

DYSLEXIA AND DESIGN

A DISCUSSION OF THE ROLE AND
IMPACT OF DYSLEXIA IN CREATIVE
DESIGN STUDENTS

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Body Sylexiad Serif Spaced Medium (by Robert Hillier, 2006)

INTRODUCTION

The link between artistic talent and dyslexia has become increasingly evident in recent research, which begs the question; why is more not being done within the design community to help encourage the development of art and design students with dyslexia?

Dyslexia is classed as a 'Specific Learning Difficulty' (SpLD) and is often grouped with a number of associated learning difficulties such as Dyspraxia, Dyscalculia, Attention Deficit Disorder (ADD) and Attention Deficit Hyperactivity Disorder (ADHD) (Goodwin, 2004). Whilst this whole range of SpLD's exist within the creative industries, it has not been possible to encompass the full spectrum due to the limitations of this essay. However, the importance of other disabilities and their relevance to these design issues has been taken into account whilst compiling this investigation. Equally, the matter of dyslexia in design can be applied to other contexts such as children in early education, the elderly and adults in non-creative industries. Unfortunately it has not been possible to incorporate all aspects of this topic. The demographic selected for this essay are design students with dyslexia who into the future will be the driving force behind innovation within the creative field.

This essay will begin by explaining the various characteristics of dyslexia and the way in which cognitive processing differs between dyslexic and non-dyslexic minds. Furthermore, the alternative learning styles and techniques which dyslexics require in order to read, write and to learn new information will be explored. It will then investigate how dyslexia has an impact upon the experiences of creative design students throughout higher education and their prospective careers.

Current social perceptions of dyslexia will be questioned, with regard to awareness and understanding of the condition. The encouragement and support of positive role models will be contrasted with the negative attitudes that hinder dyslexic people. This argument put forward will include support from previous studies; (Geschwind, 1982), (Kirk et al, 2001) as well as, first-hand testimonials from people who have struggled with the issues outlined in the BBC Three programme 'Don't Call Me Stupid' (2010). The essay will also discuss misconceptions linked with dyslexia, referencing 'Gardner's Theory of Multiple Intelligence' (1983) to suggest that the visual and spatial aptitudes dyslexics' have do not coincide with society's perception of intelligence.

An analysis will take place questioning the responsibilities owed by designers to contribute valuable and accessible design to the wider community. This discussion will consider the significant numbers of dyslexic students and the potential for these young designers to use first-hand experience to contribute design for a dyslexic audience. This section will also reflect upon an investigation into the effect that the American Disabilities Act (ADA) had upon design for public spaces (Busch, 1990).

A review of existing examples of design, which have been specifically developed for people with dyslexia, will also be explored, alongside design for a general audience. Included within this discussion will be, Typography; bespoke typefaces that have been designed specifically for dyslexic readers such as, 'Sylexiad, A Typeface for the Dyslexic Adult Reader' by Dr Robert Hillier, 2006. Web Design; the development of the British Dyslexia Association's website by Leonie Wharton, 2009 A study of the academic website 'Studynet' at the University of Hertfordshire for the use of dyslexic and non-dyslexic students (Appendices 2-3). Interactive Media; an examination of the role of new media and assistive technology, evaluating products that have been designed specifically to assist those affected by dyslexia, as well as products designed for the general population

that also have a beneficial value to dyslexics. Furthermore, it will consider the practical uses of interactive technology within education and the potential role it could play in the future careers of creative dyslexics.

To conclude the issues previously addressed, a review of work that has achieved successful design for dyslexic use will be highlighted. Furthermore, it will expose the areas within graphic design which remain undeveloped in regards to dyslexia. A series of suggestions and potential solutions based upon these findings will be highlighted and vindicated.

Not only will this essay be drawing upon the personal experience of a graphic design student with dyslexia, but it will also reference first-hand testimonials from other design students and practicing designers who have dyslexia.

DYSLEXIA

CHAPTER 1

Dyslexia is a form of specific learning difficulty (SpLD), which encompasses a wide spectrum of traits. . As stated in 'Understanding specific learning difficulties' a person with a SpLD will have "an IQ score greater than 80, and deficits in at least one area of academic achievement (reading, spelling, mathematics), associated with specific cognitive impairments (such as short term memory problems, poor auditory discrimination ability, visual-perceptual problems, and the like)" (Prior 1996). It can be difficult, to assign a concise definition to dyslexia due to the diverse nature of the condition presenting itself in numerous ways and varying in intensity in each individual.

Considerations must be made when making a single statement or summary to describe dyslexia to avoid misrepresenting the complexities of the condition. The British Dyslexia Association (BDA) has collated a list of descriptions to portray the various ways in which dyslexia may emerge, as illustrated in Figure 1. In addition, the BDA ascertains that dyslexics can exhibit strengths in areas, such as 'design, problem solving, creative skills, interactive skills and oral skills', reinforcing the link between dyslexia and the creative design community. The possible benefits and applications of these strengths will be discussed in further detail throughout the following chapters of this essay.

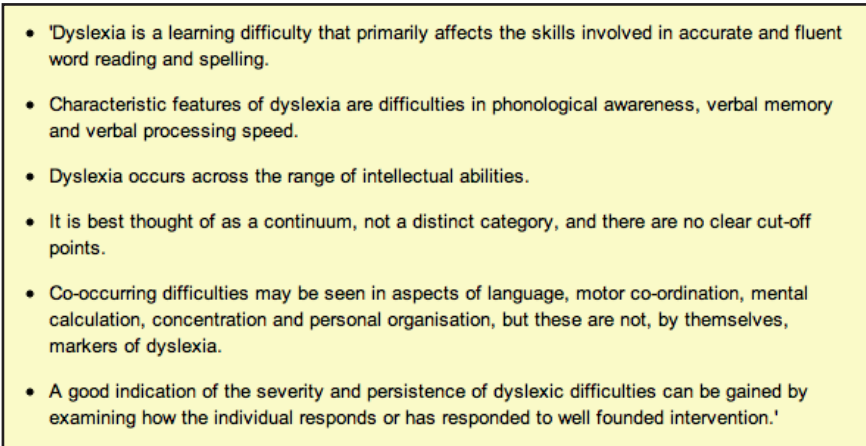
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- 'Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.
 - Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.
 - Dyslexia occurs across the range of intellectual abilities.
 - It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.
 - Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.
 - A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well founded intervention.'

Figure 1.

SOCIAL PERCEPTIONS

CHAPTER 2

Awareness of the symptoms and knowledge of dyslexia in the wider community has grown substantially in recent years. Many dyslexic organisations now encourage the recognition of both historical and contemporary figures that have achieved outstanding success despite their dyslexia. The likes of Albert Einstein, Leonardo Da Vinci, Steve Jobs and Richard Branson have made a significant contribution to society and are strong role models to young dyslexics who may question their abilities in a society that favours the qualities of left-brain intelligence.

Keane states, “The fact that dyslexics have some weaknesses means that their right brain strengths are amplified because they find they have to over compensate in order to compete in the left brained world.” (Keane, 2011) This statement indicates an inherent problem within society, whereby a bias exists in favour of left brained thinkers and by extension, ‘left brained’ skills, such as logic, linear thinking and verbal skills. This puts dyslexics at a disadvantage as they have a stronger capacity for ‘right brained’ skills, such as visual expression, synthesis, intuitive and holistic thinking (please see Appendix 1). In order to balance the prospect for both of these groups to succeed it is imperative that society values both sets of skills equally particularly in education, work and competitive situations.

In an investigation into the advantages and disadvantages of dyslexia, Geschwind points out “an increasing number of studies have pointed out that many dyslexics have superior talents in certain areas of non-verbal skill, such as art” (Geschwind 1982). Statements such as this are incredibly valuable in supporting and boosting the aspirations of young dyslexics, unfortunately this