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**The Ableist Underpinning of Normative Motor Assessments  
in Adapted Physical Education**

# **The Ableist Underpinning of Normative Motor Assessments in Adapted Physical Education**

## **Abstract**

Normative motor skill assessments occupy a privileged position in physical education scholarship and practice. So much so, in fact, they manifest as common-sense cultural arrangements in most movement contexts, including adapted physical education (APE). The proliferation of such tools has generally been uncontested, until now. We argue that normative motor skill assessments have ableist underpinnings and consequently may do more to subordinate than empower disabled children. More specifically, we suggest that normative motor assessment tools and criteria, perhaps unintentionally, highlight what is perceived to be wrong, bad, and faulty about the ways disabled bodies look and move, thus reinforcing ableist norms and values relating to ability. We end by encouraging APE scholars and practitioners to critically reflect on ableist notions of ability, particularly as they relate to movement competence, and to work with disabled children because of their embodied experiences to co-design assessments that are more meaningful to disabled children.

Keywords: Inclusion; Disability; Test of gross motor development (TGMD); Empowerment

## **Introduction**

The term adapted physical activity (APA), first used by the International Federation of APA in 1973 in Quebec, Canada (Depauw, 2020) and adopted widely in the professional community throughout the 1990s and 2000s (Haegele et al., 2015; Porretta et al., 1993), describes a service delivery profession and academic branch of kinesiology focused on the physical activity, broadly defined, of disabled people (Hutzler & Sherrill, 2007). APA is a broad, cross-disciplinary field, which is concerned with physical activity participation throughout the lifespan and within a variety of settings (e.g., integrated, separated), and may include physical education, sport performance, recreation, or rehabilitation contexts (Hutzler & Sherrill, 2007). Generally, the goal of APA is to improve the lives of disabled people by providing equitable access to physical education, physical activity, sport, and exercise opportunities, often in contexts with nondisabled peers (Hutzler & Sherrill, 2007). As a cross-disciplinary body of knowledge and field (Reid, 2000; Standall, 2014), APA draws upon many different disciplines and scholarly traditions to advance knowledge and inform practice (Causgrove Dunn et al., 2016). The cross-disciplinary status of APA (Standall, 2014) provides a unique and important opportunity for scholars to explore and engage with scholarship and professional practices across disciplines to critically consider and problematize values and actions within the field, such as ways of thinking about disability, and interacting with disabled people.

Throughout the brief history of APA, scholars have called for and engaged in critical conversations rooted in practical, philosophical, ethical, and theoretical issues (Goodwin & Connolly, in press; Reid, 2000; Standall, 2014) in attempt to contribute to our thinking as a field. Nevertheless, there are many taken-for-granted beliefs, values and actions that are often promoted and assumed to be beneficial for disabled people that have not been problematized or

philosophically or ethically debated yet (Goodwin & Rossow-Kimball, 2012). Without critical discussions about our hegemonic and often taken-for-granted assumptions, values, and actions as a field, we may be engaging in and promoting practices that are either ineffective, or worse, unintentionally and unknowingly harmful for disabled (young) people. For example, Eales and Goodwin (2022) recently described how some taken-for-granted pedagogical practices (e.g., graduated instructional prompts) common in physical educators' toolboxes may be trauma-inducing for disabled students. Further, while scholars in our field continue to value and promote experiences in integrated contexts, research engaging with disabled persons about their schooling has demonstrated that experiences within these placements can be marginalizing and harmful (Giese et al., 2021; Haegele & Maher, 2022). By reflecting upon these taken-for-granted professional practices and engaging in dialogue about them in a critical manner, we can help guide the development of future scholarship and professional practice in APE specifically and APA more generally. In this article, we seek to engage in a theoretically informed conversation about normative motor skill assessments as a seemingly taken-for-granted and valued practice in APE.

### **Normative Motor Skill Assessment in APE**

Normative motor skill assessments are established based on testing of a large number of individuals from specifically designed populations. Once constructed, the normative measure allows for standardized comparisons of a student's performance against an established norm (McMullen & Felix, 2020). The reason for selecting normative motor skill assessments as a topic to engage in this critical conversation is multifaceted. First, it is clear that APA and APE ascribe value and importance to evaluating motor skills, in particular fundamental motor skills, as evidenced through a rich body of rigorous research and thoughtful scholarship in this area (e.g.,

Ketcheson et al., 2021; Lloyd et al., 2014; MacDonald et al., 2020). Indeed, approximately 22% of research papers published from 2004-2013 within *Adapted Physical Activity Quarterly*, the flagship academic journal for APA, were published from a motor behavior perspective, many of which included a motor skill development assessment (Haegele et al., 2015). This line of inquiry generally ascribes value to fundamental movement skill (FMS) competence as being a much-needed building block to be mastered prior to engagement in complex movements needed for participation in games, sports, and recreational activities (Lloyd et al., 2014). German-language discourse also emphasizes the importance of motor competencies for social participation and integration into sport (Giese & Herrmann, 2020). Second, and relatedly, normative motor skill assessments are commonly used within schools (Yun & Case, 2020), and can have far reaching influences on the services received by disabled children, the placement of the services, and the allocation of resources (MacDonald et al., 2020; Pitchford & Webster, 2020). Utilization within schools may be at least partially due to perceptions about the importance of FMS regarding combating overweight/obesity via physical activity, which contributes to recommendations to frequently assess disabled students' FMS up until the age of 18 years (Brian et al., 2018).

In this article, we discuss normative motor skill tools that assess FMS competence. More specifically, we draw attention to the utilization of one specific motor skill assessment, the Test of Gross Motor Development (TGMD; Ulrich, 2019). The TGMD is considered the 'gold-standard' for motor skill assessments and is the most used criterion- and norm-based FMS assessment internationally within research. Moreover, and importantly for our discussions, FMS is used when determining eligibility for APE services for disabled students in several countries (Pitchford & Webster, 2020; Yun & Case, 2020). Given the significance of TGMD to APE scholars and its influence on the (adapted) physical education experiences of disabled students,

we anchored our critical discussion of normative motor skill assessment hereafter to it. Importantly, it is not our intention to challenge the existence of the TGMD or other normative motor skill assessments. Rather, we are interested in exploring how they are used and what their utilization can communicate to disabled young people and their families. As such, the purpose of this article is to critically discuss the ways in which normative motor skill assessments, like the TGMD, are used within research, scholarship, and practice within APE. To enrich this discussion, we have rooted our thoughts and arguments within an ableism-critical perspective, which has already been fruitfully used in international discourse to identify barriers for disabled people that are intrinsic to the field on a structural level (Giese & Ruin, 2018; Giese et al. 2022), to explore physical education teacher education (Alfrey & Jeanes, 2021), and as part of a critical consideration of assessing the learning of disabled students in physical education (Maher et al., 2022). In this line we will discuss how implicit ableist narratives may be tacitly and covertly woven into the utilization of the TGMD, which can lead to the exclusion and disempowerment of disabled students in physical education.

### **Theoretical Underpinning: Ableism Critical Perspective**

Analogous to sexism or racism, ableism refers to the exclusion of certain groups of people based on their real or ascribed ability (Campbell 2009). As described by Brittain and colleagues (2020), ableism is “associated with norms and normality and the resultant imposition of normative values for maintaining the power of one group over another” (p. 216). Ableism can be understood as an ideology, a web of hegemonic ideas and beliefs, but also as a specific research perspective within disability studies, which enables researchers to search for and excavate implicit exclusionary processes in the context of ability regimes (Giese et al., 2022). In this perspective, understandings of disability are consistent with those from the social model of

disability discourse (Goodley, 2001; Haegele & Hodge, 2016). That is, disability is not understood as a reduced motor, sensory, or cognitive ability associated with an impairment (e.g., a limited ability to learn due to a cognitive impairment), but rather for the disadvantage people face as a result of the social attribution of disability (e.g., the exclusion of disabled children from meaningful experiences within schools).

An ableism critical perspective asks what mind-body abilities are so taken-for-granted that an expectation has been created and is perpetuated that all people should have them as part of being human (Goodley, 2013). Wolbring (2008) considers these “essential abilities” (p. 253), such as walking, running, or seeing, that are fundamental to the construction of ‘normal’ or normative mind-bodies. Importantly, this perspective helps to examine which mind-bodies are considered ‘not normal’ or ‘not capable’ based on ability-related assumptions (Campbell, 2009). The ableism critical gaze is first directed to ‘the center’ in order to analyze from there the ‘peripheries’ as well as boundaries and mechanisms of exclusion. Thus, the view of ableism is socio-culturally shaped because the causes for central attributions of ability are located in a neo-liberal social order, which in its invisible system logic requires the production of efficient, fit, and healthy workers (Ruin & Stibbe, 2021). Persons exposed to this neoliberalism are supposed to acquire appropriate skills and are measured and, therefore, valued by the performance of these skills. Those who do not possess the desired skills are thought of as faulty and incapable and may be at risk of marginalization and exclusion.

Following insights from disability studies scholars, ableism hierarchizes individuals and sorts them in an ability-related order of difference (Campbell, 2009). Hence, ableism can be understood as a “network of beliefs, processes and practices that produces a particular kind of self and body (the corporeal standard) that is projected as the perfect, species-typical and



therefore essential and fully human” (Campbell, 2001, p. 44). These ableist orders exhibit specific characteristics. For example, the hierarchizing and prioritizing of abilities can be considered as a key feature of ableism (Buchner, 2021a). Thus, some abilities are considered as more important than others. For example, the ability to walk is regarded as more valuable than the ability to crawl even though both abilities enable individuals to get from one place to the other (Wolbring, 2021). While some individuals are able to follow these imperatives and to fulfil these parameters of belonging to the group of neoliberal, ‘fit’ selves, those that cannot are excluded from the desirable circles of belonging (Buchner, 2021b). It is important to note, though, that ongoing ability-related comparisons and the interwoven rankings of subjects regarding ability performances and expectations produce a specific feature of ableist orders, which has been termed ‘the great divide’ (Campbell, 2003). Along this border, practices of identification and differentiation into dis/abled are performed (Campbell, 2009).

### **Examining Normative Motor Assessments from an Ableism Critical Perspective**

What has been said so far should already have made clear the usefulness of an ableism critical perspective to describing how normative motor skill assessment in APE contributes to hierarchize students in relation to an ability-related order of difference. Such approaches have been discussed in mainstream sport and physical education (Wolbring, 2021), but seldom in the context of APE. To continue this conversation, we offer the following subsections that discuss the utilization of the TGMD, and the role it plays in research and practice, from an ableist critical perspective.

### ***The social and disability related implications of the TGMD***

The construction of the TGMD follows an ableism gaze first directed to ‘the center’ whereby the mind-bodies of disabled students are not sufficiently considered. Therefore, the utilization of the TGMD can reproduce ableist imperatives, where disabled students are expected to conform to normative movement expectations in physical education, thus meaning that many fail because their bodies and abilities do not match ableist norms and standards. Within this subsection, we present two examples in physical education, each centered on visually impaired students, and more specifically, blind students, to illustrate this point. The discussion about running and throwing that follows is especially significant because the TGMD is used internationally in research focused on blind children (Brian et al., 2018; Ghasemifard et al., 2020) and running and throwing items are each also part of the German version of the TGMD (Wagner et al., 2016). Hence, we use the German-speaking debate about physical education with blind children to enrich the ableism critical discussion.

The ‘run’ is one of six skills that make up the locomotor subtest of the TGMD-3. This skill includes four performance criteria that children must complete to receive maximum scores. Among blind children, the ‘run’ (together with leaping) tends to warrant the lowest scores on the TGMD assessment (Wagner et al., 2013). The performance criteria #2 states that there must be a “brief period where both feet are off the ground”. We suggest that the realization of the flight phase is an artificial and unreasonable ableist expectation for blind children because they are more likely than sighted children to experience fumbling, stepping movement with the front leg while walking, or shifting the body’s center of gravity backwards when walking (Hildenbrandt & Scherer, 2010). The achievement of a flight phase requires a forward and upward push-off action of the rear leg from the ground (Hildenbrandt & Scherer, 2010). Additionally, the flight phase

establishes an information-less state for blind children because in flight there is an interruption in the flow of information established by contact with the ground. Fumbling with the front leg is functional for blind children during locomotive activities because it helps them to orient themselves. Not to push off when running can also be due to a fear of inhibition of movement. In addition, the biomechanically necessary cross coordination of arms and legs (performance criteria #1) often must be relearned because the outstretched hands can then no longer be used to secure the locomotion. This in turn increases the fear of collisions, which again leads to foregoing the flight phase because no information can be gained when both legs are in the air. As such, it is obvious that the expectations for the running task in the TGMD has inherent incongruences with the needs and capabilities of blind children, which creates an artificial 'failure' for these children in this particular activity.

Our second example centers the 'overhand throw', an item from the ball skill subtest. For blind people, it can be argued that throwing is a meaningless action. In the everyday life of a blind child, throwing something away from the body means releasing the object from one's own control into non-perceptible space and running the risk of not being able to find it again. Therefore, blind children usually have little throwing experience or utility. The sense of throwing is usually carried by moments of experience, which are, for example, to hit targets, to overcome distances, or to follow flight trajectories of devices. Such elementary tasks and actions are typically unavailable or inconsequential for blind children. Importantly, as well, while the overhand throw is embedded into many sports and games for sighted children, it is not embedded within any popular or common blind sports.

Both examples show that the TGMD reproduces ableist imperatives which ignore the needs, abilities and preferences of blind children in physical education. By hierarchizing people

and valuing some movements over others, Wagner et al. (2013, p. 3249) concluded that “children who are blind show a significantly lower locomotor total score in comparison to their sighted peers; the difference found, reflects a large effect”. This analysis reproduces the ableist narrative that blind children have limited motor skills and thus perpetuates a hierarchy in which they are inevitably subordinated and assigned the lower ranks. The ableist perspective, moreover, opens a different view and suggests that testing the selected items for blind people is meaningless because these items are underpinned by ableist assumptions, which *must* lead to inherently lower test scores. Accordingly, the TGMD is not a tool of empowerment. Rather, it forces disabled individuals to endeavor, often unsuccessfully, to move and behave like non-disabled people and contributes to cultivating a culture in physical education that does not value the diversity of movement forms that exist.

### ***Using TGMD as a Gatekeeping Mechanism in Schools***

The proliferation of the utilization of the TGMD, and other normative motor skill assessments like it, has led to the identified motor skills and proficiency criteria associated with those skills gaining unquestioned social value among practitioners and researchers within physical education and physical activity circles. For example, in the national physical education standards explicated by SHAPE America (2013), it is obvious that the TGMD skills and performance criteria have helped inspire grade-level outcomes distributed to physical educators in the US. The value placed on these motor skills and performance criteria has infiltrated teacher behaviors and school policies, where, as described earlier, the TGMD, and other normative motor skill assessments, is commonly used in schools internationally to gage disabled children’s motor skills (Pitchford & Webster, 2020; Yun & Case, 2020). This includes, in some districts, the utilization of the TGMD as a barometer for motor skill abilities for service-provision

decisions, such as whether a child should receive specialized services. As such, the TGMD is situated as a gatekeeping mechanism for disabled students and their families to (a) perform in ways or at levels that are socially accepted within their classes, as well as (b) argue for and receive specialized services in physical education contexts.

From an ableism critical perspective, the utilization of the TGMD and other normative motor skill assessments within schools to evaluate skills and influence service provisions is problematic for several reasons. First, we argue that the enforcement of normative motor patterns or behaviors is a process of promoting normalcy over difference, and therefore perpetuating, defining, and documenting inability (Goodwin, 2017) and reinforcing an ableist hierarchy (Buchner, 2021b) at the expense of disabled children within schools. That is, by rooting goals and values within physical education contexts in normative movement behaviors, we are perpetuating ideals that there is only one way to move through space meaningful, successfully, and correctly regardless of one's preferences and differences, and that other movement expressions are incorrect and thus devalued. This viewpoint is well-aligned with key features of ableism described by Campbell (2001), where a perfect 'self' is described that exhibits specific characteristics, and other forms of movement are deprioritized and subordinated. In addition, and as noted by Eales and Goodwin (2022), the enforcement of normative motor patterns or behaviors reduces opportunities for autonomy, choice, and self-expression for those disabled (and nondisabled) children. That is, children within physical education classes where only one behavior is considered 'correct' and 'desirable' are discouraged from engaging in other movement forms, whether those forms are more comfortable, subjectively meaningful, or simply more enjoyable. This behavior is antithetical to a significant body of scholarship that suggests that we promote diversity and inclusion with schools and physical education (Hodge et al.,

2012), perhaps supporting claims that inclusion is an illusion within physical education contexts (Haegele, 2019) and that we simply pay lip-service to the concept within schools (Slee, 2018).

Perhaps more troubling than the simple value and adoption of normative motor assessments in schools, like the TGMD, is their utilization as a gatekeeping mechanism for services. For example, according to McMullin and Felix (2022), some states in the US (e.g., Minnesota) have developed criteria for disabled students to receive APE services which includes falling one-and-a half standard deviations below the mean on a normative motor skill assessment, like the TGMD. Utilizing this strategy, school districts are further hierarchizing individuals and their abilities, and providing services only to those that are on the extreme peripheries. The services that are then provided are guided by the goal to 'fix' the disabled child and help them achieve motor skills that are more closely aligned with how movements 'should look' based on normative assessments. This positions (mostly) non-disabled teachers in a 'savior role' where they help 'not capable' or 'not normal' disabled students to gain 'functional' movements more socially valued by the schools and physical educators. A 'savior' position, where teachers appear to be the 'knight in shining armor', is like that taken by interventionists in motor skill development research who work with disabled students. That is, a large corpus of scholarship describes studies that (a) assess disabled students' motor skill capabilities using normative assessments to compare them to nondisabled students, (b) construct narratives about the inabilities of disabled students, and (c) implement interventions to move disabled students' away from the periphery and toward 'normal' for the intervention being 'successful' (MacDonald et al., 2020; Maiano et al., 2019; Ruggeri et al., 2020). Disabled students are forced to move and behave like nondisabled students. This behavior, both in scholarship and schools, is largely consistent with medical model thinking, where nondisabled people view disabled people

as problematic or with pity, think disabled people need to be ‘fixed’, and then use their authoritative roles in the ‘fixing’ process to ‘help’ disabled people to be more like nondisabled people (Haegele & Hodge, 2016).

While the adoption and utilization of the TGMD in schools comes with positive intentions, it can cause harm (Eales & Goodwin, 2022). This may be particularly true, as pointed out by Eales and Goodwin (2022), in physical education, which can be a site of humiliation and marginalization for disabled people, even when well-intentioned adults, such as teachers, think they are providing help and support. We would argue that the adoption of normative assessments within physical education contexts, and making service provision decisions based on those assessments, is a clear example of where good intentions can create trauma inducing instances for disabled students. Based on our conversations above, this trauma may be related not only to the reduction of opportunities for expression and diversity, but also the clear preferences for movements and related abilities that may be incompatible, uncomfortable, meaningless, and/or undesirable for disabled bodies. As such, we offer our reservations about adopting these assessments within physical education classes, and in physical education research and scholarship, given the unintentional harm and ableism this adoption may present.

### **Reflections, Recommendations, & Conclusion**

If you are reading these words, we thank you for staying with us. In the proceeding sections, we have argued that normative motor assessments force disabled children to (try to) move and behave like nondisabled students without valuing their specific preferences, abilities, or dignity. These assessments help to keep disabled students trapped in the lower societal ranks and reproduces discrimination to maintain the savior complex, read as a caricature of the inclusive agenda that Stainback and Stainback (1996) suggest should contribute to feelings of

acceptance, worth, and belonging. By now, we hope you agree that normative motor skill assessments, like TGMD, exhibit ableist underpinnings and consequently may do more to subordinate than empower disabled children in physical education contexts. More specifically, such motor skill assessment tools and criteria, perhaps unintentionally, highlight what is perceived to be wrong, bad, and faulty about the ways disabled bodies look and move, thus reinforcing ableist norms and values relating to, among other things, ability in physical education. To borrow a thought from Goodley et al. (2019), physical education is a metaphorical, sometimes literal, ableist playground where disabled bodies are pitied and marginalized while the abilities of nondisabled bodies are celebrated, rewarded, and considered a central marker of successful human accomplishment and progression.

Not wanting to dwell on what we have already said because you have probably already decided whether the arguments that we present above are compelling and convincing or not, we move to what we recommend that our readers do if they are committed to improving the physical education experiences of disabled children. For us, there is a need to critically reflect on and (re)consider the ableist beliefs about ability that pervade most movement contexts and physical cultures, including physical education. For this, there is a need to center the body given the corporality of concepts of ability in physical education. According to Braidotti (2013), the body is neither a biological nor sociological entity. Rather, bodies are fields of interface where intersecting symbolic and material forces converge, and multiple codes of disability, gender, race, sexuality, and social class are inscribed. By accepting this mode of thinking and line of inquiry, we have explored normative motor skill assessments from an ableism critical perspective. This allowed us to reflect on, as Braidotti (2013) encourages us to, the value placed on normative bodies and movements as part of our attempt to disrupt the ableist perception of



what bodies *should* look like and how they *should* move. We encourage physical education researchers and practitioners to do the same. Otherwise, biological determinist views will continue to cast disabled bodies as flawed and thus morally bad (Goodley, 2017) rather than socio-cultural transient entities that are neither good nor bad, but live and move in varied ways in different material and social spaces.

Moreover, there is an obvious need for researchers and practitioners to work together, using their agency to co-design motor skill development activities and assessments that are tailored to the movement abilities of different groups of disabled children given that, for example, the movement abilities, requirements, and preferences of wheelchair users will be different to blind children. It is well established that FMS form the building blocks that need developing prior to engagement in complex movements for participation in games, sports, and recreational activities (Lloyd et al., 2014) and that motor competencies are essential for social participation and integration into sport (Giese & Herrmann, 2020). Thus, we remind readers that we are not questioning the importance, significance, or value of motor skills or even their assessment. Rather, we emphasize that for motor skill movements and assessments to be appropriate and meaningful for disabled children in physical education, it is crucial that such children are part of their co-design given that they have expert knowledge about normative assessments and how their bodies move and feel because of their own embodied experiences (Maher et al., 2022). The involvement of disabled children in co-design may also help to empower them by placing their knowledge and experiences at the center of decisions that affect their lives, which ties to the ‘nothing about us without us’ and ‘no participation without representation’ mantra of various disabled people’s movements (Charlton, 2001). The co-designing of recommendations, resources, and messaging has begun to emerge in other aspects

of the APA world, including with regard to physical activity guidelines (Smith et al., 2019; 2022) and communication formats (Smith & Wightman, 2021), and should, in our views, infiltrate motor skill development work, as well.

Of course, we are not suggesting that anything we offer in this article will act as a panacea to the problems that bedevil APE vis-à-vis the taken-for-granted proliferation and utilization of normative tools and criteria for assessing the motor skills of disabled children. Moreover, while our intention was not to discredit research and practice that uses such measures to assess the motor skills of disabled children, we do hope that this article makes for uncomfortable reading and, in some way, encourages and supports researchers and practitioners in APE to critically reflect on and (re)consider hegemonic, common-sense arrangements relating assessing movement in physical education contexts. For us, it is important that movement is authentic, appropriate, and meaningful to children. From what we have read and seen, that is not the case for disabled children when normative movements are prioritized and valued and nonnormative movements subordinated. To end, we hope that this argument sparks conversations, a dialogue if you will, about the appropriateness of normative motor skill assessments for disabled children that results in new, more appropriate, authentic, and meaningful movement assessments being co-designed with and for disabled children.

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