

Dyslexics 'Knowing How' to challenge 'Lexism'

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Abstract

In this chapter we argue that historic conceptual confusion between 'knowing how' and 'knowing that' (Ryle, 1949) has helped construct dyslexia as a literacy difficulty. Normative literacy practices, which we call Lexism, have compounded the difficulty. We suggest that social media contribute to changing conceptions of 'what counts' as literacy and promote reconsideration of the deficit discourse in relation to dyslexia and literacy.

Introduction:

Lexism (Collinson, 2012, 2014) is alternative conceptualisation of what defines dyslexics. Much as ableism and racism entail prejudice against specific culturally-constructed groups, Lexism is the Othering of, and discrimination against, dyslexics. Lexism is the result of normative attitudes and beliefs of literacy: that literacy should only be 'done' a certain way. We use the new concept of Lexism to reassess some assumptions around literacy and dyslexia, and then to examine the way social media can act as enabling technologies which unsettle these normative assumptions. Drawing on a study of the digitally mediated social network Facebook, we argue that, under the right conditions, social media can provide spaces for dyslexics¹ to contest

¹ We recognise that some are uncomfortable with the label "dyslexic". There is no nomenclature which pleases all parties. One of the authors, Craig, is dyslexic himself and refuses to be labelled "a

dominant literacy ideology, whilst engaged in active, critical learning about and through multiple literacies. Craig (Collinson, 2012) has argued that it is normative practices and assumptions associated with literacy (Lexism) that define dyslexics, rather than a psycho-medical impairment (dyslexia). This new way of conceptualising how dyslexics are defined creates new means of questioning existing discourses. Owen (Barden, 2012, 2014a) has argued that dyslexics can access and evidence knowledge in multimodal forms, via social media, which challenge traditional, restricted models of literacy. Our question is the extent to which Facebook provides opportunities for dyslexics to challenge Lexism or bypass its normative assumptions. We recognise that social media can be disabling as well as enabling (Ellis & Kent, 2011; Hollier 2012). Lewthwaite (2011) highlights attitudinal barriers - including scrutiny from others and the consequent perceived need to present and maintain a normative identity - which Merchant (2012) agrees may entrench rather than rebalance social inequalities and divisions in educational settings. But we give one example of a classroom-based project which precipitated authentic learning about and through literacy and which we believe could be replicated by other teachers or researchers in contexts similar to the one we describe.

The chapter begins by noting key features of our approach to 'dyslexia'. We then introduce the concept of Lexism to illustrate the ways in which our text-rich society has constructed and maintained dyslexia as a disability. We go on to argue that a social model of literacy, together with the emergence of new literacy practices which are frequently socio-technologically mediated, prompt reconsideration of the

person with dyslexia". Our position is that we accept the existence of "dyslexics" - those people Othered by Lexism - but question "dyslexia" as an explanation of perceived literacy difficulties

relationship between dyslexia, literacy and learning. To do so, we draw on the philosopher Gilbert Ryle's classic (1949) work *The Concept of Mind* and his observations on the distinction between propositional knowledge (which includes literacy) and other ways we might define intelligence, and the importance of not confusing or conflating the two. Ryle calls this distinction "Knowing How and Knowing That." We show how this work both enables us to unpick dominant conceptualisations of literacy (and hence what underpins Lexist attitudes), and helps illustrate the shifting emphasis on procedural over declarative knowledge which some attribute to the expansion of Web 2.0 technologies (Dede 2008, Kress 2010, Lankshear & Knobel, 2003). We contend that deficit models of dyslexia and literacy can be explained through conceptual confusion between the "knowing how" and "knowing that" of literacy, meaning that too often educators focus on the technicalities of literacy and correcting perceived skill deficits, forgetting that literacy is a social act whose primary function is to allow us to communicate and develop knowledge of other things. We then present evidence from an empirical classroom study of five dyslexic students' educational Facebook use which suggests that rather than being defined and constrained by perceived literacy deficits related to "knowing that", the dyslexic students can be seen to be highly motivated and adept in learning the "knowing how" necessary for developing critical digital literacies. In the actions of the five dyslexic students in this study, we find support for Meyer & Rose's (2005: 1) claim that:

students "on the margins," for whom current curricula are patently ineffective, can actually lead the way to true reform because they help us understand weaknesses in our educational system and curricula that impede teaching and learning for all. The needs of diverse learners who have until now been

disenfranchised in a print-centric world can drive us to discover, develop, and apply the astonishing power of new media to expand educational opportunities.

Dyslexia

Dyslexia is usually defined as a Specific Learning Difficulty (SpLD) which principally affects an individual's acquisition of literacy skills. The cause of the difficulty is usually said to be located within the individual's neurology: their brain structure and function. Biological variations in such things as volume of grey and white brain matter, hemisphere symmetry and the localisation of speech and language operations are held to produce cognitive variations in functions such as phonological awareness, speed of information processing and working memory capacity (Frith 2002, 1999). These variations are usually described as deficits or weaknesses. The cognitive deficits are used in turn to explain observable behavioural differences, such as impaired ability to read, spell and write. Most discourse around dyslexia thus reflects and reinforces a psychomedical paradigm which blames certain individuals' failure to conform to conventional ways of learning on their "faulty" brains.

In this chapter we take a different view. Adopting a social model of disability (Oliver, 1990), we contend firstly that human beings are diverse creations, and secondly that societies create and sustain the concept of disability through structures of thought and environment. Natural human variation implies that we should anticipate a wide range of aptitudes in literacy ability and in cognitive faculties, yet our sociocultural environment discriminates against those who, through no fault of their own, find it difficult to meet societal and curricular literacy demands; that is, our

normative practices and assumptions of literacy. Reid Lyon (2001) and Stanovich (1994) remind us that reading is not a natural process and should not be thought in such terms. Assuming that it is, and that there should therefore be a literate norm, leads to the reification of dyslexia: the idea that we will be able to 'find' dyslexia in dyslexic people's brains if only we look hard enough. However, in over a century of research, with hundreds of books and thousands scholarly articles published, we still do not have a satisfactory neurobiological or psychological explanation of dyslexia. Some recent neuroimaging evidence even suggests that looking for neuroanatomical determinants of dyslexia might be mistaking causes for effects, because of the influence of the environment and experience on neuroanatomical and hence cognitive development (Kraftnick, Lynn Flowers, Luetje, Napoliello & Eden 2014).

In other words, literacy is not an evolutionary given. It is only when literacy becomes a cultural artefact and expectation that we can talk of dyslexics or others with literacy difficulties. Thus, it has been argued that normative practices and assumptions of literacy are what *ipso facto* define some as dyslexic, and as these are culturally constructed so too must be 'dyslexia' (Collinson, 2012). Dyslexia can only exist in cultures which privilege literacy, like ours. Dyslexia is not simply *influenced* by the environment, as Frith's (1999, 2002), Causal Modelling Framework indicates: the sociocultural environment *co-constructs* dyslexia through dependence on the written word. As Kress notes (2003 p.1, original italics) "*The world told* is different to *the world shown*" and it is not difficult to imagine cultures where the dominant mode of communication for education is (or was) song or images, as in prehistoric times. An Ancient Egyptian who could not decode hieroglyphs, for example, might have been labelled as 'dyspictoric.' Such a label does not exist in our

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culture because alphabetic literacy is prized in education to a far greater extent than a facility for images. Our alphabet is less than 2,000 years old and universal schooling is less than 200 years old. A social model perspective on dyslexia and literacy thus accounts for the fact that reading and writing are (in evolutionary terms) recently invented, unnatural processes which are difficult to learn for a large minority of the population. Extrinsic cultural forces have interacted with the neurologies of individuals in the minority to co-construct the difficulty (McDermott & Varenne, 1995). This minority is labelled 'dyslexic', but the label is a product of the cultural privileging of reading and writing over a very short timespan (Ehardt, 2008; Kress, 2000). The collective noun we use here to encapsulate the normative practices and assumptions of literacy which Other dyslexics is 'Lexism'. What we mean by Lexism is set out below, in relation to the more familiar concept of Ableism. What is of particular interest of us is the way social media - where compositions frequently combine abbreviated or unorthodox spellings and grammar forms with other modes of representation such as icons, emoji,, graphics, animation, sound and video – unsettle some of the assumptions underpinning Lexism.

Lexism and Ableism

Ableism is a term for the prejudicial belief that non-disabled people are superior to disabled people. Ableist tendencies are not restricted to deeply ingrained prejudices against disabled people themselves: they extend to prejudices about certain ways of being and doing. Thomas Hehir puts it this way (2002 p.3):

...the devaluation of disability results in societal attitudes that uncritically assert that it is better for a child to walk than roll, speak than sign, read print

than read Braille, spell independently than use a spell-check, and hang out with non-disabled kids as opposed to other disabled kids, etc. In short, in the eyes of many educators and society, it is preferable for disabled students to do things in the same manner as nondisabled kids.

The dominant dyslexia discourse, rooted in the psychomedical paradigm, can be seen to be underpinned by Ableist assumptions about literacy and learning. The educational and social environment is hostile towards dyslexics: those whose mental and cognitive abilities, in the domain of literacy and memory, fall out of the scope of what is considered normal and acceptable. These students may have strengths in other domains, such as practical problem solving, working in three dimensions, or creative non-linear thought, but these are frequently sidelined in the interests of developing traditional literacy skills so that dyslexics can be seen to - paraphrasing Hehir - at least be trying to “do things in the same manner as non-dyslexic kids.”

In this way, Ableist assumptions and disabling attitudes contribute to a self-fulfilling prophecy based on low expectations. “Dyslexia” can therefore be understood simply as failure to meet social expectations in literacy. The cultural and educational privileging of a particular set of literacy skills, and thus their high social value, together with a school system which assumes that all students can and should learn those literacy skills at the same time and in the same ways as their peers, casts as deviant and defective the dyslexic students who do not satisfy these normative expectations. It is these prejudicial normative attitudes, expectations and practices that Collinson (2012) terms Lexism, and which we can think of as a specific, pervasive form of Ableism. Having outlined what we mean by Lexism, we

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now go on to detail an instance of students challenging Lexism through their use of Facebook.

'Knowing how' and 'knowing that'

In this section we draw on the work of philosopher Gilbert Ryle (1949), who stressed the long standing tendency in Western thought to confuse the capacity for propositional knowledge ('knowing that') with original thought ('knowing how'). Something of interest to us is the way changing notions of "what counts" as literacy, combined with evolving, technologically-mediated social literacy practices, suggest that the deficit discourse of dyslexia may indeed be "barking up the wrong tree" (Moore, 2004 p.1).

There are many definitions of "digital literacies" (Merchant, 2007) but they have in common an emphasis on "knowing how" (Ryle, 1949) to evaluate, manage, use and share electronic texts, rather than on the "knowing that" of traditional, formal schooled literacy. Tasks more reliant on memory and rote learning can be thought of as "knowing that." These tasks are a normative practice within formal compulsory education, and dyslexics so often struggle with them. Social normative assumptions of literacy thus lead to a perception of some strange discrepancy between dyslexics' 'intelligence' and their ability to engage with rote learning aspects of literacy. However, this is a conceptual confusion, failing to distinguish "knowing how" from "knowing that." Original thought can be considered "knowing how", and social media literacies require this capacity more than "knowing that" (Dede 2008, Kress 2010). In a benchmark text, Lankshear & Knobel (2003: 173), declared that "*practices of knowing that reflect a range of strategies for assembling, editing, processing, receiving, sending and working on information and data to transform resources of*

'digitalia' into 'things that work' are now coming to the fore. In other words, digital literacies, including those needed for social media emphasise "knowing how" to construct, interpret rework and circulate multimodal texts, and this shift in emphasis may favour dyslexics who struggle with more traditional "knowing that" dimensions of literacy

Ryle's argument that we so often confuse knowing how with knowing that (what he terms the 'intellectualist doctrine') can be synthesised with Street's (1984) arguments about literacy ideology. Ryle's conception of an intellectualist doctrine emphasising "knowing that" chimes with Street's critique of societal literacy norms reflecting the ideologies and standards of dominant social groups, including teachers and academics. We would add that these hegemonic forces create Lexism, and that Lexism then defines, Others and discriminates against dyslexics. Social media, however, provide opportunities for dyslexics to develop agency by exploiting new forms of literacy, beyond the control of policy makers and the arbiters of 'school' literacy. In tune with Lankshear and Knobel's observation, these new forms rely to a far greater extent than school literacies on "knowing how" to use texts rather than "knowing that" (for example) a particular spelling or grammar rule ought to be applied in a particular place.

Challenging Lexism

Remedial literacy programmes prescribed for dyslexic students epitomise curricula embedded in and constitutive of normative literacy practices. Lexist attitudes and assumptions try to force dyslexic students to conform to dominant, traditionalist literacy norms through highly structured interventions, often based on intensive, repetitive skill-and-drill pedagogies usually based on synthetic phonics. Such

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programmes aim to get students to 'know that' each letter or combination of letters corresponds to a spoken sound or sounds. There is no doubt that these programmes can be effective for some learners, but their effectiveness is not universal and even where they are effective they are often not well loved. Craig, who is dyslexic himself, has direct experience of these programmes and he often found provision paternalistic, oppressive, patronising and superficial. Craig can remember one specialised teacher outside the school sector with fondness, gratitude and respect. However, this teacher was notable precisely because she rejected the condescending attitudes Craig had experienced from other teachers, and encouraged understanding of written language (knowing how) over and above rote learning (knowing that).

Owen's experience of teaching dyslexics and of training specialist dyslexia teachers on an MA programme professionally accredited by the British Dyslexia Association suggests that there is usually little time given over to reading for reading's sake. Some teachers on the MA programme might, for example, report permitting their students a few minutes reading a book of their own choice during a lesson if the student had performed well on the other tasks. Despite evidence indicating that high interest in reading is actually a common feature of 'successful dyslexics' (Fink 1996), what might motivate students to read more – and so learn more - was often either ignored or subservient to the normative interests of the intervention.

Owen was dissatisfied and uneasy with this approach to developing literacy, and especially attempts to use it with the 16-17 year old students at the Sixth Form

College² where he worked as a specialist tutor. Owen therefore instigated a project which would see a group of five dyslexic students learning about and through literacies, with this learning mediated by the social networking site, Facebook. The students' regular "study support" classroom was reconfigured as "*an inquiry-oriented learning environment that positioned students as active collaborators investigating their learning, personal responsibility, and construction of identities as self-sufficient learners*" (Greenleaf & Hinchman, 2009, p.11). Over the five weeks of the project lifespan, the students researched online the topic of dyslexia, and co-constructed a group Facebook page by posting links, documents, videos and so on they had both found and made. The space was dissociated from the institutionalised norms associated with 'doing' literacy in school contexts, with "*no requirements concerning 'correctness,' style or format*" (West, 2008 p.588). Describing the sequence of events in the classroom during one of the project sessions will demonstrate how adept the students were at the "knowing how" of literacies, despite each having undergone standardised assessments of literacy which indicated impaired abilities (when measured against culture-specific statistical norms) for the "knowing that" aspects of literacy. Freed from the expectations of school literacy, the students engaged enthusiastically in reading, writing, sharing and commenting on a large variety of multimodal texts, for example by scaffolding reading of a difficult text by watching an associated video first. They often used a somewhat knowing humour as well as unorthodox literacy practices, such as abbreviating "cool" to "kwl" when typing. Their prolific engagement with texts belies the stereotype that dyslexics are not motivated to read and write. Counter to Lexist notions of literacy as an individual skill, it also

² Sixth form colleges are an intermediate stage between compulsory schooling and HE in England and Wales. They predominantly teach 16 to 19-year-olds on academically demanding A-level programs which are generally a prerequisite for university entry.

highlights the social nature of literacy, of reading and writing as profoundly collective endeavours (Barden, 2012).

Classroom snapshot

The following vignette is constructed from multiple data sources used over five ninety-minute sessions: participant-observation, video recording, semi-structured interviews, dynamic screen capture and think-aloud protocols. Together these yielded over 70,000 words of transcript and eight hours of video. As such the snapshot is a credible summary of part of a fairly typical 'lesson' in the classroom used for the empirical study. Extensive accounts of the methodology and methods are given in Barden (2013) and Barden (2014b) respectively.

10th Dec 2010, 12:24-12:46

The five students are sat in a row, each working individually on a PC. One of the students, Chloe, is researching visual stress. This is a term for the perceptual distortions, such as the words appearing to move or blur on the page, many dyslexics experience when trying to read. She watches a video by an eminent academic expert in the field, reads the user comments posted below the video and then triangulates this data by looking at some reputable sites including the Dyslexia Research Trust. Chloe "knows how" to use the video to scaffold her subsequent reading of written text. Satisfied that this information is both trustworthy and of interest to her peers, she posts a link to the Dyslexia Research Trust site on the group Facebook page. Chloe has processed and evaluated the text before sharing it via social media. Having read the linked article and looked at another related video on the Facebook page, another student, Josh, decides to make a Powerpoint presentation illustrating the visual stress he experiences when reading. A third

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student, Charlotte, observes Josh and, intrigued, starts making her own Powerpoint movie, similar to Josh's. Having received the texts shared by their peers, Josh and Charlotte work on that information, transforming it and sharing the new projects via their screens. In her post-project interview, Charlotte revealed that she had never made a Powerpoint movie before. Following Josh's inadvertent prompt, Charlotte began to teach herself how to make a Powerpoint movie to communicate the visual distortions of text she experiences as part of her dyslexia:

I thought I could do a little PowerPoint on the dyslexic...but then I needed to figure out how to do it... and then I put into PowerPoint like "This is what it looks like when I'm reading a book" and then I put it into a little thing because what happens is the middle of the page disappears...and then I had to make the middle of the writing white and then I think I made it grey afterwards because it didn't work properly because I wanted it to like flash up and like on and off...

Freed from the constraints of normative literacy demands and Lexist assumptions, these students are engaged in critical, authentic learning by and through multiple literacies. Wheeler (2012a, 2012b), citing Illich's (1970) assertion that "*Most learning is not the result of instruction. It is rather the result of unhampered participation in a meaningful setting*", argues that authentic learning involves complex, sustained, collaborative tasks with multiple possible outcomes, products which are useful in their own right, and real-world relevance. Co-constructing the group's Facebook page over five weeks, reading, making, discussing and sharing a wide variety of texts (including *inter alia* Powerpoint movies and dyslexia research websites) related

to a self-determined topic and aims, fulfils these criteria. Contrary to Lexist representations of dyslexics as literacy "strugglers" or even "failures", through co-construction of their group Facebook page, we see the students assembling, editing, processing, receiving, sending and working on a range of multimodal texts transforming these resources into "things that work" to educate themselves and others about dyslexia (Lankshear & Knobel, 2003). The students were able to concentrate on using and extending their knowledge of 'knowing how' (to make a Powerpoint movie, for instance) to construct a text in order to communicate their understanding and experiences of dyslexia, rather than on the superficial, rote, 'knowing that' which governs so much dyslexia tuition. This strategic use of critical digital literacies further strengthens the challenge to Lexism: in Chloe's research and Josh and Charlotte's creative, constructive response to it, for example, we see the trio exploiting their *'capacity to find out truths for themselves and their ability to organise and exploit them, when discovered'* (Ryle, 1949: 27) via a combination of traditional and new literacies. Of course, the students needed adequate 'knowing that', declarative literacy knowledge in order to engage with these texts. The significance for us is that the authentic learning experience motivated the students to engage in, and even enjoy, substantial amounts of reading and writing: the very things dyslexics are supposed to struggle with, dislike, and avoid.

Our contention is that rather than authentic, motivating literacy experiences being a reward or by-product of normative intervention – as is all too often the case - such experiences should in fact be the foundation of literacy and learning. Social media provide a wealth of potential authentic literacy and learning experiences. Moreover, technological innovations such as 3D printing, haptics, holograms, virtual and augmented reality suggest an imminent and growing challenge to the dominance of

the written word as the privileged mode for learning in formal education (Kress, 2003). Such innovations may help 'level the playing field' (Barden, 2014) for dyslexic students, who have hitherto often found themselves on the margins (Meyer & Rose, 2005).

Conclusion

In this chapter we have sought firstly to highlight hegemonic Lexist assumptions embedded and enacted in both the dyslexia discourse and the practices of formal education. We have argued that these assumptions rest on Lexism, which arises from an historic conceptual confusion, a failure to adequately distinguish 'knowing how' from 'knowing that'. We suggest that this fundamental confusion has led to the prevalence of a variety of Lexist, normalising and discriminatory practices. We question how inclusive purportedly inclusive practices can really be if their overriding purpose is to make dyslexics honouree non-dyslexics, rather than embracing diversity and recognising that there is nothing necessarily inherently superior in text-based epistemologies compared with other modes of thinking, learning and communicating. This has led us to two conclusions. Firstly, that if we adopt a social model of literacy, focusing on shared literacy events and practices rather than individual technical skill, we can see that the students in this study were, contrary to Lexist expectations and stereotypes, highly motivated to learn about and through literacies, using social media. Secondly, that continued technological innovation, continually evolving ideas about "what counts" as literacy, and epistemological shifts afforded by the richly multimodal semiotic domain of social media suggest the *potential* for greater inclusion and agency for dyslexic students.

Although we cannot generalise from this single case, our conclusions suggest to us some pedagogical factors others may wish to consider in relation to social media in educational contexts. Firstly, the students' use of Facebook and related digital media prompts reconsideration of the roles of teachers and learners. Teachers and learners are likely to bring different, but potentially complementary technology skill-sets into the classroom. These factors suggest a possible return to the literal Roman meaning of "pedagogue", as someone who "walks with" or leads the students towards intended learning. It also prompts consideration of heutagogy - self-directed learning (Wheeler, 2011) - and if, when and how this should be incorporated into the classroom setting. Following from this, teachers may wish to reflect on their views on "what counts" as literacy and how their students learn best in a social media age, as there are opportunities to use new literacies both in their own right and to foster traditional literacy skills (Leander, 2009; Veater, Plester & Wood, 2011; Waller, 2013). The primary role of the teacher in such settings may not necessarily be as subject-expert, but rather as facilitator and mediator (Somekh, 2007), providing a direction, an appropriate degree of challenge, and equality of access to the relevant technology (Davies, 2009). Thirdly, the group Facebook page can be conceived of as a kind of collaborative blog. It has been argued that blogging involves learning in an important and distinctive way: "read-write-think-and-link" (Richardson, 2006 cited in Davies & Merchant, 2009 p88). Blogging, and by extension Facebook, can be used in the classroom to co-construct knowledge and develop critical literacy (Davies & Merchant, 2009). Opportunities for developing critical digital literacy through social media involve encouraging students building on existing practices and knowledge, whether obtained through formal or informal education, and identifying "barriers and enablers" to participation in new literacies (Willett, 2009 p.21; also Davies, 2009).

Facer (2011 p.69) suggests that the critical digital literacy all students will need in the near future for social and academic success has three elements: discernment (ability to judge the quality and relevance of information), multiliteracy (appreciation of the affordances and limitations of different technologies, materials and modes), and responsibility (awareness of the consequences of the ways in which they manage, circulate and control information). The empirical study we drew on for evidence in this chapter could be replicated, or at least approximated, in order to promote critical digital literacy and challenge Lexism.

feedback: I think this is really getting there, I'd just like to see some stronger links back to the social media theme throughout the chapter perhaps as a prediction of the future of literacy. I also want to add that I tend to agree with the authors and not the reviewer on the points of contention throughout.

About the Authors

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