Art, Pedagogy and Dyslexia

iJADE 33.3 (2014)

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pp 327-336

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Abstract

This article presents exploratory research examining the strategies employed by art teachers who identify as dyslexic. The study originated out of the personal interest of the researchers better to understand the strategies for learning used by teachers with dyslexia and the potential influence it has on their pedagogy. The question that this interest generates is ‘What learning strategies, used by art teachers with dyslexia, can be used as pedagogical tools?’ To help answer this question, three art teachers were chosen to participate in the research; this was a purposeful choice, based on their self-identification as having ‘severe’ dyslexia. The research consisted of informal interviews and classroom observations. However, we found that autobiographical details, augmented by reflections their individual teaching and learning experiences were particularly useful. We focused on whether strategies used as learners were now informing their teaching. Although small in scale, the study connects several positive attributes often associated with dyslexia (such as visual spatial awareness) to classroom practices, in addition to empathy with struggling students.

Keywords

art and dyslexia, pedagogy and dyslexia, beginning teachers, teaching strategies, art teaching

Introduction

As recently as 2007, there has been a newspaper headline, albeit in the *Daily Mail*, that read 'Dyslexia is just a middle-class way to hide stupidity'. The article said:

Dyslexia is a social fig leaf used by middle-class parents who fear their children will be labelled as low achievers, a professor has claimed. Julian Elliott, a leading educational psychologist at Durham University, says he has found no evidence to identify dyslexia as a medical condition after more than 30 years of research. (Camber 2007)

Professor Elliot's work occasionally surfaces in the press, the same article was referred to some years earlier in the *Guardian*, which in turn cited the *Times Higher Education Supplement*: "'Dyslexia does not exist", says professor' (*Guardian* 2005). The political nature of the debate is neatly summarised by Janet Soler (Soler 2010); for the purposes of this article, we take the view that dyslexia, in all of its forms is fundamentally a clinical rather than a cultural phenomenon.

Recent advances in neuroscience have shown, if proof were needed, that dyslexia is a physiological condition. Brain scans have shown that activity levels in the brain are much lower in people with dyslexia when they are trying to read, leading to problems with phonological processing (see Figures 1 and 2).

An area of the brain associated with processing information is also responsible for coordination, and the ability to estimate how much time has passed; many people with dyslexia have problems with coordination, organisation and time management. We should add that being a neurobiological syndrome does not exclude dyslexia from being seen as an 'emotional construct', as is sometimes claimed (Elliott & Gibbs 2008). However, we do not aim to contribute to the discussion or debate on the existence of dyslexia nor to present it from a 'deficit-based' perspective, but rather to explore the experiences of art teachers and trainee art teachers who have dyslexia. The focus of this article then is the pedagogy of dyslexic teachers of art and design; more specifically, whether this is influenced by the strategies they used as students. This focus arose from our frequent interaction with beginning teachers of art and design and students training to become teachers of art and design who had varying degrees of dyslexia. We combine the literature on dyslexia in the arts studio and teacher trainees with dyslexia to establish some broad, exploratory background to the issue.

Figure 1

The neurobiological basis of dyslexia: typical readers (adapted from Goswami 2006)

Figure 2

The neurobiological basis of dyslexia: readers with dyslexia (adapted from Goswami 2006)

Dyslexia amongst art students

Although there is limited literature available regarding students with dyslexia in postgraduate study (Collinson & Penketh 2010), research indicates a higher percentage of students with declared disabilities are studying creative arts and design (14.7 per cent) compared to any other subjects (Equality Challenge Unit 2012). In terms of UK students with dyslexia in higher education, research highlights that the number is not evenly distributed across disciplines (Collinson & Penketh 2010, 8). Considering the deficits identified with dyslexia regarding oral and written language, some students might purposively select a studio-based programme rather than a course based strictly on lectures and note taking. It can also be argued that students with dyslexia in an art and design programme are naturally drawn to creative pursuits rather than as a result of their dyslexia (Alden & Pollock 2011). While further empirical research is still needed to establish clear connections between dyslexia and heightened visual-spatial reasoning (Karolyi *et al.* 2003; Wolff & Lundberg 2002; Winner *et al.* 2000), there remains evidence of a kind of compensatory mechanism amongst higher achieving dyslexic adults that facilitates strength in art related area (Everatt *et al.* 1999).

A survey conducted at the Surrey School of Art and Design (UK) that focused on students with learning difficulties and disabilities found that 83 per cent of the students indicated experiencing difficulties when having to listen and take notes simultaneously (Kennard 2000), and 90 per cent indicated they struggled with reading, writing and spelling. While these experiences can be linked specifically to dyslexia, a number of further and unacknowledged difficulties were also seen, including 'frustration, social and emotional distress, low self-esteem and self confidence' which Alden & Pollack (2011, 83) label as equally damaging. These unseen social and personal difficulties can be associated with the socially constructed idea that literacy skills are directly related and indicative of intelligence. Prior to being identified as dyslexic, research shows that individuals report being labelled as 'stupid and/or lazy' (Collinson 2012, 64). Even following a diagnosis of dyslexia, which should provide students with access to support services to help scaffold their learning, the added label of dyslexia as a disability can lead to additional barriers. The various disability labels given within society and educational institutions divide individuals into categories of 'normal' and 'abnormal' (Rousmaniere 2013, 91). Such labels are often exacerbated by ineffective pedagogical practices.

In the studio portion of art and design programmes, students in the same study expressed difficulty with regard to deadlines and being able to communicate (orally) effectively with their tutors (Alden & Pollack 2011). Additionally, students with dyslexia struggled in studio classes, such as printmaking and ceramics, where hand-outs were not provided detailing the processes involved (Alden & Pollack 2011). While the challenges associated with written work and dyslexia have been identified, understanding how art students with dyslexia are affected in the studio requires further research in order to address their needs. Potential accommodations for students with dyslexia might include lecture or studio instruction hand-outs to be given prior to the class in order to develop familiarity with the material ahead of time or to prepare for class discussions (Alden & Pollack 2011); as is often the case, such practice is good practice for all students. As dyslexia is often associated with a student's inability or difficulty in reading, it is imperative for practitioners in higher

education to understand the far-reaching range of deficits that potentially alter a student's classroom and studio experience. Future research will need to examine the strategies dyslexic art students employ to meet the challenges they face in the studio classroom.

Dyslexia in beginning teachers

The Post-Graduate Certificate in Education (PGCE) is, if student evaluations are anything to go by, a tough course; it is a course of 'professionalisation' that usually operates at Master's level. For some, in the present case graduates of art and design, it appears to be tougher, in all likelihood owing to the demands in terms of writing. There are several reasons for this, the most obvious being the high proportion (about 20 per cent by our calculations) of art students who have difficulty in academic writing because of varying degrees of dyslexia. This is a well-known phenomenon and has been reported by Wolff & Lundberg (2002), for example, who investigated the prevalence of dyslexia among art students. The use in undergraduate art courses of modes of assessment other than writing exacerbates further the situation. In addition art and design graduates are said to have a tendency to be antagonistic towards traditional ways of recording and reporting, as reported by Hockey (2008, 111) in his research on art students undertaking research degrees:

Developing the craft of academic writing is a difficult enough task for students whose disciplines demand a high facility in writing at under-graduate level, but for art and design students it constitutes a particularly daunting task, which produces a reality 'shock' to their artistic identity.

Hockey (2008) goes on to say that both individual and collective confidence was threatened by the requirement to do academic writing, contrasting with students' self-perception as successful artists.

Existing research on teachers in general who have dyslexia has explored their resiliency (Burns *et al.* 2013; Glazzard & Dale 2013), professional identities (Riddick 2003; Burns & Bell 2010; 2011) and experiences as trainee teachers (Duquette 2000; Griffiths 2012). Research literature has also examined the potential connection between students with dyslexia and spatial reasoning abilities and enrolment in visual arts courses (Winner *et al.* 2000; Wolff & Lundberg 2002; Alden & Pollock 2011). In view of this existing literature we wanted to understand the role or influence dyslexia has on classroom teachers of art. When entering teacher training, the opinions candidates hold towards classroom practices are strongly influenced by their own experience as students in both elementary and secondary school (Csoli & Gallagher 2012). This understanding led us to ask whether the pedagogy of visual art teachers with dyslexia is influenced by their own experiences as students coping with dyslexia.

Characteristics of dyslexia

Dyslexia is understood to alter an individual's phonological abilities, in particular with regard to the comprehension of oral and written language (Karolyi *et al.* 2003); it presents itself uniquely in each individual, resulting in varied

degrees of difficulties or strengths (Griffiths 2012). Students with dyslexia often display the need for additional time to process information while also demonstrating

challenges with working memory, numeracy, organisation, attention span and articulating arguments (Alden & Pollock 2011, 82). The support and strategies used to manage these challenges cannot be generalised but rather need to be established to suit the individual learner. Inadequate support has the potential to have a negative impact upon a student's performance and academic attainment; in higher education dyslexia is the most commonly declared disability by students (Griffiths 2012, 54). Griffiths examined student teachers with dyslexia on teaching placement and found, not surprisingly, that trainees encountered difficulties with spelling, heightened when spell-check was not available such as when they were writing on a board (Griffiths 2012, 57). The study also investigated the instructional portion of teacher training and found the amount of reading required and the ability to retain and understand what they had read proved difficult (Griffiths 2012, 57). Inter-views revealed that the participants expressed frustration at the lack of understanding regarding dyslexia exhibited by their tutors and mentor teachers, resulting in limited accommodations made for the trainees (Griffiths 2012, 59). As a result of the negative feedback and lack of support provided by tutors and mentors, the professional self-confidence of the teacher trainees had been severely affected. A further outcome of this lack of support and appropriate accommodations meant three of the six teacher trainees studied reported either leaving or deferring their course (Griffiths 2012, 60). Where instructors or mentors have not made accommodations for teacher trainees with dyslexia, the responsibility falls to the student to devise their own means of coping with the struggles they encounter in the classroom. Management strategies include mental rehearsal of what will happen during the class, visual displays in the classroom and the preparation of scripts to be read during lessons (Burns *et al.* 2013; Griffiths 2012). In addition to using prepared lesson scripts and rehearsing prior to the lesson, student teachers have been found to use the following strategies to manage their dyslexia related deficits when on placement:

- computer spell checker
 - pupils as 'monitors'
 - using themselves to model spelling corrections
- advanced preparation of key words
 - highlighting problem words on accessible lesson plans (Griffiths 2012; Riddick 2003)

However, there remains limited research on teachers and trainee teachers with dyslexia (Burns & Bell 2011) and this highlights an area where further understanding is required.

Other research on the practices of dyslexic teachers found that they believed their own experiences with dyslexia allowed them to connect with students who had learning difficulties or who struggled in the classroom (Riddick 2003). For teachers who themselves had disliked reading out loud in class because of their dyslexia, they indicated being more aware of who they selected to read in their own classrooms (Riddick 2003). Empathy and the desire to motivate their students were also identified, as teachers recalled having lower expectations placed on them when they were students as a result of their dyslexia, which they felt was unfair (Riddick 2003).

Alongside the research that highlights the difficulties experienced by students with dyslexia is a growing body of research that identifies possible positive abilities associated with dyslexia. These abilities centre on a potential link between creativity, artistic expression and spatial reasoning. These links are strengthened by research that claims students with dyslexia are more prevalent in disciplines such as art and design, engineering and architecture than in other areas (Alden & Pollock 2011; Wolff & Lund- berg 2002; Winner *et al.* 2000).

What we did

This project was grounded in our everyday professional practice in the Faculty of Education

at the University of Cambridge, where we were able to interact with beginning teachers through their time in the PGCE programme. Over a period of three years we spoke informally with a number of practising art teachers and art teachers still in training who had dyslexia (approximately twenty). At the initial stage, the 'project' was simply a 'felt problem'; we were aware of an issue and informally gathered disparate but related information as we went about our normal academic business. After eighteen months, our interest gradually coalesced into a more formal project and the desire to formally address the experiences of art teachers with dyslexia.

The project evolved organically and we identified six secondary school art and design teachers with dyslexia who were keen to share their experiences. We used unstructured interviews with each art teacher on two occasions for approximately one hour, encouraging them to practice *focused reflection* on their professional practice in light of their understanding of them- selves as learners. Of these initial participants, four showed an active interest in the research, with three being interviewed further for periods of between 45 minutes and 90 minutes and were also observed teaching art for a minimum of one whole lesson. Four of the original six later provided additional background documentation and without being asked, e-mailed additional thoughts and autobiographical material. One of the art teachers sent a copy of a scan of his brain taken during an investigative procedure (see Figure 3) linked to dyslexia. This material in combination with several other emails revealed the extent to which dyslexia was an intrinsic part of their identities as art teachers and the long battle several of the participants experienced in an effort to be diagnosed. While some expressed struggles, others seemed to delight in the condition; for example, a ceramics teacher emailed us the following:

I have always thought that having dyslexia for me has made me more aware of what is going on around me ..., I am totally visual in learning and learn best from being shown how to do an activity. My teaching does reflect this... I am sure that I think differently and totally have a strong tendency of thinking three dimensionally at all times...

Figure 3
Brain scan provided by one of the art teachers

When asked to discuss strengths that participants felt were unique as a result of dyslexia, empathy was mentioned by all of the teachers. The importance of being able to identify and empathise with students was stressed in another email communication:

I can emphathise [sic] and often do while [supporting learning] in classroom to support confidence with year 7. Show them my own messy diary and link to their planners and future needing stuff down to refer to so it is out of your head – head space for more thoughts. As for post 16 there I can help. My ideas or ability to empathy with student in any subject gets me in to their personality and get them to open up and verbalise who, what they are and need. Together the pressure is off as I cannot spell either and make light of finding stuff... so we get along and they are happy and out comes the stuff we need to write about their project etc.

We appreciate that the ability to empathise with students is not restricted to teachers with dyslexia and there are complex factors that influence an individual's experience. However, one of our participants notes that some teachers with dyslexia potentially have varied skills that other teachers may not, such as the ability to 'read' faces:

Speaking is a key divice in learning strategy. If you talk the stuff you both reinforce

the idea to yourself, get it outside the lock of the brain, and offer a chance for input from others to steer you in directions you would have otherwise missed. For this a natural instinct decides what to accept and what to reject. The lack in written skill has made the spoken and probably enhanced the skill of psychological interpretation of faces and expression to help guess what on earth people are talking about – when unfamiliar subject area. Some dyslexic cant ‘see’ faces so goto remember one persons koping strategies are anothers acileese heel.

The above response is provided here, verbatim, as it was shared with the researchers and high- lights how the nature of our unstructured inter- views and email correspondence gave respondents the opportunity to reflect on their educational and learning history. One of the female teachers revealed that, not surprisingly, repetition of information was necessary for it to be retained, but ‘once I’ve got it, it’s there’. She used a range of visual and aural strategies and said that her visual memory was powerful:

I have been told that my sense of bearings is unusually good ... I see things in a visual way – I retain information like ‘oh they’re wearing this colour’. I have a particular way of looking at things – working on a building site, I could explain things to new builders and labourers; I could explain better than my boss.

As a teacher, she finds it important to be ‘literal and systematic’ and above all, patient. (‘I don’t

Figure 4

Example of 3-D work with secondary school students: paper sculpture

Figure 5

Example of 3-D work with secondary school students: wire sculpture

expect pupils to learn first time’). All of the respondents made effective use of new

technologies (the use of digital projection was especially mentioned). It is worth noting that West (1997) asserts that ‘visual thinkers’, aided by computers, will be the creative innovators of the future.

Art teachers with dyslexia – findings from interviews and observations

The focal point of our study was to understand whether the educational experiences of students with dyslexia influences their practice as art teachers.

We found that these art teachers preferred to conduct lessons with a craft element and had a tendency to use a wide range of media, especially in three dimensions (see Figures 4 and 5). This is especially noteworthy considering the reported decline in craft education in England (see, for example, Crafts Council 2014). There was also an emphasis placed on formative oral feedback rather than written feedback.

Additionally, and of particular interest or relevance to this research, was their obvious and stated pride in their ability to think ‘outside of the box’. When later asked about this, it was seen by each as a positive aspect of dyslexia.

The three respondents who were observed teaching, practised a range of strategies in order to manage difficulties caused by their dyslexia; echoing the findings of Riddick (2003); Burns *et al.* (2013) and Griffiths (2012). For example, they mentally rehearsed their lessons, thereby gaining an overall visual sense of the lesson structure. Additionally, they made active use of visual displays in their classrooms, together with visual stimuli and active demonstrations. In addition to these strategies, we found that our art teachers exhibited the following three characteristics in the classroom:

- somatic sensibility
- spatial awareness
- the ‘Lennon Effect’

We call these ‘characteristics’ rather than ‘strategies’ because they are to some extent unconscious. Having previous experience observing classroom instruction, we believe that these characteristics are not found as commonly in classrooms taught by non-dyslexic teachers. However, based on the small scale of this research, further more in-depth and broad observations are needed. These observations do, however, provide a relevant starting point for future research.

The first characteristic, ‘somatic sensibility’ refers here to a heightened understanding of non-verbal communication. The frequent use of ‘body language’ by the dyslexic teachers observed in the classroom was confirmed through interviews. Each avoided oral and written communication to a greater or lesser extent and substituted it with non-verbal signs and signals, especially with regard to class management. This related to the second characteristic, spatial awareness which, in this context, refers to a heightened perceptual grasp of the whole spatial environment. The important issue here being the declaration, not just by the three observed teaching, but by all six respondents, that their augmented spatial awareness facilitated enhanced class management, with at least two reporting their ability to be aware of the whole class whilst attending to individuals. The final characteristic was detailed at some length by

one respondent and intimidated by others. We call it the 'Lennon Effect' after John Lennon who, according to the Beatle's biographer Lewisohn (2013, 1)

strutted around with Elvis Presley sideburns, upturned collar, hunched shoulders and an intimidating stare (which Paul would soon learn was born of insecurity and acute short-sightedness).

Lennon's poor vision made him look inadvertently 'cool', as he could not see well and appeared aloof. In a similar way, some teachers with dyslexia who tend to focus on visual information rather than aural sometimes appear distant; we were told by one interviewee that because it took him some time to process aural information, he ended up staring in an apparently intimidating manner, the result being acquiescent students.

Conclusions

It can be seen from the literature that the incidence of dyslexia amongst art and design students is greater than in the general population. One reason for this is that there appears to be a neurological compensation for the deficits associated with dyslexia through, amongst other things, enhanced spatial awareness. Many art and design students with dyslexia become successful in higher education, despite a lack of diagnosis in many cases and an expectation to produce written academic work. The continued insistence by universities and other educational establishments to privilege the written over the visual causes major problems amongst students with dyslexia. As an aside, it seems to us that the academic world is slow to acknowledge this in any meaningful way, but more importantly slow to realise the value of art-based or art-informed research in its own right.

Given that several hundred art and design students join teacher education courses in England every year, we aimed to find out what strategies were employed amongst those with dyslexia to inform their own pedagogy. In the common event of under-diagnosis and the

absence of appropriate support dyslexic students (and teachers) used whatever autodidactic approaches to learning they felt comfortable with. Amongst those who helped us in this project, we found a surprising commonality of approach.

In the cases we studied, we found that augmented spatial awareness and greater use of non-verbal communication facilitated effective classroom management; whether this is typical of art teachers generally needs further investigation. Their teaching was enhanced further through effective use of demonstrations and visual stimuli; again, this is likely to be true of many non-dyslexic art teachers and teachers of other subjects, but our small-scale research project has highlighted the possibility that dyslexia could be associated with strengths that might be of pedagogical value. We also found that teachers with dyslexia felt that their 'condition' helped them to be empathetic with students.

The dyslexic teachers, in the present case art teachers, demonstrate how they have been able to translate their own struggles, triumphs and experiences with dyslexia into current teaching strategies. Sharing these experiences and strategies points to the need for further research into the area to potentially help inform the teaching experiences of teachers both with and without dyslexia.

Effective teaching is not confined to particular kinds of teachers, nor to particular subject areas, but it has been argued (Hickman 2013) that teachers of practical subjects in a studio- based environment can draw upon a wide range of pedagogical practices that facilitate learning. Our research has found that a diagnosis of dyslexia need not be a barrier to teaching well and might indeed be an asset in some cases.

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