

CANADIAN JOURNAL OF

# Disability Studies

Published by the Canadian Disability Studies Association · Association Canadienne des Études sur l'Incapacité

*Canadian Journal of Disability Studies*

**Published by the Canadian Disability Studies Association**

**Association Canadienne des Études sur le handicap**

**Hosted by The University of Waterloo**

[www.cjds.uwaterloo](http://www.cjds.uwaterloo)

# **Toward Inclusive Education? Focusing a Critical Lens on Universal Design for Learning**

Susan Baglieri, Ed.D.  
Department of Teaching and Learning  
Montclair State University  
[baglieris@montclair.edu](mailto:baglieris@montclair.edu)

## **Abstract**

Universal Design for Learning (UDL) is an orientation that aims to bring multiplicity to teaching and learning in ways that respond to the diversity of learners. This article is a call to those working within disability studies to engage more deeply in UDL research. An examination of the conceptual development and research on UDL as presented in academic literature is provided to consider how it connects and disconnects with disability studies and might be used and misused in inclusive education.

## **Keywords**

Universal Design for Learning, Disability Studies, Inclusive Education, Special Education

## **Introduction**

Universal Design for Learning (UDL) is an orientation that aims to bring multiplicity to teaching and learning in ways that respond to the diversity of learners (Meyer et al., 2014). Over the last decade, UDL has gained prominence as a recommended practice in both K-12 and postsecondary education. UDL is highlighted for its use in educational environments in which learners with and without disabilities are present, often referred to as “inclusion” in K-12 schools. The global move toward inclusive education challenges the widespread exclusion of children with disabilities from schools and opportunities within schools and strives to construct or re-construct systems of schooling that ensure children labeled with disabilities access to education akin to their non-labeled/non-disabled peers (Elder & Migliarini, 2020; Kiuppis & Hausstätter, 2015).

Researchers in disability studies in education and critical special education have been active participants in examining and challenging the meanings and practice of inclusive education; for example, the question of whether educational improvement will be realized through ongoing improvement of special education services like inclusion or whether inclusivity must come about through radical reconstruction of schools’ approach to disability encapsulates a point of contention (Baglieri et al., 2010; Graham & Slee, 2008). The questions of how well educational policies that name inclusivity as an aim are carried out in the field of practice and why Black and Brown children access inclusion at lower rates than White children are critical areas being examined (Parekh & Brown, 2019; Skiba et al., 2006). UDL has emerged as a noted pedagogical framework among researchers and practitioners who are seeking ways to practice inclusive education in both disability studies in education and in special education. An intriguing question, then, is to wonder whether UDL emerges as a unifying concept and practice or if it

collapses under the weight of divergent conceptualizations of disability and inclusive education? This essay offers an analysis of UDL concepts, practices, and research as presented in academic literature to frame a call for disability studies researchers to participate in ongoing UDL research.

### **Conceptual Framings of Disability and Inclusive Education**

The term, “inclusion,” gains meaning in contrast with the segregation that has been long practiced in many educational contexts and/or as a concept that might signal intentional resistance to or avoidance of exclusions that have been naturalized through ableism and disablism. In many schools, whether a student *has* a disability is first discerned, which then activates resources or signals the need to provide services and supports that are usually described using some form of the word, “special.” Systems that link the provision of educational resources to identifying specific students as disabled may be regarded as using individual models of disability. Medical models of disability are particularly pronounced in schools, as evidenced by schools’ reliance on expert evaluation to define and contour the disablement experienced by a young person, their use of tools that require specific training to be valid, and the power of decision-making weighted toward those with disciplinary expertise. In individual models of disability, whether inclusion is chosen as an educational option or intervention is said to be determined based on the fit between an individual and the potential to provide specialized services and supports in the integrated environment. Inclusion, in this framework, is perceived as a location or placement that is one option among many in which students labeled disabled may receive individualized education (McCloskey, 2018; Sauer & Jorgensen, 2016; Taylor, 1988). When inclusion is framed as just one option, questions asked about it are posed in conjunction with the ever-present possibility that segregated education may yet be more beneficial for any

given individual (cf. Kauffman, 2020). Calls for an operational definition of inclusion and the search for evidence of its effectiveness persist (Erten & Savage, 2012; Haug, 2017; Norwich, 2005). Across these calls, there are differences between research that aims to discern effective practices for inclusive education and that which calls inclusion, itself, into question. The latter highlights the way that inclusion continues to be regarded as a specific intervention for an individual or group, rather than regarded as a right of access or value according to which people in schools invent and re-organize practice (Allan, 2007).

The advent of the disability studies in education field has been described as the organization of efforts to challenge the positivist ontologies and epistemologies deemed most valuable to knowledge production for special education research and practice (cf. Connor, 2014; Gallagher et al., 2003). The field counters the narrative that systems of special education benefit youth labeled disabled and aims to re-direct the efforts taken to improve it. In particular, attention is drawn to the workings of the social world that prevent people with disabilities from fully participating or self-directing their participation in public life, which includes systems of schooling. Disablement is carried out when students encounter pedagogical practices that de-value non-normative ways of living and learning and are assessed as being “misfits” (Garland-Thomson, 2011) in school. This subjects them to evaluation and heightened surveillance that then characterizes their failure to thrive in schools as evidence of disability, a fact made about the individual (cf. Baker, 2002). Disability functions, for schools and through schools, as a tool to enforce broader cultural practices of domination and subjugation (cf. Tremain, 2005). The dual regimes of ableism and racism, within which low achievement, economic disenfranchisement, and marginality are positioned as naturalized conditions for Black and/or disabled people, especially, are produced and enforced by educational practice (Connor et al.,

2016; Harry & Fenton, 2016). The workings of stigma and lack of access of students labeled disabled to high quality curriculum and instruction constructed by the separate systems of general and special education constitute the educational inequity of racialized ableism in schools (Barton, 1986; Blanchett, 2009).

In disability studies, the concepts of inclusion and inclusive education are simultaneously argued for and critiqued. The argument for inclusive education rests on the evidence that first, where there is segregation, equal quality and outcomes for students labeled disabled are unlikely to be attained and, second, that those most vulnerable to racism and colonization—Black and Brown youth— and those most vulnerable to ableism—youth labeled multiply and intellectually disabled—will be segregated more often (Cosier et al., 2020; Morningstar & Kurth, 2017; Parekh & Brown, 2019). The pursuit of inclusion has been characterized as a move toward interrupting ableism and racism by ensuring that young people who experience disability/disablement have equal access in school. At the same time, inclusion is critiqued as signifying a particular set of performances (e.g., co-teaching; modification of curriculum) that have arisen as interventions *done to* labeled students in which the aim is to assimilate disabled youth into normative performances of compliance and school achievement (Mitchell et al., 2014). Here, inclusion does little to deconstruct the base problem of the meaning already brought to bear in an ability and disability binary. So called “general” (i.e., for normates) and “special” (i.e., for misfits) educational practices may operate in tandem in inclusion yet ultimately remain intact, failing to deconstruct the condition of othering that constitutes ableism in schools (Graham & Slee, 2008). Inclusive education, disability studies proponents argue, then requires radical reconstruction to disrupt intersecting systems of domination and supremacy that collude in schools to mark body-minds as deviant and undesirable, which rationalizes disavowal or violence in relation to values-

laden conceptions of production and compliance (Adams & Erevelles, 2017; Connor et al., 2016; Greenstein, 2016). Inclusive education is not merely the pursuit of seeking more equal opportunity by moving bodies and resources to re-organize for school achievement. It is a call to deconstruct the hidden curriculum that constitutes and is cultivated in the notions of achievement and acceptability that are embodied as smartness, goodness, and Whiteness (Leonardo & Broderick, 2011). This is the template that demarcates the normate in schools and is the target of examination in disability studies.

There are substantive differences between various conceptualizations of inclusive education. An individual model of disability championed in the special education field cautions that the implementation of inclusion must not outpace the development of evidence-based practices showing effectiveness for individuals or groups (cf. Kauffman, 2020). Structural-materialist perspectives on disability can be thought of as framing integration as an urgent precondition for the development of educational practices that offer access to school achievement for disabled students, in which struggle for equality—akin to disability rights movements—characterizes the inclusive education movement (cf. Talley, 2018). Poststructural perspectives on disability tend toward problematizing schooling itself, as an enterprise that deploys and produces disability/ability to rationalize unequal opportunity and outcomes for youth in service to maintaining White supremacy and the labor hierarchy necessary for exploitative capitalism (cf. Erevelles, 2000; Leonardo & Broderick, 2011). Disability studies and social models of disability perhaps replace the continuum of special education with a continuum of deconstruction.

### **Motivation and Method for Examining UDL**

Despite differences in perspective on disability and what is meant or required by the pursuit of inclusive education, UDL is noted by many as a recommended approach for schools. Researchers worldwide (Gronseth & Dalton, 2019), in places including Australia (Buchheister et al., 2017), Canada (Katz, 2015), South Africa (Mapepa & Magano, 2018), the US (Rao et al., 2017), and the collective of several European nations through the Inclusive Learning Project (Navarro et al., 2016)—just to name a portion—are actively studying UDL. In my geopolitical context in the US, UDL is named in the preeminent policies guiding postsecondary and K-12 education as means to provide appropriate accommodations toward high achievement expectations for “all students, including students with disabilities and students who are limited English proficient” (*Every Student Succeeds Act*, 2015; *Higher Education Opportunity Act*; 2008). It appears that UDL is a powerful concept and is being used to address inclusion and inclusive education.

As a teacher educator of special education and proponent of disability studies, I am committed to preparing teachers to enter a field of practice that I regard as deeply problematic in its production of disability and treatment of disabled youth. The aim of my work is purposeful engagement with this paradox in seeking to find practicable spaces for critique and action that unsettle the apparent fixedness of schools from within the troubled systems in which my students and I perform our labor. That justice-seeking teachers struggle in the field and may exit the profession earlier than they imagined (Broderick et al., 2012; Rood & Ashby, 2020) weighs on my conscience as I contemplate how to frame survival in terms of what is “right” and “right now,” or “good” and “good enough” in teacher preparation and support. Working within this paradox brought me to examine UDL. I am intrigued by UDL and the particular way that it seems to have been widely taken up in policy, practice, and fields of scholarship that are



otherwise discordant (cf. Connor, 2019; Gallagher et al., 2014). Is UDL a practice through which teachers can both practice justice *and* be validated in the field?

I do not seek reconciliation of perspectives on disability and inclusive education; agitation and struggle are necessary in pursuit of betterment. Yet, the prospect of locating UDL as a point where disability studies is more compatible with a politically sanctioned and desirable pedagogy is exciting. It is with this motivation that I dove into the academic literature. In searches conducted first in 2015 and expanded in 2019 using EBSCO databases for articles and books containing keywords linked to UDL, nearly 400 results were returned. Of those, about 100 conceptual articles and studies were focused on K-12 education, published in peer-reviewed academic journals, and defined and utilized UDL as a framing, central concept. The articles appeared in about 60 different journals. More than half of articles were published in journals that primarily target an audience interested in special education, inclusive education, or disability service provision. Others—about 40% of articles—were published in general audience, technology, or discipline-specific education journals. UDL has clearly found its way into a swath of educational writing connected to disability and inclusion.

### **Conceptualizing Universal Design for Learning**

The past decade of scholarship on UDL has yielded reviews of literature, special issues of journals, and commentaries that describe the background of UDL, the current state of research, and recommendations for “moving the movement forward,” in McGuire’s (2014) words. UDL (Meyer et al., 2014), the Three Block Model of UDL (Katz & Sugden, 2013), Universal Design for Instruction (Scott et al., 2001, as cited in McGuire, 2014), and Universal Design of Instruction (Burgstahler, 2009) are all education models engaged by recent literature. The shared

referent is the term, “Universal Design” (UD), which was coined by Ronald L. Mace, a pioneer in accessible building design (Mace et al., 1991). UD was conceptualized as an ethos for engineering and architecture that perceived all people in their statuses as temporarily able-bodied, subject to "environmentally induced handicaps" (Mace et al., 1991, p. 3). UD was a concept intended to acknowledge the fluidity of bodies in conversation with environments, as well as to emphasize community and belonging, which, according to Mace and colleagues, purposefully differentiated UD from the earlier concepts of *barrier-free* or *accessible* design. The practice of UD was developed by establishing seven principles. These feature attention to equitable use, flexibility, simplicity, perceptibility, tolerance for error, physical effort, and proportionality of scale in size and space. About the principles, Hamraie (2012) proposes: “Although not explicitly evidence-focused, the principles made legible the need for bodies as evidence in UD” (para.15). They relied on understandings about how a range of bodies moved and interacted in the built/designed world, which exposed the “normate template's inadequacies for design, creating an ‘interpretive relation’ between bodies and environments” (para. 21). UD, then, brought a range of bodies into focus, which simultaneously illustrated the disenfranchisement built by design and the possibility to construct inclusivity by perceiving disabled people as participants belonging to and in public life. The stated commitments of UDL reflect the argument for UD with particular focus on cognition in the context of school-based curriculum and instruction.

CAST proposes that UDL is a scientifically valid framework based on analyses of “experimentation and brain-imaging technologies” (Glass et al., 2013, p. 100) that demonstrate diverse patterns of neurological activity across humans and within the same human, given different affective and disciplinary contexts of learning (Meyer et al., 2014). In their 2014 book,

Meyer, Rose and Gordon offer three assertions for the theory and practice of UDL: (a) “...learning is about deepening our participation in a community of learners and thereby transforming the way we work and see ourselves as learners” (p. 46); (b) “...putting learners into categories is a flawed approach both because it grossly oversimplifies and distorts the reality of those learners’ experiences...and because it implies that learners in one category are somehow different from those in another category” (p. 85), and (c) “By ‘universal’ we mean every learner –not just those traditionally seen as belonging in the middle of the bell curve (the mythical average student) or just those traditionally seen as belonging ‘in the margins.’” (p. 89). The commitments of UDL emphasize community in education and resist the fixedness made of difference that is practiced as categorizing students in schools. The reason UDL should be taken up, in other words, is because cognition and learning are phenomena characterized by dispersion and neurodiversity, which unseats the viability of reductive educational practices that have too often been performed by schools as organizing students into categories of body-mind-intellect-language-culture. Similar to UD, then, UDL exposes the fallacy in “traditional” or reductive instructional design as we perceive cognition as fluid, flexible, and in interaction with the learning environment.

Dolmage (2015) offers a skeptical perspective on the neuroretoric that frames the evidence for UDL, noting that locating the mind in the brain can lead to reductive ideas about teaching and learning that may replace, but do not necessarily improve upon any other abstractions that are made about cognition or intellect. To wit, theories of the brain are abstractions in the daily work of schools because teachers and students do not actually perceive brains, even as some may imagine they are experiencing or interpreting their mechanics. The accomplishment of UD or UDL for practice is not in revealing the fact of difference in the

abstract, but in discerning the responsibility of actors in social worlds to re-value and differently engage with diverse bodies and neurodiverse minds. Hamraie's (2012) analysis and assertion of UD as a *new materialist* practice for disability studies is instructive. Here, UD practice is constructed through interplays with people and environments that specifically draws its evidence for design through engagement with people who are positioned as non-normate. Most critically, such interplay must take place as acts that are in service to and explicitly reflect, express, and create value for non-normative existence and experience. For UDL, careful consideration may be paid to understandings about disability and the experiences of youth labeled and/or who identify as disabled. In Hamraie's analysis of UD, the design approach is one in which disability and disablement become recognizable, intelligible, and accounted for, which is different than imagining such design as rendering disability in the abstract or as a soon-to-be passé construct. In disability studies in education, a parallel approach to UDL would indicate productive engagement with—to use Erevelles's (2000) term—"unruly bodies" in schools. UDL would not be practiced as an abstraction or design solution in which the aim is to make disabled bodies and minds less legible (Titchkosky & Michalko, 2012). Rather, UDL might emerge as a practice in which people experiencing disability and non-normative existence are engaged with, through processes that simultaneously highlight sites of disenfranchisement and invent creative approaches for inclusive life in schools. Let us turn to describing how UDL is characterized for practice in K-12 schools in academic literature.

### **UDL as Multiplicity**

CAST's three-prong "multiple means" framework for pedagogy is near universally cited in UDL writings. These guidelines suggest that learners be provided 1) multiple means to access

instruction by offering varied representations of content, 2) multiple means to express learning, and 3) multiple means to engage with and become motivated for learning. It follows that most accounts in the literature contribute to characterizing UDL as a call for pluralistic educational practice, defined by variety and flexibility in pedagogical approaches and materials. Practices described to reflect UDL were highly varied. A frequent focus was on the design of materials. These include: Providing a range of materials or tools to students (King-Sears et al., 2015); designing multimedia materials following UDL principles (Kennedy et al., 2014; Rappolt-Schlichtmann et al., 2013); and utilizing assistive or personal technologies (Abell et al., 2011; Arter et al., 2010; Kortering et al., 2008). Scaffolded or self-leveling tools, often accomplished through using digital environments (Dalton et al., 2011; Proctor et al., 2011) and/or digital game environments (Marino, 2009; Marino et al., 2014)), were also described to enable the variety and flexibility characteristic of UDL. UDL was also described as a delivery model that emphasized creating opportunities for student choice in activities (Dymond et al., 2006) and offering teacher-directed personalization or individualization of instruction for specific students (Hall et al., 2015). Recommendations to use stations and independent/self-guiding work were common and were used to enable students to experience variety, choice, and personalized instruction (e.g., Gravel, 2018). Other recommendations to organize UDL included using problem-based learning scenarios (Basham et al., 2010; Goeke & Ciotoli, 2014) and thematic curriculum (Dymond et al., 2006; Gravel, 2018; Katz & Sugden, 2013; Wehmeyer, 2006), within which students had multiple ways to engage with content.

To state the obvious, a takeaway from reviewing the practices recommended or described as UDL is that there is tremendous dispersal in what characterizes “multiple means.” The commonality across the set is, quite simply, its commitment to multiplicity—a situation that has

been critiqued as problematic in its ambiguity (Rao et al., 2014; Smith et al., 2019) and its imprecision as a teaching approach (Ferguson, 2019). Authors forwarding a pluralistic approach for UDL generally asserted that when given variety, each learner would have a better chance at learning or expressing learning. This is certainly a loose and ambiguous claim, but it is not clear that a more precise one is rendered actually possible or even widely useful since (a) teachers and students cannot perceive brain regions being stimulated, and (b) within the idea of *multiple means* is an infinity of multiplicities. This is not to say that classroom actors cannot describe their experiences of mind as, say, “activated;” they can, and should be asked to. But, this is still unlikely to allow precision in tracing a specific aspect of mind within the total complexity of UDL practice and classroom experiences. Despite imprecision about what might be meant or experienced as quintessentially UDL practice, an important point of commonality across writings is that nearly all authors strived to unsettle the idea of “one size fits all” teaching for *general education* contexts by *general education* teachers with *general education* materials. As research on ableism and inclusion make clear, the entry of this fact into the proverbial record is important and a good (enough) reason to understand why UDL appears in disability studies in education.

### **UDL as Social Justice Education**

Another claim that authors make for the purpose and potential for UDL relates to social justice education. The aim for these authors is not only to improve student performance by providing multiple means of access, but to also critique educational practices that center Whiteness and narrow constructions of what counts as knowledge in schools. Chita-Tegmark et al. (2012) argue, for example, the “UDL framework may not only reduce barriers for culturally diverse learners, but also increases culturally informed learning opportunities for all learners” (p.

17). In intersection with critical multiculturalism, Waitoller and Artiles (2013) suggest a social justice approach to UDL in which teachers “cannot only implement and innovate pedagogies that provide access to opportunities to learn while recognizing and valuing student differences, but they can also influence [all students’] thinking about issues of justice that affect their daily lives” (pp. 340-1). Instructional themes that refer to UDL and relate to social justice include: (a) “Curricular cripistemologies,” which “offer teachable moments organized around crip/queer content that interrupt normative cultural practices,” and which “involve the development of teaching pedagogies that deviate from core teachings” (Mitchell et al., 2014, pp. 296-297); (b) “Cross pollinating” UDL with culturally sustaining pedagogies, which requires educators to recognize and challenge damaging assumptions about race, class, and ability that are deeply embedded in our cultural scripts and carried out in educational practices (Waitoller & King Thorius, 2016); and (c) “Multiple literacies,” which may be posed as varied, valid, and rigorous ways of knowing, which specifically highlight engagement with the arts and UDL’s potential to interrupt normative assumptions about how students may be competent learners (Glass et al., 2013).

A takeaway from literature that describes UDL in its potential to resist assimilation in education connects to Hamraie’s (2013) idea of UD as “value-explicit design.” For example, UDL “has the potential to complement critical multiculturalism as it moves teachers away from assimilating students to normative ways of teaching and learning” (Waitoller & Artiles, 2013, 340) and “situate crip/queer students at the foundation of our teaching methods rather than as failed exceptions to the rule” (Mitchell et al., 2014, 305). UDL, then, is proposed as a vehicle through which non-normative identities and experiences are valued, which can enable specific agency related to expression and navigation of disability identity and experience (Dolmage,

2015). Literature that describes UDL in its potential to be a social justice practice aims to center Crip, Queer, Black, and Brown identities and experiences in schools, which is quite consonant with aims in disability studies in education.

### **UDL as a “Good Enough” Practice for Inclusive Education**

Gleaned from the extant literature, pluralistic practice in UDL involves varied instructional practices with a broad aim of organizing an array of activities and materials able to reach and teach all students. Characterizations of UDL as social justice more specifically describe the development of plurality in educational practice in its potential to transform what is valued about students in curriculum, teaching, and learning. Although differences in these two aims are readily discernable and certainly have different impact on implementation, they do not contradict each other. Both seek to leverage UDL as a tool or concept for organizing and realizing a version of inclusive education. Pluralistic practice focuses on improving access to curriculum, which might be useful to transforming it; and social justice practice emphasizes the need to transform curriculum, which may be performed as critical pluralism. Perhaps it is the flexibility of UDL’s concept, aims, and practices that have led it to become agreeable to and used by many who might otherwise disagree on the meanings and production of disability, disablement, and inclusion. In K-12 literature, then, UDL seems to have been received as a “good enough” idea to be widely taken up for adoption or as a subject for refinement or expansion, rather than outrightly rejected. The conceptualization of UDL broadly described, the next section turns to studies on implementation.

### **UDL in K-12 Implementation Research**



In K-12 implementation research, UDL is typically approached by discerning facets of instruction that align with CAST's multiple means principles. Noted earlier, there is wide variety in how the aspects are defined, operationalized, and evaluated (Rao et al., 2014). Some studies approached UDL by examining students' use of self-directed tools and guides that aimed to provide scaffolded learning within a UDL-designed environment. Accessing self-navigated tools to support acquisition of vocabulary and basic content was generally self-reported as helpful by students and appeared, in Marino's (2009) report, to lead to gains for some students—notably, those rated “low ability” readers, but not those readers rated as “poor” or with “severe difficulty.” Marino et al. (2014) reported, in another study, that while students labeled with learning disability demonstrated learning gains in units that included UDL-designed digital games, they performed even better on posttests after traditional instruction. Dalton et al. (2011) and Proctor et al. (2011) found that when learners used scaffolded e-text “with both vocabulary and a combination of vocabulary and comprehension strategy support” there was little gap in performance between English monolingual and bilingual students on vocabulary measures, “suggesting that the right type of scaffolds can level the playing field for diverse learners” (Dalton 2011, p. 94).

Other studies aimed to examine the effect of offering materials designed with the multiple means principles. Kennedy et al. (2014) reported on the use of short video presentations that featured narrated text and images. King-Sears et al. (2015) examined the impact of providing an array of techniques, which included video clips, a step-by-step guide to solve problems, a strategy sheet, and answer keys to allow students to self-pace. Gravel (2018) discerned many strategies that a pair of co-teachers performed, including using varied media for accessing text and expressing learning. Kennedy et al. (2014) found that students with and without disabilities

in a 10<sup>th</sup> grade history class performed better on curriculum-based measures (CBM) when they used the videos. King-Sears et al. (2015) found that the UDL intervention in high school Chemistry classes enabled conservative, but positive, outcomes for students with high incidence disability, yet correlated with poorer performance for non-labeled students, in comparison to a control group. Gravel (2018) highlighted teachers' responses and examples of student work to illustrate gains that a variety of students with a range of labeled disabilities made in fifth grade language arts.

Evident in reports of these studies is testing the proposition that UDL might be characterized as an effective approach to raising academic achievement for *all* students. In these studies, differences are reported across students identified as having varied ability/disability experiences and in students' relationship to the English language. In the aforementioned studies, as well as in others, data was also gathered on factors such as teacher-perceived and self-reported student engagement. Students in King-Sears et al. (2015), Marino et al. (2014), Kortering et al. (2008) and Hall et al. (2015), along with observers in Dymond et al. (2006) and Katz and Sugden (2013), all reported high levels of student engagement during UDL-informed instruction. Marino et al. (2014) report, for example:

Students described talking with their peers, yelling and cheering each other on in class, and sharing their game experience with family... In addition, they reported gaining an in-depth understanding as they interacted with scientific content in novel ways. (p. 97)

Recall, however, that students in this study did not generally perform better on curriculum-based assessments of learning when interacting with the game environment. Of this, Marino et al. (2014) ask, "Why would students and teachers react so positively to the UDL units if their test scores were not improving?" (p. 97). Their question points to an important query to be raised

within UDL research about the pursuit of learning and what we imagine could or should characterize students' experiences of school. Rappolt-Schlichtmann et al. (2013) suggest that "high and persistent levels of interest and excitement reported among students using [a web-based science notebook]" may reflect "the generation of feelings of competence and autonomy in their work" (p. 1221), contributing to longer term success in learning even if immediate results are not discernable.

Katz and Sugden's (2013) case study of the three-block model of UDL describes, perhaps, the importance of such engagement. A comment by a teacher states "This program changed the trajectory of a child in my class with severe behavior, he would have been moved to a special program the next term, now he is engaged and wants to be with his "learning family" (Katz & Sugden, p. 17). Similarly, Lowrey, Hollingshead, and Howery (2017) highlight a teacher's feeling of success of using UDL practices as she describes, "that is why I have so many students who just really blossom and really thrive and kind of regain their confidence in my class" (p. 20). Gravel (2018), as well, offers the following vignette:

The co-teachers described how Jasmine struggled to put forth her own ideas earlier in the year; they explained how "she didn't have any ownership for her own learning" and how she "didn't have a voice." The co-teachers saw signs of remarkable progress when examining Jasmine's thoughtful and intentional use of language in her fable. As her skills of "writing like a writer" began to emerge, so too did her own "voice." (p. 24)

Each of these three studies about UDL yielded experiences through which children at risk of being marginalized found belonging, reconnection, or identity with school.

In addition to perceptions of young people's sense of belonging, Dymond et al. (2006) report the potential for UDL to provoke questions on teachers' expectations about students

labeled disabled. When teachers witnessed the gains students with significant cognitive disabilities made in a UDL redesigned class, Dymond et al. report that they “expressed concern that students in the section of the course that was not receiving the redesign were not meaningfully engaged.” The teachers “had difficulty accepting the discrepancy between the two course sections when they had observed what could happen as a result of redesign” (p. 305). Researchers, here, highlight teachers’ changed expectations for students with disabilities that emerged through implementing UDL.

### **UDL Implementation and Inclusive Education**

Reports of UDL implementation research include various considerations of its characterization and of its efficacy. Researchers reported how particular instructional approaches related to UDL correlated with academic achievement, as well as how they seemed to influence aspects of classroom life such as learner engagement and belonging. In some studies, data is disaggregated by ability/disability label, race, language, socioeconomic status, and gender which enabled examination of whether UDL is an instructional design framework that, in fact, yields achievement for different categories of learners. The set of findings drawn across studies appears useful for examining inclusivity across varied understandings about disability and disablement. For example, the compilation includes attention to achievement outcomes and consideration of whether disabled youth are enabled to reap the fruits of belonging and access to high quality curriculum promoted by inclusion. The set includes methods to understand teacher and student perspectives, which yield insight into transformations of thinking about ability/disability or youth engagement in UDL. The set of articles illustrates the scope of UDL research on its various aspects, which, taken together, holistically address questions about efficacy, which has been long

asked in special education research, and about access and engagement, which has been a focus of disability studies in education.

That stated, in many articles—both implementation studies and conceptual works—“inclusion” is flatly presented as the situation, challenge, or opportunity that sets the context for UDL, rather than elucidated as a values-explicit framework. Perhaps authors take the fact of inclusion for-granted, choose to avoid the contention surrounding inclusion, or run out of space in pursuit of publication with page limits. Whatever the cases may be, I offer some questions to highlight the potential stakes of UDL research for inclusive education:

- What will it mean for inclusive education if the story told about UDL is that students with labeled disabilities have positive outcomes, but students who are not labeled experience poorer performance on curriculum based measures? (cf. King-Sears et al., 2015)
- What will it mean for inclusive education if UDL becomes associated with gains for students with higher performance in reading, but not for those with lower performance? (cf., Marino et al, 2014)
- If students labeled with learning disability perform better on curriculum based measures after receiving “traditional” instruction, in comparison to UDL environments, what will it mean for ongoing efforts to improve inclusive curriculum and practice? (cf. Marino et al, 2014)
- How does improvement in facets like learner engagement, pleasure, belonging, identity, and self-efficacy shape the story of inclusive education that may be told by studying UDL? (cf. Katz & Sugden, 2013; Rappolt-Schlichtmann et al., 2013)

The potential for UDL research to be appropriated by varied perspectives in inclusion debates is able to be discerned in each question. That outcomes may pit the achievement of students labeled

disabled against that of non-labeled students or that students labeled with learning disability have better academic outcomes in traditional instruction certainly have the potential to influence the ongoing project of inclusive education. To further consider the stakes of UDL for inclusive education, we can couple these questions with the most frequent recommendations to further research.

Past reviews and syntheses of literature on UDL have issued collective calls for (a) discernment of what researchers and writers mean by universal design (Edyburn, 2010; McGuire, 2014; McGuire et al., 2006) (b) discernment of the alignment between the framework in use and proposed or promoted education practices (McGuire, 2014; Rao et al., 2014; Smith et al., 2019), and (c) refinement of reporting on outcomes, with specific interest in the impact on particular groups of “at-risk” students (King-Sears, 2014; Rao et al., 2014; Smith & Lowrey, 2017; Smith et al., 2019). Each of these areas seems to be a call to seek fidelity in what is meant by UD/UDL in education, which is likely to narrow, specify, and establish fixedness in a concept initially defined by multiplicity. Especially contentious for disability studies in education researchers might be the decisions about how researchers construe “groups” of students. How do we engage the complexity of the construction of social categories like disability labels, racial identity, and reading “level” in understanding UDL practices of access, resistance, equity, and inclusivity, rather than retreat to simplicity and labeling in reporting?

In Smith et al.’s (2019) report on the UDL Implementation and Research Network (UDL-IRN), the authors explicitly describe a desire to operationalize, rather than standardize UDL, recognizing its heart as flexibility and the “complexity of the construct as one that includes both design and delivery” (p. 178). I am, however, skeptical that the vast field of practice parses the difference between operationalization and standardization. Following Dolmage (2015), I am

doubtful that effort to more precisely align practices to the networks of the learning brain is where the future of UDL is to be found, even as it may continue to powerfully serve as its rhetorical base in policy. UDL may be instead defined or mapped as the ingenuity possible in teaching made allowable and discoverable as multiplicity. I am therefore worried that what is described as the *problem* of ambiguity surrounding UDL (Smith et al., 2019) might be simultaneously what those working in disability studies most lean into. Disability studies and its conceptualization of inclusivity are arguably about expansion. Uncertainty or less certainty (of intellect, of compliance, of evaluation, of what constitutes meaningful curriculum, and so on) *is* the intervention posed by disability studies to education. The novelty of building Crip, Queer, Black, and Brown existence and resistance into teaching practice must allow for ambiguity as people learning and working in schools together figure out—in the material context of the immediate experience—how to engage in purposeful opposition to the regime of what has been standardized as normate, White supremacy in schools. To replace the value of multiplicity and its permission to invent with the search for certainty of practice in UDL might sadly render it as much less compatible with disability studies in education.

### **Why Might Disability Studies Researchers Examine UDL?**

A question posed at the start of this essay is whether UDL collapses under its own weight, burdened by its rise to prominence in policy and intuitive appeal. I wonder if the increasing calls to define UDL and direct the precision of its practice will lift or sink the impact that the dispersed idea of universal design seems to be having more generally on inclusive thinking in education practice. My sense—anecdotally—is that many in disability studies in education who work in or adjacent to K-12 practice cite or mention UDL in writing and teaching.

There are probably parts of UDL that are loved and others that are avoided. However, disability studies researchers do not appear to be well represented in the studies that are shaping ongoing development of UDL. Waitoller and King Thorius (2016) characterized UDL as an asset pedagogy as it “resists deficit views of students with dis/abilities” (p. 371). Indeed, the conceptual work and foundational claims about UDL as resisting categorization would suggest its potential in this area of disability studies. The possibility for UDL as an intervention for ableism is also perceptible, as occurred for teachers in Dymond et al.’s (2006) study and inferred by Katz and Sugden (2013) and Gravel (2018). Yet, a review of literature also reveals murkiness on these points. In most cases, UDL seems to be practiced as an organizational solution for inclusion or as an intervention for disability, which is reported as successful or effective in terms of the more normative achievement of students labeled disabled. While UDL research is resisting deficit views of disabled students by providing plurality in instructional design, there is less disruption of the desirability of the normate or normative curriculum itself. The 2019 merger between CAST and UDL-IRN suggests a scaling up of implementation research and an effort to make good on refining, clarifying, and further operationalizing UDL. Will disability studies researchers add to this work? Should we?

Working as a teacher educator while aligning with disability studies is an unrelenting experience of cognitive dissonance. The research in my chosen field makes clear that schools need radical change, yet I am embedded in and dedicated to working alongside systems that are more likely to inch along in gradual change and in which inclusivity is more often performed as tactical engagements within a hostile system in which disability and teaching are sites of domination and control (Rood & Ashby, 2017). UDL, for me, has provided a “good enough” practice that closes some dissonance between what is needed in schools and what feels



productive in teacher education. UDL is recognizable, even welcomed, by the schools in which my preservice teachers will work. I believe there is potential in purposefully deploying UDL as counternarrative and radical multiplicity. A call to disability studies in education to engage with UDL is not to advocate for uncritical inquiry. Those in the field have articulated problems with the neurorhetoric that underlies its base (Dolmage, 2015), the potential for UD to erase disability or overlook the participation of disabled people in it (Dolmage, 2005; Gibson, 2014), and with UDL's non-critical consciousness in relation to race and culture (Waitoller & King Thorius, 2016). Yet, the power of UDL has also opened a door in inclusive education. I believe that disability studies is well-equipped to apply its tools to re-ignite the disruptive intent of UDL that is (at least for now) evident in its foundational writings.

## References

- Abell, M., Jung, E., & Taylor, M. (2011). Students' perceptions of classroom instructional environments in the context of 'Universal Design for Learning'. *Learning Environments Research, 14*(2), 171-185. doi:10.1007/s10984-011-9090-2
- Adams, D. L., & Erevelles, N. (2017). Unexpected spaces of confinement: Aversive technologies, intellectual disability, and “bare life”. *Punishment & Society, 19*(3), 348-365.
- Allan, J. (2007). *Rethinking inclusive education: The philosophers of difference in practice*. Springer.
- Arter, P., Helman, J., & D'Agata, H. (2010). Can you read me now? The practical use of text-to-speech software to improve reading in middle school students. *Journal of Technology Integration in the Classroom, 2*(3), 61-65.
- Baglieri, S., Valle, J. W., Connor, D. J., & Gallagher, D. J. (2011). Disability studies in education: The need for a plurality of perspectives on disability. *Remedial and Special Education, 32*(4), 267-278.
- Baker, B. (2002). The hunt for disability: The new eugenics and the normalization of school children. *Teachers College Record, 104*(4), 663-703.
- Barton, L. (1986). The politics of special educational needs. *Disability, Handicap and Society, 1*(3), 273-290.
- Basham, J. D., Meyer, H., & Perry, E. (2010). The design and application of the digital backpack. *Journal of Research on Technology in Education, 42*(4), 339-359.

- Blanchett, W. J. (2009). A retrospective examination of urban education: From Brown to the resegregation of African Americans in special education—It is time to “go for broke”. *Urban Education*, 44(4), 370-388.
- Buchheister, K., Jackson, C., & Taylor, C. E. (2017). Maths games: A universal design approach to mathematical reasoning. *Australian Primary Mathematics Classroom*, 22(4), 7-12.
- Burgstahler, S. (2009). *Universal design of instruction (UDI): Definition, principles, guidelines, and examples*. DO-IT. <https://www.washington.edu/doiit/universal-design-instruction-udi-definition-principles-guidelines-and-examples>
- Chita-Tegmark, M., Gravel, J. W., Serpa, M. D. L. B., Domings, Y., & Rose, D. H. (2012). Using the universal design for learning framework to support culturally diverse learners. *Journal of Education*, 192(1), 17-22.
- Connor, D. (2014). The disability studies in education annual conference: Explorations of working within, and against, special education. *Disability Studies Quarterly*, 34(2), n.p.
- Connor, D. J., Ferri, B. A., & Annamma, S. A. (Eds.). (2016). *DisCrit: Disability studies and critical race theory in education*. Teachers College Press.
- Cosier, M., Sandoval-Gomez, A., Cardinal, D. N., & Brophy, S. (2020). Placement of students with extensive support needs in California school districts: The state of inclusion and exclusion. *International Electronic Journal of Elementary Education*, 12(3), 249-255.
- Dalton, B., Proctor, C. P., Uccelli, P., Mo, E., & Snow, C. E. (2011). Designing for diversity: The role of reading strategies and interactive vocabulary in a digital reading environment for fifth-grade monolingual english and bilingual students. *Journal of Literacy Research*, 43(1), 68-100. doi:10.1177/1086296X10397872

- Dolmage, J. (2005). Disability studies pedagogy, usability and universal design. *Disability Studies Quarterly*, 25(4). <http://www.dsqu-sds.org/article/view/627/804>
- Dolmage, J. (2015). Universal design: Places to start. *Disability Studies Quarterly*, 35(2).
- Dymond, S. K., Renzaglia, A., Rosenstein, A., Eul Jung, C., Banks, R. A., Niswander, V., & Gibson, C. L. (2006). Using a participatory action research approach to create a universally designed inclusive high school science course: A case study. *Research & Practice for Persons with Severe Disabilities*, 31(4), 293-308.
- Edyburn, D. L. (2010). Would you recognize universal design for learning if you saw it? Ten propositions for new directions for the second decade of UDL. *Learning Disability Quarterly*, 33(1), 33-41.
- Elder, B., & Migliarini, V. (2020). Decolonizing inclusive education: a collection of practical inclusive CDS-and DisCrit-informed teaching practices implemented in the global South. *Disability and the Global South*, 7(1), 1852-1872.
- Erevelles, N. (2000). Educating unruly bodies: Critical pedagogy, disability studies, and the politics of schooling. *Educational Theory*, 50(1), 25-47.
- Erten, O., & Savage, R. S. (2012). Moving forward in inclusive education research. *International Journal of Inclusive Education*, 16(2), 221-233.
- Ferguson, B. T. (2019). Balancing requirements, options and choice in UDL: Smorgasbord or nutritious diet? In S. L. Gronseth & E. M. Dalton (Eds.), *Universal Access Through Inclusive Instructional Design: International Perspectives on UDL* (pp. 96-102). Routledge.

- Gallagher, D. J., Connor, D. J., & Ferri, B. A. (2014). Beyond the far too incessant schism: Special education and the social model of disability. *International Journal of Inclusive Education*, 18(11), 1120-1142.
- Gallagher, D. J., Heshusius, L., Skrtic, T. M., & Iano, R. P. (2003). *Confronting orthodoxy in special education: Dissenting voices*. Love Publishing Company.
- Garland-Thomson, R. (2011). Misfits: A feminist materialist disability concept. *Hypatia*, 26(3), 591-609.
- Gibson, B. E. (2014). Parallels and problems of normalization in rehabilitation and universal design: Enabling connectivities. *Disability and Rehabilitation*, 36(16), 1328-1333.  
<https://doi.org/10.3109/09638288.2014.891661>
- Glass, D. O. N., Meyer, A., & Rose, D. H. (2013). Universal design for learning and the arts. *Harvard Educational Review*, 83(1), 98-119.
- Goeke, J. L., & Ciotoli, F. (2014). Inclusive STEM: Making integrative curriculum accessible to all students. *Children's Technology & Engineering*, 18(3), 18-22.
- Goodley, D. (2017). *Disability studies: An interdisciplinary introduction* (2nd Ed.). Sage Publishing.
- Graham, L. J., & Slee, R. (2008). An illusory interiority: Interrogating the discourse/s of inclusion. *Educational Philosophy and Theory*, 40(2), 277-293.
- Gravel, J. W. (2018). Going deep: Leveraging universal design for learning to engage all learners in rich disciplinary thinking in ELA. *Teachers College Record*, 120, 030303.
- Gronseth, S. L., & Dalton, E. M. (Eds.). (2019). *Universal access through inclusive instructional design: International perspectives on UDL*. Routledge.

- Hall, T. E., Cohen, N., Vue, G., & Ganley, P. (2015). addressing learning disabilities with udl and technology: Strategic reader. *Learning Disability Quarterly*, 38(2), 72-83.  
doi:10.1177/0731948714544375
- Hamraie, A. (2012). Universal design research as a new materialist practice. *Disability Studies Quarterly*, 32(4).
- Hamraie, A. (2013). Designing collective access: A feminist disability theory of universal design. *Disability Studies Quarterly*, 33(4). <http://dsq-sds.org/article/view/3871/3411>
- Harry, B., & Fenton, P. (2016). Risk in schooling: The contribution of qualitative research to our understanding of the overrepresentation of minorities in special education. *Multiple Voices for Ethnically Diverse Exceptional Learners*, 16(1), 17-28.
- Haug, P. (2017). Understanding inclusive education: Ideals and reality. *Scandinavian Journal of Disability Research*, 19(3), 206-217.
- Katz, J., & Sugden, R. (2013). The three-block model of universal design for learning implementation in a high school. *Canadian Journal of Educational Administration & Policy*, 141, 1-28.
- Kauffman, J. M. (Ed.). (2020). *On Educational inclusion: Meanings, history, issues and international perspectives*. Routledge.
- Kennedy, M. J., Thomas, C. N., Meyer, J. P., Alves, K. D., & Lloyd, J. W. (2014). Using evidence-based multimedia to improve vocabulary performance of adolescents with LD: A UDL approach. *Learning Disability Quarterly*, 37(2), 71-86.  
doi:10.1177/0731948713507262
- King-Sears, M. E., Johnson, T. M., Berkeley, S., Weiss, M. P., Peters-Burton, E. E., Evmenova, A. S., Menditto, A., & Hursh, J. C. (2015). An exploratory study of universal design for

- teaching chemistry to students with and without disabilities. *Learning Disability Quarterly*, 38(2), 84-96. doi:10.1177/0731948714564575
- King-Sears, P. (2014). Introduction to learning disability quarterly special series on universal design for learning: Part one of two. *Learning Disability Quarterly*, 37(2), 68-70. doi:10.1177/0731948714528337
- Kiuppis, F., & Hausstätter, R. S. (Eds.). (2015). *Inclusive education twenty years after Salamanca*. Peter Lang Publishing.
- Kortering, L. J., McClannon, T. W., & Braziel, P. M. (2008). Universal design for learning: A look at what algebra and biology students with and without high incidence conditions are saying. *Remedial & Special Education*, 29(6), 352-363.
- Leonardo, Z., & Broderick, A. (2011). Smartness as property: A critical exploration of intersections between whiteness and disability studies. *Teachers College Record*, 113(10), 2206-2232.
- Lowrey, K. A., Hollingshead, A., & Howery, K. (2017). A closer look: Examining teachers' language around UDL, inclusive classrooms, and intellectual disability. *Intellectual and developmental disabilities*, 55(1), 15-24.
- Mace, R. L., Hardie, G. J., & Place, J. P. (1991). Accessible environments: Toward universal design. In W. E. Preiser, J. C. Vischer, & E. T. White (Eds.), *Design intervention: Toward a more humane architecture*. Van Nostrand Reinhold.
- Mapepa, P., & Magano, M. D. (2018). Support to address barriers to learning for learners who are deaf. *African Journal of Disability (Online)*, 7, 1-8.
- Marino, M. T. (2009). understanding how adolescents with reading difficulties utilize technology-based tools. *Exceptionality*, 17(2), 88-102. doi:10.1080/09362830902805848

- Marino, M. T., Gotch, C. M., Israel, M., Vasquez, E., Basham, J. D., & Becht, K. (2014). UDL in the middle school science classroom: Can video games and alternative text heighten engagement and learning for students with learning disabilities? *Learning Disability Quarterly*, 37(2), 87-99. doi:10.1177/0731948713503963
- McCloskey, E. (2018). Ratio profiling: The discursive construction of the continuum of alternative placements. *Disability & Society*, 33(5), 763-782.
- McGuire, J. M. (2014). Universally accessible instruction: Oxymoron or opportunity? *Journal of Postsecondary Education & Disability*, 27(4), 387-398.
- McGuire, J. M., Scott, S. S., & Shaw, S. F. (2006). Universal design and its applications in educational environments. *Remedial & Special Education*, 27(3), 166-175.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. CAST Professional Publishing.
- Mitchell, D. T., Snyder, S. L., & Ware, L. (2014). “[Every] child left behind”: Curricular cripistemologies and the crip/queer art of failure. *Journal of Literary & Cultural Disability Studies*, 8(3), 295-313.
- Morningstar, M. E., & Kurth, J. A. (2017). Status of inclusive educational placement for students with extensive and pervasive support needs. *Inclusion*, 5(2), 83-93.
- Navarro, S. B., Zervas, P., Gesa, R. F., & Sampson, D. G. (2016). Developing teachers' competences for designing inclusive learning experiences. *Journal of Educational Technology & Society*, 19(1), 17-27.
- Norwich, B. (2005). Inclusion: Is it a matter of evidence about what works or about values and rights? *Education 3-13*, 33(1), 51-56.



- Parekh, G., & Brown, R. S. (2019). Changing lanes: The relationship between special education placement and students' academic futures. *Educational Policy*, 33(1), 111-135.
- Proctor, C. P., Dalton, B., Uccelli, P., Biancarosa, G., Mo, E., Snow, C., & Neugebauer, S. (2011). Improving comprehension online: Effects of deep vocabulary instruction with bilingual and monolingual fifth graders. *Reading and Writing*, 24(5), 517-544. doi:DOI 10.1007/s11145-009-9218-2
- Rao, K., Ok, M. W., & Bryant, B. R. (2014). A review of research on universal design educational models. *Remedial & Special Education*, 35(3), 153-166. doi:10.1177/0741932513518980
- Rao, K., Smith, S. J., & Lowrey, K. A. (2017). UDL and intellectual disability: What do we know and where do we go? *Intellectual and Developmental Disabilities*, 55(1), 37-47.
- Rappolt-Schlichtmann, G., Daley, S. G., Seoin, L., Lapinski, S., Robinson, K. H., & Johnson, M. (2013). Universal design for learning and elementary school science: Exploring the efficacy, use, and perceptions of a web-based science notebook. *Journal of Educational Psychology*, 105(4), 1210-1225. doi:10.1037/a0033217
- Rood, C. E., & Ashby, C. (2017). Developing and maintaining inclusive identities: Understanding student teaching through de Certeau's framework of tactics and strategies. *Action in Teacher Education*, 39(3), 274-291.
- Rood, C. E., & Ashby, C. (2020). Losing hope for change: Socially just and disability studies in education educators' choice to leave public schools. *International Journal of Inclusive Education*, 24(2), 130-146.

- Sauer, J. S., & Jorgensen, C. M. (2016). Still caught in the continuum: A critical analysis of least restrictive environment and its effect on placement of students with intellectual disability. *Inclusion*, 4(2), 56-74.
- Skiba, R. J., Poloni-Staudinger, L., Gallini, S., Simmons, A. B., & Feggins-Azziz, R. (2006). Disparate access: The disproportionality of African American students with disabilities across educational environments. *Exceptional Children*, 72(4), 411-424.
- Smith, S. J., & Lowrey, K. A. (2017). Applying the universal design for learning framework for individuals with intellectual disability: The future must be now. *Intellectual and Developmental Disabilities*, 55(1), 48-51.
- Smith, S. J., Rao, K., Lowrey, K. A., Gardner, J. E., Moore, E., Coy, K., Marino, M. & Wojcik, B. (2019). Recommendations for a national research agenda in UDL: Outcomes from the UDL-IRN preconference on research. *Journal of Disability Policy Studies*, 30(3), 174-185.
- Talley, J. (2018). Narrative and metaphor in special educational needs: Shaping thought, discourse, and practice. In M. Hanne & A. A. Kaal (Eds.), *Narrative and metaphor in education: Look both ways*. Routledge.
- Taylor, S. J. (1988). Caught in the continuum: A critical analysis of the principle of the least restrictive environment. *Journal of the Association for Persons with Severe Handicaps*, 13(1), 41-53.
- Titchkosky, T., & Michalko, R. (2012). The body as the problem of individuality: A phenomenological disability studies approach. In D. Goodley, B. Hughes & L. Davis (Eds.), *Disability and social theory* (pp. 127-142). Palgrave Macmillan.

Tremain, S. (Ed.). (2005). *Foucault and the government of disability*. University of Michigan Press.

Waitoller, F. R., & Artiles, A. J. (2013). A decade of professional development research for inclusive education: A critical review and notes for a research program. *Review of Education Research*, 83(3), 319-356. doi:10.3102/0034654313483905

Waitoller, F. R., & King Thorius, K. A. (2016). Cross-pollinating culturally sustaining pedagogy and universal design for learning: Toward an inclusive pedagogy that accounts for dis/ability. *Harvard Educational Review*, 86(3), 366-389.