The Nexus of Dis/Ability, Education and Social Inequality: Vocational Training and Higher Education in Germany

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Abstract
Education increasingly determines social status and opportunities for meaningful participation. To ensure more equity among diverse student bodies, inclusive education has become a human right and a global norm. Sociological research has to some extent analyzed the nexus of dis/ability, education, and inequalities, yet far more attention has been paid to socio-economic status, gender, and race and ethnicity. While studies of educational opportunities of disabled youth and young adults exist, systematic approaches to understand stigmatization, segregation, and educational and social exclusion as well as their consequences are less advanced than for other ascriptive characteristics. Examining constrained learning opportunities in vocational training and higher education in Germany’s selective and segregated education system, we explore the nexus of dis/ability, education, and social inequality.

Keywords: disability, education, special educational needs, vocational training, higher education, inequality, Germany

Introduction:
The Growing Relevance of Education and Dis/ability in Understanding Inequalities

Formal schooling, vocational education and training (VET) and higher education (HE) shape the life courses not only of the highly educated, but those of everyone in “schooled societies” (Baker 2014). Education increasingly determines social status, opportunities for meaningful participation, and well-being. Simultaneously with rising educational expectations, in terms of achievement and attainment, and extended duration of educational careers (see Dietzen et al. 2015; Leemann et al. 2016), inclusive education has become a global norm. Indeed, the UN

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Convention on the Rights of Persons with Disabilities (UN CRPD) and the United Nations’ 2030 Agenda for Sustainable Development broadly diffuse policy recommendations to fight inequalities and ensure that no one is left behind (see Kangas/Karonen 2022). Key to life chances, participation, and well-being, inclusive education has become a human right that states everywhere have committed themselves to provide. Responsibility to support this movement toward universal education increasingly includes postsecondary education: skill formation in VET and HE. Responding to these principles, governments and non-governmental organizations around the world have committed themselves to extending Education for All and inclusive education during lengthened educational careers (see, e.g., Köpfer/Powell/Zahnd 2021). Concrete legal innovations – such as prohibitions of disability discrimination in dozens of countries (see Degener 2016) – were realized by the global disability movement’s advocacy initiatives and protest activities that emphasize the power of new social movements in bringing about change (see Heyer 2015). Yet, inclusive VET and HE, though mandated in law, have not been realized in all states, with large spatial disparities across and within countries.

Aligned with growing citizenship rights and notions of personhood, the past half-century has witnessed an unmistakable shift in emphasis from medical to social and political models of dis/ability, based on the core idea that not individual deficits but rather cultural and structural barriers disable people (this is also true in Germany; see Poore 2007; Waldschmidt 2022). This has facilitated a redirection of research and policy initiatives away from rehabilitation and treatment of individuals and towards contextual conditions and barrier-filled environments, human rights charters and anti-discrimination legislation, and mechanisms of social control and exclusion. Today, the debate about strategies to reduce educational exclusion has shifted to facilitating factors to realize inclusive education for all, especially to the emphasis on human rights (see Degener 2016), yet such charters must be translated, with implementation differing considerably by context (see Biermann 2022). Education systems are persistent and have not been readily transformed: instead, many states, for example, Germany (see Blanck/Edelstein/Powell 2013), witness backlash to the challenge posed by human rights charters. Indeed, even if rights extend to all levels of education via the UN CRPD’s vision of accessible environments and an inclusive education system, their implementation remains contentious. Article 24 on education states that all levels of access to education are to be guaranteed, from childhood education and care via schooling, vocational training, and higher education to continuing education and lifelong learning. Education systems that are actively inclusive are viewed to be of fundamental importance to the development of individuals and community life alike. Without such inclusive systems, persons will neither be enabled to become fully participating citizens nor individuals who reach their potential and freely develop their personality or maximize their capabilities (see Nussbaum 2006). Lacking prior schooling and credentials, individuals who suffer disadvantages early in the life course are unlikely to access higher education or to find adaptations or accommodations sufficiently compensatory – and thus have limited access to formal learning opportunities in the future (on the UK, see Chatzitheochari/Platt 2019; Chatzitheochari/Velthuis/Connelly 2022).

A paradoxical development, however, is a growing proportion of children and youth who, not performing in school adequately or quickly enough, are increasingly referred to special ed-
ucation programs that, while devised to be compensatory, also signal considerable disadvantages in schooling and reduce learning opportunities that extend to limited vocational and higher education: These programs, in limiting educational achievement and attainment, constrain later life chances and result in social inequalities (see, e.g., Pfahl 2011; Powell [2011] 2016; Tomlinson 2017; Blanck 2020).

As its diverse organizational forms have developed in most countries, special education has offered assistance not only to children with recognized impairments but increasingly also to those with a variety of newly defined special educational needs (SEN), such as learning disabilities (see Richardson/Powell 2011): The recognition and responses to educational and social disadvantages – and which students are thought of as having SEN and become disabled in schooling and/or upon transitioning to adulthood – depend significantly on the institutionalization of education systems and social welfare programs. Education thereby not only determines societal patterns of economic and political allocation, but at the same time legitimates such patterns.

Despite acknowledging ability as a key construct in the determination of structural location (Kerckhoff 1993: 15-16), most research avoids explicitly addressing children and youth in special education or those with SEN. Despite the development of Disability Studies internationally (see Biernmann/Powell 2022), for decades disability remained marginal in sociological research on educational and social stratification; recently, this has been changing (see, e.g., Jenkins 1991; Entwisle/Alexander/Olson 1997; Powell/Pfahl 2019; Hadjar/Kotitschke 2021). Charting differences in educational attainment and challenging transitions to adulthood has been facilitated by longitudinal data in the US (see, e.g., Wells/Sandefur/Hogan 2003; Janus 2009) and the UK (see Chatzitheochari/Platt 2019; Chatzitheochari/Velthuis/Connelly 2022). Recent studies of inequities in educational opportunities of children and youth with disabilities and disadvantages emphasize that systematic approaches to understand the damage caused by educational and social exclusion, segregation, and discrimination are still less advanced than for other ascriptive characteristics, despite disabled people being the largest minority group in many societies (see Chatzitheochari/Butler-Rees 2022; Rivera/Tilcsik 2023) and persons with disabilities being recognized as a particularly disadvantaged group in all societies (see Lewis Brown/Maroto/Pettinicchio 2021). Moreover, debates on the importance of intersectional approaches to adequately assess multiple disadvantages and the myriad effects of stigma have become more important, as difficult as they are to measure. In postsecondary education, gaps in access, participation, and attainment of disadvantaged students due to structural and individual discrimination related to class, race and ethnicity, gender, and disability status, continue. Widening participation has been very gradual, with progressively inclusive postsecondary education being a continuous struggle, also due to limits on attainment of the necessary entrance qualifications and myriad remaining barriers within organizations (on Austria, Germany, Luxembourg, and Switzerland, see Powell/Felkendorff/Hollenweger 2008; Powell/Pfahl 2018; Pryztulla 2021; Aust 2022).

Indeed, students’ life courses demonstrate how life chances are influenced and determined from the very beginning by educational institutions and organizations as well as the gatekeeping professionals within them. Analyzing existing SEN classifications or students’ educational opportunities requires analytic attention to the relationships between individuals embedded in
social situations, but also to cultural contexts, disciplinary perspectives, and translations of concepts into empirical measures that guide classification processes. Educational administrations distinguish between students with and without SEN and regulate access to services, supports, and settings according to culturally specific social norms and professional practices: “Far from being ‘scientific facts’ based on objective, universally understood definitions of difference, the categories and labels assigned in different societies are contingent, temporary, and subjective” (Barton/Armstrong 2001: 696).

Therefore, empirical analyses of special and inclusive education are important to our better understanding of (a) categorical boundaries of dis/abilities and SEN among children and youth, legitimized by mainly clinical or medical conceptualizations of dis/ability enacted by gatekeepers, and their intersection with other dimensions of social inequality, and (b) social disadvantages, educational opportunities and attainments, and the negative (often unanticipated or unintended) consequences of participation in special education programs. These consequences, however, differ within the group of those classified, who are endowed with differential social status, thus demanding disaggregated analyses. The negative long-term impact of early participation in special education is clearly visible when examining transitions to vocational training, to higher education, and from school to work (on Germany, see Pfahl 2011, 2012; Blanck 2020; Menze/Solga/Pollak 2022).

Thus, here, we examine dis/ability, education, and social inequality by delving into the life course consequences of classification (especially as learning disabled) in the case study of post-secondary education in Germany. With its highly stratified, standardized, and selective educational system, Germany poses a significant challenge to human rights-based attempts to realize inclusive education (see Powell [2011] 2016; Biermann 2022). We begin with the classification of disability and SEN in education, then provide two cases – vocational education and training (VET) and higher education (HE) – of how disability or SEN status affects post-secondary education, stages of education studied even less than schooling in the generally scarce sociological research on disability and educational inequalities. We focus on the nexus of education and dis/ability and other ascriptive characteristics, the power of (mainly clinically-oriented) gatekeepers applying bureaucratic rules to label individuals, and the long-term consequences of disability classification.

**Shifting Understandings of Dis/Ability Across Time and Space**

Based on medical models of normal bodies and functions, dis/ability is often regarded as an individual characteristic grounded in bodily or cognitive impairment. By contrast, historical, social, political, and cultural models of the phenomenon of dis/ability seek to replace the dominant clinical and diagnostic approach with genuine social and cultural perspectives (see Waldschmidt 2022) and have pointed to cultural, regional, and historical differences in disability classification as well as changing classification patterns throughout the life course (see Powell [2011] 2016). Concepts such as transitions, trajectories, and pathways have become increasingly relevant, as they enhance the study of the interactions between social structures and individual lives. The institutionalization of persons with disabilities – regulative, but often residential as well – had been steady, until advocates of normalization and de-institutionalization challenged
this status quo in recent decades (Braddock/Parish 2001). Extraordinary shifts in how societies treat people classified disabled, often within just a few years or decades but also incrementally over centuries, highlight the importance of examining the dialectical exchange of social structures and individual lives (see Richardson/Powell 2011). To make sense of the complex relationships between disabled people’s experiences and the opportunity structures and constraints of barrier-filled contexts (see, e.g., Baglieri et al. 2010; Waldschmidt 2022) requires attention to groups and their dynamic boundaries in specific historical periods and cultural contexts to show how disability is defined, who defines it, in what contexts, and with what consequences (see Barton 1998; Albrecht 2017).

Classification and inclusion of persons with disabilities and SEN differ depending on age: at (a very) young age, disability is often defined in terms of development, health, and medicine. In school age, disability is often defined according to the (lack of) ability to participate successfully in the general classroom, according to school-based norms. Special education has, in many countries, become the major source of disability status in childhood and among youth. Membership in SEN categories does not fully capture all relevant dimensions in VET programs, as these are based on norms in schooling. In VET, bridges are built to support students to transition from the logic of schooling (learning and individual development) to the logic of employment (performing and completing organizational tasks; see Tschanz/Powell 2020). After leaving the school system, disability is defined according to the capacity to work and health status.

Given the dominance of the clinical professions and medical models of disability that define disability and SEN mainly in terms of individual deficits, we might expect SEN rates to be roughly similar across advanced industrialized countries. Yet across Europe, for instance, the rates of all children classified and receiving services vary considerably, from less than one percent to nearly a fifth of all students (European Agency 2022). Comparative studies, both international (e.g., Biermann/Powell 2014) and intranational (e.g., Blanck/Edelstein/Powell 2013; Mejeh/Powell 2018), emphasize that students’ transitions into special education often have much to do with institutional and organizational conditions, less with individual characteristics, although the latter are erroneously most often viewed as the causal factors. In most countries, classification remains a prerequisite to receiving individualized support and services. The labeling of persons deemed in need of support or attention leads to the resource-labelling-dilemma (Füssel/Kretschmann 1993) because persons in need of additional resources can only access those if and when they are officially labeled. The dilemma is that – instead of being only compensatory – programs and resources entail risks of stigmatization, segregation, and thus structural disadvantage (see Pfahl 2011; Blanck 2020). Moreover, the risk of becoming disabled due to the cumulative negative effects of stigmatization and segregation generally rises with age. Beginning with attempts to access public education, the intersection between disability, class, and race and ethnicity shapes inequalities (see Rivera/Tilcsik 2023).

Across countries, the necessity of being diagnosed to receive support varies widely as well as the risks and consequences arising from disability classification. Harmonized data from the European Agency for Special Needs and Inclusive Education (EASIE) shows considerable ranges of classification rates of students, measured as the percentage of learners with an official SEN decision, based on the enrolled school population in secondary schooling: For example, among selected European countries in upper secondary education, from 1% in Sweden and 1.5% in
Luxembourg to over 15% in Iceland and 25% in Scotland, with a European average of around 5% and Germany just above that, at 5.5% (European Agency 2020). These students’ allocation to various inclusive or special education settings also varies significantly. Such contrasts, found even among the Nordic countries that are considered to have some of the most inclusive education systems worldwide, is remarkable in highlighting contrasting ideas and norms relating to classification, varying definitions and categories, and unequal distribution of learning opportunities (see Biermann/Powell 2014). This picture gets even more complicated when examining the intersection of class, race and ethnicity, and gender with disability.

**Perspectives on Disability Classification and Intersectionality**

Intersectionality, as an analytical framework, facilitates our understanding of how diverse dimensions of a person’s identities combine, becoming factors in dis/advantage that overlap and are interdependent in leading to specific experiences of discrimination or oppression. Recognizing that individuals have multiple identities that intersect and interact with each other, creating unique experiences of privilege and oppression, intersectionality emphasizes that individuals may face multiple forms of exclusion and marginalization simultaneously. It also emphasizes the importance of power relations within society, especially regarding how diversity and dis/ability are understood, with inclusive, reflexive, and anti-essentialist approaches joined to conduct critical disability studies (see Goethals/De Schauwer/Van Hove 2015). Disability classification is strongly related to social power, as evidenced by the World Health Organization’s *bio-psycho-social model of disability*. This International Classification of Functioning, Disability, and Health (ICF) is used to evaluate persons and determine the boundaries between dis/ability that retains the authority of high-status clinical disciplines (see Hirschberg 2009; Bennani 2022). With respect to disability, intersectionality is crucial in at least three respects: (1) The classification of disability takes place in situations in which power is exercised by gatekeepers deciding over deviance from ableist norms as well as the consequences of disability classification (e.g., placement in inclusive or segregated settings); (2) classification processes of dis/ability do not occur independently of socio-economic status, race and ethnicity, and gender; and (3) the classification of individuals at the intersection of different categories of social inequality leads to specific processes of disablement and experiences of stigma and exclusion (see Chatzitheochari/Butler-Rees 2022). These processes and the dynamics of classification lead to non-negligible intra-group variance, which has to be described in categorical terms (see McCall 2005). We elaborate on these aspects below.

**Disability classification and the power of clinical diagnosis and professions**

Educational classification systems, interacting with locational, cohort-specific, and generational notions of dis/ability and behavioral norms, provide school gatekeepers with the categories they use to make sorting decisions about individuals’ educational pathways. Elaborated classification systems bear witness to the rise of professional dominance, as classifications of people with illnesses and impairments and disabled people rely on judgments based on clinical but nevertheless subjective reasoning of medical doctors, psychologists, and other trained professionals (see
Albrecht 1992). These systems, used to control status passages, borrow medicine’s metaphors and methods, but also its enormous cultural legitimacy (see Stone 1991). They operate with a model of clinical judgment and treatment that emphasizes individual assessment, diagnosis, and placement (Biklen 1988: 129). Furthermore, the disparities between the expert gatekeepers’ ideology and self-presentation and their actual practices are often significant, as they sort people into fixed status categories that they themselves define in their professions’ theoretical constructions (Stone 1991: 218). Boundaries between categories in systematic classifications are policy choices with clear ramifications, just as the classifying of people among them represent a political process that must be empirically examined (see Starr 1992), especially to understand the negative consequences of classification (on ethnicity categories, see Neckel/Sutterlüty 2010).

Because of their ubiquity, their scientific bases, and their interpretation by prestigious professions, such as medicine and psychology, classifications defend the status quo as they appear rational, scientific, and neutral (see Bourdieu 1984). Yet, as cultural comparisons show, these classificatory judgments are not only highly subjective but also wield the power to alter individual life trajectories, particularly at status passages in ever more important educational careers. As the social mechanism that links ideologies of ab/normality and beliefs about dis/ability with educational policies and school practices, classification systems institutionalize the meanings, labels, and categories that establish social boundaries between groups, constructing but also legitimating inequalities (see Pfahl/Powell 2011, 2016).

Like other tracks within schools or school types, special education has gatekeepers who utilize standardized measures of academic performance and behavioral norms to fit diverse students’ bodies into supposedly homogenous groups at status passages, especially when moving between grades or school types as well as by means of segregation in special vocational trainings and pseudo-labor markets (see Pfahl/Powell 2016). Professional experts’ vested interests in classification bolster the status quo. In Germany, the special education profession has historically not only pushed the classification and institutional differentiation of special education provision, but has also maintained segregated schooling, paradoxically even in an era of inclusive education (see Köpfer/Powell/Zahnd 2021).

**Disability classification and educational allocation driving categorical inequalities**

Generally, we find persistent educational and social disadvantages in many countries – both larger and smaller, richer and poorer –, suffered especially by children and youth with impairments and disabilities, but also by those in need of support in achieving set learning goals. Globally, compulsory schooling laws expanded to encompass ever more diverse groups of children, including those of low socio-economic status, migrants, and those with various impairments (see Richardson/Powell 2011). Increasing standardization and differentiation of school systems were the main responses to the challenge diverse student bodies represented, and a variety of sorting mechanisms resulted in age-graded schools defining pupils’ early life courses rigidly in stages. Especially during transitions within and between schools, SEN began to be identified, labeled, and reified, thereby altering a classified student’s educational and training pathway, occupational trajectory, and life chances. Commonalities between processes of educational differentiation, selection, and allocation for students of lower-class backgrounds and students clas-
sified as disabled exist, especially in the ubiquitous but culturally specific category learning dis-
ability that largely reflects class position (see, e.g., Carrier 1986 and Ong-Dean 2009 on the US; 
Pfahl 2011 on Germany; Tomlinson 2017 on the UK). As a school-based category that only 
exists in the relationship of individual students to socially derived educational standards and 
behavioral norms, learning disability (Lernbehinderung) is a highly relational status. Not based 
on one clear etiology, this category reflects a wide spectrum of genetic, biological, and social 
factors.

Despite spatial and historical differences in disability classification, special education in 
many countries nevertheless often exhibits a commonality, namely disproportionality: we find 
an overrepresentation of children living in poverty or in families with low socioeconomic status; 
also boys, ethnic minorities and children of migrant families from certain countries (see e.g., 
Explanations of the overrepresentation of lower-class children in the group of those labeled as 
having SEN are mainly based on interactionist theories, which focus on discriminatory pro-
cesses in schools due to negative stereotypes and a lack of fit between school and teacher expect-
tations of students and the experiences and living conditions of socially disadvantaged and mi-
nority-group students. In the process of SEN classification, disabling conditions in the learning 
environments of schools are reinterpreted as individual deficits. Educational decision-makers 
(see Cicourel/Kitsuse 1963), as street-level bureaucrats, have enormous power over educational 
and vocational pathways (see Kottmann 2006); a form of institutionalized discrimination (see 
Gomolla/Radtke 2002).

Along with the supply of special education, demographic factors, such as population density 
and cohort size, among others, continuously influence which students are most likely to be 
identified, classified, and thereafter removed from the general classroom and how (special) ed-
ucation resources are distributed (see Helbig/Steinmetz 2021). Economic dis/advantage drives 
many of these disparities, yet there are also important within-group and contextual differences, 
and when controlling for poverty and ability, the (dis)proportionality patterns shift depending 
on the context (see Morgan et al. 2017). This emphasizes the importance of comparing categor-
ical group membership in specific contexts.

An intersectional lens redirects attention from mere categorical inequalities (see McCall 
2005), which treat disability as a master status (see Turan et al. 2019; Chatzitheochari/Butler-
Rees 2022: 3), to important intra-group variances in classification as well as individual experi-
ences of stigmatization and disablement. Special education programs serve a highly heteroge-
nous group of children with different ethnic, linguistic, physical, intellectual, and social disad-
avantages, which are relevant for experiences of stigma and segregation. Moreover, the social 
status and positioning of those classified is highly consequential for the type of disability/SEN-
labeling as well as consequences of disability classification (see Chatzitheochari/Butler-Rees 
2022).

**Identity formation and life chances at the nexus of dis/ability, education, and social inequality**

In contrast to the abundance of good intentions and compensatory investments, special educa-
tion settings – meant to offer certain educational opportunities – seem to legitimately reduce
individual access to opportunities to learn (Powell 2011/2016). Among the psychosocial implications of these learning opportunity structures are changed expectations among teachers, but also self-expectations of students and stigmatization (see Pfahl 2011, 2012), lower competence (see Kocaj et al. 2014), opportunity restrictions or discrimination (see Rivera/Tilcsik 2023), and civil and social rights limitations (see Köpfer/Powell/Zahnd 2021).

Labeled students in each cohort construct their own meanings, reinterpreting the given categories (see Hacking 1999), yet the resulting boundaries and separations affect not only growing identities but also life course trajectories. Regarding the development of disability identities, two mechanisms operate: a) stratified education systems subjectivate students in ways that limit their educational opportunities and success, allocating them to (very) low social and occupational positions; and, b) the segregation of students with learning disabilities exacerbates stigmatization (see Goffman 1963; Link/Phelan 2001) as disabled, as it simultaneously reduces – via unequal educational settings in which they are socialized – educational and societal expectations (see Pfahl 2011).

After years spent in a stigmatized school type, disabled youth tend to reduce their self-expectations to such degrees that they feel unable to participate in official forms of employment; they reduce their own agency (see Pfahl 2012). Recent studies based on longitudinal data show the extent of this disadvantage among school-leavers with a lower secondary school certificate: the label of having attended a special needs school results in long-term scars more consequential than just low school attainment (see Menze/Solga/Pollak 2022). The German special school type for pupils with recognized learning disabilities (“Förderschule”), for instance, confers upon its pupils a particular identity, reflecting the general objectification and division of educational identities within the stratified educational system that reproduces class, gender, and disability boundaries and replaces ethnic discrimination with seemingly more legitimate clinical ones (see Powell/Wagner 2014). Labeled individuals, especially when placed in lower tracks, may suffer reduced self-efficacy and aspirations, even if different or more resources are provided in order to compensate for their SEN. Placement in lower tracks or settings often reduces self-esteem, learning motivation, and efforts. Differing views of such placements and their influence on achievement orientations suggest that socialization processes such as teacher/student and peer relationships mediate the influence of track placement and that students adjust their aspirations according to their self-placements and their predecessors’ fates (Mortimer 2000: 21). It is clear to all participants in special education that they are not only different but different in ways considered negative (see Pfahl/Powell 2016), which leads to scarring that negatively affects future opportunities, both educational and occupational (see Menze/Solga/Pollak 2022). Continuing discrimination depresses aspirations of disabled pupils’ as they grow up in societies in which disabled people’s contributions to society are systematically undervalued. Stigmatized individuals may invest heavily in a variety of psychological and behavioral coping strategies to counteract lowered self-esteem. But students’ stigmatized social positions hinder their development of self-expectations and aspirations for their futures, which are of particular relevance for transitions from school to VET and HE. Indeed, the permeability of education systems and mobility out of special education is severely limited, due also to the self-fulfilling prophecy of low expectations begetting low achievement in low status tracks.
Contemporary studies, on the basis of longitudinal panel surveys, explicitly uncover the primary and secondary effects of disability status (see, e.g., Chatzitheochari/Platt 2019 on the UK; Blanck 2020 on Germany). Related to educational success, research from numerous countries suggests that students with learning difficulties or disabilities make more progress in achieving standardized educational norms in general schools than if schooled in separated or segregated environments (e.g., Markussen 2004; Wiener/Tardif 2004; Haeberlin et al. 2011; Kocaj et al. 2014). Individuals’ risk of low or no attainment increases in special education, with its students significantly overrepresented in the group of less-educated youth (see Powell/Wagner 2014; Tomlinson 2017).

However, experiences of disablement not only vary by the intersectional positioning of a person but especially depending on the institutionalization of special education and access to high-quality educational environments within a given context. Throughout Europe, countries have developed different constellations of support and rehabilitation services (see Maschke 2008) and organizational forms to provide for children with SEN and those that suffer myriad disadvantages and discrimination (see Richardson/Powell 2011). Inclusion and segregation vary strongly between countries, within countries, and according to the type of diagnosed SEN or disability. Indeed, in the Nordic and some Southern European countries such as Italy and Spain, school segregation is relatively rare. The proportion of pupils in segregated schools and separate classes varies between almost none in Italy and over 7% in Belgium, with a European mean of just over 2% (European Agency 2017: Fig. 12). Further longitudinal and comparative research on the effects of these different educational settings on students classified as disabled is urgently needed. Most recent research on Germany emphasizes that students leaving special schools (Förderschulen) face disadvantages in their school-to-work transitions; in fact, scarring effects that reduce students’ probabilities of successful transitions into training and employment have been found (see Menze/Solga/Pollak 2022). And Dahmen (2021: 347) argues that Germany’s regular competency assessments and the resulting profiles “construct the process of choosing a job as an individualized project of the self [...] invisibiliz[ing] structural barriers and power relations. In doing so, competency assessments potentially contribute to the reproduction of inequalities in post-secondary education through delegating ‘cooling out’ processes from institutional gatekeepers to the interiority of persons”. Thus, we next discuss the consequences of disability classification for post-secondary education in Germany, focusing on myriad barriers in VET and HE.

Consequences for Post-Secondary Education

Stratification research repeatedly demonstrates the impact of education systems on students sorted at early ages into pathways through schooling that differ in their access to later educational and employment opportunities (see contributions in Hadjar/Gross 2016). Educational credentials influence transitions after school and life chances, as learning difficulties and capabilities develop over time and students’ past dis/advantages accumulate. Overall, people with disabilities in Europe have much lower chances to participate in labor markets than the rest of the population (see Maschke 2008; SPC 2016). Especially during transitions beyond secondary schooling, barriers to vocational training, higher education, and the labor market that disabled
Consequences for vocational education and training: barriers to accessing apprenticeships

Few studies analyze labor market development and disability across European countries, but those that do so indicate a majority living in (very) disadvantaged conditions: Disabled people often struggle to cover their basic needs with the social policy provisions accorded them (Maschke 2008: 97). Germany, despite its well-developed welfare system, has a particularly stratified education system, and, as in Switzerland and Austria, VET mostly takes place in a dual system with standardized training. Employers are central gatekeepers when it comes to accessing the apprenticeship market. In Germany, the vast majority of special school-leavers do not receive a basic school leaving certificate, making transitions to VET much more difficult (see Blanck 2020). That, in combination with being labeled as learning disabled and attending a special school, signal low trainability that often leads to exclusion from the labor queue due to stigmatization (see Solga 2002). Ironically, educational expansion has increased stigmatization of less-educated youth because they constitute the lowest educational category that has become smaller and more socially selective due to educational expansion (Solga 2002: 164). Accordingly, less than one fifth of students from special schools for learning disabilities transitions from schooling directly into VET, and despite nearly three-quarters participating in some form of vocational preparatory programs, these do not sufficiently support youth with learning disabilities to successfully transition into labor markets (see Blanck 2020). In fact, students classified as having a learning disability suffer scarring, which constrains their labor market participation and complicates their transitions into adulthood (see Menze/Solga/Pollak 2022).

Therefore, supporting transitions of disadvantaged school-leavers is a crucial task of welfare states, especially to prevent lifelong social assistance. In Germany, regional employment agencies – and within them, the teams for occupational counseling (“U25”) and occupational rehabilitation (“Reha-Beratung”) – are central gatekeepers with the power to classify and substantially influence opportunities, since they are tasked with supporting apprenticeship and labor market integration of young adults with disadvantages and disabilities. However, which support measures young adults (can) receive depends on their categorical label, alongside their aptitude for apprenticeship (“Ausbildungsreife”) and general disability status that determine access to support services. Depending on the label, they may receive support to enter and complete a regular apprenticeship (in firms or in state-funded, school-based apprenticeship programs) or they may be sent to (pre-)vocational rehabilitation programs for youth with disabilities, which entail the risk of continued exclusion from regular labor markets. The translation of categories from one organization to another – in this case continuous disability classification from schooling to welfare organizations related to the labor market – entail particular risks of perpetuation of social inequality across the life course. Formally, the labeling of disability and apprenticeship aptitude is supposed to occur independently of school-based labels such as SEN. Yet the central question is whether students with SEN are actually “processed” (Hasenfeld 1972) independently of their former label within employment agencies and whether the social disadvantage of this
group is compensated throughout the phases of occupational counseling or whether their exclusion from regular social institutions is instead reinforced.

Blanck (2020: 141182) analyzes such classification and allocation processes of youth from schools for students with learning disabilities. Based on 16 expert interviews with central actors in three different employment agencies, institutionalized rules for decision-making are reconstructed. Classification of SEN, the relevant disability classification of the school system, is contrary to formal regulations – adopted and translated into the classification of disability according to the social security laws (“Sozialgesetzbuch”), the relevant disability classification in the labor market. This process is (1) legitimated by medical models of disability; (2) reinforced by the division of labor between and role conceptions of the teams for occupational counseling and occupational rehabilitation that are analogous to those between regular and special educators in schooling; and (3) facilitated through individualized reports provided by the special education profession from schools and psychological examinations, including intelligence testing and the aforementioned competence assessments (see Dahmen 2021): Disability classification by employment agencies in fact begins in school, where the teams for occupational rehabilitation are routinely assigned to occupational counseling in special schools and teams for occupational counseling in general schools. Ideas underlying this division of labor refer to learning disability as inherited, durable, below average cognitive capacity, and developmental delays. Social and environmental factors (the social model of disability) are not considered as foundational for learning disability by psychologists and counselors. Moreover, with reference to the ideas of disability institutionalized in occupational counseling, school-leavers from special schools for learning disability are rarely labeled as fulfilling the necessary characteristics for apprenticeship aptitude right after leaving school. The involved professionals believe that such school-leavers are generally incapable of mastering the theoretical part of a regular apprenticeship. This assumption even holds when young adults have positive reviews from firms, based on internships, or when firms are willing to employ them as apprentices. Accordingly, these students are not given information about apprenticeship openings nor are they assigned to state-funded, school-based apprenticeship programs. Instead, they are referred to segregated programs outside of the regular labor market and apprenticeship system like prevocational measures for youth with disabilities (“Reha-BVB”). Only after finishing at least one of these prevocational trainings is allocation to theory-reduced apprenticeships (“Fachpraktikerausbildungen”) even considered. Also, some of them may be sent to sheltered workshops for persons with disabilities (“Werkstatt für behinderte Menschen”), which comprise subsidized workplaces outside the regular labor market. Indeed, rising participation rates in such segregated workshop programs, as Czedik, Pfahl, and Traue (2021) argue, reflect the emergence of a new social category of the worker incapable of working because people with disabilities are classified totally incapable to work. In locations with more sheltered workshops, a higher proportion of youth with disabilities work in them (see Reims/Rauch/Thomsen 2023).

Moreover, parental demands for inclusion in regular apprenticeship or training programs are not viewed as legitimate by professionals. To legitimate classification and also allocation, the occupational counselors base their decisions on standardized tests by psychologists – which are, however, wholly unsuitable for detecting unknown potentials – as well as reviews by special school educators who were responsible for their classification and allocation to segregated
schooling in the first place. Additionally, the allocation processes depend on yearly budgets and funding for labor market programs, which in combination with beliefs about necessary learning environments for youth with disabilities analogous to special schools, are further incentives to refer students to such segregated programs. Consequently, occupational counseling in employment agencies not only fails to compensate for prior intersectional and educational disadvantages of youth with learning disabilities. Rather, it perpetuates disadvantages as teenagers (attempt to) transition into labor markets. Clearly, this exemplifies the resource-labelling dilemma, as youth with disabilities, in order to obtain additional support, are expected to abide by institutionalized (non-)formal transition rules that lead them into segregated segments of labor markets.

Blanck’s (2020) findings complement those of Pfahl (2011) on the negative effects of special schooling on identity formation and participation in VET of special school-leavers: Barriers to labor market participation result directly from special school attendance through the incorporation of scientific discourse elements of physical incompleteness and disruption, which shapes the biographical selves of young adults inasmuch as they remain in purportedly “sheltered environments” (“Schonräume”; see Pfahl 2011). However, considerable intra-group variance does exist in the consequences of disability classification, exemplified by the extent youth actually access VET programs. As Blanck (2020: 188-212) shows, a higher parental educational background in combination with obtaining a lower secondary degree (“Hauptschulabschluss”) significantly improves chances for entering an apprenticeship right after school. If in VET the opportunities for youth with disabilities are reduced, they are even further limited in accessing or succeeding in higher education, to which we now turn.

Consequences for higher education: barriers to the universal design university

Without high quality primary and secondary schooling, enhanced permeability between school forms or tracks and reductions of the aforementioned stigmatization and segregation effects, learning opportunities at the postsecondary level, whether vocational training or higher education, will also be limited for disabled youth, in Germany as elsewhere. As Dolmage (2017) argues, disability has for too long been viewed as the antithesis of higher education, because HE accentuates ability, stigmatizing weaknesses or illness, despite human rights charters that value diversity and inclusiveness. In his review of key studies by the OECD (2003, 2007, 2011) along with available international datasets, Limbach-Reich (2021) emphasizes that while anti-discrimination measures and organizational support programs have expanded across Europe, numerous barriers remain: even those few disabled young adults who do enter HE face more discontinuities (and dropout), are more likely to be part-time students, and less likely to attain a degree. Thus, the on-going focus must be on the elimination of barriers and strategies to increase accessibility on multiple levels.3

First, attitudinal barriers, from prejudice and negative stereotypes to stigmatization, marginalization, and segregation, among other forms of discrimination, have severely limited the participation and contribution of people with disabilities to university (campus) life. Social, scientific, and legal changes provide increasing opportunities to challenge such views and improve

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3This section builds upon and extends Powell 2012 and Powell/Pfahl 2018.
the reactions to and treatment of disabled people. The most tenacious barrier is ableism (see Campbell 2009; Buchner/Pfahl/Traue 2015; Wolbring/Yumakulov 2015). It is exemplified in the taken-for-grantedness of meritocratic myths such as the faulty belief that only those considered able – however this is currently defined and measured with various instruments – should or could access university education and succeed. We simply do not know how many young adults with disabilities would succeed in postsecondary education were their aspirations not voided by low expectations and institutionalized discrimination. Thus, the universal design university (see Powell 2012) would open itself to the idea that individuals, previously excluded, can contribute to it as it supports them in reaching their learning goals through reduced barriers as well as accommodations, advocacy, and activism. It would need to adjust its overriding focus on academic excellence and meritocracy to become more inclusive, a significant change in and challenge of values (see, e.g., Dolmage 2017 on Canada; Madriaga 2007 on the UK; Przytulla 2021 on Germany).

Second, social, cultural, and educational structures exhibit institutionalized selection processes and discriminatory practices that reduce the learning opportunities and expectations of disabled children, youth, and adults or those who are socially and educationally disadvantaged. Having negative effects early in the life course, such structural and cultural barriers have often given universities an easy way out: the group eligible to apply for entrance is (artificially) kept small, particularly among educationally disadvantaged groups, including migrants and youth with impairments, who are much more likely to have attended special schools and classrooms that often limit transitions to VET. The German stratified secondary school types and the impermeability between them and between VET and HE present nearly insurmountable hurdles (see Bernhard 2019).

Nevertheless, change is possible: While women once had to fight to gain access to universities, in many countries worldwide they have become the majority in participation as well as attainment (see Schofer/Meyer 2005). In contrast to strides made toward gender equality in education (not employment), however, racism and ableism remain pervasive, despite the fact that with each additional social group, the extension of learning opportunities has proved successful. The expansion of the quintessentially private and public good of education has been self-amplifying. The universal design university would identify groups whose contributions have been artificially limited by oppression and selection processes and ultimately supply bridges for these groups to enter and participate fully.

Third, students with disabilities who do make it onto campus or can use digital learning platforms are confronted with a range of environmental and communication barriers that hinder their academic and social participation. Campus innovations range from adapted signage and disability service centers to diversity-oriented instruction and Disability Studies, a multidisciplinary field of inquiry that sharpens critical dialogue on the social and political constructions of dis/ability and ab/normality (see Powell/Pfahl 2018). Universities around the world have directly addressed such known obstacles, especially during and since the COVID-19 pandemic, and, in implementing new principles and programs, provided better access to higher education (see UNESCO 2021).

Regardless of extant constraints, the UN CRPD emphasizes investments and adaptations (such as the reduction of architectural barriers) in primary and secondary schooling as well as
in VET and HE. Even in the wealthiest European countries such as Austria, Germany, Luxembourg, and Switzerland, where HE is significantly supported by state funding, education and training opportunities beyond primary and secondary schooling are still seriously lacking for individuals with recognized SEN (see Powell/Felkendorff/Hollenweger 2008; Limbach-Reich 2021). Thus, the persistence of stratified access to postsecondary education and the reproduction of class inequalities based upon elaborate social selection procedures in tracked secondary schooling are among the most significant challenges facing European universities. In contrast, the UN CRPD emphasizes:

[Countries] shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities (UN 2006: Art. 24, Section 5).

Progressive policies and practices show the way forward to meet global norms of educational equity. As the UN CRPD’s mandate is carried out on multiple levels of governance, there is still much to learn from others and to transform university campuses.

Even disabled youth who have obtained the certificates necessary to access tertiary education are often hampered in doing so by the lack of available support services they need. Such services have increasingly been provided, with policies and innovations in a range of organizations showing that the previously taken-for-granted boundaries of student dis/ability were illegitimate (see Aust 2022), as disabled students succeed and contribute to these learning communities. Aiming to extend the above-discussed changes, the UN CRPD demands adjustments in education policies and university programs around the world. Yet to surpass compliance and create a truly welcoming community that recognizes and values diversity requires more than rules and regulations. Equally, cultural shifts in attitudes, awareness, and analysis are necessary. Indicators of such shifts include the existence of academic offerings such as the multidisciplinary field of disability studies, which examines disability as a universal human experience that nevertheless exhibits tremendous cultural and policy differences, as it uncovers disparities deriving not only from educational settings but broader cultural, social, economic, and political factors (see Powell/Pfahl 2018; Boger et al. 2022; Waldschmidt 2022). Next to attitudinal and architectural adaptations, innovative instructors implement universal instructional design (see Burgstahler 2020) to facilitate the learning progress of all their students, shown as especially necessary during the COVID-19 pandemic. Usually, such adaptations require few additional resources and benefit all participants. However, as Przytulla (2021) argues, even the comprehensive and complex regulations that are supposed to ensure inclusive HE in Germany struggle to supplant the logic of the entrepreneurial university. The logic of selection and segregation – not inclusion – in Germany’s education system extends to VET and HE.

**Outlook**

As the cases of VET and HE in Germany have shown, the nexus of disability, education, and social inequality requires attention to a range of barriers – attitudinal, cultural, and structural – as well as to classification and allocation processes in situations with starkly unequal power
relations. As demonstrated, social inequalities and – as central mechanisms – stigmatization and segregation are (re)produced via the selection of students from disadvantaged backgrounds into special education, based in particular on clinical professional ideologies. Segregation, as it reduces learning opportunities and negatively affects self-efficacy, entails the risk of further disabling teenagers and young adults throughout their educational careers, in their transitions from school to work and beyond.

While the cumulative nature of (dis)advantage has been emphasized, the relationship of different dimensions of social inequality and the implications of intersectionality could only partially be addressed here. More in-depth studies, including the meso and micro levels, are needed to shed light on the question in which contexts dis/ability has become a master status disguising other dimensions of inequality and under which conditions class, race and ethnicity, and gender have more or less importance in determining classification rates, opportunities to learn, and the consequences of student disability. The myriad negative consequences of lessened learning opportunities and of stigmatization and segregation for individuals throughout their life courses and societies alike also demand critical reflection. Fully accounting for the causes and consequences of disability-related inequality but also for intersectional and spatial differences would benefit from more comparative research and the synthesis of studies on different levels and within diverse cultural contexts (see, e.g., Hadjar/Kotitschke 2021; Lewis Brown/Maroto/Pettinicchio 2021). Intersectional perspectives on disability, education, and social inequality require more attention from multiple disciplinary perspectives and methodologies. Transforming disability policies requires participatory and emancipatory research frameworks and data collection that rely on consistent participation of those who know best, namely persons experiencing disablement, as well as their self-advocacy for their rights (see Degener 2016; Chatzitheochari/Butler-Rees 2022).

For special and inclusive education, longitudinal, multilevel, and cross-cultural research is necessary to explain the considerable variance in classification, educational attainment, and life chances by disability or SEN category, region, and cohort, as suggested above. Given the significant changes in thinking about inclusive education, brought about especially since the worldwide ratification of the UN CRPD (in 185 state parties as of 2022), social and educational research must also keep pace with the often rapid change in organizations and wider contexts. This is especially true as inclusive education develops on different levels, including VET and HE, with interinstitutional impact. Even in Germany, where the barriers are particularly challenging, regional differences in implementing the UN CRPD manifest contrasting trends, from awareness-raising to legitimation to backlash (see Blanck/Edelstein/Powell 2013). In order to adequately analyze questions of intersectionality, including dis/ability, and reflect on the accumulation of disadvantage throughout the life course, longitudinal datasets are required that provide sufficient sample sizes of different impairments, SEN, and disabilities and other ascriptive characteristics. The above insights into disability and inequality in educational opportunities in interrelated German institutions, from schooling to VET to HE, emphasize the necessity of further developing a research agenda at the nexus of dis/ability, education, and social inequality that is attuned to stigmatization and segregation effects and unmasks the institutionalized organizational forms and disabling policies that bolster them.
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