Pedagogy of New Materialism: Advancing the Educational Inclusion Agenda for Children and Youth with Disabilities

Sarah Reddington,

Child and Youth Study,

Mount Saint Vincent University,

Halifax, Nova Scotia, Canada

(sarah.reddington@msvu.ca)

Deborah Price,
School of Education,

University of South Australia,

Adelaide, SA 5001

Abstract

In advancing educational inclusion efforts this critical position paper makes explicit the relevance of new materialism as a pedagogy to counter the dominant special education models in Canadian and Australian school contexts. This paper argues the implementation of special education policies and programs do not adequately address the complexity of children and young people with disabilities experiences. New materialism as a form of pedagogy however can prioritize learners with disabilities embodied, relational connections to school and destabilize highly medicalized functional pedagogical approaches. The material turn in schools is a

welcoming pedagogical framework that places the material body and the emergent learner at the center of our practice.

Keywords: *disability, new materialism, pedagogy, inclusion, special education, young people, lived experience,*

Introduction:

Whilst Canadian and Australian educational policies and discourse have arguably been at the forefront of emphasizing inclusion of young people with disabilities across the globe, medicalized and functional capabilities continue to underpin everyday educational pedagogies. In particular, children and youth with disabilities in Canada and Australia continue to experience their education under special education models that position professionals to think predominantly about their functional abilities relative to normative curriculum standards. Their pedagogical encounters are therefore fraught with assessment, identification of needs and specialized accommodations and interventions. Explicitly, pedagogy in Canadian and Australian contexts are aligned with Pearsall's (1999) definition of pedagogy, "*theory and instruction of teaching and learning*" (p. 1051) rather than a pedagogy understood as "*the experience of the corporeality of the body's time and space when it is in the midst of learning*" (Ellsworth, 2005, p.4). The problem with a medicalized functional pedagogy when working with children with disabilities is that it does not attend to their embodied negotiations with school rather the primary focus is on assessing their deficits and creating separate individualized programming to meet universalized standards. In this paper, we argue there is a requirement to push further and find new, creative pedagogical tools to support young people with disabilities in Canadian and Australian schools.

Specifically, our aim is to unsettle static special education models and give increased attentiveness to learners' mediated actions in school. To ask: Are there new ways to engage children with disabilities in school beyond standardized special education models? Are there pedagogical approaches that allow for increased voice, creativity and active engagement in their learning? The primary aim of this paper; therefore, is to draw educators' and practitioners' attention to more liberating pedagogical approaches and think outside of fixed bounded programming when working with children and youth with disabilities. Our rationale for examining the usefulness of new materialism as a form of pedagogy in Australian and Canadian school settings is based on our own situated knowledge within these countries as educators and the requirement to push on and advance new ways of thinking when working with children with disabilities. The relevance of advancing new materialism as a form of pedagogy is evidenced after reviewing current Canadian and Australian inclusive policies and programs. We will commence with a succinct review of Canadian policy followed with a review of how inclusion is framed in Australian public schools. It is important to note that in Canada there is no national office of education as it is a provincial authority.

Inclusion in Canadian and Australian School Context

When analyzing provincially governed Canadian inclusive policies and documents inclusive delivery is similar across provinces as the majority of provinces implement a special

education model (McBride, 2013). That is, "*under these authorities, all jurisdictions in Canada either require or recommend that an individual program be designed and implemented for students identified as having special needs*" (McBride, 2013, p. 5). The commonalities include an assessment and the identification of needs, development of an individual program plan with suitable accommodations and the assigning of educators to deliver the separate special education curriculum to the child with a disability. For example, Nova Scotia Special Education Policy (2008) explains the importance of assessing a child's level of functionality before administering educational programming. Through employing a collaborative team approach, the aim is to locate special intervention strategies to support children with "special needs" in meeting universalized curriculum outcomes. We see similar special education policies in other provinces, such as: British Columbia, Saskatchewan, Alberta, Ontario, Prince Edward Island and Quebec that also follow early identification, assessment, adaptive design and remediation models when working with students with disabilities. For instance, Ontario's Standards for School Boards' Special Education Plans (2000) states schools "*must have in place procedures to identify each child's level of development, learning abilities, and needs*", and they must "*ensure that educational programs are designed to accommodate these needs and to facilitate each child's growth and development" (p.6)*. In Alberta, the government's Standards for the Provision of Early Childhood Special Education (2006) identifies that "*through early intervention strategies" young children can "develop knowledge, skills and attitudes that prepare them for later learning*" (pg.2). Whilst these provincial policies are in place, what is not clear is the effectiveness of programs in fully supporting children and youth with disabilities inclusive experiences in Canadian educational settings (McBride, 2013). In particular, there is a paucity of research that explores the relevance of more embodied forms of programming that consider children's affinity to all things beyond universalized curriculum and human centered practice.

Within Australia, national Disability Standards of Education (2005) advocate

"*enrolment, educational treatment and participation **on the same basis** as a prospective student without* a disability" (p.12, emphasis in original). However, within state jurisdictional levels, special educational policies emphasize adjustments and interventions to address predominant medicalized and deficit notions of disability for these young people to participate in mainstream education. For example, Department for Education and Child Development *(DECD)* Students with Disability policy defines disability as;

The total or partial loss of the person's bodily or mental functions, or of a part of the body, the presence in the body of organisms causing disease or illness, or the malfunction, malformation, or disfigurement of a part of the person or body. A disability includes a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction, or a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment, or that results in disturbed behaviour. It includes a disability that presently exists, or previously existed but no longer exists, or may exist in the future, or is imputed to a person (DECD, 2014, p.9).

In 2008, Australia introduced its first official national Australian Curriculum which was challenged in a commissioned review by Donnelly & Wiltshire (Australian Government, 2014) to increase access for students with disability (Price, 2017). Subsequent curriculum development has committed to "*meet the needs of all students, regardless of their circumstances, progress in learning or the type or location of school they attend, putting in place measures to reinforce every student's entitlement to rigorous, relevant and engaging learning experiences*" (ACARA, Student Diversity and the Australian Curriculum, 2013, p.6). However, when enacting the curriculum, adjustments to curriculum, instruction and environment continue to be emphasised as central to ensure equity of access to the Australian Curriculum for students with disabilities (Price, 2017).

Whilst Canadian and Australian governments have advocated for rights-based inclusive policies and practices, such as: equal educational access, full membership, and engagement in both academic and extra-curricular programming the enactment of such policies continue to regulate how young people with disabilities experience school. Explicitly, these policies situate learners with disabilities as particular kinds of subjects in school (the special needs student, the child in 'need of intervention'). Critical disability scholars have problematized special education models and acknowledge how these medicalized frameworks place too much emphasis on children and youth's functional aptitude with a lack of attendance to the wider dimensions of their lives (See Canella, 2005; Corker & Shakespeare, 2002; Goodley, 2014; Goodley, Hughes & Davis, 2012; Reddington & Price, 2016; Reddington, 2017; Scully, 2002; Slee, 2001; Underwood, 2008). As Corker and Shakespeare (2002) explain it is the strong emphasis placed on a child's functionality relative to their medical signifiers that "*seek[s] to explain disability universally and end[s] up creating totalizing, meta-historical narratives that exclude important dimensions of individual lives, abilities and of their knowledge*" (p. 15). As such, the categorical definitions of disability continue to be problematic producing an ability/disability educational system that marks difference and informs our ideas about disability and normality (Garland-Thomson, 2002). This is strongly evident after examining special education policies in Canada and Australia where the documents prioritize the remediation of bodily difference. This paper advances the argument to engage in alternative pedagogical approaches, namely the application of new materialism to unsettle essentialist special education models and acknowledge the situated capacities diverse learners can make in school contexts. Specifically, we argue the requirement to disrupt functional knowledges grounded in medical discourses and to push the boundaries. To do this, we suggest new materialism as a form of pedagogy as it values and recognizes the intersections children and youth with disabilities make to all things; both human and nonhuman elements.

New materialism as a form of pedagogy that focuses on the relational dimensions of individual experience in school can transgress representational knowledges on children and youth with disabilities. An emphasis on the relational dimensions of human-nonhuman encounters is what Barad (2007) describes as *intra-action*, the mutual engagement bodies can make to all matter. That is, intra-activity formulates alternative insights; a "*way of understanding the world from within and as a part of it*" (Barad, 2003, p. 88). As Hickey Moody, Palmer and Sayers (2016) similarly suggest "*[m]atter teaches us [to resist] dominant discourses and [show] new ways of being*" (p. 220). Rosi Braidotti (2013) also explains how productive the new materialist turn can be to unsettle dualisms (i.e. able/disable, normal/special) and increasingly think about people's lives through open systems. Here, we argue that new materialism as a form

of pedagogy can disrupt special education models that place too much on remediating bodily difference and alternatively produce new ways of knowing how children and youth with disabilities engage in school. New materialism "*conceive[s] of matter or the body as having a peculiar and distinctive kind of agency, one that is neither a direct nor an incidental outgrowth of human intentionality but rather one with its own impetus and trajectory*" (Frost, 2011, p. 70). As Hickey Moody et al. (2016) also state, new materialism is a "*profound movement beyond a Cartesian mind-body dualism ... shifts to a 'between' located in, with, and through the body*" (p. 216, emphasis in original). Further, Coole and Frost (2010) recognize how new materialism can shift human understanding beyond the universal subject and think through possibilities on young people's lives. Such a shift in Canadian and Australian inclusive deliver produces an opportunity to change the way educators and practitioners think about subjectivity; *"blurr[ing] categorical distinctions" between nature and culture, mind and matter* (Braidotti, 2006, p. 200).

We begin this paper with attendance to the crisis of representation to raise questions about human centered approaches since educational settings have a *"long history of representational logic"* (Olsson, 2009, p. xvi). Our attendance to the crisis of representation at the onset ignites an initial space to critique dominant modes of representation and shape a conversation on how new materialism can challenge linear, humanistic approaches to pedagogical inclusive delivery. After exploring the crisis of representation, we will outline how new materialism has been applied in education to produce different understandings on individual experience. Distinctly, a kind of materialism that focuses on bodily engagement with all kinds of matter as suggested by Donna Haraway (1991), Karen Barad (2003, 2007), and Elizabeth Grosz (1994, 2005).

The Crisis of Representation

St. Pierre and Pillow (2000) frame the disruption of human centered approaches in education as attending to the crisis of representation or what they call, "*working the ruins*". Thus, St. Pierre and Pillow encourage educators to keep bodily thinking unstable, fluid, and open. Pillow (2000) identifies "working the ruins" to include a focus on the body. To ask: What happens when paying attention to the emergent body? How does it change what we look at, how we look, what we ask, and what we choose to represent? Pillow (2000) equipped with critical, postmodern, feminist and qualitative research methods identified the intricate dimensions of research when embarking on a study of human experience. Pillow explained how she entered ready for the rigors of research, yet found herself unprepared for the "*utter physicality*" of the research process when studying girls' experiences with teenage pregnancy (p. 200, emphasis in original). Part of the complexity for Pillow was how to write about the girls' accounts when individual experience was "*varied and complex*" (p. 200). She described how her body was held in tension not wanting to "**simplify**" their experiences with pregnancy or claim some "essentialized identity related to the female body" (Pillow, 2000, p. 200). After reading Pillow's accounts, we were challenged with questions surrounding our own inclusive pedagogical practices in Canada and Australia and desired a space in education where individuals' bodily capacities were prioritized. We too felt the crisis of representation as educators and felt constrained by special education policies and frameworks that limit our own capacities to account for the wider dimensions of children and youth experiences.

We started to question, 'what might a new materialist pedagogical approach look like when our educational programming and policies are heavily governed through separate special education policies?' 'How do we destabilize the dominant medical models that ground Canadian and Australian inclusive design?' 'How do we stop ourselves from slipping back into conventional approaches when thinking about children and youth with disabilities in school?' In raising these questions, we turned to explore how educators recently have destabilized conventional pedagogical approaches and in turn, followed young people's mediated experiences. We located post-structural scholars who are interested in thinking about the intricate connections individuals make to all things beyond human centered positions.

We found ourselves exploring the works of Deleuze and Guattari (1987), Leander & Boldt (2012), Hultman and Lenz-Taguchi (2010), O'Donnell (2013), Reddington and Price (2016; 2017) and Reddington (2017). This body of work puts forth the vitality and relevance of why a new materialist pedagogical approach can destabilize static special education design currently used in many Canadian and Australian public schools and rethink how children and youth with disabilities are known. As Hickey Moody et al. (2016) reiterate "pedagogy can be conceived as an open, continuously created and recreated process that is specific to intra-actions of difference, not grounded in existing knowledges that attempt to equalize, normalize or fall back on traditions of established values, concepts and practices" (p. 15).

New Materialism in Education:

Hultman and Lenz-Taguchi (2010) applied new materialism to examine the closeness and association young children made to matter when attending a preschool in Sweden. To do this, they set out to see and think differently about two photographic images taken in a Swedish preschool playground. The emphasis of their inquiry was to focus on the non-human forces that inform the children's learning. At the onset, Hultman and Lenz Taguchi describe the tension they felt at first glances of the images as they too felt the crisis of representation. The humanistic approaches to education dominated their initial ways of thinking. "*The children seemed to have a magnetic power over our gazes; they stood out from the background and seemed to rise above the material environment*" (p. 525). Hultman and Lenz-Taguchi then remarked on the dominance of embedded human centered approaches to education and how it continued to blur their capacities and ways of seeing the child even though they were highly theoretically informed on new materialism and contemporary frameworks in early childhood settings. "As feminist researchers, our awareness of what can be understood as an *anthropocentric* gaze, a gaze that puts humans above other matter in reality, that is, a kind of human supremacy or human-centrism, became even more problematic to us" (2010, p. 526, emphasis in original). In wanting to disrupt anthropocentric thinking, Hultman and Lenz-Taguchi decided to mobilize what they called *relational materialism* to ignite attention to the human-nonhuman encounters the preschool children made to their environments; with a keen interest in exploring the mutual intersections they made to all matter. *Relational materialism* is understood as *"a space in which non-human forces are equally at play and work as constitutive factors in children's learning and becomings"* (Hultman & Lenz-Taguchi, 2010 p. 527).

For example, when exploring one image of a girl in sandbox, the initial anthropocentric gaze shows the girl and the sandbox as two separate entities. The sandbox merely a backdrop to the girl, a "subject/object" divide (Hultman & Lenz-Taguchi, 2010, p.527). Yet, when they put

forth their new materialist approach and asked, "What happens if we look at the image thinking that not only humans can be thought upon as active and agentic, but also *non*-human and matter can be granted 'agency'?" they could actively destabilize the separation of girl and sandbox and see them as mutually engaged (p. 527, emphasis in original). Hultman and Lenz-Taguchi discovered that the sand offered new possibilities when viewed as an effect of mutual engagement. The relation between sand and the girl (metaphorically) can postulate questions to each other and locate an active, emergent relation with one another.

> *[T]he sand and the girl, as bodies and matter of forces of different intensities and speed, fold around each other and overlap, in the event of the sand falling, hand opening… the falling movement of the glittering sand into the red bucket. (Hultman & Lenz-Taguchi,* 2010, p. 530)

Through a relational materialist approach the sand is understood as emergent and actively interconnected with the girl just as much as the girl plays with the sand. "Human and non-human bodies can thus be thought upon as forces that overlap and relate to each other" (Hultman & Lenz-Taguchi, 2010, p. 529). Their body of work draws attention to the importance of tracking children's attraction to all things as many children and youth with disabilities are affectively drawn to nonhuman forms of matter (Reddington & Price, 2016; Reddington & Price, 2017). We suggest Hultman and Lenz-Taguhi's relational materialism, including the use of images are a productive tool to show children's intersubjectivity with matter in educational settings, that everything is not human-to-human focused. Empowering students with disabilities as visual ethnographers has been found to highlight their interrelatedness with space and place to enhance "opportunities for learning, interactions, safety and happiness" (Price, 2016, p.67). Leander and Boldt (2012) similarly have centered attention on children's emergent actions with other things when offering a nonrepresentational reading of two young boys' experiences with literacy. Their analysis of the boys' experiences with text focuses on the multiplicity of movement. Distinctly, they examine two boys' active intersections when reading and playing with Japanese manga.

> *At one point they [the two boys] carried their books, costume accessories, and weapon outdoors and sat reading in a porch swing. With no spoken planning, Lee stood up, grabbed a sword, and began swinging it at Hunter. Hunter dropped his book and picked up a sword, and for the next several minutes the battle moved between the porch and the front yard, with the porch steps offering a vantage point from which to make leaping lunges at one another*" (Leander & Boldt, 2012, p.27).

Leander and Boldt's attentiveness to the boys' movements*, "[lives] in the ongoing present"* addresses how children can be thought of differently outside static forms of representation (p.22). Here, the concept of movement, the entanglement of play with Japanese manga, supports the process of thinking through bodily capacities where a more active, ontological space is prioritized.

> *Our goal with the nonrepresentational rereading is to reassert the sensations and movements of the body in the moment by moment unfolding or emergence of activity... This nonrepresentational approach describes literacy activity as not projected toward some textual end point, but as living its life in the ongoing present, forming relations and connections across signs, objects, and bodies in often unexpected ways. Such activity is*

saturated with affect and emotion; it creates and is fed by an ongoing series of affective intensities that are different from the rational control of meanings and forms (Leander & Boldt, 2012, p.25, 26).

Leander and Boldt argue that if we begin with the body rather than with texts our attention turns elsewhere. This work is useful in demonstrating the relevance of new materialism as a form of pedagogy as it makes a shift to think about children's literacy competencies outside functional education models. In Canada, taking an alternative pedagogical lens on literacy is important as educational systems continue to assess children's levels of literacy through universalized literacy assessment tests. For example, in Nova Scotia, children are administered formal literacy assessment exams at grade three, six and eight. As well, the Nova Scotia Department of Education and Early Childhood Development (2016) has implemented a literacy strategy and states, "*we believe assessments in 2020 will show measurable success with students performing at or above the expectations in reading and writing*" (p.3). This returns to thinking conventionally about literacy with young learners rather than locating their active, situated affinities to text like those adopted by Leander and Boldt. This notion of following young learners' emergent relations to texts through movement and physical engagement with learning materials and seeing what matters to children is further evidenced in O'Donnell's work.

O'Donnell (2013) identified how problematic it has been for children and youth when educators predominantly focus on "performance indicators for behaviour change" and use a "skills-based" approach to measure and assess social competence (p.265). O'Donnell's (2013) argument to value and recognize children's subtle pedagogical relations in school, whereby "*some of the most significant moments in education can arise from chance occurrences*" warrants greater attention in Canadian and Australian school contexts (p. 266).

> *[The] simple act of noticing and seeing a sense of possibility in those unpredictable moments (kairos) that arise in classrooms, such as a gleam of insight or a frown crossing a student's face, better positions the teacher to help students to work through a genuine pedagogical encounter with a subject* (O'Donnell, 2013, p.267 emphasis in original).

O'Donnell (2013) attendance to children's potential shows us that we do not know what children and youth will form connections to; and therefore, we must remain open to the situational elements within pedagogical encounters.

> *Education requires a heterogeneous milieu, but what will create this heterogeneity cannot be prescribed in advance. The atmosphere of education supports (or destroys) the capacity to receive the unpredictable and to invite surprise, allowing us as teachers and students to undergo the event of a pedagogical encounter. Cultivating the disposition to welcome and take care of the singularity of the other helps to conserve such an atmosphere. As educational practitioners, part of our role is to prepare this invisible terrain in order to facilitate the possibility of an event or an encounter that will lead to transformation* (O'Donnell, 2013, p.281).

The transformative accounts highlighted in O'Donnell's work illuminates the importance of focusing on children's active movements and engagement with all matter. In Canadian and Australian contexts, a transformative recognition of children and youth with disabilities actions could signal a reworking of the special education model that currently places limits on how they

are known. The South Australian DECD Special Education Policy acknowledges the important influence of the learning environment stating, *"in seeking to provide for all children and students and in complying with the Standards DECD acknowledges that amongst other matters the degree to which a disability affects a child or student's learning depends on the learning environment and the child or student's ability to interact with that environment"* (DECD, 2014, p.4). We argue however that whilst policy discourse of making reasonable adjustments and interventions to provide access to learning environments, the focus should begin with the child and young people's movements and embodied experiences interconnected with matter.

In aiming to transform educational recognition of children and youth with disabilities, we turn now to explore the work of Reddington and Price (2016) who offer a productive example of new materialism in education. Their research applies Donna Haraway's (1991) readings of cyborg configurations to explore one young man with autism spectrum (AS) connections to cyborg imagery. In particular, their research demonstrates how a person with AS can successfully employ cyborg imagery to "rearticulate his social identity when experiencing school on the periphery" (p. 882). Through cyborg imagery, they demonstrate his intuitiveness to counter deficit thinking and utilize his material alliance with cyborg figures to disrupt his marginalized status in school. Specifically, the young man, Arthur, created a partial cyborg identity, named Silver Ninja Viper, as a mechanism to renegotiate his subjectivity in school. As a cyborg figure Arthur could perform "like a *ninja"* and act like a bit of a "*tough guy"* (p. 889, emphasis added).

> *Digital robotic voiceover software gives Arthur a space to assign lived qualities to his cyborg ninja, heightening his appeal to exist as partial cyborg. Arthur's cyborg writing similarly amplifies his capacity to exist in alternative ways which he activates across an 18 module [comic] series on ninja's life. Arthur working as partial cyborg, rewrite[s] his social trajectory via ninja [and] offers that social space to evade static configurations that previously deemed his body as marginalized, peripheral.* (p. 889)

Reddington and Price (2016) later highlight how Arthur's partial cyborg identity, Silver Ninja Viper, transformed into a blue Dodge Viper GTS. *"Arthur's cyborg performs like a Transformer with ninja moving at high speeds, battling forces both with real world (Earth) and fictional worlds"* ... *"thus, Silver Ninja Viper acting as lead, masculine hero provided Arthur with the opportunity to revitalize his social world"* (p. 889, 890). Reddington and Price's research is important as it shows how new materialism can destabilize universal notions of disability experience and envision the body as *"multiple, filled with diverse connections; not a bounded [medicalized] subject"* (p. 890). The works of Deleuze and Guattari (1987) in *A Thousand Plateaus: Capitalism and Schizophrenia (ATP)* also offer some productive conceptual tools to foster a new materialist pedagogical framework in schools. Their concept of rhizomes can pursue a line of thought in education that looks to extend and prioritize attendance to children and youth's infinite potential.

Deleuze and Guattari (1987) describe rhizomes as a type of plant spreading in multiple directions with no centralized root. "The rhizome operates by variation, expansion, conquest, capture, offshoots … the rhizome is acentered, non-hierarchical, nonsignifying system without a General and without and organizing memory or central automation" (Deleuze & Guattari, 1987, p. 21). Here, we suggest rhizomes mobilized as a conceptual tool support a new materialist

pedagogical approach as it allows for recognition of thinking through emergent relations, "any point of a rhizome can be connected to anything other, and ust be … this is very different from the tree or root, which plots a point, fixes an order (Deleuze & Guattari, 1987, p. 7).

Rhizomes can follow the movements bodies make outside conventional arrangements and contrasts functional knowledges or what Deleuze and Guattari call the arboreal system. Arboreal to mean the central functioning arrangements (i.e. rules, special education policies, authority figures) designed to code and maintain bodies to a specific order. A child with a disability through an arboreal system might be thought of as a body with special needs, a student adhered to special education mandates when attending public school in Canada and Australia. This is seen on the Ontario Ministry of Education (2000) website that initializes their description of special education.

> *Special education programs and services primarily consist of instruction and assessments that are different from those provided to the general student population. These may take the form of accommodations (such as specific teaching strategies, preferential seating, and assistive technology) and/or an educational program that is modified from the age-appropriate grade level expectations in a particular course or subject* (para. 1).

Here, we see how Ontario's special education programming follows a linear, arboreal configuration. Explicitly, outlining how these children experience school differently than their 'normative' peers and require functional evidence based strategies to perform in school. Similarly, in Australia, the Review of the Australian Disability Standards for Education (2015) reported "*the Standards establish minimum expectations, and do not articulate broader aspirations of social inclusion, achievement of individual potential or inclusive education. There is support for changes to "'raise the bar' in terms of the expectations of providers set within the Standards, and linking their function to broader objectives of social inclusion*" (pp. ii-iii). We argue such static conventional pedagogical approaches do not adequately address the complexity of individual experience. Alternatively, fostering new materialism as a form of pedagogy can support thinking through multiplicities and understanding better the wider dimensions of their lives. A body imagined through rhizomes is a multiplicity; not a subject of organization. That is, when thinking through multiplicities a body is not a static subject; rather, it is a production of affects and intensities (Reddington & Price, 2016; Reddington & Price, 2017; Reddington, 2017). As Lather (2000) explains, "*the space of knowledge has changed its contours*" thus requiring new approaches when [working with diverse] bodies in social contexts (p.303). As such, the mobilizing of new materialist understandings like thinking rhizomatically can decenter representational thinking and functional forms of knowing. It is thinking through middles rather than "looking down" on children where everything changes (Deleuze & Guattari,1987, p.23).

We turn now to expand educators thinking on ways to ignite a new materialist pedagogical approach. In particular, we give examples of how enacting connections to non-human things can inform and capture new understandings on how children and youth with disabilities experience school. We draw on Reddington and Price (2017), Price (2016) and Reddington's (2014) recent work to show the relevance of focusing on children and youth's relations to matter. This introduction to pedagogical methods that embody a new materialism framework are intended to ignite discussion and thought amongst educators and practitioners on ways to increasingly apply new materialism as a form of pedagogy to support diverse learners.

Conceptualizing New Materialism

We begin with Reddington's (2014) doctoral research where she invited young men with autism spectrum (AS), ages 18 to 40 years, to visually map their connections to school having attended public school in Nova Scotia, Canada. By means of two face to face semi-structured interviews, Reddington sought the young men's responses in relation to their experiences with structured arrangements, peer relations and their use of school spaces. The participants in the study self-identified as young men with autism who had experienced school under the Nova Scotia Special Education Policy (SEPM) (Nova Scotia Department of Education and Culture, SEPM, 1996). Participants also described to the researcher how they occupied various school sites, such as: regular classroom settings, resource rooms, and separate learning center environments. The learning center and resource rooms in Nova Scotia schools is a form of support under the special education policy designed to assist students with special needs where children and youth with disabilities receive separate individual programming. When learning about the young men's use of school spaces visual mapping was used. The concept of visually mapping involved inviting participants to emergently draw their uses of school spaces on 8 x 11 paper with the use of colored markers. Many of the young men responded to this activity and were eager to show 'on paper' their relational kinship to school sites.

For example, one twenty-two-year-old man with AS indicated how he used to do laps of the hallways to escape what he called the confines of the learning center (See Reddington & Price, 2017). His capacity to use movement (doing laps of the hallway) to disrupt his static medicalized position, a body with special needs, in the remedial environment indicates the potential he possessed to find new trajectories. It is through the act of visually mapping his use of school spaces that produced new embodied knowledge on his experiences in school. Through applying a new materialist approach of mapping his connections to non-human things, Reddington learned the agency he possessed to change his trajectory to suit his interests. Another participant similarly drew a map of a vacant classroom and showed how he secured this space during noon time to avoid unwelcoming entanglements with dominant peers (See Figure 1.0). The young man's active movement to occupy the vacant room reveals his capacity to resist conventional forms of movement and *"attempt to imagine outside them"* (Youdell, 2011, p. 27). In this study, by allowing the participants to visually map their movements in school spaces shows us how bodies flow through school spaces in meaningful ways and how educational sites are not passive entities.
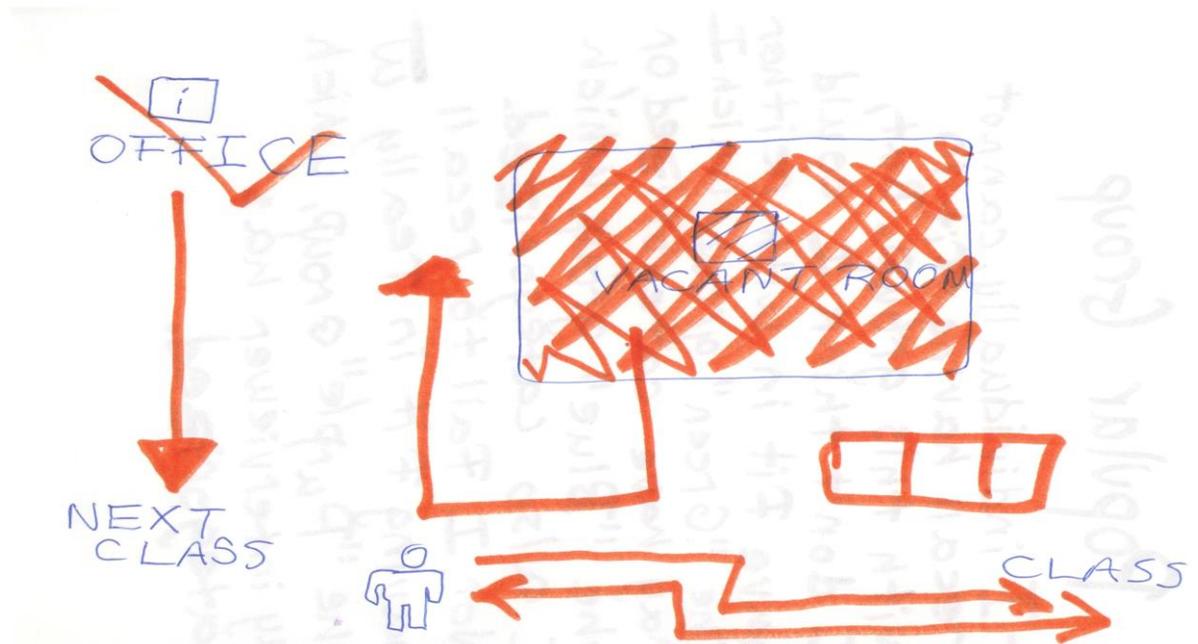
Figure 1.0 Arthur's Vacant Room

This new materialist work evidences the relevance of inquiring more about children and youth's active engagement and movements across the educational terrain. We suggest mapping activities can take a multiplicity of forms such as: physically drawing their journey on paper, photographing use of spaces, or alternatively walking the site with children and actively video recording their engagements. Other elements might involve mapping their movements relative to peers. To consider: Where do they like to go? What is at stake for children and youth with disabilities when moving across the educational terrain? This focus on movement ignites a mediated space for learning to occur. With this, it invites educators and practitioners to find opportunities to support their affective desires and facilitate more welcoming spaces for children with disabilities to learn.

This is seen in Price's (2016) recent work where she mobilized digital photography to gain alternative knowledge on thirty-seven students with disabilities aged 13-19 years experiences of educational places and spaces. In responding to the question 'What is important to me?' student images depicted interactions with significant people (i.e. peers and staff) moving across multiple contexts both within the special education site and local community. Space and places which provided safe opportunities to interact, demonstrate capabilities and foster learning and independence were deemed most important. For example, community access programs mobilized interactions and connection to space and place through work experience, cycling program, community café hospitality training and independent living skills activities. Significantly for those students involved in the school community café (See Figure 2.0), they built trusting relationships with peers, staff and community whilst acquiring skills in hospitality to mobilize as they transition from school to society. Price creatively shows the importance of matter in the young lives and how such affinities to non-human things and activities can transform their personal relationships in meaningful ways.

Figure 2. School Community Cafe

When looking further at new materialist approaches, we also see the importance of acknowledging young people's personal relationship to objects, fictional characters, stuffed animals, pets, virtual worlds, and other aesthetics as seen in Reddington's doctoral research. To ask: Is there a certain object the child is drawn to? Do children with disabilities have an affinity for fictional mediums or virtual worlds? For example, Reddington (2014) showed the importance of using artefacts to support the understanding of young people with disabilities connections to all things. As part of her methodology, she invited participants to share artefacts from their schooling (photographs, yearbooks, pictures, drawings and keepsakes). One participant, a with him. After filtering through several of his art pieces he gave Reddington this drawing titled, "Me

in School" for her project. (See Figure 3.0).

Figure 3."Me in School"

This 22 years old man, showed Reddington the affective connection he made to strong hero like characters seen in action films and later showed this through a series of drawings he carried

The participant expressed how he wanted to emulate this particular character, stating he liked him as he was '*tough and unbeatable*'. What unfolds through inviting the young men to bring in artefacts is an alternative understanding of how students with AS think about their subjectivity. It is through the use of artefacts that offered these new insights. This is evidenced again when a twenty-one-year old participant, Wes, expressed how art was a large part of his identity and asked at the onset if he could show Reddington a piece of his art. He uploaded onto Reddington's computer an image of a ceramic bowl. The bowl was a project Wes had constructed in school, and designed to be a '*representation of his identity*'. Together, glancing at the image Wes explained its characteristics and imparted that the lid signified his '*introverted*' nature, and then signaled for Reddington to look at the sharp points protruding from the sides of the bowl. He explained that the points were added to reinforce the idea of '*keeping people at a distance*'. Wes' bowl also had two sculpted handles intended to look like bones to embrace his feelings of 'touching bone', 'organic' and 'intimate'. The bowl, a symbol of Wes' identity, presented an initial means for Wes to share his identity through his interplay with art and matter.

By allowing children and youth to share artefacts, to visually map their use of school spaces and emergently draw their affective bond to non-human things can assist practitioners and educators in knowing more about what is important in children and youth's everyday schooling experiences. In other words, by attending to the wider dimensions of their lives, by applying new materialist approaches, we can learn beyond functional, special education paradigms. To ask: Do children actively work to maintain certain relations to things? How might thinking about children and youth with disabilities emergent relatedness to all things expand our knowing about their lives in school? This follows Deleuze and Guattari (1987) where bodies are thought about through movement, vitality and possibilities. The exploration in this section is intended to support educators in being responsive to the engagement of children and youth with disabilities in school and to nurture their capacities to be active in their learning. It is through a new materialist pedagogical approach that we can begin to decenter special education models in Canadian and Australian schools and advance towards a space where alterity and variation is prioritized.

Conclusion:

A new materialist pedagogical approach to education can pursue the transient nature of children and youth's lives. That is, new materialism as a form of pedagogy can signal a reworking of conventional pedagogies like special education models that place limits on how children and youth with disabilities are known in school. Distinctly, it invites individuals in the fields of education and child and youth study to increasingly consider what other possibilities might exist for children and youth with disabilities when attention is given to their lives in moments. This is crucial as children who feel disempowered, marginalized can become oppressed (Freire, 1996). Therefore, the material turn in schools is a welcoming pedagogical framework that places the material body, the emergent learner, as the central concern.

We must therefore seek opportunities for more liberating pedagogies and present new ways for children to engage in school and resist dominant special education models bound by

curricula. As Cannella (2005) reminds us, "the possibilities for supporting diverse knowledges, facilitating new actions and practices, and fostering various ways of living/being with and learning from each other are limitless" (p.19). In addition, there is a requirement to follow closely the entanglements each child makes with both human and nonhuman things and acknowledge the subjectivity of our learners. A space where identity is not fixed, but rather fluid and where educators create conditions that empower children to participate.

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