# Biomedical Approaches to Literacy: Two Curriculum Teachers Challenge the Treatment of Dis/Ability in Contemporary Early Literacy Education

We inhabit a liminal space. We are literacy educators and researchers who choose to operate from the field of curriculum studies,<sup>1</sup> because like Kieran Egan (2003), we appreciate being able to answer teaching and learning questions through the methodologies that the educational circumstances in question demand as opposed to importing the methodologies of "psychology or philosophy or sociology or whatever" (p. 18). We accept the confusion that can arise from working within a generative model of methodology,<sup>2</sup> but we see this confusion as the necessary product of responding to problems-at-hand and of keeping open our ways of being, seeing, and doing. Also, because we take what it means to be literate as situational and the practices of literacy as being dependent upon a sophisticated combination of physical, cognitive, affective, and discursive factors, a generative model is a way of respecting the complexity and indeterminateness of literacy teaching and learning. We do not, however, solely belong to curriculum studies, for the children who most intrigue us are those who struggle with their inschool literacy, and curriculum studies does not typically address the issues of these children. Instead, such children are frequently identified as "disabled students" and in need of special education services (Lipson & Wixson, 2003, pp. 16-19). We are therefore caught in the threshold between curriculum studies and special education, and it is from this location that we are examining the state of Canadian literacy education and research and its effects on children.

Our purpose in this paper is to forward a critical appraisal of the ways in which disability is produced and practiced in early school literacy curricula. To that end, we briefly show the state of dis/ability in curriculum studies and then present two approaches to literacy curricula: the *psychological approach to reading* and the *socio-cultural approach to literacies*, which until

very recently have been dominant and have cleanly split school children and their curricula along the lines of dis/ability. Next, we illustrate and analyze what we term, the *biomedical approach*, a hegemonic innovation in literacy education and research. We demonstrate how the biomedical approach, when combined with particular educational policies, disables entire school populations and inflicts upon them reductionistic literacy curricula. Finally, we argue for theoretically rich literacy curricula with an asset-oriented definition of literacy.

#### **Dis/Ability**

The curriculum studies literature has been almost silent on special education's claim on disabled students, these children's curricula, and issues of how ability and disability are constituted. Though Bernadette Baker (2002a) says that the disability studies literature has made in-roads into curriculum studies, when we first read her assertion, experience suggested to us that she was being overly optimistic. In the hopes of finding out we were wrong, we conducted a content analysis of ten years of issues of four prominent, peer-reviewed, international curriculum studies journals. We found that after examining all articles to determine if they considered the relationship between special education and curriculum, the ways in which ability and disability are constructed, or if they dealt with children who had been deemed disabled students, disappointingly, we were right. Over the span of a decade, the journals merely included between one and five articles that directly and/or peripherally referred to issues of dis/ability or to curriculum for disabled students.

The exclusion of dis/ability in curriculum journals has meant that there are limited spaces in education that question what it means to be able or disabled, or that question the curricula of disabled students. Yes, curriculum studies, with its attention to Reconceptualist theorizing, has a fairly strong record of considering educational equity; however, it has primarily been in reference to race, class, and gender. Baker (2002a) posits that the disability studies literature challenges this attention to race, class, and gender by arguing that its emphasis in Reconceptualist theorizing "has been part of the blockage to considering the fundamentality of dis/ability to stratification, to even recognizing what or who is a 'human' who can be referred to as raced, gendered, sexed and so on" (p. 49). While we are not sure that the emphasis on race, class, and gender has been *the* impediment to considerations of dis/ability, we do not believe that this line of theorizing can get very far without the inclusion of dis/ability. How can what to teach or how to teach even be discussed if there has not been an open address of who are taken to be students? Consequently, questions of dis/ability are pre-requisites for all educational conversations.

This paper is informed by critical perspectives on dis/ability and literacy. We use dis/ability in Baker's (2002a) terms where the "'dis' cannot be separated from assertions of what counts as 'able'" (p. 48) and where before dis/ability can be an educational issue, it must first be an "ontological" one (Baker, 2002b, p. 663). In our use of the term disabled, we are cognizant that what constitutes disability is context-specific-the degree to which is difficult to ascertain. Encarna Rodriguez's (1999) distinction between "normative" and "non-normative" categories of disabilities (p. 398) is a way of thinking about how this is possible. Rodriguez says that normative disabilities are those that "even if the category opened to debate, would bring some normative agreement between professionals and non-professionals" (p. 398) that a disability is present. Examples include "deafness, blindness, or severe mental disabilities" (p. 398). In contrast, non-normative disabilities are "those that are open to interpretation in light of their social, historical, and political circumstances" (p. 398); examples include "feeble-mindedness, maladjustment, and learning disabilities" (p. 398). Crucially, Baker (2002a) problematizes even

normative categories of disability by saying, for example, that Deaf culture sees deafness and hearingness not as "audiological conditions but epistemological constructs" (p. 47). We therefore acknowledge disability as a signifier whose signification is contingent upon who is using it, the time and place in which it is being used, and what is being signified. We are careful to note, however, that contextualizing and troubling dis/ability should not be an erasure of disability. There are social and political circumstances in which the recognition of disability is very important, and disability as it has been constructed within disability studies, unlike how it has been constructed in the curriculum studies/special education split, does not denote pathology. Paramount is a consideration of ableism (i.e., the notion that it is most desirable to be physically, psychologically, and cognitively the "same" as the majority of the population) as it is manifest in education.

## Psychological Reading, Socio-Cultural Literacies and the Birth of Biomedical Literacy

Until the advent of the biomedical approach to literacy, two other approaches formed the educational terrain. Colin Lankshear and Michele Knobel (2003) in their treatment of the rise of the term literacy, explain that prior to about 30 years ago, language education and research was dominated by a well-established field of "reading" (p. 3), which was the domain of psychology and built on instrumental theories whose goals were to allow for a degree of control and prediction (Habermas, 1972, p. 308). Reading, that was seen as "primarily a perceptual activity centred on sound/symbol relationships" (Gillen & Hall, 2003, p. 4), involved a technology of instruction for decoding and sometimes encoding text. This technology was characterized by a rigid, sequenced, hierarchical presentation of isolated bits of language, and mastery of these bits was believed to be necessary *before* students could derive meaning from text. There was an absolute distinction between "being a reader and not being a reader" (p. 4), and reading could

only be taught in schools. Four basic assumptions underlined this behaviouristic approach to reading:

- Children's agency was insignificant.
- Children could learn nothing for themselves.
- Children were objects to be manipulated by teachers.
- Reading and writing were individual acts involving sets of discrete perceptual skills. (p. 4)

The diagnosis and correction of reading difficulties could thus be made by measuring and addressing these discrete perceptual skills.

Lankshear and Knobel (2003) claim that particular influences created widespread growth of the idea that reading should be conceptualized within a broader notion of literacy. One influence discussed was the work of Paulo Freire, which contributed the understanding that to be literate, in addition to decoding words, one needed also to see how these words operated in the world. Being able to "read the word and the world" (p. 5) was a critically-oriented project with potential to lead to emancipation and social transformation. Another was a body of work based on social science approaches to literacy which argued the necessity of seeing reading and writing as practices within larger socio-cultural frames (pp. 6-7). This work was aligned with theories whose goals were to explain specific phenomena (Habermas, 1972, p. 309). The collective influences of these approaches to literacy coalesced in the following understandings:

- Children's agency is significant and will affect curriculum.
- Children learn amongst themselves and with the support of more knowledgeable others.
- Children are subjects with whom teachers need to negotiate.

 Reading and writing are situated practices involving a complexity of physical, cognitive, affective, and discursive factors.

These ideas set the groundwork for other theories (e.g., postcolonial, semiotic, and feminist) to enter the field and turn literacy into literac*ies*. The pluralization of literacy comes, in part, from the perspective that interpreting and/or generating meaning through sign systems, including those which are not alphabetic, are all forms of literacy (Short, Kauffman, & Kahn, 2000, p. 169). Certain sign systems and languages, however, are privileged over others within certain contexts; thus, being literate necessitates an awareness of and ability to negotiate through these power dynamics. Literacy difficulties could therefore be perceived as resulting from any or all of a complicated web of factors ranging from the physical to the discursive. An example of a discursive difficulty would be a mismatch between a child's home and school literacies. From this vantage, literacy gains are contingent on the curriculum's address of all relevant factors.

Socio-cultural and pluralized approaches to literacy arose in a time when the literacy demands of most nations had never been greater. Yet, while the use of the term literacy became ubiquitous, it did not, however, always signal a change in practice from what had been done in the name of reading (Lankshear & Knobel, 2003, p. 8), and the reading/literacies approaches to literacy continued to exist along the disabled/abled student divide. Some argue that behaviouristic models of reading live-on even today in special education (Gillen & Hall, 2003, p. 4), which is itself heavily influenced by psychology and the medical model. Recently, however, a new approach to literacy has emerged.

The biomedical approach to literacy is a retooling of psychological reading with its insistence on behavioural, prescriptive curricula, and literacy as perceptually-based decoding, but with two added foci: the new phonics, "a combined emphasis on phonemic awareness, explicit synthetic phonics instruction, and decodable text" (Pearson, 2001, p. 78), and the brain as an independent entity for scrutiny. In this approach, the shape of early literacy curricula and literacy difficulties are problems to be worked out through biomedical science by "scientists." Difficulties in learning to read are seen as most probably the result of a genetic "brain glitch" which negatively interferes with, for instance, phonemic awareness (Coles, 2003, p. 168), and research into reading is conducted through biomedical technology such as MRI scans and audiological and sight measures. Curricula and interventions designed by this approach focus almost entirely on enhancing brain development and in so doing, ignore the affective and discursive elements of literacy. Significantly with the biomedical approach, not only are disabled students relegated to reductionistic forms of literacy which operate from a deficitperspective, but entire schools are pathologized and "disabled." The following story demonstrates this phenomenon and its effects on one school's<sup>3</sup> early years literacy curriculum.

#### A School's Story

Elmwood Public School<sup>1</sup> is located in Ontario in the centre of one of Canada's largest cities. The building itself is old and in need of repairs and renovations. It is not uncommon to find a maintenance van in the parking lot of the school on a call to "patch-up" yet another problem. As you walk through the school, despite a couple of new teacher-made murals, the cinder-block walls and lack of windows and bulletin boards on which to display children's work make everything seem grey and gloomy. The school is surrounded by a string of strip malls, one-story, pre-war homes, and apartment buildings. The socio-economic status of most of the families in the community is working class or working poor and is generally considered 'disadvantaged.' A couple of years ago, the school district began busing to the school a substantial number of children from one of the poorest and least-serviced housing complexes in the city. The school district made this change with no consultation with the children's families or Elmwood teachers, and they did not transfer necessary resources with the children (e.g., furniture, books, educational assistants, ESL support, or funds for translators).

Elmwood had been almost exclusively made up of Canadian-born children, but at the time of the research, immigrant children comprised nearly 40% of the schools' population. These children came from various parts of the world, most notably the Middle East and Eastern Europe. The school population is transient for several reasons. New immigrants initially settle in the bused area and then move away throughout the year when opportunities arise. Other families leave for economic reasons or the need for a quick change in residence. It is not uncommon for parents to show up at the school and remove their children without warning. Likewise, it is not uncommon for children to move into the school at various times throughout the year. This movement is true of immigrant and non-immigrant children.

The transient nature of the school is not just reserved to its students and parents. There is a high degree of administrative and teacher turnover. Consequently, many inexperienced and newly qualified faculty are placed at the school. In the years we worked at Elmwood, the largely Canadian born, middle-class teaching staff was hyper aware and weary of the strains they felt were placed upon them and the school. Teachers attributed their students' "lack" of early literacy skills as measured by standardized curricula and assessment to an absence of at-home "literacy experiences." They cited parents' low socio-economic status, low level of English proficiency, and low motivation as reasons why the children were not exposed to literacy in their homes. Teachers did not discuss multiple forms of literacy and generally characterized their students as "behind." A series of assessments further cemented this belief.

Elmwood's overall achievement on provincial tests of literacy designated it a "compensatory school." While these poor scores did qualify Elmwood for resources that it would not have otherwise received, these resources only served to focus even further on the children's weaknesses. For instance, one of these resources was the purchasing of speech and language pathologist time. This time was spent administering a phonemic awareness screening to every child in senior Kindergarten, which resulted in more poor scores. Also, its compensatory label provided Elmwood with professional in-service on "teaching with the brain in mind" and a proliferation of literature from the district regarding brain and phonemic awareness development. This information reinforced the idea that the children's lack of stimulation at home resulted in a physical delay that showed itself through poor literacy performance. Furthermore, around this time, the district also implemented the Developmental Reading Assessment (Beaver, 2001a) in the early years to measure and label students' reading achievement. The DRA places students at a level starting with A as the base and then proceeds from 1 upwards. The assessment tool then charts what grade and time of year a student should be expected to reach each level; for example, by May to June of senior Kindergarten, "normallyachieving" students should be at levels 1 or 2 (Beaver, 2001b, p. 41). Many Elmwood early years students were unable to achieve a level A. To define these students, school district personnel thus invented "level Z," and they claimed that it corresponded to a statistical "ground

zero." No criteria were put in place to measure or account for early or emergent reading behaviours.

Though the DRA follows in the tradition of psychological approaches to literacy (i.e., with its attention to "normal" development), its effects were taken up by the biomedical approach; for example, given the DRA results and the other deficit-driven forms of data, many teachers felt great pressure to improve their students' performance. Grade 1 teachers called several meetings with the Kindergarten teachers and administration to push for instructional remedies. Elmwood's labeled status already gave it resources such as speech and language pathology time for phonemic awareness therapy, Educational Assistant time to administer phonemic awareness programs to students, resource teacher time to administer a scripted synthetic phonics program, and an early literacy teacher who worked with support personnel to monitor and help deliver the school district's literacy mandates. Regardless of these resources, the meetings headed by the Grade 1 teachers resulted in additional phonemic awareness and phonics-intensive instruction for all children in junior and senior Kindergarten in the form of "literacy group" sessions headed by the early literacy teacher. The belief was that the sessions would address the students' deficits so that by the time the children left Kindergarten, they would be better prepared to meet the Grade 1 curricular expectations.

The district's remedies and the literacy group sessions curtailed children's engagement with other types of literacy learning opportunities. The latter, in addition to the types of assessments and evaluations Kindergarten teachers were now required to complete for their students, frustrated the teachers. One Kindergarten teacher was especially cognizant of and increasingly vocal about the ways these new steps constrained her program, affected the quality of her interactions with her students, and ultimately affected the learning that occurred within her classroom. She explained, for example, that the assessment tools measured discrete skills directly related to expectations in the curriculum. Consequently, rather than facilitating and extending other forms of early literacy learning, she now had to determine her students' abilities to perform discrete skills almost to the exclusion of everything else. The shifts were even reflected in the physical layout of her classroom. A great deal of space was now devoted to pencil and paper tasks, leaving less room for centres. In Grade 1 this approach to literacy continued with increasing urgency, as the received knowledge from the biomedical approach to literacy stressed that early intervention was *the* opportunity to correct literacy disabilities. An off-shoot of this thinking was that specific students who were deemed even lower achieving than the school average were withdrawn for more intensive phonemic awareness and phonics instruction, and those who did not show expected gains (even those who were ESL) were referred for psychological testing.

## **Analyzing A School's Story**

Prior to the biomedical approach to literacy, students were problematically divided between able and disabled along general/special education lines. Now, entire school populations like Elmwood's are rendered disabled, and their treatment shares much in common with special education. Thomas Skrtic identifies (1995) four tenets of special education that, when modified, equally address the assumptions of the biomedical approach to literacy:

- [Literacy] disability is a pathological condition.
- Differential diagnosis is objective and useful.
- [Biomedical literacy] is a rationally conceived and coordinated system of services that benefits diagnosed students.

• Progress in [biomedical literacy] is a rational-technical process of incremental

improvements in conventional diagnostic and instructional practices. (p. 75) All of the above can be seen in the Elmwood example, and what is most disturbing is how the biomedical approach at Elmwood shut out other approaches to early literacy curricula and operated without a critical understanding of its own operations and constructions.

At Elmwood, the biomedical approach was the *only* approach to early literacy curricula. This approach meant that children were perceived and treated through reductionist means. For instance, children were deemed abnormal through their performance on criterion- and normreferenced assessments, which did not take into consideration their socio-cultural and linguistic backgrounds. They were subsequently pathologized and seen, for their own good, as in need of labeling (e.g., DRA level Z and psychological diagnoses). This labeling ensured that the children received literacy curricula with origins in clinical biomedical research. For example, the idea that phonological processing is *the* most important element in the process of reading and that phonemic awareness is the predictor of literacy achievement, is derived from the United States National Institute of Child Health and Human Development (NICHD) brain research which was entirely conducted in a research lab and through the use of brain-imaging technology (Coles, 2003). Labs are not classrooms. Classrooms are "dynamic social space[s]" (Gillen & Hall, 2003, p. 7) where teaching and learning are not a simple transfer of knowledge or skill. Socio-cultural research into literacy curricula, for instance, has demonstrated that children's perceptions of their roles and identities vis-a-vis the classroom and literacy will greatly affect their achievement and learning (pp. 7-8). Indeed, learning a new language, as many children at Elmwood were, necessitates coming to see one's self and one's world in different ways, and the construction of a new, hybrid self cannot be achieved without loss. This sense of loss will affect

curriculum and achievement. Early literacy learning is thus not just about "getting the mechanics right," as the biomedical approach proposes. This focus on the individual as a site of pathology and the omission of the myriad of factors that mediate, say, a child's literacy achievement, is characteristic of psychology (Goodnow, 1995, p. 306), one of the origins of the biomedical approach. Such a focus and the ideologies that underpin it must be interrogated if the biomedical approach can make any substantive contribution to children's early literacy development.

This interrogation is unlikely to occur without a fundamental paradigm shift. Like special education, the biomedical approach to literacy as it was implemented at Elmwood was characterized by "naive pragmatism," that is, a willingness to entertain only criticism that related to the "practical" (e.g., debates around "models, practices, and tools") (Skrtic, 1995, p. 76). With the biomedical approach's focus always on the individual and 'how' to teach, there was never a looking beneath the tools to ascertain 'what' was being taught. This analysis included what forms of literacy and understandings of children and their families were being perpetuated. For instance, at Elmwood, the blame for literacy disability was directed towards children's brains, parents' poor parenting, and the need for specific forms of curricula. There were numerous 'official' steps to monitor students' performance (e.g., provincial assessment, phonemic awareness screenings, and DRA) and curricula (e.g., standardized curricula and an early literacy teacher), but there was little consideration of how these measures, as well as other school district decisions, created or exacerbated students' difficulties.

Elmwood's early years students' literacy performance may not have been so compromised if the school district had taken responsibility for the difficult position in which they had placed the children and worked from an asset-oriented and theoretically rich approach to literacy. This approach would have entailed addressing the bused-in children's feelings of displacement and alienation when they were ejected from their 'home' school (which was located across the street from their housing complex) and sent kilometres away to a host school that was not prepared for them; dealing with Elmwood's original population and their feelings of being pushed out of a space that had always been theirs; providing necessary resources for carrying out the work of educating a splintered and challenging population (e.g., culturally sensitive texts, appropriate toys and furniture for young children, ESL support, translators to assist with parent/school communication, and a team to aid with the transition to becoming a new, integrated school population); and implementing a curriculum which included the affective and discursive aspects of literacy learning. Consideration of these aspects would have meant that who the children were, what they knew, as well as their own forms of early literacy, would have been used as resources in the classroom and addressed directly. The children could then have been seen for more than their bodies. To accomplish the latter, parents would have needed to be seen as curricular informants and invited into conceptualizing classroom activity.

## **Connecting the Elmwood Story to Its Socio-Political Context**

The Elmwood story is no accident. To say that the history of literacy education has been defined by debates (e.g., whole language, phonics, and the basal reader) (Flippo, 2001a) is perhaps putting it mildly; Frank Smith (2003) contends that, "one has to turn to religious fundamentalism to find another issue that arouses such bitter controversy" (p. viii). While the feuds in the field have been narrowly focussed on method (Luke, 1998), there were at least opportunities for the possible heterogeneity and problematizing of theories, practices, and definitions of literacy. Today, fewer such opportunities exist. It seems that the biomedical approach to literacy is the only voice being heeded by many literacy policy-makers, educators,

and those who fund research. This narrow conception of children, literacy, research, and curricula ironically comes at a time when reductionism has been greatly problematized, definitions of literacy have multiplied to highlight the social, and the need for complex literacies has become unprecedented. Disappointingly, now any position that does not stem from instrumental science is disregarded by the establishment as baseless (see Garan, 2002; Taylor, 1998).

One way that those who tout the biomedical approach silence dissent is by asserting that the theory upon which it is based is the *only* means of coming to know anything. Diane McGuinness's (1999) work is a prime example. She claims that discussions of 'best' practices in reading instruction could only go on prior to the recent "scientific revolution" (p. xiii), and subsequently, anything outside of this version of science should be disregarded outright. On this point she says,

True scientific research on literacy only began about twenty-five years ago. What this means is that every "theory" or "model" or "method" of teaching reading, past or present, has been based either on human reason alone, or on empty theorizing or "fads," rather than on solid scientific research. (p. xiii)

Unfortunately, McGuinness is not a lone voice. The biomedical approach is prevalent and has massive implications for early literacy education and research.

An implication is the proliferation of new phonics in public educational policy. Educators and researchers in Canada are watching the United States example closely for its influence. Following the NICHD's establishment of the National Reading Panel, the U.S. federal government jumped on the new phonics bandwagon and enacted The Reading Excellence Act. The Act became law in 1998 and restricts local decision-making by offering federal funding only to institutions whose instructional practices are backed by "scientifically based reading research" (Allington, 2001, p. 12). Rather than fighting this loss of autonomy, some U.S. state governments (e.g., North Carolina, Ohio, California, and Texas) have accepted this mono-approach and reinforced it by creating their own laws that necessitate the use of new phonics. They have then enforced these laws through the use of high-stakes standardized testing and punitive funding policies (Flippo, 2001b, pp. 182-183; Garan, Shanahan, & Henkin, 2001; Lemann, 2002; Lipson & Wixson, 2003; Meyer, 2002; Ogle & Farstrup, 2002).

A second implication involves the stress on instrumental science and the exclusion of voices from 'other' paradigms in literacy research and curriculum (e.g., curriculum studies). For example, in Ontario, the most influential and large-scale studies and projects concerning education and literacy, are headed by medical doctors; these include the *Ontario Early Years Study* (McCain & Mustard, 1999) and the *Promoting Early Intervention of Learning Disabilities* project (Learning Disabilities Association of Ontario, n.d.).

Biomedical research *is* a component in understanding literacies, and our descriptions of the factors that must be considered in literacy development *do* include the physical and cognitive. What is problematic is that the biomedical approach to literacy favours these factors to the extent that other factors are absent or marginalized. Consistent with our definition of literacy, reading, one aspect of literacy, is not just about unlocking a code, but about making meaning from a printed message. This situated practice can evoke emotion, memory, and evaluations that affect the reader's sense of self, others, and the world. Thus, reading "is best regarded as something done by people rather than by brains. To say the brain 'looks,' 'thinks,' or 'remembers' is about as appropriate as saying that the stomach enjoys a good meal (Smith, 2003, p. 11). To fully consider reading and by extension, literacy, researchers and educators

must juxtapose findings from socio-cultural, psychological, and biomedical research. Juxtaposition is not a conflation of approaches, but an examination of what each has to offer (Heydon, in press), a critical appraisal of each approach's theoretical underpinnings and the ways in which they construct ability and disability. In this juxtaposition, there must also be an attention to the power differentials between approaches and an active resistance of any form of hegemony.

A hierarchical approach to literacy policy and research, which shuts out diverse paradigms from *decision-making* as well as *knowledge production* as in the biomedical approach in the Elmwood case, has a number of negative impacts. Chiefly, it de-professionalizes teachers, reduces the potentially helpful contributions to knowledge that come from research outside of instrumentalism, belies the individual strengths and needs of literacy learners, pathologizes these children, and diverts attention from the plethora of linguistic, cultural, social, economic, and political factors that greatly influence students' literacy achievement. These impediments to community building and to the generation of new knowledge and practice could directly benefit children–particularly those who struggle with their in-school literacy.

## Conclusion

The children of Elmwood received a mono-theoretical literacy curriculum. When one theory is exclusively employed, only the goals of that theory can be achieved. Thus, for Elmwood students there was no potential for emancipation or explanation. Additionally, when only the brain is addressed, other crucial factors in literacy development (e.g., discursive and affective) cannot be acted upon. Despite the "bad news" story that we have told here, we are hopeful. Specifically, we believe that ameliorative change in literacy education and research can come through a concerted "pushing-back" against the mono-approach. In part, this push has to happen by a variety of disciplines starting to write about and conduct research into students who have been deemed disabled. There must be a refusal to allow only those who take a medical model approach to disability to own children who are seen not to be achieving in school. When curriculum studies, for example, begins to take an interest in such students and their literacy development, it is more likely that these children will be de-pathologized. Because pathologization is so intertwined with instrumentalism and the "othering" of those who are pathologized (i.e., seeing them as an object to be learned about and done unto), de-pathologizing children could lead to more theoretical goals being achieved. It is also a show of respect for their backgrounds, agency, knowledge, and literacies.

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# Notes

<sup>1.</sup> We understand that there is no universal definition of curriculum studies. We use the term to refer to the body of scholarship that predominantly interrogates issues of what to teach and how to teach (Egan, 1978) from socio-cultural and historical perspectives. Throughout the paper, when we refer to curriculum, we are therefore referring to what is being taught as well as how it is being taught (what is often referred to as "pedagogy").

<sup>2.</sup>Importantly, as Egan identifies, the specific methodologies used within curriculum studies are still being created as the field is not yet even fifty years old.

<sup>3.</sup> This story is constructed from data derived from our work at the school during the early 2000s. One of us worked at the school as a special education resource teacher, the other conducted research at the school in several of its early years classrooms.

<sup>&</sup>lt;sup>4.</sup> This is a pseudonym.