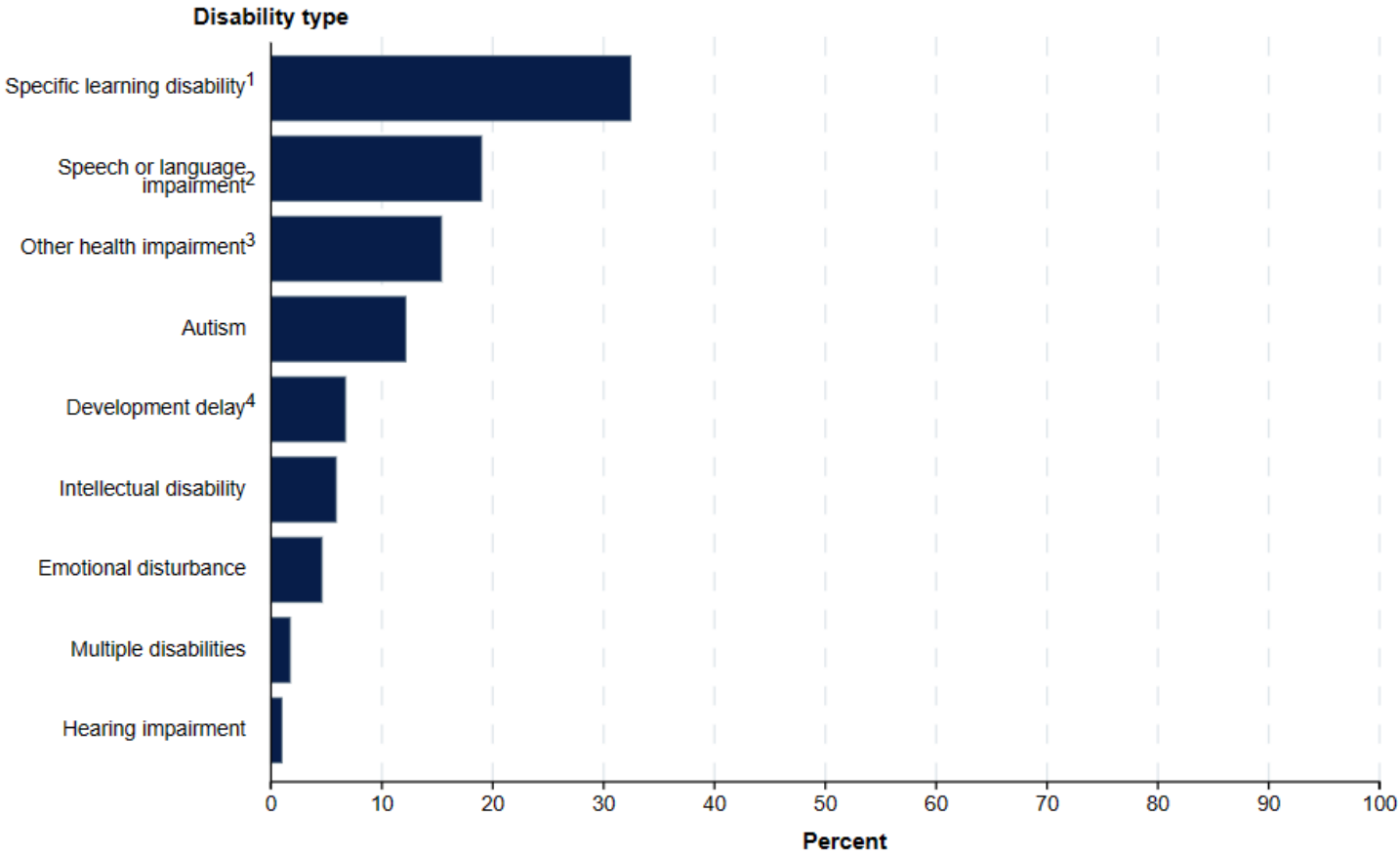


# Types of Disabilities

Figure 2. Percentage distribution of students ages 3–21 served under the Individuals with Disabilities Education Act (IDEA), by selected disability type: School year 2021–22

Modify figure

Bar | Table



# TYPES OF LEARNING DISABILITIES IN USA (LDA USA, 2021)



- Dyslexia
- Dysgraphia
- Dyscalculia
- Non-verbal Learning Disabilities
- Oral/Written Language Disorder and Specific Reading Comprehension Deficity

## Related Disorders:

- ADHD
- Dypraxia
- Executive Functioning



# DEFINITION OF SLD - USA

- *„Although learning disabilities may occur concomitantly with other disabilities (for example, sensory impairment, intellectual disabilities, emotional disturbance), or with extrinsic influences (such as cultural or linguistic differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences.“*
- National Joint Committee on Learning Disabilities Definition of Learning Disabilities, 2016
- Learning Disabilities (Kirk 1963)



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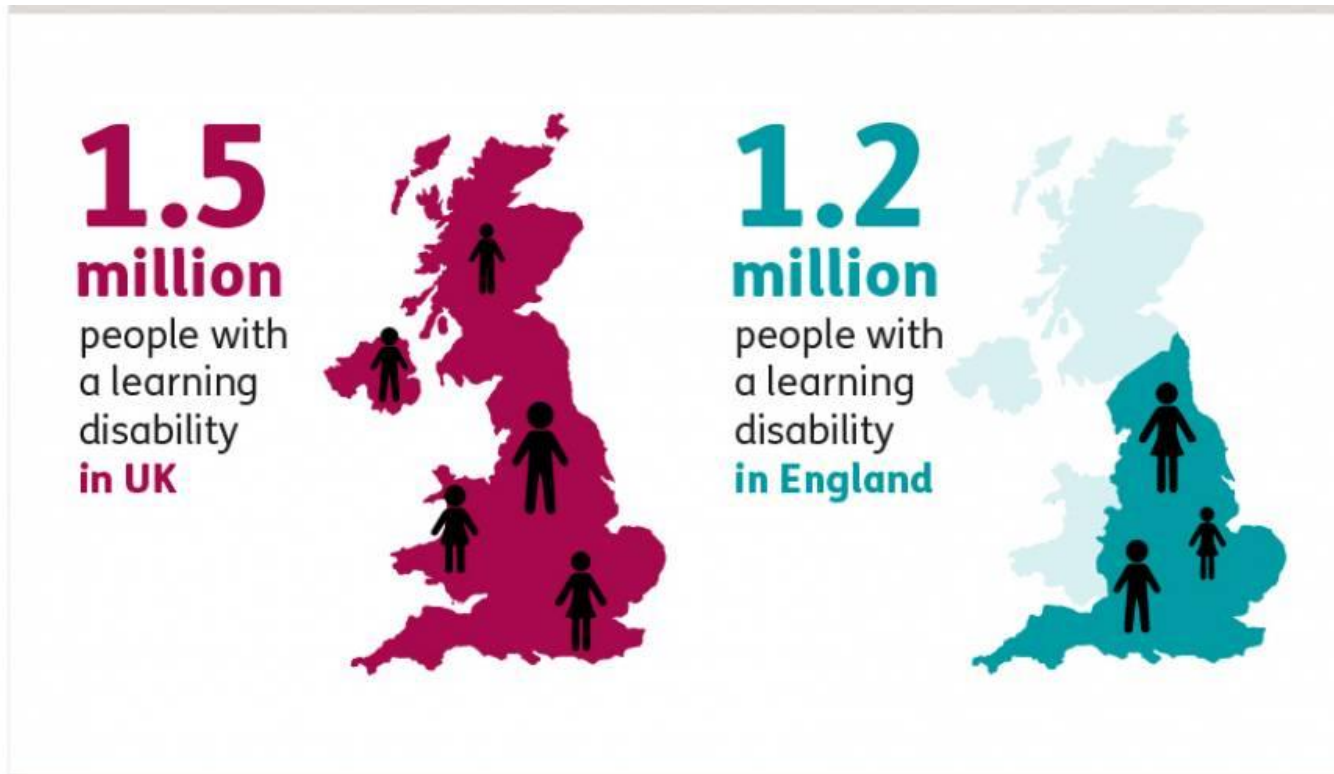
# UK DEFINITION OF SLD



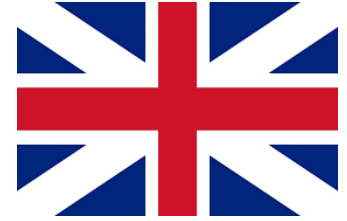


# UK AND THE DIFFERENT PERSPECTIVE

- **Specific learning disability** = the result of cognitive and other impairment. Learning disability can be caused by autism and global developmental delay. He causes can be developed in pre-peri-postnatal period.



# UK AND THE DIFFERENT PERSPECTIVE



- **Specific learning difficulty** - neurological (rather than psychological) disorder, usually run in families and occur independently of intelligence. They can have significant impact on education and learning and on the acquisition of literacy skills.
- SpLD is an umbrella term used to cover a range of frequently co-occurring difficulties:
  - Dyslexia
  - Dyspraxia of Developmental Coordination Disorder (DCD)
  - Dyscalculia
  - Dysgraphia
  - Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder (ADD or AD(H)D)
- It's estimated up to 1 in every 10 people in the UK has some degree of dyslexia.



# SEVERITY OF SLD – UK (US AS WELL)

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Mild specific learning difficulty

Moderate learning difficulty

Severe learning difficulty

Profound and multiple learning difficulty





### EHC plans

# 389,171

pupils in schools in England. Up by 9.5% from 2022

▶ [What is this?](#)

### EHC plans (percent)

# 4.3

percent of pupils with an EHC plan. Up from 4.0% in 2022

▶ [What is this?](#)

### SEN support/SEN without an EHC plan

# 1,183,384

pupils in schools in England. Up by 4.7% from 2022

▶ [What is this?](#)

### SEN support/SEN without an EHC plan (percent)

# 13.0

percent of pupils with SEN support. Up from 12.6% in 2022

▶ [What is this?](#)

## Over 1.5 million pupils in England have special educational needs (SEN)

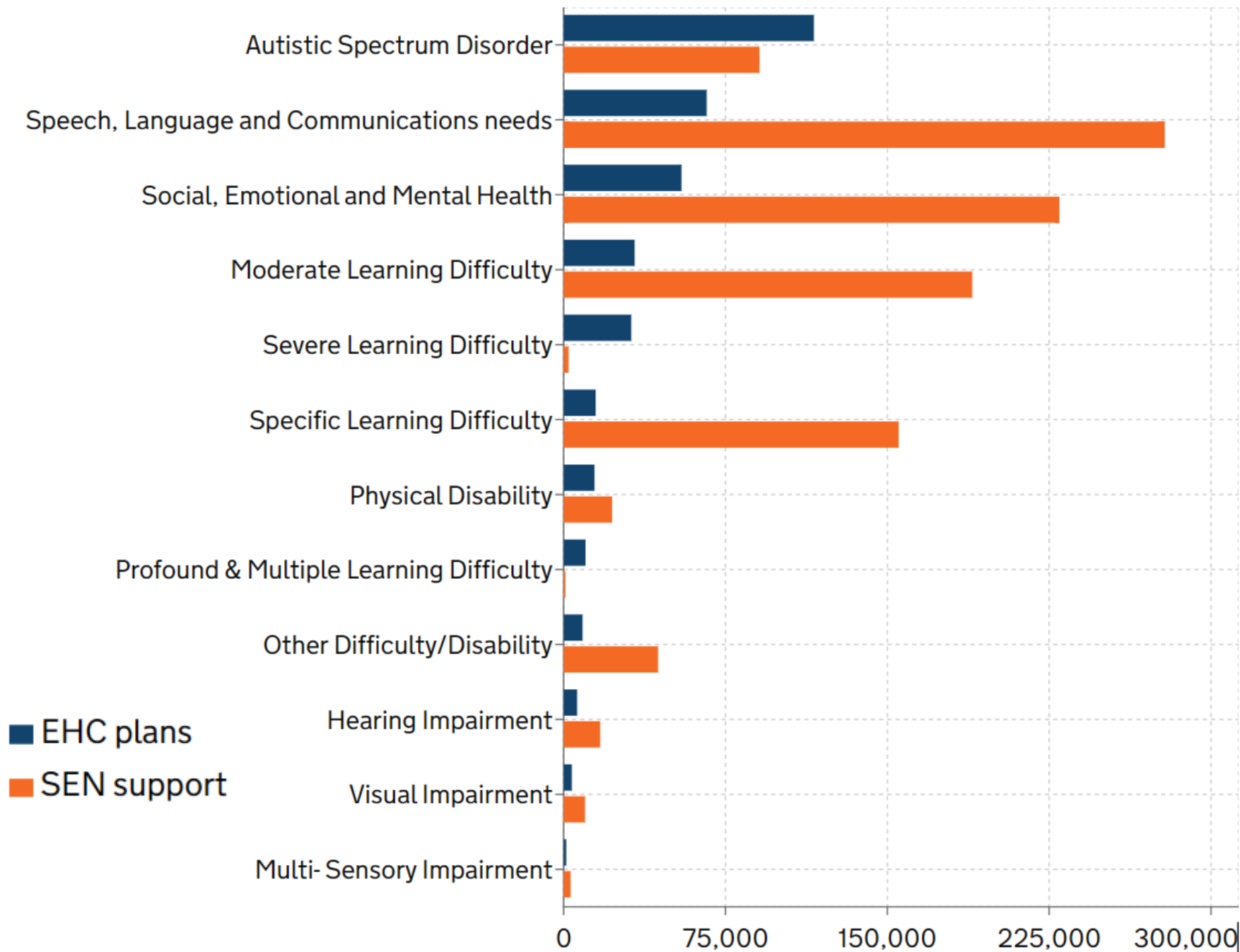
An increase of 87,000 from 2022. Both the number of pupils with an education, health and care (EHC plan) and the number of pupils with SEN support have increased:

- The percentage of pupils with an EHC plan has increased to 4.3%, from 4.0% in 2022.
- The percentage of pupils with SEN but no EHC plan (SEN support) has increased to 13.0%, from 12.6% in 2022.

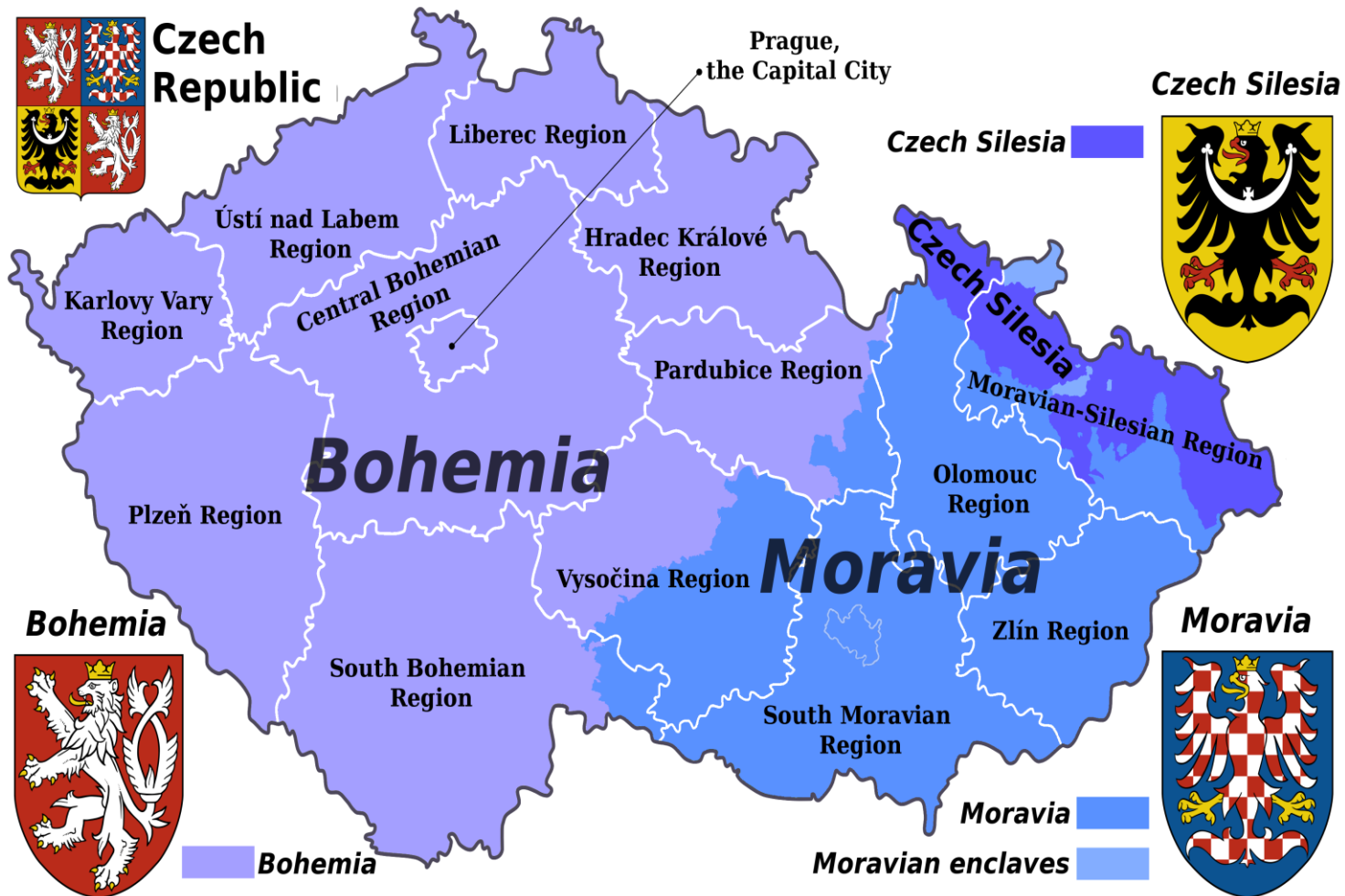
Both continue a trend of increases since 2016.



**Number of pupils with an EHC plan or SEN support, by type of need, 2022/23**



# DEFINITION OF SLD IN THE CZECH



# DEFINITION OF SLD – CZECH DEFINITION



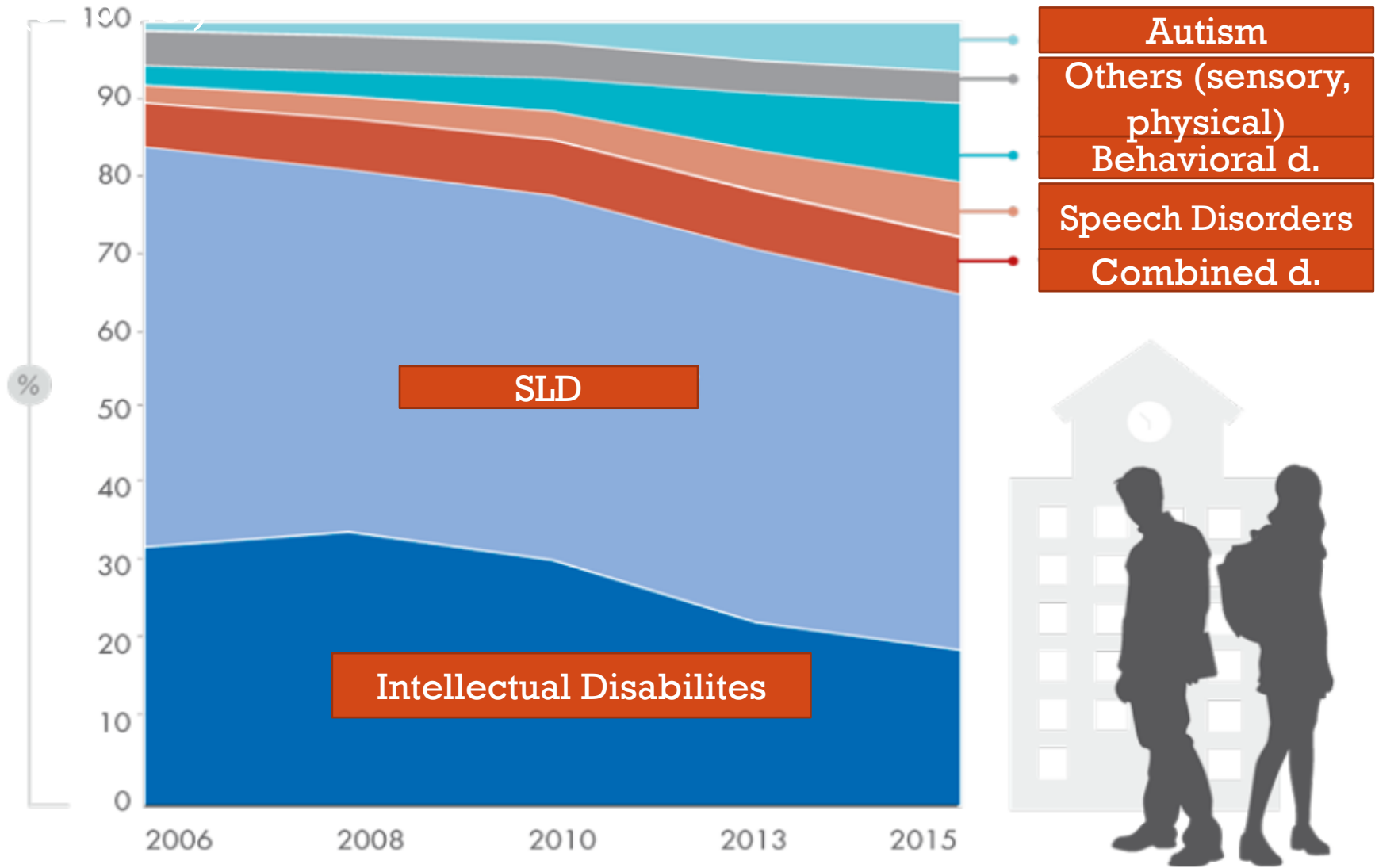
- *„Specific learning disabilities means inability to learn how to read, write or calculate while using standard teaching methods, in an adequate socio-cultural opportunity and an average intellect.“*

*Jucovičová & Žáčková, 2014*





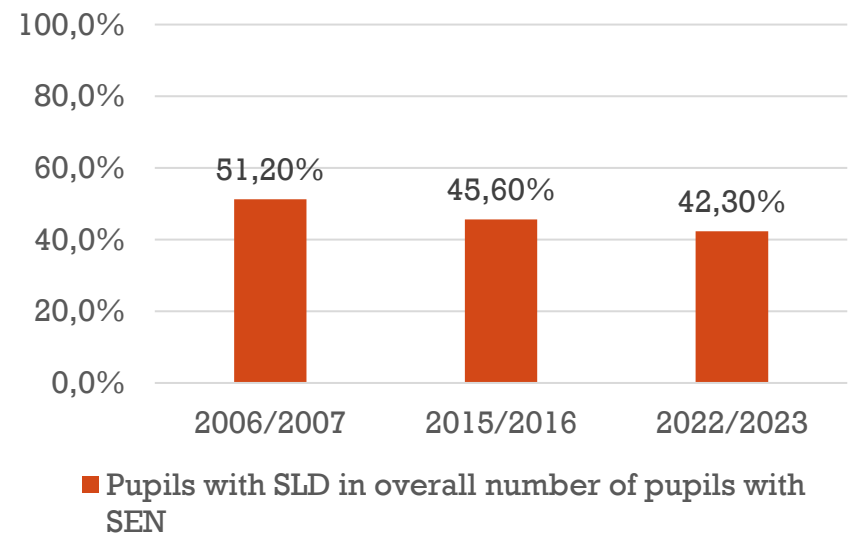
# Students with the health disability in the czech elementary schools



# SLD IN THE CZECH

- Specific, respectively developmental, learning disabilities represent the **most common type of disability (SEN)** among elementary school pupils.
- In the school year 2006/2007, there were 42 019 of these pupils in elementary schools (51.2 % of all pupils with SEN among elementary school pupils).
- In the school year 2015/2016 there were almost 35 881 of these pupils (45.6% of all pupils with SEN among elementary school pupils).
- In the school year 2022/2023 there were 49 889 pupils (42.3% of all pupils with SEN among elementary school pupils).

Pupils with SLD in overall number of pupils with SEN



# CZECH SLD CLASSIFICATION

- Dyslexia
- Dysgraphia
- Dyscalculia
- „Dysortografie“
- Dyspraxia
- Dyspinxia
- Dysmusia



# PREVALENCE OF SLD

- Internationally
  - 10 % in overall population
- Czech Republic
  - Unclear prevalence
  - In between 2 – 20 % in school population
  - 2 – 4 children in 100 (2 – 4 %) – Matějček, 1995

National Centre for Learning Disabilities, US.

1 in 5

children in the U.S. have learning and attention issues.



Only a *small subset* receive specialized instruction or accommodations...

1 in 16

public school students have Individualized Education Programs (IEPs) for specific learning disabilities (SLD) such as dyslexia and for other health impairments (OHI) such as ADHD and dyspraxia



1 in 50

public school students receive accommodations for disabilities through a civil rights statute called Section 504



...while millions of children with learning and attention issues are *not formally identified*.



# ETIOLOGY OF SLD



- **Etiological factors:**
  - Central nervous system dysfunction
    - Minimal brain injury
  - Heredity (Dyslexia)
  - Combination of heredity and central nervous system dysfunction
  - Phonetic difficulties + phonological memory
  - Social causes
  - Neurotic etiology
  - Unidentified cause





# **ASSOCIATED DIFFICULTIES**

**Lack of sense for humor**

**Problems in self-regulatory behaviors**

**Problems in social perception (self-esteem) and social interaction**

**Secondary language difficulties –  
specific assimilation, articulation  
clumsiness**

**Difficulties in motor skills development**

**Related problems in behavior/behaviour disorders**

**Difficulties in spatial orientation**



# COMMON FEATURES OF ALL DEFINITIONS OF SLD

- Students with SLD tend to have average to above-average intellect
- Simultaneous presence of GIFTIDNESS (Talent) and SLD = TWICE EXCEPTIONALITY
- SLDs affect the use of spoken and written language
- They can also affect organizational skills, time planning skills, abstract reasoning, short- and long-term memory, and attention
- SLD can influence social skills and emotional stability of the child/pupil
- SLD may occur concurrently with other forms of disability or with other environmental influences (e.g. cultural peculiarities, lack of teaching, psychogenic factors), HOWEVER it is not a direct consequence of such disabilities or adverse influences.

**EXCEPTIONALITY**  
(Yellow)

+

**EXCEPTIONALITY**  
(Blue)

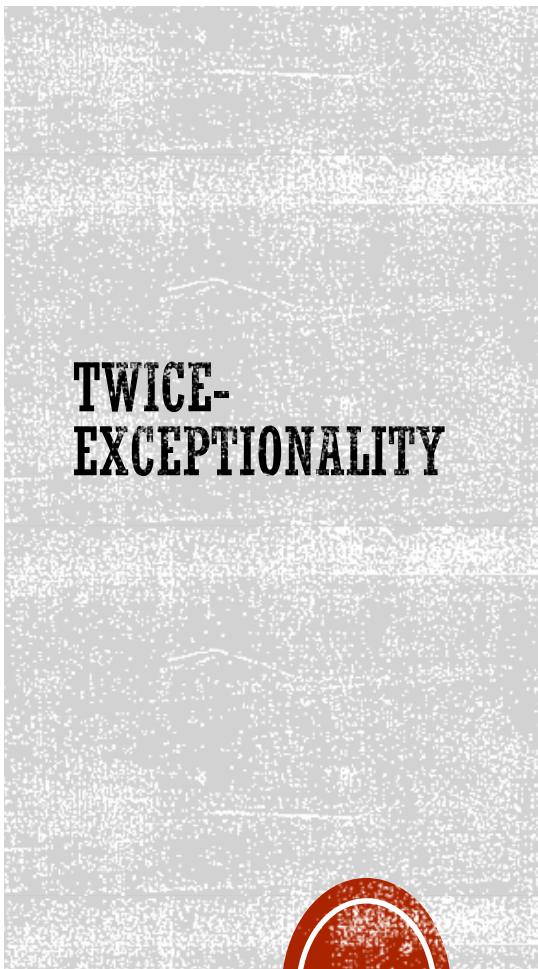
=

(Green)

**High  
Abilities  
and/or  
Potential  
in one or  
more areas**

- SLD**  
(specific learning disabilities)
- ADHD**  
(attention deficit hyperactivity disorder)
- ODD**  
(oppositional defiant disorder)
- GAD**  
(general anxiety disorder)
- ASD**  
(autism spectrum disorder)
- AND**  
(additional exceptionalities and acronyms)

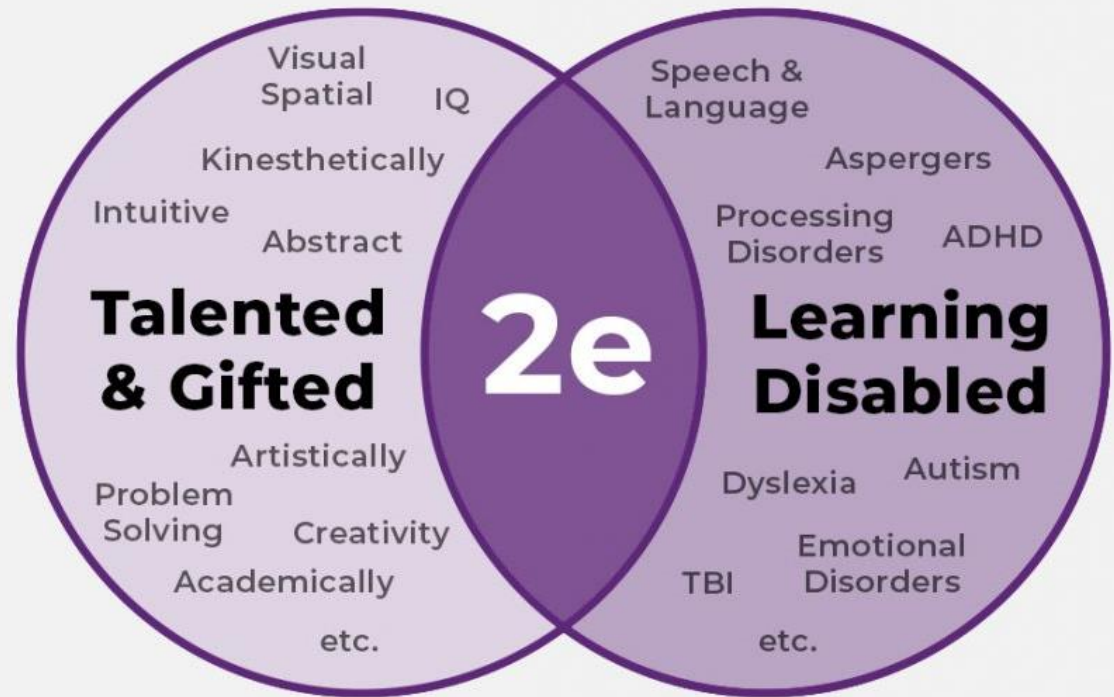
**2e**





# TWICE EXCEPTIONAL PUPILS – 2E

## What is a 2e / Twice-Exceptional Student?



**Seth's Definition:** 2e or Twice Exceptional refers to a neurodiverse learner who has two or more “exceptionalities” that must be properly addressed in order to meet their atypical needs. Usually a gifted person with learning challenges.





# ONSET, RECOGNITION AND DIAGNOSTIC PROCESS IN SLD

## Differs across countries

## Differential diagnostics

- Exclusion of causes such as ID, ADHD, Sensory disability, etc.
- Psychological assessment – Test of IQ (Wechsler Preschool and Primary Scale of Intelligence (WIPPSI), Wechsler Intelligence Scale for Children (WISC); Wechsler Adult Intelligence Scale (WAIS))
- Achievement tests - Woodcock-Johnson Tests of Achievement (WJ), the Wechsler Individual Achievement Test (WIAT), the Wide Range Achievement Test (WRAT)
- Psychologist – Trained Professional – Special Educator (CR)

## Diagnostical milestones

- Persistent difficulties in learning keystone academic skills (criteria A)
- Performance below chronological age (criteria B)
- Apparent in the early school years (criteria C)

# DSM V — DIAGNOSTIC CRITERIA FOR SLD

- Difficulties learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties
  - Inaccurate or slow and effortful word reading (e.g., reads single words aloud incorrectly or slowly and hesitantly, frequently guesses words, has difficulty sounding out words).
  - Difficulty understanding the meaning of what is read (e.g., may read text accurately but not understand the sequence, relationships, inferences, or deeper meanings of what is read).
  - Difficulties with spelling (e.g., may add, omit, or substitute vowels or consonants).
  - Difficulties with written expression (e.g., makes multiple grammatical or punctuation errors within sentences; employs poor paragraph organization; written expression of ideas lacks clarity).
  - Difficulties mastering number sense, number facts, or calculation (e.g., has poor understanding of numbers, their magnitude, and relationships; counts on fingers to add single-digit numbers instead of recalling the math fact as peers do; gets lost in the midst of arithmetic computation and may switch procedures).
  - Difficulties with mathematical reasoning (e.g., has severe difficulty applying mathematical concepts, facts, or procedures to solve quantitative problems).







**THANK YOU  
FOR YOUR  
ATTENTION**

