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European Education Area Strategic Framework
Working Group on Equality and Values

Special educational needs: the case of non-physical vulnerabilities

Reflection paper

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Special educational needs: the case of non-physical vulnerabilities

Some research insights to support points for attention raised in the WG meetings on quality, inclusive and accessible education

European Education Area strategic framework
Working Group on Equality and Values in Education and Training (2021-2025)

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Introduction[1]

Sporadic evidence indicates a significant rise in the incidence of special education needs related to what we will call non-physical vulnerabilities of children and students across the EU Member States – and beyond. Members of the European Education Area Strategic Framework Working Group on Equality and Values in Education and Training[2], for example, reported on growing numbers of students in their countries with such vulnerabilities, including dyslexia, dysgraphia, dyscalculia, as well as autism, attention deficit hyperactivity disorder (ADHD) and other non-physical types of difficulties, leading to special education needs of students in their countries. Similarly, references to such tendencies are also repeatedly made by educational experts elsewhere, including in the popular media.

The vulnerabilities widely discussed in such contexts are typically identified as either a mental disorder or a learning difficulty. Overall, an increase in the prevalence of a range of non-physical vulnerabilities is being observed, which can be both due to an increased awareness and attention paid to such cases, and to an actual increase in their prevalence. Irrespective of the root causes, however, the perceived increase led to significant concerns and create challenges for, and pressure on, the education systems as well as on supporting services including healthcare and social services.

While the necessity to better support students with various forms of non-physical special needs is evident, a great deal of information is still missing to understand their situation and to design better services. The present paper aims at systematising available evidence on mental disorders and learning difficulties among children and students in Europe. This paper aims to do so by:

(1) highlighting the main challenges that exist around defining, categorising and measuring learning difficulties and mental disorders;
(2) describing main temporal trends observed in the incidence of these special education needs;
(3) providing some evidence on the type of support that European education systems offer to students with such needs.

These objectives unavoidably narrow down the theme of inclusive education, which considers all "*…learners who are vulnerable to exclusion for any single or multiple reasons, with a 'focus on characteristics of inclusive education systems that build capacity to more effectively ensure all learners' rights to inclusive education are met*'".[3]

The present paper instead directs the focus on a specific set of vulnerabilities and by doing so it builds upon a certain categorisation of special educational needs. Such an approach is often described as being rooted in the medical model of special needs.

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[1] This paper was prepared by **Zsuzsa Blasko**, as part of the ICF Consulting Services Ltd support to the working group and in conversation with the working group coordinators.
[2] Plenary Meeting on "Quality, inclusive and accessible education", 26-27 October 2023. Joint session, WG Schools Sub-group Pathway to School Success and WG Equality and Values in Education and Training; and PLA: Towards quality, inclusive and accessible education – effectively meeting all learners' needs, 19-20 March 2024, Hosted by EASNIE.
[3] Agency Position on Inclusive Education Systems: Background Information Paper 2024 Update (european-agency.org), p27

While identifying non-physical vulnerabilities as discussed in this paper is typically (but not always) based on medical diagnoses, by no means does our approach imply looking at these vulnerabilities as "deficits". On the contrary, it is acknowledging the richness and opportunities the inclusion of all students can bring to the education systems and applies the categories to collect more nuanced evidence on the requirements that inclusive education systems need to meet. It builds on the assumption that detailed data on the specific student needs are necessary to understand "…*who is being left behind and why*"… so that "…*governments can develop evidence-based policies and monitor their implementation*."[4] A dedicated box is also presented later to discuss the risks of labelling often accompanied by the application of categories and medical diagnoses.

1. Definition and measurement issues

Students with non-physical vulnerabilities belong to the broad category of students with special education needs (SENs). Inclusive education systems are aiming at meeting the educational needs of all learners, where particular attention needs to be paid to those groups of learners that are at increased risk of exclusion, marginalisation or underachievement. Such vulnerable student groups, i.e. children and learners with SENs, are now increasingly recognised and growing efforts are made to ensuring that they are provided with high-quality education in an inclusive setting.

Despite this broad agreement, however, analysts and supranational organisations repeatedly find that no standard understanding of what constitutes SEN exists, and countries include a varying set of conditions in the list of such needs. Moreover, there is also no consensus on how the specific vulnerabilities, identified as SEN should be identified and diagnosed. Consequently, there are no uniform definitions or even an agreed terminology to address the issue and national reporting do not allow for systematic comparison.[5]

The European Agency for Special Needs and Inclusive Education (EASNIE) provides regular statistics not only on the number of children and learners with SEN, but also on the form of support they receive – without further categorising the needs in question. Doing so, EASNIE is using an operational approach and considers a student having SEN if in the country of concern *"...an official decision leads to a child/learner being recognised as eligible for additional educational support to meet their learning needs."*[6] – irrespective of the specific way the term SEN is being defined and without offering further breakdowns by type of SEN.

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[4] UNESCO 2020 Global education monitoring report, 2020: Inclusion and education: all means all - UNESCO Digital Library, p65

[5] See the UNESCO, OECD and EASNIE reports discussed later as well as e.g. Ramberg, J. And Watkins A. 2020: Exploring inclusive education across Europe: some insights from the European Agency Statistics on Inclusive Education. (2020). *FIRE: Forum for International Research in Education*, *6*(1). https://doi.org/10.32865/fire202061172

[6] EASIE 2024: 2020-21 Schoolyear Dataset and Cross-Country Report EASIE Cross-Country Report_2020–2021_.docx (live.com), p.8

Despite the notable variations across countries, a certain set of mental disorders and learning difficulties regularly form part of the conditions that are considered to require additional education. For analytical purposes, OECD[7] develops three main operational categories of SEN that, according to their findings, can each be more or less commonly identified in national reporting. These include learning disabilities, physical impairments and mental disorders.[8] Two out of these three categories together, learning disabilities and mental disorders, very well describe the set of special needs that constitute the subject of the aforementioned concerns, that also constitute the primary focus of this report. By referring to "non-physical vulnerabilities" and discussing learning disabilities and mental health related disorders jointly, non-physical vulnerabilities can be distinguished from physical disorders, that "...*affect the ability of individuals to access physical spaces (due to reduced mobility) or to access information that is delivered in specific ways: visual delivery (for visual impairments) and voice/sounds (for hearing impairments*)."[9]

Learning difficulties

Referring to the WHO's 11th version of the International Classification of Diseases[10], the OECD report describes learning difficulties (LD) as "*disorders that affect the acquisition, retention, understanding, processing or use of verbal and non-verbal information*." Learning difficulties are *"...neurological in nature and have a genetic component*"[11]. Importantly, learning difficulties are not correlated with intelligence, but can hinder the learning process irrespective of the student's IQ. Most common learning difficulties include dyslexia, dysgraphia and dyscalculia.[12]

Mental disorders

According to the OECD, the most common mental disorders affecting children in school include ... "*developmental disorders, such as attention deficit hyperactivity disorder (ADHD), attention deficit disorder (ADD), autism spectrum disorder and Tourette's syndrome, depressive disorders, anxiety, and disruptive, impulse-control and conduct disorder (oppositional defiant disorder [ODD, conduct disorder])*."[13] Mental-health related disorders are often long-standing conditions that can seriously hinder students' learning process and harm their overall quality of life and well-being. They can be distinct medical conditions, in many cases, however, mental disorders are interlinked with other conditions, such as learning difficulties, and they can also

[7] OECD 2007: Students with Disabilities, Learning Difficulties and Disadvantages: Policies, Statistics and Indicators | READ online (oecd-ilibrary.org); OECD 2020a: Mapping policy approaches and practices for the inclusion of students with special education needs | OECD
[8] The classification applied in the 2020 OECD report has its roots in OECD (2007) Students with Disabilities, Learning Difficulties and Disadvantages: Policies, Statistics and Indicators | READ online (oecd-ilibrary.org)
[9] OECD 2020a, p14
[10] World Health Organization (2019), *International Classification of Diseases 11th Revision*, https://icd.who.int/browse11/l-m/en
[11] Ibid, p9.
[12] OECD 2020a
[13] OECD 2020a p15

arise from the lack of adequate support given to those conditions. Underreporting is particularly The WHO warns that mental-health related disorders are frequently left unreported[14].

Learning difficulties and mental disorders often appear jointly and an increase in the prevalence of one is therefore likely to be linked to an increase in the prevalence of the other. Research shows, for example, that as many as 90 to 98% of children with neurodevelopmental disorders (including attention-deficit/hyperactivity disorder, cerebral palsy, and autism spectrum disorder) have difficulties with writing (dysgraphia).[15] At the same time, a range of studies[16] call attention to the high prevalence of mental health related disorders in children and young people with learning disabilities.

The neurodiversity approach

Mental disorders and learning difficulties are also grouped together by the neurodiversity approach, that is offered as an alternative both to the medical and the "strong" social model of disabilities and special needs. The term "neurodiversity" was first developed[17] with a reference to biodiversity, suggesting that as biodiversity is beneficial or even essential for the functioning of the ecosystem's, neurodiversity might be a prerequisite for cultural and social stability. Overall, the approach is suggesting that diversity of minds and brains should be considered as normal, natural and valued forms of human diversity, and essentially that "…*individuals with neurological disabilities should be accepted for who they are*."[18] While often discussed in the context of autism, the neurodiversity approach has been applied to a much broader group of atypical neurological functioning, including ADHD, dyslexia[19], depression, developmental language disorder, anxiety and more.[20]

In a detailed analysis both at national and international levels, EASNIE[21] shows that legislation and policy documents in EASNIE member countries do not systematically distinguish learning difficulties and mental health issues either from each other or from other forms of disabilities and special needs. Nevertheless, the broad category of "disabilities, special needs and learning difficulties" is recognised in the legislation of

[14] World Health Organization (2018), *Mental Health*, https://ourworldindata.org/mental-health
[15] Mayes SD, Calhoun SL. Learning, attention, writing, and processing speed in typical children and children with ADHD, autism, anxiety, depression, and oppositional-defiant disorder. *Child Neuropsychol* 2007;13:469-93. 10.1080/09297040601112773
[16] For a review see e.g. Vedi K, Bernard S. The mental health needs of children and adolescents with learning disabilities. Curr Opin Psychiatry. 2012 Sep;25(5):353-8. doi: 10.1097/YCO.0b013e3283566843. PMID: 22842658.
[17] Singer, J. (2016). Neurodiversity: The Birth of an Idea
[18] Dwyer, P (2022): The Neurodiversity Approach(es): What Are They and What Do They Mean for Researc hers? Human Development (2022) 66 (2): 73-92 The Neurodiversity Approach(es): What Are They and What Do They Mean for Researchers? | Human Development | Karger Publishers
[19] See also: Dyslexia and Neurodiversity | Addressing Dyslexia Addressing Dyslexia
[20] In contrast, an OECD research paper only mentions autism spectrum disorder and ADHD as neurodevelopmental disorders under the term of neurodiversity. OECD (2017), "Neurodiversity in education", *Trends Shaping Education Spotlights*, No. 12, OECD Publishing, Paris, https://doi.org/10.1787/23198750-en.
[21] EASNIE 2022: Legislative_Definitions_around_Learners'_Needs.pdf (european-agency.org)

all the 32 countries analysed. In addition, 14 countries further distinguish a socio-emotional difficulties[22] category in their legislation.

All in all, the inconsistencies in the definitions of SNE across countries may be a key reason for the notable variations in the share of students with SNE. According to EASNIE's latest statistics from 2021/2022, the rate of children and learners at the ISCED 2 and 3 levels considered to have special education needs varied between 0.2% (Luxemburg) and 17.9% (Finland).[23]

Different countries apply different definitions and register different categories of SEN depending on their traditions, institutional settings, the benefits and supports linked to the various types of diagnoses, as well as the challenges involved in data collection and measurement. Factors that make cross-country comparisons or even the assessment of temporal changes in a given country difficult include the following:

- **Moving towards a non-categorical approach** in the provision of additional pedagogical, psycho-emotional and/or social support in several European countries. In line with EASNIE's recommendations, in Portugal for example students are identified as "needing support measures" without being categorised based on personal characteristics.[24]

- **Varying approaches to what constitute SEN**. As mentioned above, not all countries consider the same set of conditions to belong to SEN. Special needs related to cultural and social factors (e.g. linguistic differences, socioeconomic background, migration background), but also giftedness are examples for conditions that are identified among SENs in some countries but not in others.[25]

- **Definitions and measurement of specific conditions.** Even when including similar categories of SEN, the specific definitions applied can vary, as countries do not use standard diagnostic criteria – even for medical conditions. Moreover, identification tools and judgement criteria applied often change over time following e.g. improvements in medical tools or as a response to a changing policy environment. For conditions measured on a scale rather than categorically, often no "objective" – medical or educational – criteria exist to identify the cut-off point beyond which a condition is considered as a disorder – as it is the case for example with autism-spectrum disorder, but also with dyslexia.[26] Moreover, in increasingly academic pre-school and primary school

[22] Social-emotional challenges; learners with social-emotional problems; children/young people with an emotional or behavioural disorder who do not have an intellectual disability (p26 ibid)
[23] EASIE 2024, Table 12.1
[24] See also: European Commission 2024: Roadmap for ensuring school success for all. A practical 'living' guide for the implementation of the Council Recommendation on Pathways to School Success: thematic report. https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/2297f907-bcfc-11ef-91ed-01aa75ed71a1 Pillar 2: System of effective needs identification
[25] OECD 2020a
[26] Snowling, M. J., Hulme, C., & Nation, K. (2020). Defining and understanding dyslexia: past, present and future. *Oxford Review of Education*, *46*(4), 501–513. https://doi.org/10.1080/03054985.2020.1765756

settings, the notion of age-appropriate behaviour might get challenged and lead to redefinitions of what is considered as a behavioural problem or learning difficulty.[27]

Identifying dyslexia

The Dyslexia Compass[28] project found highly inconsistent methods used for assessing dyslexia across Europe – also leading to diverse estimates for the prevalence of dyslexia both within- and between countries. In Spain for example, figures between 2% and 17% are reported, and inconsistent statistics were found also in Romania and Germany. Cross-country differences are also noteworthy, with Italy reporting 4% and Ireland 10%. The project reports that countries – and even organisations within the same country – use a variety of approaches and methodologies to identify dyslexia. In Austria, spelling, reading speed, comprehension and reading accuracy as well as intelligence are tested. In Spain, reading abilities and visual scanning, writing and spelling, motor consistency, copying, rapid naming, sequencing abilities, maths and rhythm are assessed, and personal history is also considered. While in some countries interviews with parents, pupils and teachers form part of the assessment process, most countries rely on tests only. Tests are often developed specifically for a given language and country, and only a small number of countries apply standard tests. The most widely applied standard test is the Wechsler test[29], the variations of which are used for example in the UK, Romania and Spain. Still, even in these countries, Wechsler is not the only test applied. The notable discrepancies across the testing methods to identify dyslexia – as well as in the support provided to learners with such diagnoses – was also noted by the European Citizen's Initiative on learning disabilities.[30]

- **Social acceptance of non-physical vulnerabilities varies across countries and over time.** Especially with mental disorders and learning difficulties, the level of social acceptance can influence parents' (and students') willingness to seek help and diagnoses. When receiving a diagnosis leads to a risk of stigmatisation and marginalisation, disorders are less likely to get identified. On the other hand, growing acceptance of mental disorders and learning difficulties in general, as well as the acceptance of specific conditions, can lead to more awareness among parents and professionals alike – leading to an increasing number of cases being identified.[31] In fact, a wide-spread opinion prevails that recent rises in the prevalence of several mental conditions and learning

[27] See e.g. UNESCO 2020 Global education monitoring report, 2020: Inclusion and education: all means all - UNESCO Digital Library

[28] The Dyslexia Compass was an Erasmus+ funded project that mapped views, methodologies and tools for testing and measuring dyslexia in Europe and aiming at helping to reach consensus among the diverse approaches. For details on the projet: Welcome to The The Dyslexia Compass - The Dyslexia Compass and for the report please see: Dyslexia Compass Report

[29] See e.g. What is in a WISC? - Dyslexia Daily Blog

[30] Initiative detail | European Citizens' Initiative (europa.eu)

[31] OECD 2020a

difficulties are at least partially due to the increasing social acceptance of these, which might even generate over-diagnoses in some.

The risk of labelling

Fear of stigma as a factor that can negatively influence SEN identification is closely linked to the risk of labelling. Receiving a diagnosis can have negative consequences in terms of labelling and stigmatisation. Stereotypes associated with the various forms of SENs have the risk of setting low expectations that can turn into self-fulfilling prophecies, leading to under-achievement. Children with such labels are also at increased risk of bullying and their mental health is endangered. When harmful consequences of labelling are not adequately ensured, parents and students can restrain from seeking support and receiving an appropriate diagnosis.

Countries' approach in finding a balance between the needs for targeted support and potentially harmful labelling vary. EASNIE advocates for a right based-approach to inclusive education, where medical diagnoses-based categories are replaced by a needs-based approach, where all students are provided with high-quality support that is generally available for all learners in inclusive educational settings.[32] Any data-collection system needs to be carefully designed to ensure that diagnoses do not turn into labels and avoid that teachers and peers relate to the student based on the mere stereotypes linked to that diagnosis.

- **Awareness and identification of needs varies across social groups**. The intersections between parental socioeconomic conditions and the probability that non-physical vulnerabilities of the child get duly recognised are complex and seem to vary by type of vulnerabilities. A 2016 UK study[33] finds, for example, that behavioural difficulties are more common among children from low-income families, while dyslexia showed an opposite pattern. In Europe, children from low-income families were found to more often receive an autism-spectrum diagnosis[34]. At the same time, concerns prevail that parents from higher socioeconomic status are more likely to recognise certain disorders, to seek help and get medical diagnosis. When diagnoses are required for targeted support and they are also difficult to obtain in the public system (due e.g. to long waiting lists and lack of resources), well-off parents are more likely to seek help from private service-providers[35]. At the same time, families in remote, poorly served rural areas are less

[32] See e.g. Raising the Achievement of All Learners in Inclusive Education: Final Summary Report | European Agency for Special Needs and Inclusive Education (european-agency.org) on the imporance of avoiding labels.
[33] Special educational needs and their links to poverty | Joseph Rowntree Foundation (jrf.org.uk)
[34] Delobel-Ayoub M, Ehlinger V, Klapouszczak D, Maffre T, Raynaud JP, Delpierre C, Arnaud C. Socioeconomic Disparities and Prevalence of Autism Spectrum Disorders and Intellectual Disability. PLoS One. 2015 Nov 5;10(11):e0141964. doi: 10.1371/journal.pone.0141964. PMID: 26540408; PMCID: PMC4635003.
[35] Such concerns have been raised for example in Ireland in the mid-2010s: Kenny, N., McCoy, S., & Mihut, G. (2020). Special education reforms in Ireland: changing systems, changing schools. *International Journal of Inclusive Education*, 1–20. https://doi.org/10.1080/13603116.2020.1821447

likely to receive support, as they might be less informed and have restricted access to a medical diagnosis. Moreover, when a treatment is prescribed, physical distances might prevent them to enrol their child in the institution offering the appropriate support – which in turn might reduce their motivation to seek help from the start.

- **Intersection of SENs might make some needs unaddressed and underreported**. The various forms of SENs, both physical and non-physical ones, often coincide and there is a risk that not all the needs will be recognised and addressed appropriately. For example, giftedness might go unnoticed in children with autistic spectrum disorders, as well as in children with learning difficulties, e.g. dyslexia.[36] Comorbidities in addition to a primary diagnosis can lead to inconsistent reporting and distort statistics.

- **Advantages linked to the identification of SENs can boost number of students seeking help**. When parents and students perceive the benefits linked to a SEN diagnosis as particularly advantageous, they are more likely to seek diagnosis (OECD 2020). This can happen in the case of both financial- and non-financial advantages such as increased examination time etc. Concerns prevail that better-informed higher status parents are particularly likely to be influenced by such benefits.

2. Is the incidence of non-physical vulnerabilities increasing?

With non-physical vulnerabilities being hardly distinguishable from other forms of SENs in national legislation and reporting, it is not surprising that supranational statistics can say little about the changes over time in the prevalence of learning difficulties and mental disorders. As mentioned, the most comprehensive comparative data source is provided by EASNIE, allowing the assessment of trends over time relating to the share of students with any kind of SENs – as defined by national legislation. While cross-country comparisons are not possible, the changes in the share of SEN students over time in any individual country can be considered as a rough indication of how the share of children with non-physical vulnerabilities might have developed.[37] Comparing EASNIE statistics from the most recent school-years with available data (2018/19; 2019/20 and 2021/22) it is notable that – even during this short period of time – an increase in the "identification rate of children/learners with an official decision of SEN (%)" indicator can be observed in most of the countries

[36] See e.g. UNESCO 2020

[37] This is a strong assumption, and results need to be handled with care as changes can also be due to changes in national legislations and categorisations. Also, the argument is based on the assumption that from the various types of SENs, the prevalence of non-physical vulnerabilities is the most likely to change over time.

analysed at the various ISCED levels, including pre-primary (ISCED 02), primary (ISCED 1), lower-secondary (ISCED 2) and upper-secondary (ISCED 3) education[38].

Additional supporting evidence comes from single-country studies. A recent report in Ireland[39] for example shows a very clear increase in the prevalence of "emotional and behavioural difficulties" in the age groups of 9 and 13 years old between the cohorts of 1998 and 2008. The growth is evident based on parental as well as teacher and principal reports. Behavioural difficulties were also found to be the conditions with the most marked increase across cohorts, considering also learning disabilities, physical conditions and speech/language related conditions – that were all on an increase.

Researchers and academics interested in specific conditions offer more detailed insights into specific types of vulnerabilities, looking also at the possible causes of the observed increase over time. Two examples are presented in the boxes below.

Autism Spectrum disorder

A systematic literature review focusing on recent (2015-2020) European studies on the 5–18-year-old population[40], estimated the European Autism Spectrum Disorder (ASD) prevalence rate to be between 0.8% and 1.4% (depending on the type of data used in the underlying study). The prevalence rate was four times higher among primary- than among secondary school children and the authors calculated a male-female ratio of 3.5. Another study, which systematically assessed 75 studies on ASD prevalence in Europe, North America and Oceania, covering prevalence data from 1993 to 2019, found a steady and notable increase in the global prevalence of ASD during this time-period.[41] The authors conclude that some, but not all this rise, can be attributed to increased case ascertainment. A recent review[42] further confirms the global increase in measured autism prevalence, referring to improved community awareness and improved public health response globally, as well as to progress in case identification and definition, and a growth in community capacity as possible reasons for the change. So far, however, no research has been able to systematically link the increase in ASD prevalence to its possible causes and establish whether the

[38] Own calculations based on EASNIE Cross-country reports. Specifically, at pre-school level an increase from 2018/19 to 2021/22 can be observed in 9 countries (out of 15); at primary level an increase from between 2019/20 and 2021/22 took place in 13 countries (out of 20); at lower-secondary level in 15 countries (out of 20) and at higher-secondary level between 2018/19 and 2021/22 in 11 countries (out of 15). Source: Cross-country reports | European Agency for Special Needs and Inclusive Education (european-agency.org)

[39] Smyth, E., and Russell, H. (2024). Trends in disability prevalence among young people: Insights from the Growing Up in Ireland Study, ESRI Research Series 192, Dublin: ESRI, https://www.esri.ie/publications/trends-in-disability-prevalence-among-young-people-insights-from-the-growing-up-in

[40] Sacco, R., Camilleri, N., Eberhardt, J., Umla-Runge, K., & Newbury-Birch, D. (2023). The Prevalence of Autism Spectrum Disorder in Europe. IntechOpen. doi: 10.5772/intechopen.108123

[41] N Anorson, I Male, W Farr, A Memon, Prevalence of autism in Europe, North America and Oceania, 2000-2020: A systematic review, *European Journal of Public Health*, Volume 31, Issue Supplement_3, October 2021, ckab164.786, https://doi.org/10.1093/eurpub/ckab164.786

[42] Zeidan J, Fombonne E, Scorah J, Ibrahim A, Durkin MS, Saxena S, Yusuf A, Shih A, Elsabbagh M. Global prevalence of autism: A systematic review update. Autism Res. 2022 May;15(5):778-790. doi: 10.1002/aur.2696. Epub 2022 Mar 3. PMID: 35238171; PMCID: PMC9310578.

likelihood of developing autism is also on the increase, or the change can entirely be related to external factors as the ones listed above.

Attention Deficit Hyperactivity Disorder (ADHD)

Attention deficit hyperactivity disorder (ADHD) is more common among children aged 3 to 12 years (7.6%) than in adolescents aged 12 to 18 (5.6%), as shown by a systematic analysis of 61 studies across the globe.[43] The review also found that ADHD prevalence varies depending on the diagnostic criteria applied: using the DSM-V criteria leads to higher prevalence rates than using alternative methods for diagnosis. Interestingly, overtime trends in ADHD prevalence seem to be diverging across countries. Looking at the age-standardized prevalence of ADHD globally from 1990, a study[44] finds a peak in 1994-1995, then some modest decline until 2019. The decline can most likely be attributed to the new and more stringent diagnostic criteria[45] used after 1994. Country-differences were notable: the largest decrease was observed in Finland, while in other places – particularly the USA - even some increase was taking place. In fact, in the US, national population surveys suggest a massive increase in the prevalence from 6.1% to 10.2% from 1997 to 2016.[46] Such a sharp and continued rise has provoked intense debates, as well as several in-depth studies looking at the possible underlying factors. The above-mentioned study[47] confirms that the consistent rise can be linked to several factors. Clearly, the general broadening of the diagnostic criteria plays an important role. At the same time, the increased awareness among medical personnel, as well as in the public, is also likely to contribute to the changes, with ADHD being increasingly featured in popular culture also making a difference.

Unlike mental disorders, such as ADHD and ASD, no systematic research evidence is available that would touch upon the prevalence and its changes of some of the most common learning difficulties, such as dysgraphia, dyslexia or dyscalculia. In fact, a recent scoping review[48] on dysgraphia that collects 77 studies, concludes that international research outputs on the topic are rare. Single-country studies instead

[43] Salari, N., Ghasemi, H., Abdoli, N. *et al.* The global prevalence of ADHD in children and adolescents: a systematic review and meta-analysis. *Ital J Pediatr* **49**, 48 (2023). https://doi.org/10.1186/s13052-023-01456-1

[44] Cortese, S., Song, M., Farhat, L.C. *et al.* Incidence, prevalence, and global burden of ADHD from 1990 to 2019 across 204 countries: data, with critical re-analysis, from the Global Burden of Disease study. *Mol Psychiatry* **28**, 4823–4830 (2023). https://doi.org/10.1038/s41380-023-02228-3

[45] ICD-10

[46] Abdelnour E, Jansen MO, Gold JA. ADHD Diagnostic Trends: Increased Recognition or Overdiagnosis? Mo Med. 2022 Sep-Oct;119(5):467-473. PMID: 36337990; PMCID: PMC9616454.

[47] Cortese, S., Song, M., Farhat, L.C. *et al.* Incidence, prevalence, and global burden of ADHD from 1990 to 2019 across 204 countries: data, with critical re-analysis, from the Global Burden of Disease study. *Mol Psychiatry* **28**, 4823–4830 (2023). https://doi.org/10.1038/s41380-023-02228-3

[48] Kalenjuk, E., Laletas, S., Subban, P., & Wilson, S. (2021). A scoping review to map research on children with dysgraphia, their carers, and educators. *Australian Journal of Learning Difficulties*, *27*(1), 19–63. https://doi.org/10.1080/19404158.2021.1999997

seem to be concentrated outside Europe, and they rarely discuss trends over time, but look for example at underlying causal cognitive factors – including. for dyscalculia.[49]

3. Policy support for learners with non-physical vulnerabilities in Europe

Not only are categorisation-, reporting- and identification systems unstandardised across Europe, but also the support provided to learners with such needs show great variations across the education systems. Regarding the overall policy approaches followed by countries to tackle non-physical vulnerabilities of students – including identifying needs, providing adequate support to children with such needs and introducing relevant content into teacher training – a high-level overview can be found in a recent Eurydice report on diversity and inclusion in schools.[50] To get a more in-depth picture of the prevailing systems however, comparative case studies are needed, looking into separately into specific types of vulnerabilities. A good and recent example of this kind stems from OECD, highlighting the diversity of policy approaches that different education systems use to identify and support students with ADHD. Another example that is worth mentioning focuses on dyslexia and provides evidence on the definition and the identification tools applied as well as the support (or the lack of thereof) provided to children with dyslexia. The comparative study involves three EU Member States (Bulgaria, the Czech Republic and Italy), plus England, Switzerland, Türkiye, and Wales. However, the research dates to 2012, and therefore we decided not to present it in more detail here[51].

The aforementioned Eurydice report provides a systematic, high-level overview of the various top-level policies and measures applied in Europe regarding the identification and treatment of students' learning- and social-emotional support needs. Moreover, the report also offers information on the relevant aspects of teacher training. Covering 39 European education systems, the data provide a high-level overview of the broad category of SENs looking at top-level policies rather than on institutional practices.

The report shows that in 23 countries (out of 39) official documents exist to set the assessment procedures for determining students' special education needs. These documents typically establish the responsibility of the education institutions, set the procedures for identifying SENs and establish the support measures to be provided when needs arise. The procedures established typically involve evaluations of the students from pedagogical, physical and psychological perspectives. In approximately one third of the systems education authorities also provide specific guidelines and tools for assessing learning needs. In some countries, these guidelines focus on early identification, while in others the emphasis is on identifying needs no matter when they arise throughout one's education career. In some education systems (e.g. in Cyprus,

[49] Mishra, A., & Khan, A. (2022). Domain-general and domain-specific cognitive correlates of developmental dyscalculia: a systematic review of the last two decades' literature. *Child Neuropsychology*, *29*(8), 1179–1229. https://doi.org/10.1080/09297049.2022.2147914
[50] Promoting diversity and inclusion in schools in Europe - Publications Office of the EU (europa.eu)
[51] Cappa, C. and Giulivi, S. (2012) Dyslexia across Europe. Initiative detail | European Citizens' Initiative (europa.eu)

Italy, the French Community of Belgium, Hungary, and Norway) even diagnostic national tests are provided to support the assessments.

On the provision of targeted learning and socio-emotional support, Eurydice finds that most European countries have policies in place both for learning- and social-emotional support. For learning support, in most countries both universal and targeted measures exist, while for social-emotional support countries tend to report either universal or targeted support – and only rarely both. Measures on targeted learning support focus on students with SENs in 29 countries, while measures on targeted social-emotional support for SEN students is available in 13 countries.

Adequate teacher training is a key aspect of offering appropriate support to students with special needs. Again, without distinguishing between specific types of needs, but considering students with any kind of SENs and disabilities, Eurydice finds that teaching students with such needs is promoted through top-level continuing professional programmes in 33 countries and through top-level competence frameworks for initial teacher education in 28 countries.

An OECD report[52] presents a detailed case study on policy approaches and practices applied in OECD countries for the inclusion of students with one specific mental disorder, namely ADHD. The report discusses the entire spectrum of supporting measures and policies, including the categorisation and identification of ADHD, the structures applied for inclusion of students with ADHD, resourcing the system, capacity building and practical support provided. As expected, national practices show a great deal of variation starting from the requirements for being admitted into the ADHD support system, that is linked to formal diagnoses in many countries, but not for example in Finland and Sweden, where support can be given to children that show learning difficulties, even if they do not have a diagnosis. Education provision for children with ADHD are described with six models that are either used exclusively or in combination in different member states. These are dedicated schools; dedicated classes; regular classes with indirect support; regular classes with resource support; integrated classes and withdrawal classes. To provide tailored support, most systems provide an individual education plan (IEP) for each student with ADHD – however, the plans vary in their legal status as well as regarding who is responsible for developing them (whether actors other than the teacher / principal are involved in the drafting process). In many places, the IEP also involves a transition plan to support students' effort in the transition to tertiary education or to work. During their educational career, for students with ADHD, usually two types of adjustments are offered: accommodation- and modification of the curriculum. Accommodation relates to how students learn the subjects, while modification refers to what they learn. As in most countries ADHD is not considered as a learning disability, schools that accommodate students with ADHD need to rely on funding opportunities received for special education needs.

[52] OECD (2020b): Policy approaches and practices for the inclusion of students with attention-deficit hyperactive disorder. OECD Education Working Papers No.238 49af95e0-en.pdf (oecd-ilibrary.org)

Conclusions

This reflection paper was developed in response to the recurring comments and questions raised by members of the Working Group Equality and Values in Education and Training, related to the situation of learners with non-physical vulnerabilities in their countries. Concerns were repeatedly raised about the increasing numbers of learners with such needs and the challenges countries are facing to develop adequate supporting systems for them – including for example by offering specialised provisions and adequately trained teachers. These discussions drew attention to the need for more nuanced evidence: a better understanding of the numerical trends as well as of the member states' practices to support learners with specific vulnerabilities. To collect such evidence, however, it was necessary to build on a certain categorisation of special education needs and clearly define the groups interest, which is learners with mental disorders and learners with learning difficulties. Understanding the magnitude of the challenges the education systems are facing and to look at trends, statistical data was needed, which typically come from official decisions of SEN and hence rely on some type of diagnosis. We argue that such discussions and reliance on sufficiently nuanced data are necessary for designing better policies and should be maintained without accepting a deficit-based approach and reinforcing labelling, exclusion and marginalisation.

Special education needs that arise from non-physical vulnerabilities, typically from mental disorders and / or from learning difficulties represent a common form of special education needs. Most frequent types of mental disorders include ADHD and autism spectrum disorder, while dyslexia, dysgraphia and dyscalculia are among the most widely identified learning difficulties. However, this review has shown that precise estimates on the prevalence of these difficulties are hard to obtain, and cross-country comparisons can presently not go beyond looking at the overall number of students identified with any kind of special education needs – as offered by EASNIE. This is due to a lack of standardised definitions across countries, the varying and often changing nature of identification methods applied, as well as to a range of measurement difficulties related to establishing the actual number of students with specific needs.

While discrepancies in the ways countries measure and report specific vulnerabilities – especially the differences arising from cultural and institutional factors – might be unavoidable, it is noteworthy that sometimes diverging statistics are reported even from the same country, as was shown in a report on dyslexia. Such cases deserve attention and more clarity in the countries' reporting systems. Moreover, widely observed uncertainties in measurement, such as over-reporting in the light of increased benefits and socially unequal access to identification of needs and support, should also be carefully monitored and overcome[53].

[53] See also: European Commission (2024): Roadmap for ensuring school success for all. A practical 'living' guide for the implementation of the Council Recommendation on Pathways to School Success: thematic report. https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/2297f907-bcfc-11ef-91ed-01aa75ed71a1 Pillar 6: Data collection and monitoring

Nevertheless, findings from in-depth studies on specific disorders, such as autism as well as ADHD, are largely in line with sporadic evidence showing increasing numbers of students that require support linked to such disorders. This increase is at least partially due to the raising awareness to- and the social acceptance of both mental disorders and learning difficulties, that is helping teachers and parents alike to recognise children with such needs and seek support for them. At the same time, diagnostic tools are also becoming increasingly sensitive, which further leads to more cases being identified. Overall, little evidence was found that the prevalence of the discussed vulnerabilities could be attributed to an actual growth in the share of children suffering e.g. from ADHD or autism. No matter, however, what the sources of the increasing numbers are, there is a clear need for strengthened efforts to build education systems in which also students with non-physical vulnerabilities can flourish.