

In Their Element: The Case for Investing in Dyslexic Entrepreneurs

**A review of research on dyslexia and entrepreneurship
and the case for investing in the sector.**

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Introduction

This report presents the significant connections between dyslexia and entrepreneurial behaviour. It is produced for the business community and aims to make a contribution to the UK's future economic performance by showing why investment in entrepreneurs who are dyslexic will bring major benefits to the economy in terms of increased business growth and job creation.

The content of the report is valuable to:

- entrepreneurs
- potential entrepreneurs
- self-employed workers
- employers
- business support agencies
- recruitment consultants
- policy makers
- trades unions
- education professionals

Research examined in this report suggests that in the UK there are at least 300,000 dyslexic entrepreneurs. They tend to start up more businesses and employ more workers than non-dyslexic entrepreneurs. Many of them have developed strategies which incorporate their dyslexic way of thinking, but many are not aware that they are dyslexic, or the way it impacts positively or negatively on their business success. Many thousands more potential entrepreneurs also lack the confidence to start up in business, unaware that entrepreneurship is a potentially strong area of work for them where they can operate "in their element".

This report intends to improve future economic performance by presenting evidence on:

- the attractiveness of entrepreneurship to dyslexic thinkers;
- the commercial benefits of utilising dyslexic ways of thinking;
- the specialist support which can be organised to maximise those benefits for business.

In Their Element shows how the right specialist support can be put in place to help the innovative business people at the forefront of industry create the firms, jobs and profits which government and business leaders have identified as essential for economic recovery in the UK.

Part 1: Dyslexia and Entrepreneurship

1.1 Dyslexia

Dyslexia is one of the most common conditions, often described in terms of a 'learning disability', although the NHS report that some experts characterise it as a different way of information processing and thinking (1). Many adults do not know that they are dyslexic, as incidences of dyslexia in the UK population are under-diagnosed (2).

According to the British Dyslexia Association (BDA), the UK government and others, dyslexia affects 10% of the adult population in the UK (3). This means that approximately three million workers in the UK are dyslexic (4), although many of them have not declared their dyslexia to their employer (5).

Evidence from Cass Business School in London suggests that an above average number of entrepreneurs* are dyslexic, with 1 in 5 entrepreneurs found to be dyslexic when screened as part of a UK study (6). This is a significant difference compared to the rate in the general workforce. It suggests that at least 300,000 dyslexic entrepreneurs are working in the UK (see Appendix 1).

1.2 The Talents Associated with Dyslexia

The Frostig Center, an American education and research organisation established in the 1950s, noted in their qualitative analysis of a 20 year study that dyslexic people often have talents in the areas of:

- problem-solving;
- visual awareness;
- communication (7).

*Definition of Entrepreneur

'Entrepreneurship' in this report refers to Bolton and Thompson's (2000) definition of 'entrepreneur' which includes successful expansion of a business after an establishing phase. It is the parameter adopted by Logan (2009) in Cass Business School's sample of 300 entrepreneurs and corporate managers.

Footnotes

(1) NHS 2011

(2) DfEE 2000

(3) DfEE 2000, Reid & Kirk 2000, Growing Business 2007, British Dyslexia Association 2012

(4) ONS 2012

(5) Growing Business 2007

(6) Logan 2009

(7) Nicholson & Fawcett 1999, Goldberg et al 2003, NHS 2011

The NHS note that these talents are often manifested in:

- good verbal and social skills;
- creative lateral thinking episodes;
- good visual reasoning and understanding;
- an ability to grasp ‘the big picture’ (8).

The ability of dyslexics to “understand the ‘big picture’”(9) may help to explain the findings at the Centre for Learning and Attention at Yale University, which noted that dyslexia was more prevalent among high-level creative thinkers than average (10).

1.3 Personality

The strengths of individual dyslexics often result from their personality characteristics, which create aptitudes for:

- verbal communication;
- conceptual thinking;
- innovation (11).

These strengths are reflected in *Fortune* magazine’s report in 2002 which showed the career choices of dyslexics being clustered in particular fields (12) which require these skills. The Krasnow Institute for Advanced Study at George Mason University also reports that dyslexia often shapes success in creative arenas, such as the arts and sciences (13). This may be because dyslexics generally have greater perseverance in fields in which they have a deep interest (14) and can pursue their passions (15).

One of the main traits which dyslexic adults may possess, and which proves useful in business, is described by the Royal College of Nursing Practice Forum as:

“self-determination: being pro-active, fitting situations to their strengths...and seeking creative solutions...” (16).

Dyslexic adults tend to exhibit mental flexibility in adapting to frequent changes in focus and activity (17). It is thought that the difficulties dyslexics overcome in successfully adapting to childhood and education cultivate a “risk-taking, problem-solving, resilience” (18) in adulthood.

Footnotes

(8) NHS 2011

(9) NHS 2011

(10) Mackay 2007

(11) NHS 2011

(12) Morris 2002

(13) DfEE 2000, Fink 2002

(14) Eide & Eide 2011

(15) Fink 2002

(16) Aiken & Dale 2007

(17) Eide & Eide 2011

(18) Morris 2002

1.4 Accomplished dyslexics

“Dyslexia has always been a massive positive for me.”

(Tom Pellereau – Entrepreneur and Winner of BBC TV’s *The Apprentice* 2011) (19)

There are many business success stories where dyslexia has played a key role in project creation and development. The high level accomplishments of dyslexics span many fields, and the cross-over between dyslexia and creativity is demonstrated by the calibre of the individuals mentioned here.

The fields occupied by the dyslexic high achievers listed below (20) differ from regular jobs or employment. They require a high degree of idiosyncratic thought and creative innovation rather than following organised systems and routines. It is in these arenas where dyslexic thinking performs strongly.

Ansel Adams	Whoopi Goldberg	Nicholas Parsons
Muhammad Ali	Duncan Goodhew	George Patton
Hans Christian Andersen	Antony Gormley	River Phoenix
Fred Astaire	Jerry Hall	Pablo Picasso
David Bailey	Susan Hampshire	Sir Steve Redgrave
Princess Beatrice	Woody Harrelson	Keanu Reeves
Harry Belafonte	Prince Harry	Beryl Reid
Alexander Graham Bell	Jimi Hendrix	Guy Ritchie
Orlando Bloom	Michael Heseltine	Anita Roddick
Marlon Brando	Tommy Hilfiger	Auguste Rodin
Sir Richard Branson	Dustin Hoffman	Steven Spielberg
George Burns	Anthony Hopkins	Sylvester Stallone
Darcy Bussell	Bob Hoskins	Rick Stein
Agatha Christie	Eddie Izzard	Sir Jackie Stewart
Sir Winston Churchill	Thomas Jefferson	Peter Stringfellow
Tom Cruise	Steve Jobs	Imogen Stubbs
Roald Dahl	Magic Johnson	Lord Alan Sugar
Walt Disney	Felicity Kendal	Liv Tyler
Thomas Edison	John F. Kennedy	Zoe Wanamaker
Albert Einstein	Nigel Kennedy	Andy Warhol
Ben Elton	Jodie Kidd	George Washington
Michael Faraday	Keira Knightley	Ruby Wax
F. Scott Fitzgerald	Lynda La Plante	Florence Welsh
Harrison Ford	Jay Leno	Marco Pierre White
Henry Ford	Carl Lewis	Henry Winkler
Michael J. Fox	Michelle Mone	Frank Woolworth
Noel Gallagher	Jamie Oliver	WB Yeats
Bill Gates	Ozzy Osbourne	Benjamin Zephaniah
AA Gill	Theo Paphitis	

Footnotes

(19) BBC 2011(d)

(20) British Dyslexia Association 2011

1.5 The Incidence of Dyslexia in Entrepreneurs

In 2001 research at the University of Bristol reported 1 in 5 (19%) of the UK entrepreneurs surveyed were dyslexic (21). This rate is almost double the 10% estimated incidence of dyslexia in the general UK population (22). This equates to at least 300,000 dyslexic entrepreneurs working in the UK. In 2009 the same researcher, Professor Julie Logan, on behalf of Cass Business School reported 35% of entrepreneurs in a sample from the USA showing characteristics of dyslexia (23), more than double the general population rate of 15% (24).

So how many of the entrepreneurs in the UK are aware that they are dyslexic? Research by Frey (1990), Hanley (1997) and Logan (2001) point to a lack of identification of dyslexia in UK schools. Some of those missed by the school system are later identified at university. A study by Singleton in 1999 found that 43% of all dyslexic students were assessed as dyslexic only after they had started their courses (25). As entrepreneurs do not routinely take the university route there are fewer opportunities for identification. This may mean that dyslexia in current, future and potential entrepreneurs is being missed and many may be unaware that entrepreneurship is an area of work where their innovative thinking has been reported to bring significant advantages and rewards (26).

Indeed Cass Business School say that this lack of identification and intervention:

“may be the reason for the difference in the incidence of dyslexia in the UK [19%] and US [35%] entrepreneurship populations” (27).

This situation has significant economic repercussions with the Dyslexia Institute in 2007 estimating that unrecognised dyslexia cost the UK economy £1 billion per year (28).

Footnotes

(21) Logan 2001

(22) British Dyslexia Association 2012

(23) Logan 2009

(24) Gale Group 2008, Logan 2009, International Dyslexia Association 2012, Wagner 2012

(25) Singleton 1999

(26) Fink 2002, Morris 2002, Goldberg et al 2003, Mackay 2007, NHS 2011, BBC 2011(d)

(27) Logan 2009

(28) Phillips 2010

1.6 Playing to Strengths

Some of the business strengths of dyslexics have been widely reported. These show that dyslexic entrepreneurs are more able to:

- spot opportunities;
- develop a vision;
- form relationships in order to motivate and delegate (29).

In terms of capitalising on these talents dyslexic entrepreneurs appear to have major strengths in three distinct areas:

- **Creativity**

Tom West from the Krasnow Institute:

“many dyslexics excel at high market value creative and entrepreneurial skills [and are] able to...observe patterns in markets that others do not see...” (30).

- **Delegation**

Interviews with dyslexic entrepreneurs in *Fortune* magazine in 2002 suggest that dyslexics are able to successfully hand over responsibilities to others. This is because, from an early age, they have had to develop negotiating strategies for fitting in with other people in circumstances where dyslexia was not recognised (31); they are able to place more trust in others (32).

- **Communication**

Several studies, including works published by the International Dyslexia Association and the Dyslexia Association of New Zealand, show that dyslexic adults generally possess the traits of being able to employ creative approaches and innovative solutions to problems (33). Successful application of solutions often requires enhanced communication skills which dyslexics possess (34), particularly in verbal communication (35). These skills help to develop successful team-building in business, another widely reported feature of dyslexic entrepreneurs (36).

Footnotes

(29) Eide & Eide 2011

(30) Mackay 2007

(31) Morris 2002

(32) Tyler 2007

(33) Goldberg 2003, Mackay 2007, Mellard & Woods 2007, NHS 2011

(34) Nicholson & Fawcett 1999

(35) NHS 2011

(36) Nicholson & Fawcett 1999, Morris 2002, Tyler 2007, Logan 2009

1.7 What Dyslexia Does for Business

In the last ten years research from England, the USA and New Zealand shows that dyslexic entrepreneurs produce good economic results (37) and the wide economic benefits dyslexia brings can be seen in Cass Business School's survey of 300 executives in the UK and USA. They reported that dyslexic entrepreneurs tend to contribute more than non-dyslexic entrepreneurs in two important areas for economic growth:

- dyslexic entrepreneurs set up more businesses;
- dyslexic entrepreneurs employ more people (38).

The difference in results between the groups was statistically significant (39).

The high-quality leadership, delegation and personal interaction skills and talents which dyslexics characteristically display are described as "essential for business growth" by Cass Business School (40). They, and others, suggest that this information could be valuable for investors when considering making an investment (41).

On this point The Krasnow Institute reported:

"a growing awareness in business...of the high value of the innovative and entrepreneurial skills that many dyslexics exhibit " (42).

These innovative skills include creating new approaches and solutions to challenges, based upon a flexible attitude to problem-solving. This positive attitude is often aligned to a resilient and tenacious attitude to success. In dyslexic entrepreneurs these deeply-embedded strategies may give them the "edge" over other entrepreneurs (43), and they may prove to be essential qualities for long-term business success (44).

Footnotes

(37) Fink 2002, Mackay 2007, Logan 2009

(38) Logan 2009

(39) Logan 2009

(40) Logan 2009

(41) Cavill 2007, Logan 2009

(42) Mackay 2007

(43) Morris 2002, Logan 2009

(44) Mackay 2007, Franks & Frederick 2010

Part 2: Why Investment Matters

2.1 The UK Economy and Future Innovation

The UK economy in 2012 is in a state of stagnated low growth. According to members of the Monetary Policy Committee this pattern is not predicted to change significantly in the foreseeable future (45). In 2011 UK business leaders, economists and politicians identified an enterprise culture born from *innovation* in new ideas and development of new markets at home and internationally as the one key requirement for economic recovery (46).

In 2011 Sir Ken Robinson, leader in the development of education and business innovation, called for the UK to develop an economy based on “innovation” and “creativity”, which he called “the lifeblood of science and communities” (47). To make this shift in economic emphasis Robinson proposed that the UK needs to work with people “in their element” who are working to their natural strengths. This is most evident and available in a self-determined career compared to a routine employment post (48).

The Chancellor of the Exchequer George Osborne echoed this appraisal saying in his 2011 budget speech that “Britain is open for business” (49). Following this announcement Sir Richard Branson, Peter Jones, Duncan Bannatyne and twelve more leading entrepreneurs described start-up businesses as “the key to getting Britain motoring” (50). They asserted that:

“Britain needs a culture that nurtures more successful start-ups, which will pave the road to recovery” (51).

On the same day, Sir Richard Branson proclaimed the “essential” need to inspire a new wave of entrepreneurs in order to secure long-term growth in the UK (52). His statement coincided with the launch of Start Up Britain, described by leading entrepreneurs as:

“a new initiative that aims to accelerate the future business success stories of our nation...led by entrepreneurs for entrepreneurs” (53).

Footnotes

(45) Aldrick 2011

(46) BBC 2011(a)

(47) BBC 2011(b)

(48) BBC 2011(b)

(49) Osborne 2011

(50) Branson et al 2011

(51) Branson et al 2011

(52) Branson 2011

(53) Branson et al 2011

At the launch of Start Up Britain Prime Minister David Cameron said:

“To drive our economy forward we need thousands to...strike out on their own...Now is the time to do it” (54).

These leading business figures and policy-makers evidently recognise the value of the new entrepreneur to economic growth. A significant number of these entrepreneurs have the advantage of being dyslexic, which makes them ideal for running businesses at the start-up phase (55). They are at the heart of the type of people the UK economy needs to direct its investment towards.

The Case Study carried out by the authors (see Appendix 2) examines one entrepreneur who has credited part of his success to his dyslexia. Tom Pellereau won the BBC's *The Apprentice* business competition in 2011, receiving a £250,000 investment from Lord Sugar for a new joint venture with him. The case study compares Mr. Pellereau's dyslexia with the wider research evidence on dyslexia and entrepreneurship. Both sets of evidence concur that dyslexia can be a positive creative tool for generating wealth while simultaneously also acting as an obstacle to business organisation.

This conclusion that there are barriers still to be overcome to maximise economic contributions from the work of dyslexic entrepreneurs reinforces Cass Business School's assessment that:

“There is an urgent need for comprehensive methods of intervention and remediation” (56).

This is why investment matters. Cass Business School questions how entrepreneurs are taught and asserts that in business school education:

“The methods of teaching have already failed many dyslexics, particularly in the UK” (57).

They call for a more “innovative approach” to working with dyslexic business people, in order to support them to create the successful businesses which the economy will rely upon in the future. Some of the new approaches to working with dyslexic entrepreneurs are discussed in the next section.

Footnotes

(54) Cameron 2011

(55) Fitzgibbon & O'Connor 2002

(56) Logan 2008, Logan 2009

(57) Logan 2008

Part 3: How to Support Dyslexic Entrepreneurs

3.1 Where Business Can Benefit

There are distinct aspects of business where entrepreneurs would benefit from specialist dyslexia support. These include:

Awareness

- of the likely effects of their dyslexia on themselves;
- of the likely effects of their dyslexia on their businesses.

Communication

- with their customers;
- with their suppliers.

Organisation

- of the entrepreneur's working environment and culture;
- of their suppliers' business interactions with them.

The following strategies and procedures will help to improve entrepreneurial performance in these areas.

3.2 Action to Support Dyslexic Entrepreneurs

A. Discover Where the Talent Is

One of the typical challenges faced by children and adults with dyslexia is fluency in reading. This characteristic then often becomes the focus for a support plan to create improvements. This arrangement can mask an important facet of dyslexia:

“a problem with reading may obscure ability – even talent – in another area.”
(58)

In 2007 Cass Business School concluded that in the long-term this process meant that many youngsters with entrepreneurial talent were not finding opportunities to employ it (59). The same organisation stated again in 2010 that creating a culture which supports and nurtures entrepreneurial behaviour is a key element in creating the self-confidence in the UK's potential dyslexic entrepreneurs to start up new businesses and create jobs (60). This culture can be created by employing some or all of the methods mentioned below.

Footnotes

(58) Fink 2002

(59) Tyler 2007

(60) Logan et al 2010

B. Improve Government Support

It has been widely established that benefits accrue to the economy when equal access to work is ensured (61), and legislation such as the Equality Act 2010 and Disability Discrimination Act 2005 help adults to receive provision for their dyslexia at work (62). The main government scheme is *Access to Work*, run by the Department for Work and Pensions. In 2010-11 the scheme supported 3,150 dyslexic workers (63). This is approximately 0.1% of all dyslexic workers, or one in every thousand.

While some dyslexic adults will be employed in jobs where adjustments have accommodated different communication styles, such a small proportion being helped by the *Access to Work* scheme suggests that a deep well of creative and innovative working talent is not being put to optimum use in the UK workforce. The *Access to Work* scheme could be increasingly deployed by government to meet dyslexic working needs in order to bring benefits to the UK economy.

Although the *Access to Work* scheme asks clients separately whether they are dyslexic or are self-employed, in 2012 the DWP were unable to confirm how many clients were self-employed **and** dyslexic (64). This self-evaluation by DWP implies that government does not know basic information such as the number of dyslexic entrepreneurs it is already helping. Clearly there is a high level need to learn more about the importance to the economy of this sector.

C. Show the Advantages in Order to Change Attitudes

Studies over a ten year period have consistently shown that the talents of dyslexics have yet to be fully understood and harnessed by businesses in the UK (65). It has been suggested that because dyslexia is publicly perceived as a 'disability' investors are not taking advantage of the many commercial benefits and advantages that come with dyslexic entrepreneurs (66).

One main solution widely proposed to create understanding in business is to improve awareness of dyslexia and work (67). For example, the British Dyslexia Association's Annual Conference in 2011 included papers on:

- altering public and employment perceptions;
- supporting the transition period to work (68).

Footnotes

(61) Everatt et al 1999, DfEE 2000, Morris 2002, Growing Business 2007, Mackay 2007, Mellard & Woods 2007, Logan 2009

(62) EFD 2005, ACAS 2010, British Chambers of Commerce 2010

(63) DWP 2011

(64) DWP 2012

(65) Everatt et al 1999, Fink 2002, Growing Business 2007, Mackay 2007, Mellard & Woods 2007, Tyler 2007, Logan 2009

(66) Cavill 2007

(67) DfEE 2000, Sin et al 2006, Wolf & Evans 2004, Growing Business 2007, Aiken & Dale 2007, Mackay 2007, Bell 2009, Logan 2009

(68) British Dyslexia Association 2011

D. Develop a Work Strategy

Success in work is known to depend in part on successfully applying personal skills to tasks best suited to them (69). In the case of dyslexic entrepreneurs, Eide and Eide, authors of *The Dyslexia Advantage*, suggest a strategy of:

- engaging their strong skills and avoiding their weaker ones;
- engaging their interests to maximise efforts;
- focusing on end results, rather than the methods applied (70).

E. Create Mentors

Successful entrepreneurs generally have mentors to guide and support their work (71). Creating such a support system for dyslexic entrepreneurs would give them more freedom to develop the creative and innovative visions at which they excel, while the *organisation* of their businesses are adapted to take account of their dyslexia. The result is positive developments in their businesses and ultimately national benefits to the UK economy.

A process of role model creation and mentoring was started in 2009 by the British Dyslexia Association, Dyslexia Scotland and Cass Business School. They ran an informal mentoring scheme to link up dyslexic entrepreneurs with successful dyslexic people to help them focus on the positive attributes which their dyslexia gives them and share successful coping strategies. In 2011 the scheme switched from entrepreneurs to large employers, and there are currently no new mentors made available to entrepreneurs. A continuation of this mentoring process, perhaps in line with the aims and objectives of the Start Up UK programme, would be beneficial to dyslexic entrepreneurs. Indeed, the British Dyslexia Association and Dyslexia Scotland believe that mentoring could improve the confidence of dyslexic people to start up in business (72), leading to more than 500,000 new entrepreneurs in the UK if USA rates were matched (73).

F. Communicate in Dyslexic-friendly Ways

Quickly removing barriers which hinder entrepreneurs in using their skills to maximum effect is important for economic recovery. One barrier for a significant number of entrepreneurs is that some business practice is not aligned with their dyslexic way of working. This creates barriers in two ways:

- it can slow up the efficiency and management of the entrepreneur's own business;
- it can impact on the entrepreneur's interactions with their business network and suppliers.

Footnotes

(69) DfEE 2000, Fitzgibbon & O'Connor 2002, Goldberg 2003, Wolf & Evans 2004, Aiken & Dale 2007, Growing Business 2007, Mellard & Woods 2007, Eide & Eide 2011, NHS 2011

(70) Eide & Eide 2011

(71) Fink 2002, Channel 5 2011

(72) Cavill 2009

(73) Logan et al 2010

The economy could benefit to a significant degree from the rapid removal of this barrier. The most effective solution is to invest in creating wider understanding (74) in the business community and providing the support required for dyslexic entrepreneurs (75).

G. Build Confidence

Dyslexic workers, like other workers, are seen to use their own initiative to improve their working environment (76). However, personal qualities alone are not enough for business success. Even within the niche of UK entrepreneurship, research at the University of Bristol noted that levels of confidence were different between entrepreneurs who were dyslexic compared to those who were non-dyslexic (77).

Part of the explanation for this confidence gap may be because, according to Cass Business School, dyslexia is not identified efficiently in young people in the UK (78). The Department for Education and Employment suggested in 2000 that this has knock-on effects, because dyslexics require different teaching methods than usual, which reflect their particular skills and individual dyslexic characteristics (79).

In 2007 Vicki McNicol, Director of Development at the British Dyslexia Association, said that when these differences are allowed for:

“abilities and talents are able to shine through” (80).

In the same year Keith Gilbey, Director of Strategy at Business Link for London, added that supporting these differences means adapting ways of working in order to:

“create a supportive environment [to] harness the skills dyslexics typically possess” (81).

H. Use Information Technology

When dyslexics have controlled their working environment (82) they have shown entrepreneurial flair (83). One of the fundamental ways of achieving this is to ‘tune in’ to the dyslexic way of working through the use of multi-sensory resources and technology (84). This is because the most effective cognitive and perceptual strategy which dyslexics report using when processing environmental information involves adopting a multi-sensory approach (85).

Footnotes

(74) Growing Business 2007, Wadhwa et al 2009

(75) Growing Business 2007

(76) Everatt et al 1999, Morris 2002, Goldberg et al 2003, Aiken & Dale 2007, Growing Business 2007, Mellard & Woods 2007, Morris & Turnbull 2007, Logan 2009

(77) Logan 2001

(78) Hanley 1997, Logan 2001, Tyler 2007

(79) DfEE 2000

(80) Growing Business 2007

(81) Growing Business 2007

(82) Fitzgibbon & O'Connor 2002

(83) Fink 2002, Morris 2002, Mackay 2007, Logan 2009

(84) DfEE 2000

(85) Morris 2002, NHS 2011

Creating a multi-sensory environment for dyslexic workers is important because one of the most common characteristics of dyslexia concerns the auditory processing of verbal information, in terms of speed and memory (86). Today's digital technology such as mobile phones, PCs, text and email create more communication opportunities than ever before. The formats for sending, storing and recalling information can be adapted to suit individual needs in an unprecedented way. Testimony to the long-term advantages which good IT skills can bring to a dyslexic entrepreneur are summed up by Tom Pellereau, winner of *The Apprentice* in 2011:

“I was so lucky because computers came out at the time
when I was having to start writing essays” (87).

According to Cass Business School:

“having enhanced communication skills would provide an entrepreneur or
manager with a definite business advantage” (88).

Software packages aimed at supporting IT accessibility for dyslexics have been created, such as SeeWord, designed by the University of Dundee (89). They noted that this was not the end of the process of making necessary modifications for dyslexics, as there was a deeper, underlying mis-match between the needs of dyslexic IT users and the current systems, despite the claims of software developers (90). They concluded that:

“accessibility for this group demands...reconsideration of the design
of information systems” (91).

The need for properly-adapted IT resources to be made available to dyslexic entrepreneurs is well-founded. The British Dyslexia Association's Annual Conference 2011 included a paper on IT provision for dyslexics (92). Technology is seen as important because of its ability to offer control over the environment in which information is processed. This is a vital tool in helping dyslexic entrepreneurs harness business information more effectively, which improves their business efficiency and personal confidence (93), both areas being essential components for economic growth.

Footnotes

(86) NHS 2011

(87) BBC 2011(d)

(88) Logan 2009

(89) Gregor & Dickinson 2005

(90) Gregor & Dickinson 2005

(91) Gregor & Dickinson 2005

(92) British Dyslexia Association 2011

(93) Logan et al 2010

I. Engage with Wider Business Support

In 2011 Michelle Mone, one of the UK's leading entrepreneurs, added her voice to calls for increased support and guidance for new entrepreneurs, identifying that:

“media, banks and government have a big part in this” (94).

She was of the opinion that:

“help is maybe not publicised enough” (95).

It is important to the economy that this situation changes quickly to reflect Cass Business School's assessment that direct support for dyslexic entrepreneurs is “urgent” (96).

J. Provide Specialist Support

As with dyslexic students in Higher Education (who have access to weekly person-centred support sessions), support for entrepreneurs should be provided by specialists with appropriate academic qualifications and experience. This will help ensure that support is evidence-based with a body of research underpinning the knowledge base and delivered (97) by a co-ordinated, responsive and effective system of support for dyslexic entrepreneurs and their business networks. This creates a sound basis for public or private investment.

Footnotes

(94) Channel 5 2011

(95) Channel 5 2011

(96) Logan 2009

(97) ADSHE 2008

Summary

4.1 Dyslexia and Entrepreneurs

- dyslexia is a different way of information processing and thinking;
- dyslexia affects 10% of the adult population;
- research suggests that one in every five entrepreneurs is dyslexic;
- this equates to at least 300,000 dyslexic entrepreneurs in the UK;
- they start up more businesses than non-dyslexic entrepreneurs;
- they employ more workers than non-dyslexic entrepreneurs.

4.2 Dyslexic Thinkers have Talents in:

- creative and innovative problem-solving;
- communicating with people;
- creating effective teams;
- seeing the 'big picture' in business.

Dyslexic thinkers work best in areas where they can pursue their passions. Dyslexic entrepreneurs report that they possess a resilient attitude towards achieving success.

4.3 Accomplished Dyslexics Include:

Lord Alan Sugar, Anita Roddick, Steve Jobs, Theo Paphitis, Bill Gates, Sir Richard Branson and Sir Jackie Stewart.

4.4 Dyslexic Advantages for the Economy

Many dyslexic thinkers are not identified at school in the UK, so may not be aware that entrepreneurship is an area of work where their talents can bring significant advantages and rewards.

The Dyslexia Institute estimated that unrecognised dyslexia cost the UK economy £1 billion in 2007.

Researchers have called on business leaders and investors to recognise that the skills and talents that dyslexic thinking brings to business are important for future economic growth and job creation.

4.5 Improving Investment in Dyslexic Entrepreneurs

Investment is important because business leaders and government say deploying entrepreneurial talent is the most important element for economic recovery in the UK.

The UK could make more of its entrepreneurial talent by:

- identifying all dyslexic thinkers at school and the talents they possess;
- discovering how many dyslexic self-employed people the government supports;
- supporting more than just one in every thousand dyslexic workers.

4.6 Providing Support

Support can be improved in two areas:

1. Investing in qualified dyslexia specialists to work with dyslexic entrepreneurs. These professionals would improve business **awareness**, **communication** and **organisation**. This would be delivered through:

- Discovering Where the Talent Is;
- Improving Government Support;
- Showing the Advantages in Order to Change Attitudes;
- Developing a Work Strategy;
- Mentoring;
- Communicating in Dyslexic-friendly Ways;
- Building Confidence;
- Using Information Technology;
- Engaging with Wider Business Support.

2. Creating a co-ordinated, responsive and effective system of funded support.

This would:

- speed up delivery of support made available;
- improve the quality of support made available.

Conclusion

Investment in entrepreneurs is essential to the UK economy.

Researchers have identified that dyslexia is more commonly found in entrepreneurs than the general population and this could be because the talents associated with dyslexia fit well with growing a business.

Dyslexia has associated difficulties and provision of specialist support for dyslexic entrepreneurs and their wider business support network could bring significant benefits to the economy.

The three main benefits are:

- better business innovation;
- increased business growth;
- more job creation.

Appendix 1

Calculating the number of dyslexic entrepreneurs working in the UK

Aim

When making their calculation of the number of dyslexic entrepreneurs working in the UK the authors' aim was to arrive at a valid number which disclosed *at least* how many business people were in this group. This outcome was preferred to attempting to arrive at the *total* number because that calculation runs the risk of inflating the figure beyond the reality, therefore making it less reliable.

To this end the authors' formula for calculating the total number of dyslexic entrepreneurs in the UK is designed to generate a 'low figure' by incorporating generous margins of error at key points to allow for unknown factors. Further research is welcome to help clarify and define the precise size of the group.

Sources

The authors' research gathered much statistical data regarding dyslexia, work and the UK economy. However, there is no single reliable database of businesses which could provide the number of dyslexic entrepreneurs working in the UK (1). It was necessary to calculate an approximate figure based upon collation of data from several sources. The sources referred to included:

- Cass Business School, London
- Department for Business Innovation and Skills (BIS)
- Federation of Small Businesses (FSB)
- Office for National Statistics (ONS)
- Scottish Government
- Scottish Enterprise
- University of Bristol

Defining an Entrepreneurial Business

More than 99% of all enterprises in the UK are Small and Medium Enterprises (SMEs) (2). This group comprises sole proprietors and partnerships, micro businesses with less than ten employees and firms with up to 250 employees (3).

The majority of dyslexic entrepreneurs will work within SMEs, but the exact proportion cannot be stated definitively due to the challenge in creating a reliable distinction between an 'entrepreneur' and someone who is 'self-employed'; both types may develop entrepreneurial behaviour in particular areas or set phases of their businesses, while not showing growth or innovation in other areas.

A more reliable gauge for obtaining the number of entrepreneurs may come from examining the *size* of businesses. Start-up firms by their nature tend to be launched by individuals or with very few people in their employment, and remain this way until a growth phase is reached. The authors considered that it is in that group that

entrepreneurs are most likely to be present. Thus the raw figure for **all** entrepreneurs in the UK was generated from BIS data on the numbers of SMEs who are sole proprietors and those who employ up to nine people in the UK.

Method

The gross number of Small and Medium businesses in the UK was arrived at using current statistics from the Department for Business Innovation and Skills (BIS). They in turn sourced their data from the Inter-Departmental Business Register (IDBR), administered by the Office for National Statistics (ONS).

The gross number was then reduced by the authors to take account of factors which could identify some SMEs as non-entrepreneurial in nature. The reduction made was 50%.

The reduced number of SMEs was used to calculate the proportion of entrepreneurs who were dyslexic based on Logan's study at the University of Bristol (4) and subsequent studies at Cass Business School in London (5). The proportion allocated was 19%.

In order to take into consideration some of the limitations on accuracy due to factors in the research procedure and unknown factors in the source data the statistic obtained for the number of dyslexic entrepreneurs working in the UK had a high margin of error applied to it. This margin was 25%.

The figure obtained after the 25% margin of error was deducted represents the number of dyslexic entrepreneurs working in the UK.

Calculations

1. Number of SMEs in the UK in 2011 that were sole proprietorships and partnerships or employed less than 10 people:

Sole proprietorships and partnerships:	3,364,020
With up to 9 employees:	<u>968,545</u>
Total:	4,332,565 (6)

Small SMEs: 4,332,565

2. Estimating how many SMEs can be described as 'entrepreneurial' requires deducting those firms whose owners:

- do not intend growing their businesses;
- do not intend creating new products or services;
- intend to cease trading.

Apply margin of error of 50% for these factors:

$4,332,565 - 50\% \text{ that are non-entrepreneurial } (2,166,283) = 2,166,282.$

Small SMEs who are entrepreneurial: 2,166,282

- 3.** Calculate 19% of entrepreneurs found by Logan (7) to be dyslexic:
19% of 2,166,282 = 411,593

Initial number of dyslexic entrepreneurs working in the UK: 411,593

- 4.** Apply margin of error of 25% due to research limitations (see below):
411,593 – 25% (102,898) = 308,695

5. Result: Number of dyslexic entrepreneurs working in the UK: 308,695.

Limitations of Result

The margins of error were set high to avoid inflating the result to an unrealistic level. This was a conservative course of action aimed at finding out *at least* how many dyslexic entrepreneurs are working in the UK, rather than the *total* number. In this regard, the final result is a probable underestimate of the actual number.

The cautious levels of the margins of error were influenced by the following variables:

- reliably distinguishing 'entrepreneur' from 'self-employed';
- reliably distinguishing a start-up SME from an established one;
- the static 'snapshot' nature of the source data on SMEs;
- the instrument used by Cass Business School to define dyslexia;
- limitations in the sample size and composition of entrepreneurs obtained by Cass Business School;
- existing margins of error in all the source data.

Further research may establish to a more accurate degree the extent of dyslexia among UK business people than this report is able to achieve.

Footnotes

- (1) BIS 2011
- (2) BIS 2011, Scottish Enterprise 2012, FSB 2012
- (3) BIS 2011, Scottish Government 2011
- (4) Logan 2001
- (5) Logan 2009, Logan et al 2010
- (6) BIS 2011
- (7) Logan 2001

Appendix 2

Case Study: Tom Pellereau – Dyslexic Entrepreneur

This case study aims to show how the characteristics of his individual dyslexia helped to shape the career decisions for a successful UK entrepreneur.

Dyslexic inventor and entrepreneur Tom Pellereau created and successfully marketed the world's first curved nail file. In 2011 he was chosen from 20,000 candidates in the BBC's *The Apprentice* competition to receive a £250,000 investment into his future business from Lord Sugar, one of the UK's most successful entrepreneurs.

In common with many entrepreneurs, Mr. Pellereau has a scientific background, is highly inventive, well qualified and motivated. However, as the competition neared its conclusion Mr. Pellereau highlighted one distinct reason why he was working in his chosen field:

“Because of my dyslexia I was rubbish at some things, like languages and English, so I was always going to be scientific and making stuff. For me maths, science, design and technology were just obvious choices and I really enjoy doing them” (1).

This explanation reflects Fink's findings from 60 entrepreneurs that a key feature in the careers of successful dyslexics is:

“matching career goals with personal passions” (2).

A key personal attribute Mr. Pellereau reported possessing is one of the characteristics of dyslexia: creative visual dexterity and understanding (3). Mr. Pellereau described his insight:

“If I had an idea I could basically make it in my brain. I could visualise it, I could start spinning it around, I could look at it and work out how it would be made. And I discovered that not everyone can do that, which was really handy” (4).

In addition to visual creativity, an ability to employ creative methods and find innovative solutions describes the dyslexic entrepreneur (5). Mr. Pellereau's mother Phillippa, a teacher, gave her opinion of Tom's abilities in this area:

Footnotes

(1) BBC 2011(c)

(2) Fink 2002

(3) NHS 2011

(4) BBC 2011(d)

(5) Goldberg et al 2003, Mackay 2007, Mellard & Woods 2007, NHS 2011

“The advantages of dyslexia are that you are much better at adapting and you can go underneath and over the top of a problem, not take the direct route, but you can find out other ways of problem-solving. Tom’s good at that” (6).

By finishing ahead of 20,000 other candidates Mr. Pellereau demonstrated the tenacious and resilient qualities which all entrepreneurs must possess, dyslexic or not (7). A tenet of that solid foundation is personal confidence, which Mr. Pellereau displayed in his assessment of dyslexia in his life:

“Dyslexia for me has always been a massive positive” (8).

Lord Sugar’s business aide Nick Hewer recognised how Mr. Pellereau’s work reflected the talents his dyslexia gave him:

“Tom’s got one huge benefit: he can conceive and design products and take them to market – hugely important” (9).

This “huge benefit” reflects the International Dyslexia Association’s message that dyslexia can create circumstances where it is a positive and significant consideration in work (10). It proved to be significant to the outcome of the investment process for Mr. Pellereau.

However, the drawbacks in Mr. Pellereau’s working life included meeting some of the barriers characteristic of dyslexia: reading, writing, organisation and planning (11). Mr. Pellereau reinforced this notion by assessing his own abilities with English and languages as “rubbish”. This was compounded during the interview process in the Final of the competition, when Lord Sugar’s aides scrutinised Mr. Pellereau’s business plan.

Their comments included:

“It’s full of errors. There’s not a single number that adds across correctly.”
(Claude Littner)

“I find some of it confusing and almost obtuse.”
(Mike Souter)

Other general comments from his interview and subsequent Board Conference included:

“Tom’s not a finisher” and “Tom needs managing” (12).

Footnotes

(6) BBC 2011(c)

(7) Morris 2002, Growing Business 2007, Logan 2009

(8) BBC 2011(c)

(9) BBC 2011(c)

(10) Mellard & Woods 2007

(11) NHS 2011

(12) BBC 2011(d)

Such comments reflect the dyslexic characteristics noted above, and highlight that Mr. Pellereau was prone to making mistakes in his business presentation for significant investment. This was not his intended outcome. In this case Mr. Pellereau's other assets were enough to carry him successfully through the interview process and win the investment, but this is not always the case for any entrepreneur.

Mr. Pellereau's example may not be typical of other entrepreneurs in the sense that his self-reported and interview-based qualitative evidence is gathered in the distinct context of public broadcasting. However, the more objective evidence from business professionals and a member of Mr. Pellereau's family appears to match findings consistently reported by other dyslexic entrepreneurs and researchers, adding validity to the findings. In this context Mr. Pellereau's case is able to be related genuinely to the experience of other entrepreneurs and the business people they work with.

This wider experience suggests that dyslexia can be a positive creative tool for generating wealth and simultaneously a negative obstacle to business organisation. This conclusion reinforces the importance of Cass Business School's assessment of the recent working world of dyslexic entrepreneurs, where:

“There is an urgent need for comprehensive methods of intervention and remediation” (13).

Footnote

(13) Logan 2008, Logan 2009

Appendix 3

Data Collection

During 2011 and 2012 the authors conducted a literature search through libraries, periodicals and on-line sources for papers and articles published since 2000 relating to the provision for dyslexia in the workplace.

Priority sources came from governments and agencies, academic bodies, trades unions, businesses and charitable organisations.

The literature search found around 130 relevant documents before the research focus was refined to examine studies into the background and experience of dyslexic entrepreneurs in the UK and USA. This process yielded approximately 60 documents that provided primary and secondary evidence of a statistical and a qualitative nature, from which patterns have been identified and reported here.

A draft copy of the report was reviewed within the field in 2012 before publication.

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