

DYSLEXIA: HIDDEN TALENTS IN THE WORKPLACE

A thesis submitted to the University of Sheffield for the degree of Doctor of
Philosophy

Poliana Piacesi Sepulveda

Department of Psychology

October 2018

Abstract

The purpose of this PhD research was to apply the principles of Positive Dyslexia to the current status of dyslexia in the workplace, with the long-term aim of creating tools to enable companies to become dyslexia-friendly. Positive Dyslexia, according to Nicolson (2015), has the main aim of allowing dyslexic people to find their strengths, to craft their lives according to these strengths and thus to exploit the possibilities that these can bring to their own lives, and for the advantage of others. Four studies are presented within this thesis. Taking as starting point the “Dyslexia Decathlon”, developed by two qualitative studies from S. Agahi et al. (2014) is a set of ten skills that were found to be characteristic in those with dyslexia. These ten skills were divided into three pillars (social, cognitive and work strengths) which were all underpinned by the capacity for unconventional thinking. The social pillar includes traits such as teamwork, empathy and communication; The Mental pillar is composed by innovation/creativity, visuo-spatial and big-picture thinking and the work pillar determination and resilience, proactivity and flexible coping. The empirical work undertaken for the assessment of the dyslexia decathlon used a sampling of successful dyslexic adults and entrepreneurs. Therefore one of the aims of this thesis was to establish whether the skills identified for the dyslexia decathlon skills also can be understood to be present at an earlier age or not. The findings were followed up, in order to develop principles that would allow companies to “talent manage” their dyslexic employees.

Study 1 was undertaken with 251 non-dyslexic students and 70 dyslexic students, all from the University of Sheffield. The findings from this study revealed that dyslexic students showed significantly higher entrepreneurial intentions and traits when compared with the non-dyslexic student sample, together with a range of significant differences in parts of the Dyslexia Decathlon.

Study 2 aimed to address the limitations present in Study 1, by using a qualitative approach to understand discrepancies in the finding associated with the themes of Resilience, Big Picture Thinking, Visual Spatial and Communication skills. The findings demonstrated that although dyslexic individuals have strong qualities and traits, such as the capacity for creativity, determination, resilience, persistence, strong communication skills and empathy (Eide & Eide, 2012; West, 2009), these four variables were also found to be underdeveloped in some aspects, hence the reason for some of the discrepancies expressed in the variables of Study 1. Therefore, there is a constant need for development in order for individuals with dyslexia to excel to their highest potential and advantage.

Studies 3 and 4 changed focus to dyslexia in the workplace, and were designed to investigate the current approaches taken in Brazil and in the UK. Despite the ex-

tensive findings of strengths in dyslexia, it appears that companies are still greatly lacking in their knowledge of Positive Dyslexia, and in particular the potential benefits of “talent managing” their dyslexic employees. Study 3 assessed companies’ perspectives and attitudes towards dyslexic candidates and employees. Senior and high-level personnel from SME to multinationals were interviewed in Brazil and in the U.K. An overall lack of awareness about Positive Dyslexia was identified within the workplace, whilst a reasonable knowledge of the conventional definition of dyslexia was apparent in the sample group used from the U.K. In the Brazilian sample, both the overall awareness about dyslexia and any specific knowledge about Positive Dyslexia knowledge was non-existent.

In Study 4, a quantitative research study was carried out to understand the perspective of dyslexic employees as to disclosure of their dyslexia in the workplace. The major result was that of the identification of a positive significant relationship between a company’s senior executive’s disclosure of dyslexia and the acceptability from younger dyslexic individuals to follow suit. In summary, all of the studies show clear implications for the dyslexic employee’s lifetime in a company, from appointment to talent management.

Contents

1	Introduction	1
2	Literature Review	4
2.1	Introduction to Dyslexia	4
2.2	Dyslexia at many levels	4
2.3	Theories of Dyslexia	5
2.4	Cognitive Level	5
2.4.1	Phonological Deficit Hypothesis	5
2.4.2	Double Deficit Hypothesis	6
2.4.3	The Automatisation Deficit Hypothesis	7
2.5	Brain Level	7
2.5.1	Visual and Magnocellular Deficit Hypothesis	7
2.5.2	Deficit Hypothesis	8
2.6	Genetic Level	9
2.7	The medical model of dyslexia	9
2.8	Dyslexia as a blend of strengths and weaknesses	10
2.9	The importance in labelling dyslexia	10
2.10	Positive Psychology	11
2.11	Positive Dyslexia	13
2.11.1	What is positive dyslexia?	13
2.11.2	Strengths of Dyslexia	15
2.12	Positive Psychology in the workplace and Entrepreneurship	18
2.13	Dyslexia and Entrepreneurship	19
2.14	Age of Diagnosis	21
2.15	Income Level/Social class	22
2.16	Entrepreneurs	23
2.17	Entrepreneurial Intentions	24
2.18	What leaders are seeking for in their team	26
2.19	Entrepreneur key-traits	28
2.19.1	Creativity	28

2.19.2	Risk-Taking	29
2.19.3	Resilience	30
2.19.4	Vision	31
2.19.5	Optimism	32
2.19.6	Empathy	32
2.19.7	Family Background	33
2.19.8	Leadership	34
2.19.9	Problem-Solving	36
2.19.10	Confidence	37
2.19.11	Modesty	37
2.19.12	Proactivity	38
2.19.13	Social Network	38
2.19.14	Communication Skills	39
2.19.15	Delegation	40
2.20	Dyslexia and the workplace	40
2.21	Workplace and reality	42
2.22	Organizations and dyslexic individuals	44
3	Study 1	46
3.1	Introduction	46
3.2	Pilot study	47
3.2.1	Hypotheses of the study	47
3.2.2	Aims/Values	49
3.3	Method	49
3.3.1	Ethics Approval	49
3.3.2	Distribution/Participants	50
3.3.3	Procedure	50
3.3.4	Materials	50
3.3.5	Data Processing	53
3.3.6	Design to probe	53
3.4	Results	56
3.4.1	Descriptive Analyses	62
3.4.2	Effect Sizes	63
3.4.3	Inferential Statistics	65
3.5	Discussion	73
3.5.1	Referring back to the hypotheses	73
3.5.2	Further Discussion, Weaknesses and Limitations	78
3.6	Conclusion	79

4	Study 2	81
4.1	Introduction	81
4.2	Method	81
4.2.1	Aims and Objectives	81
4.2.2	Qualitative Research	82
4.2.3	Research Strategy	82
4.2.4	Participants	83
4.2.5	Interpretative Phenomenological Analysis	84
4.3	Results/Analyses	85
4.3.1	Resilience	85
4.3.2	Big Picture Thinking	91
4.3.3	Communication Skills	96
4.3.4	Visuo-Spatial Skills	99
4.4	Discussion	102
4.4.1	Resilience	102
4.4.2	Big Picture Thinking	104
4.4.3	Communication Skills	105
4.4.4	Visuo-Spatial Skill	106
4.4.5	Further Discussion and Limitations	107
4.5	Conclusion	108
5	Study 3	109
5.1	Introduction	109
5.2	Method	110
5.2.1	Objectives/Aims	110
5.2.2	Hypotheses of the study	110
5.2.3	Choice of Qualitative Research	111
5.2.4	Participants	111
5.2.5	Choice for IPA	117
5.3	Results	123
5.3.1	Brazilian Sample	123
5.3.2	UK Sample	129
5.4	Discussion	135
5.5	Conclusion	139
6	Study 4	141
6.1	Introduction	141
6.2	Method	147
6.2.1	Aims and Objectives	147

6.2.2	Hypotheses	148
6.2.3	Ethics Approval	148
6.2.4	Participants	149
6.2.5	Questionnaire Design	149
6.2.6	Procedure	150
6.3	Results	150
6.3.1	Descriptive Analysis	151
6.4	Discussion	170
6.4.1	Limitations	174
6.5	Conclusion	174
7	Conclusions and Directions for Future Studies	175
7.1	Overview	175
7.2	Findings from the studies	175
7.3	Limitations	180
7.4	Application and change in the real world	182
7.5	Closing	184
	Appendix	198
A	Study 1 Information Sheet	199
B	Study 1 Consent Form	201
C	Study 1 Questionnaire	202
D	Study 2 Information Sheet	209
E	Study 2 Consent Form	211
F	Study 2 Interview Schedule	213
G	Study 3 Information Sheet	215
H	Study 3 Interview Schedule	217
I	Information sheet	219
J	Study 4 Consent form	222
K	Study 4 Questionnaire for employed dyslexic individuals	223
L	Study 4 Questionnaire for dyslexic students	230

M Study 4 Questionnaire for unemployed dyslexic

236

List of Figures

2.1	Dyslexia Decathlon.	17
3.1	Effect Size comparison Dyslexic individuals Vs. Non-Dyslexic individuals.	64
3.2	Scree Plot.	70
5.1	Screenshot extracted from an Excel document of IPA (Stage 2).	118
5.2	Screenshot extracted from an Excel document of IPA (Stage 3).	119
5.3	Screenshot extracted from an Excel document of IPA (Stage 4).	119
5.4	Stage 4 - IPA.	120
5.5	Stage 4 - IPA.	120
5.6	Stage 5 - IPA.	121
5.7	Stage 5 - IPA.	121
5.8	Stage 5 - IPA.	122
6.1	Employment status across participants.	152
6.2	Selection process perception by participants.	154
6.3	Job Advert.	155
6.4	Competition against non-dyslexic candidate.	156
6.5	Perception of Dyslexia.	157
6.6	Ideas from dyslexic individuals for a dyslexia-friendly induction process.	158
6.7	Perception of change of duties.	160
6.8	Disclosure to the entire company.	162
6.9	Disclosure to the entire company in a positive environment.	163
7.1	Blueprint to dyslexia success at the workplace.	183

List of Tables

2.1	Sample composition from J. Logan (2009).	19
2.2	Team Formation - Considerations made by Organisational Leadership aiming toward creative team outcomes.	27
3.1	Faculties distribution.	50
3.2	Variables Study 1.	53
3.3	Themes.	54
3.4	Income Level-Participants.	57
3.5	Age gap and number of participants.	57
3.6	Faculties distribution.	57
3.7	Themes.	58
3.8	Facilitators and Barriers.	61
3.9	Means and Standard Deviation.	63
3.10	Age of diagnosis vs. Level of Entrepreneurship.	65
3.11	Empathy.	66
3.12	Problem Solving.	66
3.13	Income Level Vs. Level of Entrepreneurship.	67
3.14	Perceived Behavioural Control.	67
3.15	Total Variance Explained.	68
3.16	Component Matrix (unrotated).	71
3.17	Rotated Component Matrix.	72
4.1	Table of participants.	84
4.2	Theme-Resilience.	91
4.3	Theme- Big Picture Thinking.	95
4.4	Theme-Communication Skills.	98
4.5	Theme-Visual-Spatial Skills.	102
5.1	Table of participants.	114
5.2	Table of participants.	117
5.3	Themes and Sub-themes - Brazilian Sample	124
5.4	Themes and sub-themes - UK Sample.	129

6.1	Perception of change of duties.	161
6.2	Disclosure to the entire company.	162
6.3	Disclosure to the entire company “take on dyslexia”.	164
6.4	Percentage of senior dyslexic’s disclosure Vs. HR knowledge about dyslexia cases.	165
6.5	Dyslexia disclosure of other employees Vs. Company support. . . .	166
6.6	Percentage of senior dyslexic’s disclosure Vs. Disclosure with a negative view.	167
6.7	Percentage of senior dyslexic’s disclosure Vs. Acknowledgement of dyslexia.	168
6.8	Percentage of senior dyslexic employees Vs. Dyslexia for specific jobs.	168
6.9	Percentage of senior dyslexic employees Vs. Specific dyslexic strengths for career decision.	169
6.10	Percentage of senior dyslexic’s disclosure Vs. Mentioning of Dyslexia when applying for jobs.	170

Chapter 1

Introduction

Dyslexia was not always known as a disorder or an easy topic to define. In early records, dyslexia was described as a “syndrome”. However, Critchley (1970) made clear the medical responsibility of the specific developmental diagnosis, which brings us to the most quoted and cited definition of dyslexia, which is from the World Federation of Neurology:

“Dyslexia is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities, which are frequently of constitutional origin.”

Dyslexia has been an extensively researched area over the last twenty years. From the beginning, the “medical model” has been predominant across articles and explanations for this learning disability, focusing on the negative points and weaknesses that dyslexic individuals may have, and the struggles that must be faced throughout their lives. Also, the majority of the help and support offered was mainly focused on literacy issues, concentration, memory and speed. This support focuses on the challenges of dyslexia and it definitely tries to “cure the negatives” instead of looking for the positives and trying to help dyslexic individuals to flourish from their strengths (Seligman, 2002).

Successful individuals, such as Leonardo da Vinci, Albert Einstein, Richard Branson, Jo Malone, Steven Spielberg and Tom Cruise are just a few names from across different areas of talent that stand out as having dyslexia. Although there are great role models for success with dyslexia, as previously mentioned, the struggles that are faced by dyslexics and the challenges that need to be overcome in order to achieve marked progress in their lives cannot be denied. Prior research has examined whether dyslexia occurs more frequently within a prison population. While there is an estimate that 10% of the general population may have some degree of

dyslexia, studies have shown a higher prevalence among prisoners, at a minimum of 30%. Aside from incarceration, other sorrowful situations, such as unemployment, low self-esteem and frustration can arise with time, if dyslexic individuals are placed in jobs that are inappropriate for their skills (Kirk & Reid, 2001).

According to Seligman (2002), the purpose of Positive Psychology is to change the idea of traditional psychology, by focusing not only on finding a remedy to repairing problems, but to further direct an individual's energy towards growing, evolving and actualizing the principal and key aspects of life. Positive Dyslexia has taken its insights from the Positive Psychology movement and focuses on a strength-based approach for dyslexic individuals, in order to enable them to cope well with their weaknesses and direct their energies and efforts towards excelling in their strengths Nicolson (2015); Seligman & Csikszentmihalyi (2014).

According to McLoughlin et al. (2002), many people believe that as dyslexia is a learning disability, its consideration is specifically related to "schools" or educational settings, and that it will fade away with time. As such, it is believed that there is no need for any particular support for these individuals once they are in the workplace. Clearly, such a thought is highly limited, as the learning process is present throughout all stages of one's life.

It is very common to find research on dyslexic school children and the stage of early childhood, but there are limited findings concerning dyslexia in the workplace and during a later stage of life. Therefore, the reason for focussing on dyslexia in adulthood is to provide increased findings and expand the understanding around this area of study.

The purpose of this PhD is to contribute to this sub-field of strengths in dyslexia, which is still under development, and to contribute some assistance to many dyslexic individuals in order that they may be enabled to identify their strengths, focus on their specific qualities and traits and increase an awareness of Positive Dyslexia as a whole. This awareness is not limited to themselves as dyslexic individuals, but also to companies and other institutions of employment, who also need to be better informed of how they can benefit from the skills, capacities and characteristics of those with dyslexia.

This current thesis is structured as follows:

The first chapter provides a literature review that covers the main areas involved in this PhD, namely: medical theories of dyslexia, Positive Psychology, Positive Dyslexia and Dyslexia and Entrepreneurship (especially the empirical work of J. Logan (2009)).

The second chapter presents the first study, for which a quantitative approach was used, focussing on an investigation of the tendencies towards entrepreneurial

behaviours and intentions within university students of both dyslexic and non-dyslexic groupings. A comparison has been made between the samples and the main discussion is based on Logan's study.

The third chapter, presents the second study for which a qualitative approach has been adopted. Here, the IPA methodology is used to analyse eight semi-structured interviews given by participants from Study 1 whose responses presented specific contradictory results on Resilience, Big Picture Thinking, Visual Spatial skills and communication skills. The use of the IPA methodology is explained in depth, with further details provided in chapter four.

In the fourth chapter, Study 3 is presented which also uses a qualitative approach for research, but investigates the issue of dyslexia in the workplace from the employer's perspective. The purpose of this study is to identify a company's readiness towards employing and supporting dyslexic employees. IPA is used once again in order to analyse 20 semi-structured interviews from employers of different companies from Brazil and the U.K.

The fifth chapter presents the fourth and final study of this thesis. The perspectives of dyslexic individuals on companies was analysed in light of Positive Dyslexia. A quantitative study was carried out to investigate the perspective of dyslexic adults on disclosure of this learning disability at the workplace, and which variables may affect their confidence when choosing to share their learning disability at an organisational level.

The sixth chapter provides a conclusion on the various studies, providing a discussion of the main findings, describing the limitations of the research, and proposing directions for further research as well as an intervention tool to be used by companies and dyslexic employees in order to develop the current support that is given, and to enlarge the area of knowledge related to the themes of Positive Dyslexia in the workplace.

Chapter 2

Literature Review

2.1 Introduction to Dyslexia

According to Snowling (1987), the “unexpected failure” of a person to acquire reading and writing skills, can be classified as having specific developmental dyslexia. However, it is more commonly stated as “dyslexia”. Dyslexia is an unusual disorder, because some individuals do not present any other developmental problems, but still have issues when it comes to reading and writings (and certain other skills, which will be explored later).

Although advances have been made in gaining a deeper level of understanding of dyslexia, it remains difficult to provide an agreed definition. Snowling (1987) stated that: “Many attempts to label children who have specific reading (and spelling) difficulties have been rejected, and no one description of dyslexia has been universally recognized (p.1)”. The latest DSM-5 classification places dyslexia as one of three types of specific learning disorders, with a key phrase close to that of the 1967 World Federation of Neurology provided above, namely “Dyslexia is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. (p.67, DSM-5)”

2.2 Dyslexia at many levels

Dyslexia is a relatively recent disability historically, since in the not too distant past many societies were functionally illiterate and only a small percentage of individuals would be able to actually read, write and understand text. According to Pennington (2008), the estimate of the frequency of diagnosing dyslexic individuals in a population can vary between 5 to 10%, highlighting its global prevalence. Dyslexia has social and individual level implications (Lyon, 1996). Socially speaking, dyslexic individuals in most western countries are offered additional support in school and at university. At an individual level, dyslexia can be a traumatic experi-

ence for those who are diagnosed with this learning disability (Nicolson, 2015).

Nicolson (2015) discussed that dyslexia should receive attention within the societal, educational and individual levels. A consideration of all three would provide a perfect synergy for the identification of a better possible solution, as this can enhance a bigger-picture understanding of the disability. For instance, teachers would not only focus on the student's performance at school, but would also be able to rely on theory for more information about the disability and make it personal, since different people have different levels of dyslexia. It is crucial that we "decentre" ourselves from one specific definition about "what dyslexia is" and become more concerned about a range of issues that may be presented from different angles.

Nicolson (2015) also emphasises that a diagnosis is not good or bad in itself. This statement encourages us to stop and realise that dyslexia is much broader than one single diagnostic criterion. It is present in the social, scientific and political world. This thought reinforces the idea of seeing dyslexia in a bigger picture and to stop narrowing it or limiting it only for the purpose of a singular diagnosis.

2.3 Theories of Dyslexia

There have been many attempts to provide a theoretical account for the causes of dyslexia. Following an influential cognitive neuropsychology approach (Morton & Frith, 1995), I shall take a three-level approach, namely the behaviour, cognitive and brain levels. The "behaviour" level can be socially observed, such as demonstrated by reading problems, and represents the more abstract information processing capabilities. The "cognitive" level is more focused on language, memory and the learning process. The "brain" level looks specifically at the biological, "brain" structures-processes, for example the cerebellar deficit hypothesis. A fourth level has also been added, which is the "genetic" level and has been the subject of many recent research studies

2.4 Cognitive Level

As previously mentioned, the first level (behaviour level) is connected to the problem of reading, and can be directly observed. However, for most theoreticians the behavioural level provides the data that has to be explained at a deeper (cognitive or brain) level (Nicolson, 2015). Consequently I will move straight to the cognitive level, starting with the still-leading framework in terms of phonological deficits.

2.4.1 Phonological Deficit Hypothesis

The Phonological Deficit Hypothesis (Stanovich, 1988), claims that dyslexic individuals have difficulties with reading because of their underlying problems in terms of phonological processing - breaking words into syllables and processing

their sounds. While phonological processing skills are strong enough to support phonics-based teaching methods in early school years for typically developing children, these skills (including phonological awareness) are under-developed in children who will later be diagnosed with dyslexia. This causes them problems in becoming fluent in the initial processes of learning to read, because they struggle to segment a sound and thus to analyse a spoken word into components, or to blend sounds to create a whole word. This offers a brief idea as to why dyslexic individuals have such a hard time to develop the skills of reading and spelling.

Late in the 1970s, the idea of having a problem in reading coming from a “visual cause” changed when the phonological awareness was raised, which recognized problems in phoneme formulation and rhyme and made academics consider the problem as being underlined by reading problems (Bradley & Bryant, 1978).

Stanovich (1988) stressed that the phonological problems include the understanding of the sounds that constitute a word, possession of linguistic and verbal data, and other issues, for example short-term memory. The phonological problem has been presumed to have a significant effect on the process of the independent recognition of words, and this may be essential to becoming fluent in reading. A further finding was that children who had support in their reading difficulties related to phonological difficulties, were able to demonstrate improvements during their lives (Lundberg et al., 1980).

Although the Phonological Deficit Hypothesis remains the leading framework in the dyslexia field, it fails to explain other symptoms caused by the learning disability, which are related to adult dyslexia and are not only concerned with reading problems. Wolf & Bowers (1999) introduced the Double Deficit Hypothesis, in order to explain this in more detail and to provide a more in depth clarification of its further symptoms.

2.4.2 Double Deficit Hypothesis

The Double Deficit Hypothesis extends the Phonological Deficit Hypothesis, by includes a second problem, namely speed of lexical processing. A child with this deficit would take longer to link names with pictures and would also perform badly in linking it with their memory. Children with a higher level of dyslexia would have such deficit, especially because the child with only one deficit would struggle much less in school than a child with both deficits (Wolf & Bowers, 1999).

Interestingly, the inclusion of speed of processing within the framework provides a direct link to an earlier theory, namely the automatization deficit hypothesis

2.4.3 The Automatisation Deficit Hypothesis

According to Nicolson & Fawcett (1990), the Automatisation Deficit framework is one of the simplest and richest frameworks that explains and analyses what dyslexia is. This theory states that the reason why dyslexic individuals perform poorly in some skills, such as reading, is because they have problems in making skills become automatic. Therefore, they have to compensate by trying harder (conscious compensation). Consequently, when a task is not too hard to perform, a dyslexic child would be able to carry out the task within normal skill bands, but would do so by dint of very much greater cognitive effort, leading to faster tiring and susceptibility to interference (Nicolson, 2015).

Nicolson (2015) shed further light on the scenario with another useful example. Imagine someone driving for the first time in a different country, with the steering wheel on the opposite side. Surely, the person will be driving with much more attention and effort, because it is their first time in this experience, so the automatic skill of driving becomes less functional for a few hours, until the person gets used to both the place and the car. This is similar to what happens to dyslexic individuals. The skill never becomes automatic for them, so they always have to be extra attentive and apply greater effort in tasks which may otherwise be performed by others with great ease.

The standard test for automaticity is the “dual task paradigm”, where participants have to perform the primary task (balance) with a secondary task, which is introduced in order to control the processing resources. In cases where the primary task is achieved automatically, the second task can be performed without any struggle, whereas any interference between the tasks should indicate a lack of automaticity. Nicolson & Fawcett (1990), Nicolson & Fawcett (1992) demonstrated that - unlike other control participants - the dyslexic participants in their studies had a balance automaticity deficit. They found that in a just-balance task there were no differences between the two groups. However, when a secondary task (counting) or the participants were blindfolded, the control group continued to balance as well as usual, whereas the balance for the dyslexical individuals was significantly impaired. Given that balance is outside the domains of phonology, reading and speed, the authors claimed that these results falsified the phonological deficit framework, and indicated that the underlying cause of dyslexia should be addressed in terms of the search for the underlying of a pervasive deficit in automatising skills.

2.5 Brain Level

2.5.1 Visual and Magnocellular Deficit Hypothesis

Stein (2001) stated that dyslexia is caused by problems in the Visual and Magno-

cellular sensory pathways and could be related to a biological level. The reading problems that dyslexic individuals have can be generated from visual problems like a deficit of focused and stabilized vision. This theory suggests that reading is a vision process and it also states that other problems associated with dyslexia are linked and have to be seen coherently and as a whole, leading for example to reading, motor and phonological problems. An independent framework for the auditory magnocellular pathways was developed earlier by Fitch et al. (1994). These theories have been extensively reviewed, with the consensus being that they may well apply to a subset of dyslexic individuals, but not for the majority

According to Stuart et al. (2006), the hypothesis that a dysfunction in the magnocellular pathways of dyslexic individuals is responsible for reducing the sensitivity to rapid changes in the visual and audible processes is a very influential theory in field of dyslexia. Problems of the auditory system are understood to be the source of difficulties in the segmentation of speech and phonemic awareness, which leads to issues in the fundamentals tools for reading. It was analysed a sample with 18 controls and 13 adults with severe reading problems. According to Stuart et al. (2006): “visual contrast thresholds were measured in response to an 8-Hz flickering Gaussian blob as well as a slowly modulated 8 cycles/deg Gaussian windowed grating. Auditory thresholds were measured in response to a 4-s burst of white noise, the 2nd or 3rd second of which was amplitude modulated at 100 Hz or 1 Hz. The adult reading difficulty group exhibited normal thresholds to rapidly changing stimuli in both modalities and to the slowly modulated visual stimulus, but some showed reduced sensitivity to the 1- Hz amplitude-modulated auditory stimulus. (p.1215)”. It was found that the sensitivity to amplitude modulation are highly associated with the segmentation of the speech flow and may influence in the reading problems of dyslexic individuals. The magnocellular deficit is not sufficient to clarify the weakened sensitivity that may be caused by the reduced echoic memory span.

Skottun (2005) also reiterates that: “the question of the potential role of magnocellular neurons in reading is distinctly separate from the question of whether or not a magnocellular deficit is the cause of dyslexia. These two issues should not be confused. With regard to the second, the data do not at present favour the hypothesis that dyslexia is the result of a magnocellular deficit. (p.133)”

2.5.2 Deficit Hypothesis

The cerebellum has long been known to be centrally involved in the coordination and learning of physical skills. This theory (Nicolson et al., 1999, 2001) used the then emerging consensus that the cerebellum is also directly involved in language-based skills to claim that the cognitive level impairments in dyslexia, namely phonological deficits, speed deficits and automatisations deficits, may be accounted for

simply through the hypothesis that there was impairment in the cerebellum and linked circuits.

These accounts are present in the cognitive level and they are highly linked with the brain structure and mechanisms that would make it function and allow individuals to perform in skills, such as reading and writing. A change of forms to the brain level differences underlying the cognitive deficits therefore suggests strongly that deficits in the cerebellum - or in neural circuits involving the cerebellum - may be causal factors. With the main focus on biological approaches about dyslexia to explain its nature and the causation relationship to this learning disability, the development in this area of research has been encouraged (Nicolson, 2015; Nicolson & Fawcett, 1995).

2.6 Genetic Level

Pennington et al. (1991) stated that: "There is strong evidence that developmental dyslexia is both familial and heritable" (p. 1527). Pennington and colleagues ran a family study method with the relatives of dyslexic individuals being tested for dyslexia in the United States. The study involved 204 families and a total of 1698 participants.

It was found that there is a 50% chance of a male having dyslexia, if one of his parents or siblings have dyslexia. Such a statement makes it clear that dyslexia also has a genetic transmission pillar of explanation.

2.7 The medical model of dyslexia

The definition used by the World Federation of Neurology (as cited in the introduction of the thesis) was and continues to be highly criticized. Nonetheless, given its reference to intelligence, standard teaching/education and the sociocultural factors, it still is the most valuable and used definition in many medical and clinical scenarios (Critchley, 1970).

Critchley (1970) presented a set of guidelines for the diagnosis of dyslexia diagnosis as follows:

- Dyslexia has been very associated with the pace of speech. Usually slow speech development could be one alert for the diagnosis;
- Dyslexic individuals also present speech and language issues;
- Delays in the motor development of the child/adult;
- Visual perception issues;
- Sequencing issues, such as remembering weekly and monthly days, can be seen as a trait;

- Low temporal/spatial awareness, for example, dyslexic individuals find it hard to distinguish whether it is morning or afternoon, and a child with spatial issues struggles with directions;
- Dyslexic individuals, usually, have a family history of dyslexia or similar difficulties/disabilities.

As can be perceived, dyslexia has a relatively simple form of definition, and even though it is criticized, it is still accepted and used worldwide. However, this is only a medical point of view and stresses the downsides of dyslexia.

Further in this thesis, a new movement called Positive Dyslexia is presented, which is derived from Positive Psychology. Whilst it recognizes the negative aspects of dyslexia, it stresses the positive or beneficial aspects and encourages a more appropriate and correct management of its weaknesses. The Positive Dyslexia movement also reinforces the importance of dyslexic individuals to numerous present-day scenarios, and how crucial and determinant they are to many aspects of society (such as companies, which will be further expanded on and demonstrated by studies in the subsequent chapters).

2.8 Dyslexia as a blend of strengths and weaknesses

As can be understood, and based on all of the theories of dyslexia presented in this thesis, it is easy to think that dyslexia is a disability that only brings with it drawbacks for the unfortunate 5-10% in a population who have it.

The effects of dyslexia have a high impact on poor performances in reading, writing and executing tasks in an automatic way (Nicolson & Fawcett, 1994, 1995). However, is this the only behavioural “patterns” that can be seen in dyslexic individuals? Are there any other common traits that can be identified in them? Are there any positive implications of having dyslexia? Are dyslexic individuals destined for failure for the rest of their lives?

The following section will be focusing on these questions and will explore the relevant literature, associated with studying such aspects of dyslexia.

2.9 The importance in labelling dyslexia

Dyslexia is not fully agreed by all scholars on the field. Elliott & Grigorenko (2014) believe that the term “dyslexia” is misused and misunderstood. They stated that it became the “answer” for any reading difficulties and labelling individuals with such learning disability has questionable scientific background.

Dyslexia has many reliable explanations, such as the theories previously exposed, the Phonological Deficit Hypothesis, Double Deficit Hypothesis, Automatisation Deficit Hypothesis, Visual and Magnocellular Deficit Hypothesis, Cerebellar Deficit Hypothesis and the Genetic Hypothesis. There are many degrees of severity

in dyslexia, which may make difficult finding a cohesive set of weaknesses among individuals who possess it. However, making a simple analogy with a flu, not everyone will present the same “symptoms”. It was already proved among many dyslexia theories the possible difficulties, weaknesses and strengths found among dyslexic individuals. In addition, it is important to mention the role of environment and culture in someone’s dyslexia. One can have severe dyslexia and hold extensive support, while another individual may have a mild one and not even possess an official diagnosis. Obviously, such external factors will influence in the individual’s development (Nicolson, 2015).

Labelling dyslexia is not corroborating with a “myth” as Elliott & Grigorenko (2014) believe. It is rather empowering the public support an individual may achieve with it. An early diagnosis helps dyslexics to “understand” many challenges they have faced in life by giving them a sense of belonging and explanation for what they have. In the long term, applying a dyslexia diagnosis with a positive approach may gather infinite possibilities for individuals to understand better how their brain works and influence in a more accurate job decision (S. Agahi et al., 2014).

2.10 Positive Psychology

According to Sheldon & King (2001), Positive Psychology is the science that studies the strengths, qualities and virtues of human beings. They also stated: “Positive Psychology revisits the average person, with the interest in finding out what works, what is right, and what is improving. (p.216)” Positive Psychology focuses on the motives, capacities and potential of individuals. Sheldon and King argue that positive psychology can be surprisingly difficult by many scholars and psychologists as many were trained to view positivity in a cynical manner, to ask questions and generate a sense of doubt in relation to it. However, excess dubiousness can naturally lead to a negativity bias that may just see one perspective, and not have a clear or coherent understanding of the reality of a scenario.

Positive psychology has three main areas. The first is that of “positive experiences”, which includes optimism, well-being, happiness and self-determination. However, these could be dependent on a specific moment of happiness and that is why the second thread is “positive personality”. Out of all positive psychology studies, the underlying common finding is that individuals are self-directed, flexible beings and self-organising. The approaches for the second thread take into consideration an explicit developmental aspect that the human being has an endless feeding supply of strengths, which unfold throughout their entire life. The third thread in Positive Psychology is that individuals belong to a social context and are in a state of constant experience with other individuals. Thus, Positive Psychology needs to recognise positive institutions, such as family, schools, companies and

society, as the final thread (Seligman & Csikszentmihalyi, 2014).

Previous studies from Seligman have also explored further the role of the prevention of mental illness and some realistic guidance on its implementation in daily life. In his book, "Learned Optimism" Seligman (2006) discussed the ABCDE theory, which is a fundamental strategy for Positive Psychology, teaching individuals to prevent stressful scenarios and even to revert them (if remediation is not possible anymore). "A" stands for advert event or the problem in one's life; "B" is for the beliefs an individual holds for a specific situation; "C" is for the consequence the beliefs someone holds about the problem will have in their lives; "D" stands for the disputation of those destructive beliefs and "E" is for energization.

A detailed example from this theory will be presented, given that this theory will be linked to one of the conclusions stated for this thesis. An example of the ABCDE theory can be applied to a simple problem in daily life (and of course to more drastic ones). For instance, if we picture an overweight individual who is on a severe diet and is trying to eliminate 10kg, this scenario is the current "advert event" in her life. She went out with colleagues from work and had pasta instead of salad; she then thinks that she is horrible, that all of her friends will think she is a failure and she is not worth anything. These are her currently held beliefs and the consequences are devastating. Seligman (2006) suggested that this woman disputes her beliefs towards having a "day off" her diet and sees the event through a different lens. After the disputation, the woman will still have the same "A", but her beliefs and therefore consequences will have different perspectives. For instance, she may still have pasta, but then she will think that she should have had a salad, so her diet could continue without interruptions, but it is fine to have a day off and she may even recognize that she has already lost 3kg from a strict 3 weeks diet and tomorrow she will compensate in the gym. The whole change of process energises individuals and prepares them for further preventions and a sense of empowerment in situations.

According to Peterson et al. (1993), another key theory leading to Positive Psychology was Learned Helplessness, which suggests that individuals who have experienced traumatic events in life may feel unworthy and disempowered to take actions, with the thought that outcomes from past experiences could be reproduced in the present. It is clear to understand at this point that Positive Psychology is trying to change the old purpose of Psychology. In the past, the common aim was to "cure the negatives", but Positive Psychology has argued that such a process does not necessarily produce positives. Nowadays, with Positive Psychology's approach, practitioners have sufficient knowledge to work on prevention, and the amplification of a client's strengths. Drawing on this "new" approach, may enable society to have

much stronger individuals - mentally and emotionally - by taking into consideration the effects of mental well-being. Moreover, a fundamental goal for Positive Psychology is the re-orientation of traditional Psychology, with a focus on stronger, fulfilled and more productive people (Seligman & Csikszentmihalyi, 2014).

Some scholars do not believe in the movement of Positive Psychology, claiming that it places too much pressure on the individual and that it sends a separate message to society (Held, 2004). Nonetheless, as Snyder & Lopez (2009) state: "Nowhere does this definition say or imply that psychology should ignore or dismiss the very real problems that people experience. Nowhere does it say or imply that the rest of psychology needs to be discarded or replaced. The value of Positive Psychology is to complement and extend the problem-focused psychology that has been dominant for many decades (p.23)". Positive Psychology is a science and its theories are backed up from research, it does not require academics to choose a side or support only one approach. It is also important to stress that this movement is not based on "self-help footless affirmations". Therefore, if Positive Psychology can add to and expand the understanding of psychology and its theories and knowledge, it will not only aid the improvement of Psychology as a science but also the quality of societal life (Snyder & Lopez, 2009; Simonton & Baumeister, 2005).

The highest aim of Positive Psychology is to re-direct the efforts of Psychology, from a more remedial, reformation and preoccupation of the worst scenarios in life to also developing and evolving the highest qualities in a person. Its purpose is to focus on the building of society's strengths, leading to the prevention instead of the remediation of mental illness (Seligman, 2002; Simonton & Baumeister, 2005).

2.11 Positive Dyslexia

2.11.1 What is positive dyslexia?

Positive Dyslexia took the lead from Positive Psychology and from the area of dyslexia, generating a new area of study by exploring its positive aspects. It aims to bring to the attention of the world the impact that dyslexic individuals can experience in every part of their lives, such as at work, at school, at home and among society at large Nicolson (2015). The core concept underlying its motivation is to develop the weaknesses of individuals whilst focusing on, explore and refining their strengths, in order to enable them to succeed and excel in life.

Vail (1990) created a list of 10 special traits, as noted below, from observations that were derived from working with dyslexic people throughout her entire life:

- Rapid grasp of concepts;
- Awareness of patterns;

- Energy,
- Curiosity;
- Concentration;
- Exceptional memory;
- Empathy;
- Vulnerability;
- Heightened perception;
- Divergent thinking.

Although these traits may have connotations as strengths, they can surprisingly serve as weaknesses, because of the discomfort dyslexic individuals may have felt by “thinking differently” with these traits throughout their period of schooling. Edwards (1994) also added to the list three other strengths: talent in arts and design, originality and problem solving and a multi-dimensional thinking. It is also important to understand that not all dyslexic individuals will possess all of these qualities together. Caution is necessary so as not to place too much expectation on an individual, which can be dangerous and result in an underperformance. Moreover, whilst obvious, it is important to state that non-dyslexic individuals also have these traits and the focus is not to compare whether dyslexic people have increased levels of such skills than their non-dyslexic counterparts, but rather to raise awareness of the capabilities that the dyslexic population possesses. As Positive Dyslexia exists to enable focus to be re-directed towards the positive qualities of having dyslexia, it is more beneficial that individuals direct their attention and energies to their strengths, rather than the downsides (weaknesses) or challenges. It is important to remember that every dyslexic learner has a unique way of learning, which requires appropriate support in order that they may be able to excel to the fullest capacity (Mortimore, 2008).

Davis & Braun (1997) suggested that dyslexic individuals possess eight “gifts”. To understand “dyslexia” as a gift instead of a learning disability, it is necessary to view it from a different perspective. According to Davis & Braun (1997), “Dyslexia is the result of a perceptual talent. In some situations, the talent becomes a liability. The individual doesn’t realize this is happening because use of the talent has become compulsive. It began very early in life and by now seems as natural as breathing.” (p.6).

Although dyslexic people will not all possess the same set of gifts, they have commonalities in the way their brains function. The eight gifts are: vivid imaginations, multi-dimensional ability (think and perceive using all the senses), environmental awareness, experience thought and reality, curiosity, intuition, picture thinking and the gift to change and create perception using the brain's ability, also described as a primary ability (Davis & Braun, 1997). After extensive case studies, West (2009) also included in the dyslexic' gifts list, an additional ability of three-dimensional visualisation.

A more recent approach to a dyslexic's strengths is called: MIND. Eide & Eide (2012) suggested that dyslexic individuals present four primary skills patterns, which includes: Material Reasoning, Interconnected Reasoning, Narrative Reasoning and Dynamic Reasoning. The following examples may assist in understanding how the strengths of MIND works: In relation to Material Reasoning: A blueprint can in simple terms be understood to be a piece of paper with a drawing or plan of how the construction of a building may be advanced and what it will look like when it is completed. Dyslexic individuals have an incredible ability to visualise this plan, as if the building was fully constructed. Interconnected Reasoning, can be described as the ability to combine a series of apparently disconnected information, given that dyslexic individuals can see the bigger picture and accordingly propose creative and brilliant ideas. Narrative Reasoning is the ability to remember detailed past experiences, which has a great impact on how dyslexic individuals build their arguments and use their power of persuasion. And finally, Dynamic Reasoning is the ability to recognise situations that occurred in the past, to comprehend them and predict the future through mental simulation.

2.11.2 Strengths of Dyslexia

In a study undertaken by S. Agahi et al. (2014) a pattern was found in dyslexic individuals from two qualitative studies, which constituted the basis of the "Dyslexia Decathlon".

Three pillars compose the Dyslexia Decathlon; the first one is "Social" and includes traits such as teamwork, empathy and communication. Teamwork is connected to how the extent to which a person relates to their teammates, their capacity to learn under a given situation with a commensurate level of humility, how easily they can problem-solve in a team, how effective a team is under one's leadership and also the desire to perform in a win-win situation. Empathy is identified by political and interpersonal skills, the power of someone to put him or herself in another person's situation, their level of understanding of others, their ability to negotiate in a friendly and beneficial way and also the power to assess a person's strengths and weaknesses. And the final aspect of the Social pillar is Communication, which

can be determined by the extent to which one listens first and strives to understand before acting towards or proposing a solution, and also the ability to build a shared goal and vision with others (S. Agahi et al., 2014).

The next pillar is “Mental”, which is composed by its triad of innovation/creativity, visuo-spatial and big-picture thinking. Innovation and creativity are connected to the 21st century strengths and skills that companies need in order to flourish and succeed. The Big Picture is related to mental models, making sense of situations, working with priorities and knowing how to use them (putting first things first). And visuo-spatial is related to the skill of visualization (S. Agahi et al., 2014).

The third and final pillar is “Work”, which includes the strengths of proactivity, as demonstrated in the personality of the dyslexic through their eagerness and desire to “make it happen” with effort and work hard. The application of determination and resilience evidences the capacity that dyslexic individuals have in facing challenges and performing well under pressure. Finally, flexible coping suggests that dyslexic individuals are flexible beings under all circumstances, which greatly enriches their interpersonal relationships (S. Agahi et al., 2014).

According to Pink (2006), conventional thinking is no longer sufficient and “unconventional” skills are necessary in the workplace. He stated: “The future belongs to a different kind of person with a different kind of mind: artists, inventors, storytellers-creative and holistic “right-brain” thinkers whose abilities mark the fault line between who gets ahead and who doesn’t.” (p.2).

All of the above pillars of the Dyslexia Decathlon contain a set of skills that lead to unconventional thinking. Figure 1.1 presents an illustration of the Dyslexia Decathlon.

West (2009) is another key author who has contributed to the field of Positive Dyslexia, being one of the first to have started researching this field. He suggests that dyslexic individuals have unique traits and believes that they should take advantage of these and express the positive benefits and qualities of dyslexia. West (2009) also states that dyslexic individuals should focus their energy on the qualities and traits that they are able to excel in, instead of reading and focusing their attention on medical theories that emphasise the negative aspects and challenges of dyslexia.

Through a detailed analysis of his series of case studies, West (1992, 2009) identified that the lives of gifted dyslexic adults showed a extensive gift in visualisation (3D) and creativity. West further connected these qualities with the lives of personalities such as Albert Einstein and Edison who demonstrated “dubious learning difficulties” together with their talent.

Eide & Eide (2012) agreed with West’s point of view and also suggested that

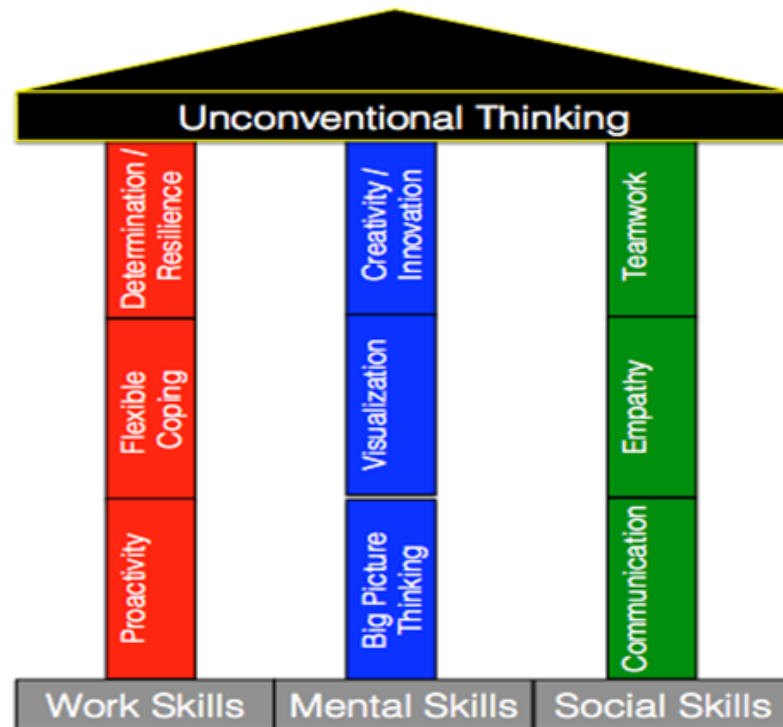


Figure 2.1: Dyslexia Decathlon.

dyslexic individuals have a wide range of strengths. They believe that dyslexic individuals should be aware of their weaknesses, but should focus on the incredible advantage that they have in possessing all of the traits mentioned by West, adding communication skills to this list. Dyslexia is a learning disability and from the medical model's perspective, the predominant views related to it are negative. Positive Dyslexia is key in identifying and extolling characteristics and traits that dyslexic individuals should focus on. These strengths give dyslexic individuals the opportunity to look at the positive outcomes that dyslexia may bring to their lives and how these may positively affect their improved performance in specific tasks. Dyslexic individuals are empathetic, have good inter-personal abilities and a sound understanding of abstract and metaphoric situations.

A consideration of the positive side of dyslexia can be regarded as important and beneficial for their lives. Nicolson & Fawcett (1992) argued that dyslexic individuals often feel "trapped" in the workplace, because they fail to execute some task due to their weakness.

Reid & Kirk (2001) also brought to our attention another situation that stresses the power of positive dyslexia:

"We are time and again quite staggered at the number of adults with dyslexia

who find themselves in employment which is inappropriate for their skills and specific demands of the job puts them under almost daily pressure. This type of situation clearly removes much of the pleasure and self-satisfaction from work. Feelings of frustration and lack of self-confidence can prevent a person with dyslexia from enjoying employment.” (p.72).

In order to change this present scenario, Kirk & Reid (2001) stated that dyslexic individuals are highly visionary beings, because of their ability to picture an entire situation, which will in turn help them to reach quicker problem-solving perspectives. Dyslexic individuals are also very good at finding patterns, visualization and the ability to mentally organise ideas and information, which may contribute to creativity. Careers such as engineering, architecture and mathematics tend to be easier for dyslexic individuals as they have strong abilities in tasks that are related to 3D visualization, problem-solving and overall visuo-spatial skills (West, 1999).

2.12 Positive Psychology in the workplace and Entrepreneurship

There have been few studies undertaken in the interdisciplinary field of dyslexia and Positive Psychology. One such study, by Julie Logan, will be explained in more detail in this section. J. Logan (2009) studied the positive aspects of dyslexia in the environment of the workplace, and more specifically in the entrepreneurial field.

J. Logan (2009) discussed that dyslexic individuals have unique traits and strengths, some of which will be mentioned here are likely to be present in a dyslexic's behaviours. These are somehow key to their high levels of performance, exceeding the expectations of a company or even as an entrepreneur. Rauch & Frese (2007) stated that some of the important traits necessary for a successful entrepreneur are a sense or need for achievement, innovativeness and creativity, self-efficacy, resilience and freedom from external control, among many others. Therefore, it is clear to perceive that an important pattern of traits found in dyslexic individuals overlap with these important factors that are necessary for successful entrepreneurship.

Dyslexic individuals are more likely to have difficulties conforming to fixed standards, structure and “sameness”. When viewed from a positive light, this could mean that there is a tendency for such individuals to have entrepreneurial behaviours, due to certain challenges that dyslexic individuals have had to face during their early age, such as trying to cope with new strategies for learning, being flexible in order to maintain resilience or even having to be extremely creative in order to find new solutions for problems. J. Logan (2009) stated that there is a higher prevalence of dyslexia in entrepreneurial careers when compared to corporate careers. Dyslexic individuals often find it challenging to conform to a company's work

	Entrepreneur	Corporate Manager	Total
Non-dyslexic	66	34	100
Dyslexic	36	3	39
Total	102	37	139

Table 2.1: Sample composition from J. Logan (2009).

structure and it is common for them to choose the path of self-employment. J. Logan (2009) also added that the unique traits they possess are incredibly useful for dyslexic entrepreneurs to establish their own companies. Logan's study in 2009 was a replicated study she ran in 2001 in the U.K. in which she noticed that the incidence of dyslexia is higher in American entrepreneurs as compared to the U.K. study.

2.13 Dyslexia and Entrepreneurship

According to Van Gelderen & Jansen (2006), it is common in the present society to perceive people seeking to become entrepreneurs and starting their own companies instead of working for third parties. Some of the reasons for this are the desire for an enhanced sense of freedom in the workplace, the flexibility to be one's own boss and the power to decide one's daily duties. Some may consider this to be a beneficial approach to increasing their monthly income. There are also individuals who are searching for something more meaningful and to achieve certain dreams, starting their own business is one option to choose. One of the reasons dyslexic individuals may desire to become an entrepreneur is the freedom and flexibility that running the own business gives them (J. Logan, 2009).

The study below, shown in Table 2.1, aimed to estimate the proportion of dyslexic and non-dyslexic individuals in the entrepreneurial and corporate spectrum. J. Logan (2009) used a sample of 139 adults, 102 were entrepreneurs and 37 were corporate managers.

As indicated clearly in Table 2.1, from out the full sample, there is a 92.3% probability of being both an entrepreneur and having dyslexia. It can also be seen that there is a lower incidence of dyslexic individuals occupying corporate managerial positions. Therefore, as (J. M. Logan, 2001) has concluded, there is a higher entrepreneurial prevalence of dyslexia in entrepreneurial careers when compared to corporate careers.

Rauch & Frese (2007) discussed the key traits that successful entrepreneurs manifest, such as creativity and innovativeness, empathy, proactivity, resilience and autonomy, among many others. As has already been stated, such characteristics are highly likely to be present in dyslexic individuals.

Coping strategies are known to be a key feature of the functioning of dyslexic individuals, when there is a need to overcome challenges in their lives. They may not be born with a latent ability or specific trait for this, but in order to overcome specific problems they may have to identify coping strategies, and this will therefore increase their specific entrepreneurial strengths (Fitzgibbon & O'Connor, 2002).

According to J. Logan (2009) and Mazzarol (2003), one such trait found across dyslexic individuals as a coping strategy is that of delegation. Since an early age, they are made aware of their weaknesses, and the intelligence behind delegation. This does not infer that they cannot perform a specific task, but that it would be more productive for them to delegate a writing task, for example, and to then spend more time on a visual task, instead of taking longer to perform a task that they know is likely to present them with a struggle, causing possible and unnecessary stress. Delegation is a very important attribute for a leader in the workplace, as it is crucial to understand how other employees can contribute to the advancement of a task or project with their strengths. Naturally, such a quality is apparent in business owners, and by delegating tasks efficiently, they demonstrate trust among the entire team resulting in a better working environment for the workforce and the company.

J. Logan (2009) also added the importance of delegation for those companies that are still at a stage of growth. She mentions that when the right individuals are able to perform according to their strengths in a specific job, this could bring enormous gains for the company, avoiding the loss of money and precious time.

As is clearly known, the majority of dyslexic individuals struggle with their writing skills. However, it is not as common to know that they are high performers in terms of their communication skills, which has been developed as a coping mechanism to overcome a weakness (Nicolson et al., 1999). This trait is very important for those who wish to choose the path of entrepreneurship. Communication skills are a core ability that helps to inspire others to help themselves in achieving their goals/vision. Dyslexic entrepreneurs can easily draw on this skill to their advantage and for their success, as this facilitates useful networking with other important parties for the business, creating confidence, inspiring employees as well as setting a precise goal that must be achieved J. Logan (2009).

Entrepreneurs have to have enough confidence in order to provide secure strategies and lines of action across all areas of the business. A sense of high self-efficacy is very important for those who own a business, because scenarios may not be safe all of the time and in some cases, committing to a risky decision may be the only feasible course of action or solution. Therefore, those who have a good overall level of self-efficacy tend to be ready to take risks, as they are more likely to be persistent in achieving their goals (Rauch & Frese, 2007). In J. Logan (2009)'s

study, dyslexic individuals presented the same level of confidence as non-dyslexic individuals. Obviously, this is not a set rule and all dyslexic and non-dyslexic individuals will have the same level of confidence, because as we know, confidence is built from a wide range of variables.

According to Hales (1994) and Kirk & Reid (2001), dyslexic individuals, as previously mentioned, have a certain set of traits and qualities that are very suitable to becoming successful entrepreneurs. Dyslexic individuals possess sound communication skills, empathy and creativity, which can contribute to the enrichment of their entrepreneurial careers. An example of how they could use their strengths in their favour is to be creative in using coping strategies, such as delegating tasks that may take them longer to perform, in order to achieve their goals more efficiently. Some of the traits, which are present in both dyslexic individuals and successful business owners, are empathy, innovativeness, and a very strong intention to own a company. It is known that having entrepreneurial behaviours does not necessarily equate to owning a business. However, dyslexic individuals may feel more comfortable in opting to start up a business, due to the lack of support offered by existing companies for those with this learning disability, and consciousness of the barriers they may have to face in order to succeed in corporate positions or simply because they would like to have control of their work and activities (J. Logan, 2009). In order to escape from potentially stressful situations, a high percentage of dyslexic individuals decide to focus on their strengths instead of their weaknesses, and feel motivated and determined to open their own enterprises and to direct their energies towards more positive outcomes.

It seems likely that corporate challenges sometimes motivate dyslexic individuals to distance themselves from standardised jobs that do not focus on their strengths and may even emphasise their weaknesses. J. Logan (2009) provides some support for this, as previously noted. However, her study was based only on a sample of 139 participants and other than her original study (J. M. Logan, 2001), there have been no other systematic investigations that explore the comparison between dyslexic and non-dyslexic groups in the workplace.

2.14 Age of Diagnosis

Diagnosis is a really key aspect for dyslexia. It has been proposed that until dyslexic individuals receive their diagnosis they experienced a heightened struggle, because they are still not fully aware of their weaknesses and consequently unable to improve these (Singleton, 1988).

Nicolson & Fawcett (1995) stated that an early diagnosis of dyslexia would lead to the identification of an easier solution for the disability. Before knowing about the disability, many dyslexic individuals may suffer from bullying in schools or not

fitting in the group, because they are considered as being “less intelligent” or “less capable”.

According to A. S. Agahi (2015), an early diagnosis is also very important for Positive Dyslexia. In order to help an individual with dyslexia, he/she must understand what the drawbacks of dyslexia may be on them, because an understanding of these, may also assist in the discovery and understanding of many strengths. For example, dyslexic individuals have poor writing skills, due to their difficulty with spelling. In order to overcome that weakness they may compensate by excelling in their communication skills and being able to present or persuade others of their ideas with greater ease.

J. Logan (2009) discussed that dyslexic people also tend to be very good at delegating activities because they have had to recognize their weaknesses and rely on activities to be completed more effectively through the use of skills in other people. Therefore, many of the challenges faced by dyslexic individuals, at school or university for example, has helped them to recognise the need for help in certain activities, when they have had an awareness about their learning disability.

Study 1 of this thesis investigated in more depth the link between early diagnosis and how this would be connected to entrepreneurial traits.

2.15 Income Level/Social class

Study 1 has also investigated the correlation between the income level of dyslexic individuals and the likelihood of them developing entrepreneurial intentions.

Some authorities argue that those who come from a high social class are more likely to succeed in the entrepreneurial field. Other authors counteract this point by stating that those from low-income levels have a greater chance to become company owners. There are different views and approaches related to this variable. Hamilton (2000) stated that usually earnings generated through self-employment are lower than standard employment. However, individuals who decide to become entrepreneurs rather than being employed by a company, are ready to sacrifice a stable financial situation for some non-pecuniary benefits, such as the freedom of owning a business. It is important to keep in mind that there are some exceptions to this, such as highly paid professionals, such as lawyers and doctors, who will likely combine both pecuniary and non-pecuniary benefits in having their own business (Hamilton, 2000; Hvide & Møen, 2010).

Another fact that Hamilton (2000) discussed is that when starting their businesses, many entrepreneurs reduce their initial salary by comparison to those with the same intellectual level/category who are employed by a company.

Hvide & Møen (2010) argued that the economic theory suggests that those who are from a higher social class are likely to succeed more than those who are

less wealthy. Their findings present a strong interpretation that entrepreneurship can be considered as a luxury good, because it is closely related to non-pecuniary benefits. Another finding in their study was that independence and esteem from the entrepreneurs were in those non-pecuniary motivational benefits and that those more financially fortunate have a higher desire for it.

Interestingly, results from Hvide & Møen (2010) only confirmed and complemented previous literature stating that non-monetary benefits have a greater influence on ownership, and those who do not need monetary incentives are more likely to succeed along the entrepreneurial path. However, they stress that in the top wealth quartile, the profits have a sharp decrease and they suggest that the “over the top wealthy” may have less influence on alertness and management focus. That said, it is possible to conclude that an excess of resources may bring more dangers than benefits to start-ups (Hvide & Møen, 2010).

2.16 Entrepreneurs

According to Gartner (1988) and Stewart & Roth (2001), many authorities have seen entrepreneurial inclination as a really important attribution not only for those who envision opening their own business, but also as a personality factor, which can help people in diverse situation in their life. Some authors see entrepreneurship as a behaviour present in a singular type of person, such as one who seeks to open their own business. Other authors believe that entrepreneurship is an aspect of one’s personality, such as the capacity to envision useful opportunities in given situations, which few would maybe have. (Shane & Venkataraman, 2000).

Many authors have argued that personality traits are very much likely to be present in one’s behaviour over time and become consistent in their life (Roccas et al., 2002). Caprara & Cervone (2000) believe that our personality traits predict our actions and therefore it would be eventually helpful to someone to show a latent entrepreneur behaviour, which could be useful to guide these people in order to open their own business or take entrepreneur actions in their life.

Notwithstanding that, Rauch & Frese (2007) strongly suggested that personality traits predict whether someone is or is not an entrepreneur or manifest entrepreneurial behaviours.

Such personality traits, as previously stated, are divided into four sections/factors. There are: Biological; such as their own nature, how they naturally act and their temperament. Personality; composed by someone’s group of characteristics. Motives; that for example drive a person towards achieving a goal; and attitudes and beliefs, such as the way people would execute a specific task, what actions they would take, what they believe in and how they would proceed in diverse situations (Kanfer, 1992).

According to Schumpeter (2002), creativity is a trait very much present in entrepreneurs. Such a trait predicts the intelligent way they will propose a solution. Usually people with high creativity are more likely to think “outside the box”, have unconventional ideas and solutions. Clearly, this can be used as a competitive advantage within the market. Risk-taking is a further common trait found among entrepreneurs, and according to (Knight, 1921; Mill, 1848), this trait is very important, because people who manifest it are more likely to try new initiatives.

McClelland (1961) stated that entrepreneurs constantly show a need for achievement and this is very much related to business success. Those who manifest this personality trait usually have a strong vision and are hardworking, in order to achieve their goals.

Some authors such as Gartner (1985) and Low & MacMillan (1988) have argued that personality-based traits theories cannot be seen as the absolute truth. Gartner (1985) believes that entrepreneurs are classified as a heterogeneous group of people and this provokes a “set of entrepreneur behaviours”. Therefore, according to these authors, there is no role model for an entrepreneur and neither can a personality profile be defined for entrepreneurs.

Whilst some authors, such as cited above, consider the personality-based theories to be unsuitable for entrepreneurs, Schmidt & Hunter (2014) believed that this assumption does not hold, because the meta-analysis that is undertaken to prove the discontinuity of the personality-based theory was based on “narrative reviews of literature” without a means for reliable measurement, and it is furthermore challenging to find small but vital correlations using narrative reviews.

2.17 Entrepreneurial Intentions

It is crucial to study entrepreneurial intentions, as entrepreneurship has become one of the most important elements of the global economic growth, bringing with it extensive benefits to society. It enables society to be more innovative, develop a range of human capacities, and increase the rate of employability which in turn gives new options to clients (Moriano et al., 2012).

Before beginning to explain entrepreneurial intentions, it is important to first explore the Theory of Planned Behaviour from Ajzen (2011). According to Moriano et al. (2012), the Theory of Planned Behaviour combines social and personal factors to explain intentional behaviours. The TPB certainly explores entrepreneurial intentions in a more in-depth and accurate way, compared to other theories (Krueger, 2007; Van Gelderen et al., 2008). Also, the relationship between attitudes, entrepreneurial intentions and self-efficacy (the belief one has about self-performance) is studied in the Theory of Planned Behaviour (Moriano et al., 2012).

The Theory of Planned Behaviour is a very important part of the “entrepreneurial

intentions” research. It explores social and personal factors and acknowledges them in the explanation of intentional behaviours. The TPB provides a greater depth of study and brings more clarity to entrepreneurial intentions in comparison with other theories. The Theory of Planned Behaviour presents a significant connections between attitudes, entrepreneurial intentions and self-efficacy (how well one believes themselves to be excelling) (Ajzen, 2011; Moriano et al., 2012; Krueger, 2007; Van Gelderen et al., 2008).

Intention was studied by Armitage & Conner (2001) and identified as being a plan for a future action. According to Moriano et al. (2012) it may influence one’s choice and has a big impact on behaviour control. Intention is a powerful factor for enabling the prediction of behaviour. According to Krueger (2007), the TPB is very unique when compared to other models. For instance, with a very brief overview among the models, the Entrepreneurial Event Model of Shapero & Sokol (1982) had the aim of defining an entrepreneur when compared to ordinary individuals. The model states that in order for an entrepreneurial event to exist, five distinct attributes have to be present, which are: autonomy, the ability to take risks, make resources more solid, having initiative and organizational skills. The Model of Implementing Entrepreneurial Ideas offers a deeper reflection from the creative organizational perspective. The model explains that entrepreneurship and strategic management have differences and EI shapes entire organizations (Bird, 1989). Finally, the Maximization of the Expected Utility theory, which states that an individual will opt for an entrepreneurial career if the expected scenario is better than the company-employed choice (Douglas & Shepherd, 2002).

The Theory of Planned Behaviour is a very applicable theoretical framework that enables the identification of entrepreneurial intentions, by assessing both personal and social variables. Entrepreneurial intention is a step before action, and focuses on achieving a specific objective, such as starting a new business (Moriano et al., 2012).

TPB argues that three variables can predict behavioural intentions. The first is the attitude toward the expected behaviour, the second one is a subjective norm and the last one is the perceived behavioural control.

The attitudes towards behaviour are explained as one’s overall rating of a behaviour. The focus of previous research has been limited to the extent of personal interest for setting up one’s own business. However, as can be realized, a one-variable item measure can lead to unreliable results (Ajzen, 2011). According to the TPB, the attitudes towards a particular matter are assessed by connections and associations among all accessible behavioural beliefs and their various outcomes and attributes. Also, each belief is evaluated by its outcomes (Moriano et

al., 2012).

The second component is “subjective norms”, which describes one’s perspective on social pressures when involved (or not) with entrepreneurial behaviours (Ajzen, 2011). Subjective can be described as a combination of two elements, which are normative beliefs and an incentive to accept those beliefs. Normative beliefs represent the probability that individuals or a group will accept or reject a specific behaviour. The latter is the willingness to accept and conform to those norms (Moriano et al., 2012).

The third input variable of the Theory of Planned Behaviour is related to “perceived behavioural control”, which describes the personal evaluation of an individual on their performance for a given behaviour. According to the theory, all of the other variables can only influence intention through these three components (Moriano et al., 2012).

Moriano et al. (2012) stated that the main element of TPB is the intention of performance, because the greater the intention towards an achievement is, the more likely it is for there to be a high performance-effectiveness.

2.18 What leaders are seeking for in their team

Nowadays companies are very conscious of the high competition in the market and furthermore, how competitors are constantly looking to improve their resources, which for the majority of enterprises are their employees. CEOs and business owners know that they have to invest in their employees to guarantee a better competitive advantage against others (Thorne & Pellant, 2007).

Egan (2005) raised the concept that, apart from other variables, diversity inside a team is the key reason for their development of creativity, which is highly related to organizational success. It was further stated that those organizations that fail to improve their creative processes, hinder the capacity of a company to generate innovative solutions to workplace problems and are very likely to face an organizational failure.

Many authorities have agreed that creativity is the main skill for the success of an organisation. Kurtzberg & Amabile (2001) stated that it is very important to give the right value to creativity, when it is the outcome of teamwork, and such creativity is essential for a company to maintain their competitive advantage.

Egan (2005) defined team diversity as a group of individuals with distinct qualities, but sharing the same goal for resolving a problem or achieving a specific challenge. Based on this definition, it can be clearly understood that the most diverse and heterogenic the team is, the greater its potential capacities are.

As previously stated, having a diverse team is an indicator for a high success in company results. However, selecting the right crew to work in a team is not an

Consideration	%
Availability of Prospective team members	100
Time commitment needed from team	100
Perceived individual creativity	100
Contribution to overall team dynamic	92
Personality type balance	69

Table 2.2: Team Formation - Considerations made by Organisational Leadership aiming toward creative team outcomes.

easy task. Detecting specific skills and qualities in the candidates make it easier to identify those who will compose the “perfect” team (Gratton & Erickson, 2007).

The key question is: “what are the right skills for an employee?” Research undertaken by Egan (2005) found that managers and CEOs seek people who are creative, problem solvers, intelligent and innovative. The majority of those interviewed responded that creativity is the number one skill they seek in an employee, however not necessarily based on how this informs their individual actions but rather how they contribute their creativity to the team and are able to enrich the collective results.

In their interviews, these leaders also mentioned the importance of the mix among educational backgrounds, which would offer different perspectives to view scenarios, and could be beneficial for productivity. Some of the managers also ranked reflective, out-going and open-minded beings as very important in composing a team (Egan, 2005).

The table below, adapted from Egan’s study offers a good overview of what leaders are looking for when it comes to selecting their team.

As can be seen from this adapted table, in selecting an employee leaders were attentive to certain considerations, such as observations on applicant availability, his/her commitment, creativity, their interaction with the team they will be working with and also their personality-type (if it matches with the team personality and if it will bring positive outcomes).

In this same study, the interviewees were asked about which individual characteristics they usually look for in an applicant. A very interesting general understanding about team diversity was that all of the leaders mentioned that specific personality traits from different team members from the group, would affect the relationship in between individuals by influencing the level of creative solutions produced (Egan, 2005).

Mudrack & Farrell (1995) argued that apart from the importance of team diversity, managers and CEOs also recognized the significant of cooperative behaviours,

which could be closely related to highly empathetic beings, given that to help others (even inside a company), requires the ability to perceive and understand others. Mudrack & Farrell (1995) found this “skill” to be positively related to the overall company effectiveness and production.

Problem-solving skills were frequently quoted by interviewees along with the capacity of team members to be pacifiers within the company. Again, the sense of empathy is significant and Kirton (1989) supported this by saying that when workers are creative with problem-solving, this stimulates positive outcomes.

2.19 Entrepreneur key-traits

2.19.1 Creativity

Creativity is a trait that has been very much cited by authors as being a core behaviour for becoming an entrepreneur. According to Sternberg & Lubart (1999), creativity is a very diverse field that expands from individual to societal degrees for different challenges faced. From this definition it is clear to see that creativity is much more than just a simple “skill” in our everyday life.

Treffinger et al. (2005) stated that creativity goes much further than just a mere description of a skill or a specific kind of person. As previously stated, it is an attitude that is present in diverse situations in someone’s daily routine.

Zampetakis & Moustakis (2006) argued that the world is changing and the market is constantly asking for new things. More creative jobs have been created and companies are eager to employ innovative and creative people.

Companies are very aware about market trend, which are based on the latest up-to-date products and services, for example. Creativity is crucial for achieving the “uniqueness” of enterprises and in order to do so, the right team is needed. Such skill is so important nowadays that could generate the initial stimulus for desired innovation (Zampetakis & Moustakis, 2006).

A major link in between creativity and entrepreneurship relies on the beliefs of Baumol (1993) and Bull & Willard (1993). They stated that the definition of entrepreneurship is very related to the appearance of innovation. Since becoming an entrepreneur requires facing an extent of challenges, the need for creativity and the application of innovation through problem solving is both an advantage and a requisite for entrepreneurship.

Jayawarna et al. (2014) noted that different behaviours and traits drive someone to becoming an entrepreneur. A high level of creativity was among these predictors. They found in their study that cognitive ability did measure children’s level of creativity and it showed a positive relationship with business ownership. It was strongly suggested that this trait be developed in children and for them to be motivated to

“master” it, in order to expand the pathway into start-up business and to have more career opportunities in life.

Being an entrepreneur, as previously stated, is not an easy task in the present economical world scenario. To be successful as an entrepreneur, a sense of vision is needed in order to perceive favourable opportunities and to create and develop the entrepreneurial process (Zampetakis & Moustakis, 2006). Confirming the thought from previous authors, Bygrave (2011) believed that the individual who is an entrepreneur sees chances in diverse scenarios and builds companies in order to achieve the vision. Zampetakis (2008) established a positive link between entrepreneurial intentions and university, family and individuals thoughts about creativity.

In order to successfully apply creativity, a good understanding of subjective practices, adjustability and a sense of innovation are needed (Strzalecki, 2000). Since creativity is such an important part of entrepreneurship, and also the current situation in which entrepreneurship can be viewed as a determination of economic growth, it is crucial a crucial link of entrepreneurial intentions with innovation and creative process (Drucker, 1984).

2.19.2 Risk-Taking

It was shown by Knight (1921) that entrepreneurs have a tendency of risk losing all of their investments when they were compared with managers. Rauch & Frese (2007) stated that such a trait is very much related to the term entrepreneurship. In other words, entrepreneurs often show the presence of this trait in their behaviour.

According to Bradstreet (1967), starting a personal business is already a huge risk, with a very high percentage of failure varying among (50%-80%) in the initial 5 years of the inauguration of the company.

Knight (1921) believed that entrepreneurs have an easier time when they constantly take risks during their tasks. The author states that non-entrepreneurs believe they are not able of changing any aspect of their working environment. However, entrepreneurs do not think alike and are often dealing with uncertain scenarios, which makes them take risks all of the time and to work under pressure. Therefore, according to Stewart & Roth (2004), entrepreneurs have the trait and the tendency of having risk-taking propensity.

According to Rauch & Frese (2007), vision is needed to recognize opportunities in the market. However, risk taking is needed for opportunity exploitation. Shane & Venkataraman (2000) also made it very clear that risk-taking is not a predictive for something positive and it is not related to business success, since the market forecast for the next few days cannot be predicted. Entrepreneurs definitely have an advantage in trying new things (vision) and exploiting opportunities (risk-taking), but

the market forecast is always limited and there is never 100% certainty about what will come next. Rauch & Frese (2007) also stated that those with a high desire for achievement are more inclined to have higher risk taking traits, therefore, the decision making process is improved and more efficient for them.

It is interesting to note that the literature constantly states how entrepreneurs show their high propensity for a risk-taking personality trait. Whilst the focus is on how they take risks in the workplace, their actions represent much more than that. Many authors forget that they sacrifice their family, money (for necessary investments in future), other career choices and opportunities, such as working for a company and having the guarantee of a stable monthly income. And very significantly, entrepreneurs sacrifice much of their mental and physical health, with exhaustive working hours and being connected with their business for the majority of the day in order to monitor purposes and to accomplish their company's goals (Bird, 1989).

Some authors such as Fredrickson & Mitchell (1984) and Zajac & Bazerman (1991) argued about the paradox of whether entrepreneurs have an elevated propensity of risk-taking or not. More recently, Busenitz (1999) and Palich & Bagby (1995), argued that entrepreneurs have the tendency to seek opportunities and scenarios in the most positive way, which can result in them being more open when taking risks and also revealing how they see and deal with risks.

2.19.3 Resilience

According to Coutu (2002), resilient people understand their present situation, find meaning in it and try to draw out the best from challenges. Resilience is becoming increasingly crucial to present-day world situations. It is very common for companies to experience crises and suddenly be obliged to lay off employees. Being resilient in such circumstances is an advantage. Coutu (2002) also stated three steps, which must be followed in order to be resilient. The first is to face reality - that is to identify the problem and its origin. The second stage is to find a meaning for the problem, and it is very common for people to draw on values and faith to move forward with this stage. The third and last step is to improvise a recovery, which means that once a problem is understood, a solution is identified.

According to Jackson et al. (2007), even though some authors agree with the definition of resilience as describing a person who progresses after a traumatic event or after a hardship, other academics believe that this definition is ambiguous and greater clarity is needed. Rutter (1999) also argued that the definition of resilience should deliberately kept very broad and that this is necessary.

Jackson et al. (2007) defined resilience as the trait of an individual who is flexible and can easily adjust when faced with challenges and adverse scenarios in life.

Resilient individuals are also able to have a good control over the variables, and keep calm and composed in a positive way, in order to identify solutions to the challenges.

Being resilient is similarly a key skill/advantage for entrepreneurs. Companies seek those who show resilient behaviour, because they are able to manage their reality, identifying problems and associated methods for recovery. This means that they complete tasks by identifying solutions, which is a clear need for entrepreneurs. They will constantly face problems and will have to turn to the application of these three steps, almost automatically, in order to succeed.

2.19.4 Vision

Rauch & Frese (2007) in meta-analyses stated the importance of the trait vision for entrepreneurs. According to their research, it becomes challenging to set goals, identify opportunities and progress along a constructive direction without a vision. They also stated that entrepreneurs need to have the ability to constantly exploit new opportunities, since the market is changing all the time and they need to create a competitive advantage for their companies and think ahead others.

Filion (1991) agreed with Raunch & Frese's perspectives, defining vision as the projection for an entrepreneur. According to them, studies have shown that entrepreneurs who have a precise vision for the next three/four years are more likely to succeed than those who do not. However, among those with a four-year vision, the most successful were those who were engaged in more than one established scenario (in case something may go wrong). Filion (1991) defined vision as being a crucial tool for entrepreneurs, stating that it is the "guiding framework" for entrepreneurs.

According to Franks & Frederick (2011), Big Picture Thinking can also be seen as vision and related to the 3D Visualisation. They state that such a trait is crucial and very beneficial to logical problem solving. And without doubt, this provides a good combination with the entrepreneurial trait of seizing opportunities.

Lowrey (2003) also corroborated Raunch & Frese's idea by arguing that an individual who seeks to survive will apply extremes of discipline, openness to take risks and a level of consistency in all actions. Looking at the scenario of developing and perfecting the future involves creativity, risk-taking and a strong vision. An entrepreneur needs to have a combination of all of these qualities in order to initiate, establish and grow a business towards a successful fruition.

The above gives us the idea that without a vision, there is no progress and this is a clear requisite for becoming an entrepreneur and achieving success.

2.19.5 Optimism

Optimism is a common characteristic of entrepreneurs. According to Hmieleski & Baron (2009), entrepreneurs show a higher percentage of optimism than non-entrepreneurs. Such a finding can be extended and applied beyond the environment of the workplace. A study carried out by Puri & Robinson (2004) found that entrepreneurs tend to believe that their life-expectancy will be longer than the average, which can also indicate that entrepreneurs may have greater convictions about their life prospects. In the same study, it was also observed by Puri & Robinson (2004) that entrepreneurs are more likely to show greater tolerance when taking risks, compared to those who do not own a business.

Cooper et al. (1988) argued that entrepreneurs find themselves ready for everything, without paying attention to how prepared they are to execute the given challenge/task. Complementing this, Busenitz & Barney (1997) stated that business runners tend to have a great deal of confidence, leading them to believe that they are right in a certain situation, which can have significant dangers.

According to Puri & Robinson (2004), entrepreneurs can overestimate their capacity to perform and this can be very harmful to their companies, since they can introduce too many risks without due preparation, and this can lead to their failure. The “blind” optimism is linked with negative results, since those who are overly optimistic usually create unrealistic scenarios and expectations Geers & Lassiter (2002).

Obviously, optimism is a very key characteristic for entrepreneurs to have, due to the fact that they constantly face hardships and have to maintain a positive mindset toward their actions (Spencer & Norem, 1996). Those with a moderate level of optimism are more inclined to have a balanced view, they are more able to identify negative circumstances and more realistic at seeing positive information (Geers et al., 2003). However, this needs to be applied with rationality so that their positivism can be founded on real sources, otherwise the accomplishment of their vision rely heavily on luck.

2.19.6 Empathy

According to Kalisch (1973), empathy is the capacity of directing yourself towards another person’s perspective, in other words, it is the power of deeply recognising someone’s feelings and understanding them. Nowadays empathetic beings are greatly needed in companies, since this key characteristic can be used to greatly benefit of the working environment. Once you understand the perspective of others, people become more understanding in the workplace. For this reason, during their selection of leaders and managers, many companies are certifying that they are

hiring those who have demonstrated empathetic capacities.

In addition to the above, Ham et al. (2003) also stated that such a personality trait is commonly found in entrepreneurs. Being empathetic is essential for entrepreneurs, since they will be the head of a whole company. The productivity and performance of the company are closely related to how the staff are treated, and a very direct correlation exists between empathy and performance.

According to Northouse (2018), it is very easy to identify the difference between groups/teams and boss/leaders, within the market. It is more beneficial for a company to have their employees united as a team instead of a group. In order to generate this dynamic, there is a basic requirement for those who integrate this team to have empathy, to constantly understand the needs of others and to always help their colleagues. The same applies to leaders and their subordinates. The more understanding and empathetic the leader is, the more their employees will feel comfortable by working with him/her and their productivity and level of performance will certainly increase.

Jayawarna et al. (2014) stated that individuals who have well developed social skills (which can easily be related to empathetic and communication skills) are better qualified to pursue an entrepreneurial career, although those with these characteristics may be more attracted to the security and stability of a good employment. Parker (2004) argued that individuals who provide this specific “high stock of human capital” and unique entrepreneurial skills, are more likely to make better use of these in their own business rather than in a conventional employment.

As previously stated, those are the reasons why empathy is an important trait to have and we can now perceive how it can become a crucial competitive advantage for entrepreneurs.

2.19.7 Family Background

Dyer & Handler (1994) strongly believed that family has a great influence on the appearance of entrepreneurial behaviour in a person. He states that entrepreneurs described their parents as promoting a supportive environment, but at the same time a constantly providing challenges, resulting in high levels of desire for achievement. According to McClelland (1965), such a trait is essential for entrepreneurial activities.

Jayawarna et al. (2014) stated that the entrepreneurial process starts at an early age and stress the importance of developing these skills in children at this formative stage. They also mention the entrepreneurial career choice as being related to “age-appropriate” skills, which is acquired by an individual in his/hers early developmental stage (which includes childhood and adolescence). As a result, such individuals are directed to entrepreneurial careers due to their stimulation of com-

petencies. As can be perceived, the support of a family for the development of skills and competencies in an individual can be crucial in their career choice.

According to Athayde (2009), those who have grown up in a family business tend to become business owners or work in the family business during adulthood. Also, Laspita et al. (2012) discussed that parents who run their own companies transmit unique experiences and values to their children, which parents who are in salaried work would not possess and cannot pass on. All of these circumstances only make it easier in facilitating the path for an entrepreneurial career choice.

Jayawarna et al. (2014) has confirmed the above through their study, which has found that individuals start to shape their entrepreneurial characteristics some years before they actually choose to pursue a business ownership career. This entire path relies, mainly on the stimulation of competencies and investing in a child's creative abilities. Their results also suggests that good and serious parenting support gives children a unique possibility of development in specific entrepreneurial competences.

Another very interesting finding was that entrepreneurs usually come from a family, in which parents were self-employed. Such a result confirms once again that parents tended to encourage their children to develop entrepreneurial behaviours in their personality (Ronstadt, 1984).

In a study on careers carried out by Dalton & Holdaway (1989), it was found that the majority of entrepreneurs who took part in this research had similar memories from their youth. Many of them stated that they were frequently encouraged by their parents to take part in entrepreneurial activities from an early age. Such an attitude from the parents was not always association with financial help, but also to give their children the opportunity to raise their level of responsibility.

Mathews & Moser (1995) added that having a family background support and encouragement is one of the most significant predictors for business ownership. Naturally, the person has to already have some inclination to become involved in entrepreneurial activities. However, as can be seen from past studies, family is a very important variable and can be highly determinant in the skills, values, morals, abilities and level of confidence that entrepreneurs will present in order to initiate their own business.

2.19.8 Leadership

Leadership is one of the most important skills that an entrepreneur can show in their personality. Being a leader requires a vast number of attributes and also connects previously mentioned personality-traits, such as empathy, vision, confidence and proactivity, among many others (Northouse, 2018). The primary traits will be further explored under this theme and the purpose of an entrepreneur having them will be

described.

Northouse (2018) has presented an influential description of a leader. He divides leaders into task-oriented and person-oriented people. Task-oriented people are those who are inclined to pay more attention to a given task and place this as a priority, ahead of people's needs. People-oriented leaders are those who whilst giving great attention to task, will nonetheless put people ahead of all other matters. Even though the latter is more empathetic and more "desirable" for a company, Northouse (2018) stated that the perfect leader should demonstrate an extent of both traits, such that whilst a task is being undertaken with due focus, appropriate levels of attention are being given to people.

Bass (1995) also stated that transformational leadership is the action of a leader to put the betterment of the whole company ahead of his/her personal needs and desires. This kind of leadership is very fruitful, creating a good environment in the company to work in. Also, the behaviour of a transformational leader needs to be governed by a very detached and empathetic personality, in order for this sort of leadership to be sincere and bring successful results for the company.

A study undertaken by Luria et al. (2014), aimed to investigate the relationships between leadership roles and learning disabilities (LD). Some considerations were taken before the study. Firstly, it was discussed that leaders are individuals who take related school and work experiences and put it into practice to their reality. It was shown in theory that those who have LD are likely to struggle in learning activities and this will distance them from becoming emergent leaders, or to be recognized as one (either formal or informal).

Luria et al. (2014) also mentioned that the majority of published literature on this topic, predominantly shows the negative relationships and outcomes related to individuals with LD and their work performances. They argue that such a situation has its roots in myths, but they also hold the press accountable for it. Their paper also discussed how individuals with LD are less likely to be hired by a company, because of an assumption by the company that they will be less efficient or productive. If they are offered employment, these are often for posts which only qualify for a minimum wage salary and they do not receive frequent promotions. In order to demystify this, Luria et al. (2014) found no differences in leadership-effectiveness between individuals with and without learning disabilities. From this, it could be assumed that an "implicit prejudice" about learning disabilities is present in organisations. The results from the research showed that no significant difference was found in the leadership-effectiveness scenario between supervisors and peers.

From these results we can assume that employees with learning disabilities tend to struggle to be promoted within companies, without any basis in their performance

and effectiveness. Their study also showed that individuals who have high self-efficacy and motivation will exert good effort to continue leading, with the aim of becoming a leader, whether they have LD or not. This only means that companies are not offering sufficient support to assist individuals with learning disabilities to progress in their working-life.

Given the above, leadership can be considered as the basis of entrepreneurship. Entrepreneurs who possess leadership skills already have a very high competitive advantage, because in order to be a true leader, one has to have major attributes (as briefly mentioned under this theme), which will be invaluable for successful entrepreneurs. Regardless of the current day difficulties dyslexic individuals find for their progress within organisations, leadership is a key characteristic, which can undoubtedly make a great difference to their careers.

2.19.9 Problem-Solving

Nowadays, it is essential for an entrepreneur to have strong problem-solving. Such a characteristic can be the key for a finding extensive resolutions in one company. Interestingly, problem solving is very related to the creativity conception in a business. Ward (2004) stated that “problem formulation” has a big connection to the final achievement and solution. This “problem formulation”, Reiter-Palmon & Illies (2004) mentioned is the creative way, brains (teams) will outstretch in order to find a solution, which will give competitive advantage to the company.

Another circumstance commonly associated with problem solving is the fact that companies have to work under constant pressure and produce notable results to the market, otherwise they will be out of the competition. Problem solving also allows a process of continual “creative ways” to be offered to customers, ahead of competitors, as solutions for yet unseen and unknown problems (S. M. Smith et al., 1995).

According to Gilad (1984), and connecting the above-mentioned points, creative and useful ideas are vital for entrepreneurship. Moreover, entrepreneurs also need to identify their market, its weaknesses, strengths and potential opportunities, and then to apply all of this information into action. Sometimes, in order to conceptualise this it is necessary to involve a future partner who is willing to support it financially. Again, the entrepreneur needs to “solve the problem” by selling the idea in a way that those who are buying will believe in its success.

As can be seen from this topic, there is a very clear and interesting correlation between creativity, problem solving and entrepreneurship. All these need to interact with each other, in situations such as the workplace crisis, new ventures at the workplace or even market expansion, for example, in order for there to a successful output for the entrepreneur.

2.19.10 Confidence

Arenius & Minniti (2005) stated that being an entrepreneur definitely requires much more than a few simple skills and characteristics, and one of these is confidence. Some people may argue that such a skill is subjective to the given business scenario. However, according to Gartner (1985) the process of starting one's own business involves a high standard of exercise control until success is reached, and this process needs confidence.

Moreover, a study carried out by Arenius & Minniti (2005) found a positive relation in between confidence and a nascent entrepreneur. This study also found that those who consider themselves as confident have 6.4 times greater chance to be classified a "born entrepreneurs", when compared to those who do not believe that they possess such capacity.

Arenius & Minniti (2005) claimed that confidence is the most important component for an entrepreneur to decide to establish a personal enterprise. They also state that their finding conforms and is consistent with previous psychology literature, such as intentionality, self-efficacy and also expectancy theory. The latter explains that the way someone thinks about their performance and its consequence about one task can decide whether or not the person will do it or not.

Hayward et al. (2006) have found that although confidence is really an important component for the success of initiating a new business, it is also very important to be aware to not become an overconfident entrepreneur. Their results have demonstrated that overconfident individuals tend to start their companies, however they are also more likely to face failure. Cialdini & Trost (1998) adds that overconfident entrepreneurs have the certainty and persistence to face specific challenges and tasks, given their conviction in the necessary resources to execute it and to be ultimately successful. The biggest issue according to Hayward et al. (2006) with those who are overconfident (the majority of the time) is that their previous positive experiences and sound knowledge, naturally elevates their confidence levels and blinds their future decisions.

2.19.11 Modesty

This topic should focus on the explanation of modesty as an entrepreneurial trait and its importance for people with such characteristics. However, not much literature was found on this specific topic. After searching for related studies, an interesting empirical study by Vunova (2009) was found, which was looking for values that entrepreneurs would hold before starting their own business, and the difference once the business has been established. Modesty was one of the leading values for entrepreneurs and ranked with 44% importance (before start-up), but decreased

by 11% once the company reached its success.

Vunova (2009) explained that when starting a business, the scenario is very uncertain; therefore humility is very present in the efforts of those initiating a new enterprise or opening a company, during the initial stages. After the business breaks even and profits start increasing, the entrepreneur tends to feel too self-assured and overconfident. Modesty stops being meaningful as entrepreneurs will have personality characteristics more suitable for inconsistent market to develop their companies, which means they will become more aggressive and audacious (very different traits from modesty).

2.19.12 Proactivity

According to Zampetakis (2008), proactivity is a constant desire combined with actions from an individual who seeks change for a certain scenario or environment. A strong relation has been suggested between proactivity and entrepreneurial intentions.

Previous theoretical work carried out by Crant (2000) showed that proactive beings succeed more often than non-proactive people and they also have an easier time adapting in different environments. Others qualities are also commonly found in proactive people, for example, extroversion, being very confident beings with a focus on the need for achievement (Claes et al., 2005).

As an example, Crant (1996) carried out a study and found that a positive relation exists between the proactivity of business students and their desire to open their own companies. Zampetakis (2008) also carried out a study with 199 undergraduate students with the aim of establishing whether the proactivity score would be positively linked with the desire and intent to open a personal business. In the same study, she aimed to test whether this desire would mediate proactivity reaction on the entrepreneurial intent.

The results showed that there is significant mediation between the perceived desirability of proactivity and entrepreneurial intentions (Zampetakis, 2008). It is therefore clear to see the need for an entrepreneur to be proactive. Starting up a business requires people with the desire to make it happen, and not only that, but also the motivation to work hard before anyone states this as a need.

2.19.13 Social Network

According to Ulhøi (2005) some theories about entrepreneurship, such as Deakins & Freel (1998) recognized that, in order for someone to be an entrepreneur, certain crucial skills need to be learned, even though some authors may still believe that an entrepreneur is born with specific personality-traits, which will direct the person for it. Ulhøi (2005) also suggested that entrepreneurial theories are forgetting about

the effects of environment, such as social network forces.

Venkataraman (1997) stated that entrepreneurship is not a phenomenon that occurs alone. It requires attention to be paid to the SWOT analysis and specifically at the opportunities and external advantages.

Reynolds (1992) also argued that initial capital and infrastructure is very important for starting up a company. However, equally important to these two variables, is the need for a social network to succeed. These variables, from among others, are necessary ingredients for starting a business.

Ulhøi (2005) described the clear importance of social network roles to our society and especially in the entrepreneurial field. Without this variable, it would be much harder to accomplish certain initial tasks when starting up a company, for example contacting the right people to help with bureaucratic documents or even finding people to become “capital-partners” of the company. In addition, it is important to mention the weight of relationships among the social network (strong and weak proximity). It is crucial to recognize the level of quality of certain connections and to opt for quality rather than quantity. For example, it would be preferable to know fewer people but share a deep trust and high-level proximity relationship with a group, rather than to have a much larger number of acquaintances, who do not remember your name. This confirms the huge importance of a social network in the process of an entrepreneurial start-up, but also suggests that an entrepreneur needs to invest his/her time in “network-nurturing activities”, in order to foster a comfortable environment for both parties to seek favours and be able to eventually ask for help.

2.19.14 Communication Skills

According to Ray (1993) in order for an entrepreneur to succeed, certain skills must be dominant, such as those related to vision, critical thinking, persuasion, negotiation, interpersonal communication, listening and problem-solving. Among these, two are related to communication - one directly and one implicitly. Persuasion is very closely related to communication. Entrepreneurs need to master oral communication skill in order to sell their vision and their ideas to partners, banks and the market. They also need to be prepared to apply this skill either face-to-face or on through telephone negotiations. The skill of negotiation is part of persuasion, and a high level of negotiation skills are need if someone is to fully embrace a persuasive thought. The implicit skill related to communication is “listening and information acquisition”, because as important as it is to communicate well and have the ability to sell an entrepreneurial idea, it is equally necessary to develop the ability to learn about the interest of others, which in turn makes the path to negotiation easier.

Clarke (2007) stated that being a person with a high communication skill level is fundamental for entrepreneurs, given that the acquisition of such a characteristic can increase the level of persuasion, leading to better team performance and an increased rate of sale, for example. Communication is an essential skill for business survival, nowadays. Aside from demonstrating good oratory and public-speaking skills, communication allows the possibility of a vision to be sold to costumers. A combination of these “ingredients” is what makes communication such a vital skill.

According to Klamer (2011), having good communication skills is much more than simply speaking well in public. It is also related to persuasion and how this can impact the company and influence others, and strong communication and persuasion skills are an essential pre-requisite for decision-making.

2.19.15 Delegation

According to Franks & Frederick (2011) delegation is a trait that is referenced in entrepreneurship and dyslexia literature. It is however presented from different perspectives. Non-dyslexic individuals were shown to be self-reliant in the majority of their tasks when working in their own business. Literature suggests that they are very autonomous and have difficulties in delegating tasks to their employees.

On the other hand, dyslexic individuals have had to learn the skill of delegation as a very valuable coping strategy since an early age (J. Logan, 2009). As soon as dyslexic individuals become aware of any weaknesses, they build their own “help-mechanism” in order to overcome challenges in life. It is clear to perceive that they develop the delegation ability in order to help their performance in work, studies, life challenges and wherever is needed for their general advancement.

Individuals who possess such a skill have a good advantage, since companies need leaders (and owners) to delegate and share tasks. Delegating is a means of demonstrating to a team, a sincere conviction in their capacity and to decentralise power (Carlopio & Andrewartha, 2012).

2.20 Dyslexia and the workplace

It is important to understand the magnitude of dyslexic individuals within the workplace. Further research that was undertaken for this thesis will focus on this matter. However, before exploring views from employers and dyslexic employees, it is important to understand the reason why dyslexic individuals represent a key element for an organization, which is contrary to the mind-set of offering dyslexic individuals a “favour” by employing them.

Walker & Quong (1998) has mentioned the relentless pressure placed on individuals since school, which inhibits creative and diversity, promoting only growth for sameness. The act of valuing differences enables individuals to excel in their per-

formance, allows personal growth and is certainly more sensible, in encouraging everyone to focus on their own strengths instead of following the same plan and forming an army with the same skills.

McLoughlin et al. (2002) stated that in order to receive adjustments and accommodations it is expected that dyslexic individuals disclose their disability. Dyslexic individuals also have protection from legislation, which obliges organisations to provide support, and failing which they may face Courts and Tribunals.

Qualitative studies were undertaken by Price & Gerber (2001) and (Gerber et al., 2004), which showed that although individuals with learning disabilities are protected by the existing legislation, they did not feel comfortable in disclosing their LD to employers. There are various reasons for this, but overall they were afraid of discrimination, felt concerned about inconveniencing their employer, and wished to avoid feeling diminished in the workplace. The majority of individuals even showed some ignorance about the legislation and did not know it would apply for work (Madaus et al., 2002).

According to McLoughlin & Leather (2009), dyslexia is a learning disability that is highly misunderstood by the most of society. Some believe that dyslexia is a “school problem”, forgetting that this LD represents much more than just issues with reading/spelling. Dyslexia is not a disease to be treated, and dyslexic individuals will live with this condition throughout their lives, including their adulthood and within the workplace. The incorrect perception around dyslexic individuals is a further misunderstanding, based on a mind-set that considers them to be incompetent and requiring too much assistance from employers. This is clearly incorrect and has little to do with dyslexia. Whilst of course people demonstrate a range of competency levels, having dyslexia does not automatically make someone incompetent, or affect someone’s ability to deliver to a high standard, especially if appropriate support is given. There is also a stigma with being dyslexic, given that many people, both dyslexic and non-dyslexic, consider poor spelling (and its relationship with basic literacy) as a source of awkwardness. Furthermore, once dyslexic individuals are employed, it is hard to find employers who will provide the necessary training and appropriate support that they need. Hoffmann et al. (1987) suggests that dyslexic individuals always feel pressure in order to achieve the high expectations that different institutions have. Employers are one of the most important causes of such pressure. Kirk & Reid (2001) also argued that even after dyslexic adults are recruited and have secured their positions in a company, there is always a need to prove to their employers that they can perform well.

Given all of these reasons it is clear and unsurprising why dyslexic individuals would not disclose their learning disability in the workplace or in their daily lives

(McLoughlin & Leather, 2009). Hoffmann et al. (1987) carried out a study in the United States with nearly 400 dyslexic individuals and found that one of the most important needs stated by the dyslexic sample was specific training for the job. It is also argued by Hoffman that dyslexic people cannot always differentiate and fully understand both strengths and weaknesses, but such knowledge is crucial in order to allocate the best talents to specific jobs.

2.21 Workplace and reality

As previously mentioned, dyslexia does not go away with time, so from childhood to adulthood, the effects of dyslexia may become milder but it does not disappear. McLoughlin et al. (2002) stated that dyslexic individuals have in common much more than the literacy skills, namely the struggle they have with verbal and written processing information. Of course, in the long term, this mainly impacts personal and professional organization, time management (it is common for dyslexic individuals to underestimate or overestimate the required time needed for a task, which may impact deadlines and be interpreted by employers as incompetency and lack of professionalism), word finding, writing, spelling, reading and also mathematics.

Some of the struggles with dyslexia are present throughout life and may have a significant impact when an individual is in the workplace. For example, the above-mentioned issues related to time management and organization may give a negative impression to the employer leading to him/her to think that the individual is not a worthy employee. However, if dyslexia were disclosed, the company would already be aware of the disability and may work towards supporting the struggles and identifying solutions. The disclosure of dyslexia seems to present a vicious circle, because employers expect employees to inform them about the LD. In the majority of cases, dyslexic individuals do not so this because of the reasons already given. As a result, no support or help is given and dyslexic individuals become at risk of appearing to be underperformers in the workplace (Hoffmann et al., 1987).

McLoughlin & Leather (2009) also mentioned that the weaknesses that affect dyslexic individuals can also lead to low self-esteem, lack of confidence and anxiety. This situation makes dyslexic individuals (and also employers) focus on what they are not good at and cannot do, instead of the positive benefits that dyslexic individuals can bring to organisations. In other words, this focuses on traditional dyslexia instead of positive dyslexia (Nicolson, 2015). Morgan & Klein (2000) indicate the importance of a mentor to encourage dyslexic individuals to focus on their qualities and overcome their challenges by developing coping strategies.

It is advised that a process of assessment be undertaken in order to explore the reason some tasks may be more challenging than others for dyslexic individuals.

A typical professional assessment is guided by psychologists or specialist consultants who will be measuring verbal and non-verbal skills, memory and processing abilities. The purpose of this is to better understand the level of severity in the LD and provide as much support and help as needed. The expected outcome is to have a formal recommendation to better adjust the work that will be undertaken by the dyslexic employee (Kirk & Reid, 2001; McLoughlin & Leather, 2009).

According to McLoughlin & Leather (2009) and Nicolson (2015), in the long term, dyslexic individuals may underperform due to their formal education, which did not focus on their strengths, but instead focused on a “general strength”. In order to support an inclusion with dyslexic individuals; the first step for employers is to understand the deficit, not as the fault of dyslexic individuals, but rather a shortcoming of the educational system that exists in the world. Nowadays, there are very few companies who can demonstrate this kind of support, and a transition towards it would include the following:

Job crafting/job redefinition: Instead of simply demanding from the dyslexic employee a specific task, consulting with him/her about the best way to execute it.

Change of job: Once the entire system is more solid, job changing will no longer be necessary, because dyslexic individuals will already have been allocated the most appropriate job. However, if this happens, it is important to go through all of the tasks required for the job and identify for which of these the employee has greatest performance ability, so that the job allocation will be smoother. **Promotion:** This may add more value to dyslexic employees through a recognition of their performance and dedication to creating a dyslexic-friendly atmosphere.

Training/Education: In some cases, it may be interesting to invest in some training and further education, which can tailor dyslexic strengths to the jobs they will be doing in the organization. **Re-create the personnel:** This is one of the biggest challenges in the transition for dyslexic inclusion. Personnel management are the biggest link between CEOs and dyslexic employees. They will be responsible to guarantee that owners understand the benefits of having dyslexic individuals in the team, as well as dyslexic individuals receiving all the necessary support and adjustments in order to be able to perform to the best of their ability in delivering their work.

It is true that dyslexic individuals process information in a different way, which means that they learn and work differently. As already discussed in this section, the world is currently generating a huge army of “sameness”, which is threatening and unwelcoming to those who do not belong to it. Therefore, the inclusion of dyslexic individuals as a positive reality, requires a recognition of the value they will bring to a company and an understanding that their contribution will be unique (Nicolson &

Fawcett, 1995; McLoughlin & Leather, 2009; Nicolson, 2015).

2.22 Organizations and dyslexic individuals

According to McLoughlin & Leather (2009) and McLoughlin et al. (2002), the Disability Acts protect individuals with dyslexia when applying for jobs and with the assurance of the provision of necessary support. Some companies believe in the importance of applying this and even taking this obligation further by raising awareness in the company through for example, sharing information on company intranet systems and providing guidance to employees. Human Resources departments together with Occupational Health are the responsible departments for sharing this knowledge with other employees and also providing all the necessary adjustments and accommodations.

McLoughlin & Leather (2009) argues that it is known and expected that some jobs may not have flexibility to allow extra time for dyslexic employees to execute specific tasks. For instance, the majority of banks work at a very dynamic pace and the market does not allow this to slow down, therefore some follow-up support with individuals with dyslexia is crucial. There are many steps that organizations can take in order to provide the adequate level of support, for example, coaching sessions, mentorships, support groups, helplines, guidelines - and all of these should be available for both the employee and their managers.

According to Bartlett et al. (2010), since we are speaking of human beings, everyone is different. Dyslexia varies in severity. Some employees may show very mild dyslexia, which will have little impact on his/her performance, while others may struggle with the majority of tasks that they may be given. The current day technological support that can be found in the market is of a very high standard. For example, there is specific voice recognition software (text-to-speech), which could speed the process of report writing for those who struggle to write. There are also planning software for those who struggle with their organization skills, which can be a key help for everyone who struggles in this department, not being necessarily dyslexic (McLoughlin & Leather, 2009).

McLoughlin & Leather (2009) and Nicolson (2015) also highlighted that sometimes an organization may be extremely supportive to employ individuals with dyslexia, but may not have any expertise on the subject or any specific information on how to best accommodate tasks and support them in their work. They suggest that the individual brings this knowledge to the company, explaining how the learning disability affects them and how to best adjust their work with a short and long-term plan. At the most fundamental level, it is crucial to know how to ask for help. These conversations should be undertaken in a constructive matter, providing an explanation to employers of how they may work best, emphasising what they can do, rather

than focusing on their weaknesses.

Goldberg et al. (2003) state that companies want solutions, not problems, and that is the reason why the disclosure of dyslexia has to be treated as such. Viewing dyslexia from a positive perspective and “selling the strengths” of individuals may be crucial. It is also important to be aware that all of this could imply some discrimination from employers and in order to avoid this, focusing on the strengths alongside solutions for struggles or weaknesses, may be the key answer for changing the entire scenario for dyslexia (McLoughlin & Leather, 2009).

Chapter 3

Study 1

3.1 Introduction

The first study of this thesis aims to investigate whether a correlation may exist between various cognitive strengths and the likelihood of one's becoming an entrepreneur. The study uses a quantitative approach, as a continuation to a number of studies undertaken by Sara Agahi, Roderick Nicolson and myself. A. S. Agahi (2015) identified a number of interesting results related to the field of Positive Dyslexia, which included a set of ten skills described as the Dyslexia Decathlon. Examples of the qualities demonstrated in the Dyslexia Decathlon include the capacity to draw on a bigger picture approach, the application of innovative thinking for creative solutions, and an enhanced ability in visual-spatial skills. This composes a core triad of cognitive strengths. The second triad relates to inter-personal strengths, which includes capacities for teamwork, empathy and communication skills. A third triad describes work-related strengths and includes qualities such as resilience, proactivity and flexible coping. All three of these triads are underpinned by the tenth skill, which is a capacity for unconventional thinking.

A qualitative study undertaken by Sepulveda (2013) with dyslexic entrepreneurs demonstrated similar results to the Dyslexia Decathlon, and the results of J. Logan (2009) further corroborated these findings.

It was clear that whilst scientists had previously undertaken some qualitative and quantitative studies, these did not include a comparison of samples related to both dyslexic and non-dyslexic participants and a comparative approach had not been analysed. This lack of research, motivated an investigation into whether these specific strengths of dyslexic individuals were in fact more prevalent in a dyslexic population when compared to a non-dyslexic samples.

As previously mentioned, the findings demonstrated a set of ten skills (the Dyslexia Decathlon), however, for the purpose of this first study, the focus was on

the work-related triad and a specific comparison of the entrepreneurial tendencies of dyslexic and non-dyslexic individuals.

In addition, given the relatively high proportion of dyslexic entrepreneurs. In this study it was also intended to probe the underlying causes of these relationships.

3.2 Pilot study

A pilot study was undertaken to investigate the essential traits that companies were seeking in their new/old employees, in order to identify the core behaviours that were considered necessary, for the enhancement of company performance and profit.

The study incorporated the findings of a one and a half hour Skype interview with a Human Resources manager, which was framed according to 14 open questions. These focussed on an exploration of what companies would look for as part of their recruitment process, in order to gain a general, sound understanding of the most desirable traits that companies seek in their human resources. This in turn contributed to the assumption that the same or similar traits are also important, even essential to those who aspire to become entrepreneurs.

Some examples of the crucial traits that were reinforced by the H. R. manager during the interview was the capacity to have a global vision, heightened communication skills, a sense of drive and leadership, entrepreneurial traits such as innovative thinking, and a capacity for empathy with others or a situation.

It can therefore be seen that such traits that are desirable and expected by companies for their new/old employees bears a close match with the “desirable entrepreneurial traits” previously mentioned in the literature review. It can therefore be deduced from this connection, that entrepreneurial traits are being increasingly sought after, and that being an entrepreneur has far greater meaning and a more extensive definition than “owning your own business”.

3.2.1 Hypotheses of the study

The study of dyslexic adults in A. S. Agahi (2015), taken together with the Sepulveda (2013) highlighted the triads of strengths of successful dyslexic adults in three domains: work skills (resilience, proactivity and flexible coping); cognitive skills (big picture, visuo-spatial and creativity) and inter-personal (social) skills (teamwork, empathy and communication), together with entrepreneurial tendencies that were associated with the dyslexic entrepreneurs. These studies raised important theoretical and applied issues: how general are these findings for other dyslexic adults; how specific are these findings to dyslexia; and how relevant are the findings for supporting dyslexic adults in terms of career choice?

Study 1 addressed these issues by investigating University students, thereby

assessing the antecedents of successful careers. In particular, to assess whether the “Dyslexia Decathlon” skills and entrepreneurial tendencies of the dyslexic adults interviewed were actually sculpted by their post-University career experience, or whether they reflected some more intrinsic preferences that could in fact be revealed even in a University context.

I therefore proposed two major hypotheses:

Hypothesis 1

Dyslexic students would also show a preference for all 10 dyslexia decathlon skills.

Hypothesis 2

Dyslexic students would show significantly stronger entrepreneurial tendencies than the non-dyslexic students.

Dyslexic individuals are thought to have a range of skills and capacities, which, as already mentioned by J. Logan (2009) are considered to be highly entrepreneurial oriented. Such traits motivate a sense of detachment from a perceived disability and drive the desire to prove to companies a heightened sense of professional capacities combining rare and very useful skills. Although the majority of the world’s population are understood to be non-dyslexic, the various challenges that those with dyslexia face, contribute to their increased sense of entrepreneurial-orientation and help them further develop a stronger combination of entrepreneurial personality traits.

The focus of this hypothesis is to investigate which of the two groups - dyslexic and non-dyslexic individuals, show significantly stronger entrepreneurial tendencies. The null hypothesis holds that dyslexic individuals will not have higher levels of entrepreneurial traits and intentions than non-dyslexic individuals.

In the light of previous literature, I also proposed two further hypotheses:

Hypothesis 3

Dyslexic individuals from higher social classes are more likely to possess entrepreneurial intentions and traits than those who are not.

The current level of income is a possible factor in determining the amount of income that is aspired for in life. The hypothesis of this study states that dyslexic individuals who receive a higher monthly income will also have a stronger intention and desire to become entrepreneurs. According to the theory already shown by Hamilton (2000) and Hvide & Møen (2010), those from a higher social class are more likely to succeed in ownership, because the development of an entrepreneurial career is closely linked to non-pecuniary benefits. This means that the person would require a relatively comfortable financial situation in order to risk sacrificing it.

The null hypothesis holds that dyslexic individuals from higher social classes are not more likely to possess entrepreneurial intentions and traits, than those who are not.

Hypothesis 4

Dyslexic individuals who received an early dyslexia diagnosis will demonstrate a higher entrepreneurial intention and traits, than those who were diagnosed at a later stage.

The hypothesis of the present study suggests that the earlier the dyslexic receives his or her diagnosis, the greater the propensity towards entrepreneurial intentions and aspirations. One of the reasons (yet to be studied) is that an early diagnosis increases the individual's sense of awareness of their strengths and weaknesses, resulting in a more appropriate career choice. According to the previously cited literature, an early diagnosis may prove very helpful in identifying enhanced solutions for the performance of those with dyslexia. Therefore, it would be more likely for individuals to develop their skills and traits, on the basis of an early diagnosis (Nicolson & Fawcett, 1995).

The null hypothesis holds that dyslexic individuals who received an early dyslexia diagnosis will not demonstrate a heightened entrepreneurial intention or traits, than those who obtained a late diagnosis.

3.2.2 Aims/Values

To undertake quantitative research comparing dyslexic and non-dyslexic university students, in order to identify which group will demonstrate a stronger entrepreneurial tendencies.

To investigate whether dyslexic students will show a preference for all 10 dyslexia decathlon skills.

To investigate if there is a relationship between entrepreneurial tendencies with income level and age of diagnosis, for the dyslexic group.

3.3 Method

3.3.1 Ethics Approval

The present study received the approval of the University of Sheffield Psychology Department Ethics Committee. All participants were contacted through an online questionnaire, using Qualtrics. Before answering the questionnaire, they were asked to read an information sheet, which gave them the necessary background information regarding the study. Participants were also asked to give their electronic consent, in order to participate in the study. All students were assured of the confidential nature of the data being shared, and the anonymity of their names, with the

exception of access by the research author and supervisor.

3.3.2 Distribution/Participants

At the outset of this research, the author and supervisor contacted the DDSS (Disability and Dyslexia Support Service) in order to share the on-line questionnaire by email with all students known to be dyslexic. Also the questionnaire was spread all over the University of Sheffield, since my data expected to have samples from a dyslexic and a non-dyslexic group.

251 non-dyslexic students and 70 dyslexic students responded to the questionnaire over a period of two months. A total of 321 students participated in the study from the following departments, as indicated in Table 2.1.

Faculties distribution	% of respondents
Faculty of Arts and Humanities	13
Faculty of Engineering	16
Faculty of Medicine, Dentistry and Health	10
Faculty of Science	33
Faculty of Social Sciences	28

Table 3.1: Faculties distribution.

3.3.3 Procedure

The 45-item questionnaire was designed on Qualtrics and distributed by email to all students at the University of Sheffield, through the University's database, reaching both dyslexic and non-dyslexic students.

A total of 321 participants accepted to participate in the study. 70 participants were dyslexic and 251 were non-dyslexic individuals. All were exposed to the full questionnaire, which included questions and variables related to their general background, income level and age factors. The questionnaire also led them to entrepreneurial variables, in order to investigate and understand their entrepreneurial intentions, attitudes and traits. This specific section of the questionnaire was designed to compare the control group (non-dyslexic individuals) against the target group (dyslexic individuals).

3.3.4 Materials

The questionnaire for the first study used a set of questions on entrepreneurial behaviour, taken from Tkachev & Kolvereid (1999), Iakovleva & Kolvereid (2009), Liñán & Chen (2009) (as cited in Iakovleva et al. (2011)). The dyslexia related questions were all taken from the Dyslexia Weaknesses and Strengths Finder scale,

from A. S. Agahi (2015). The table below presents the details regarding each variable.

Variables	Questions
Start firm	Entrepreneurial Intentions: I have seriously thought about starting a firm Source: Iakovleva et al. (2011)
Satisfaction	Satisfaction: Being an entrepreneur would give me great satisfaction Source: Iakovleva et al. (2011)
Attitudes	Attitudes: People who are important to me think that I should pursue a career as an entrepreneur: Should pursue an entrepreneurial career Source: Iakovleva et al. (2011)
Motivation	Motivation: To what extent do you care about what people important to you think as you decide whether or not to pursue a career as an entrepreneur? Source: Iakovleva et al. (2011)
PBC	PBC: If I wanted, I could easily become an entrepreneur Source: Iakovleva et al. (2011)
Resilience1	Resilience: I am good under pressure Source: A. S. Agahi (2015)
Problem Solving1 (Flexible Coping)	Problem Solving: When something goes wrong I am confident that I can find a solution Source: A. S. Agahi (2015)
Resilience2	Resilience: I can apply negative experiences from my past in a positive way Source: A. S. Agahi (2015)
Resilience3	Resilience: I can deal well with failure Source: A. S. Agahi (2015)
Resilience4	Resilience: Dealing with difficult people (or situations) enable me to grow Source: A. S. Agahi (2015)
Big Picture Thinking1	BPT: I like to start with the big picture on tasks I am undertaking Source: A. S. Agahi (2015)
Open-Minded	Open-Minded: I am a very open-minded person and I am able to understand people's point of view

	Source: A. S. Agahi (2015)
Creativity 1	Creativity: People often ask me for help in creative activities Source: A. S. Agahi (2015)
Teamwork1	Teamwork: When I am working in a team I like to try to get everyone to work together Source: A. S. Agahi (2015)
Empathy1	Empathy1: I have a strong ability to recall emotions and to sense the emotion of others Source: A. S. Agahi (2015)
Empathy2	Empathy: I am good at seeing things from other people's point of view Source: A. S. Agahi (2015)
Problem Solving2 (Flexible Coping)	Problem Solving: When something goes wrong I am confident that I can find a solution Source: A. S. Agahi (2015)
Optimism	When trying something difficult I like to think of the things that could go wrong Source: A. S. Agahi (2015)
Delegation	Delegation: If I need help with something I generally know the right person to ask Source: A. S. Agahi (2015)
Hardworking	Hardworking: I am hardworking Source: A. S. Agahi (2015)
Big Picture	Thinking/Vision2 BP/Vision: I am good at seeing things that we should be doing that we are not doing Source: A. S. Agahi (2015)
Problem Solving3 (Flexible Coping)	Problem Solving: I feel I am above average when it comes to find a solution for a problem Source: A. S. Agahi (2015)
Creativity2	Creativity: I have a good imagination Source: A. S. Agahi (2015)
Freedom	Freedom: I like the freedom to do things on my own way Source: A. S. Agahi (2015)
Communication	Skills1 CS: I am good at explaining things to other people Source: A. S. Agahi (2015)
Big Picture Thinking3	BPT: I am very good at seizing opportunities Source: A. S. Agahi (2015)

Risk-Taking	Risk Taking: When an opportunity arises I am very good at taking it, even if it involves risk Source: A. S. Agahi (2015)
Control	Control: I feel I am more successful when I have more control over how jobs are done Source: A. S. Agahi (2015)
Communication	Skills2 CS: I am good at explaining things to others Source: A. S. Agahi (2015)
Communication	Skills3 CS: I always perform well in oral presentations Source: A. S. Agahi (2015)
Teamwork2	Teamwork2: I like getting people to work to their strengths Source: A. S. Agahi (2015)
Proactivity1	Proactivity: I like to plan ahead and so I can prepare properly for all eventualities Source: A. S. Agahi (2015)
Proactivity2	Proactivity: I am always the one who pushes the team to start the work Source: A. S. Agahi (2015)
Visual Spatial Skills3	VS: I have a good ability on visuo-spatial tasks Source: A. S. Agahi (2015)
Visual Spatial Skills2	VS: I tend to think in pictures rather than words Source: A. S. Agahi (2015)
Visual Spatial Skills3	VS: I have a good long term visual memory Source: A. S. Agahi (2015)

Table 3.2: Variables Study 1.

The initial questions, relating to age diagnosis, income level and background, were self-constructed in light of the theory presented in this thesis. In total, the questionnaire had 45 items and is presented in full within Appendix C.

3.3.5 Data Processing

As data was received through the Qualtrics System, and transferred to an excel worksheet. The questionnaire included approximately 40 items and was coded and divided into themes, as shown in Table 3.3.

3.3.6 Design to probe

Out of the 321 participants who took part in this quantitative research, 70 represented the targeted group (dyslexic individuals) and 251 represented the control

Background Questions
Income Level
Age Factor
Dyslexia Diagnosis
Entrepreneurial Intentions
Attitudes towards becoming an entrepreneur
Motivation
Perceived behavioural control
Entrepreneurial Traits
Resilience
Optimistic
Big Picture Thinking/Vision
Open-mind
Empathy
Creativity
Team work
Proactivity
Problem-solving
Freedom
Communication Skills
Risk-Taking
Visuo-Spatial Skills

Table 3.3: Themes.

group (non-dyslexic individuals).

The aim of this first study was to:

- Investigate if the dyslexic students would also show a preference for all 10 dyslexia decathlon skills;
- Investigate whether the dyslexic students would show significantly stronger entrepreneurial tendencies than the non-dyslexic students;
- Investigate whether dyslexic individuals from higher social classes are more likely to possess entrepreneurial intentions and traits than those who are not;
- Investigate whether dyslexic individuals who received an early dyslexia diagnosis will demonstrate higher entrepreneurial intentions and traits than those who had a late diagnosis;

Such specific objectives were chosen, based on the importance to investigate the entrepreneurial traits and intentions apparent in dyslexic individuals and to understand the variables that influence their career path, in light of Positive Dyslexia. It

is essential to understand where they come from, the extent of positive or negative influence that their dyslexia diagnosis has had in their career choice, and whether their social level (determined by income) has influenced their mind-set in a particular or unique way. These enable a greater understanding of whether such variables have any influence on the choice of career path that is ultimately followed.

Moreover, an analysis of differences between dyslexic individuals and non-dyslexic individuals is important in enabling dyslexic individuals to be more easily placed within the workplace. Clarity around differences will allow dyslexic individuals to be more aware of their strengths and weaknesses, and encourage them to focus on their positive traits and to work through their in development attributes.

Background

At this stage, it is important to briefly present information related to the participant's course and basic responses.

Income Level

One question presented an enquiry into this item, with answers being divided into categories associated with income level. The responses of participants were placed within the relevant category in order that the relationship between this variable and career choice (entrepreneurship) could be analysed.

Age

An enquiry into this item was initially used as part of the background information related to individuals, in order to enhance a greater understanding about the participants. It was further used a second time, to better understand the variables associated with dyslexia diagnosis and its implications.

Dyslexia diagnosis

Information related to dyslexia diagnosis was used to verify if any relationship exists between this factor and the possibilities of subsequent professional development. For example, has the time period of diagnosis with the learning disability, positively or negatively influenced progress towards a career choice or related factors.

Entrepreneurial Intentions

Intentions associated with becoming an entrepreneur were measured in the questionnaire according to the expressions of desire to become an entrepreneur Iakovleva et al. (2011).

Attitudes towards becoming an entrepreneur

A measure of attitudes related to becoming an entrepreneur, was identified by an assessment of the perceptions held by others, of the possibility of the individual

becoming an entrepreneur. Specifically, the measure was defined by asking those who are important to the respondent, about their conviction or agreement as to whether the individual should pursue an entrepreneurial career Iakovleva et al. (2011).

Motivation

Motivation is a further factor related to that of an attitude towards becoming an entrepreneur. This assesses the extent of value placed by the person on a sense of acceptance by others, when pursuing an entrepreneurial career Iakovleva et al. (2011).

Perceived behavioural control

This factor aims to measure how much control someone has in their decision to become an entrepreneur or not. Iakovleva et al. (2011).

Entrepreneurial Traits

The following traits are drawn from previous studies undertaken by A. S. Agahi (2015), which identified certain key behaviours in dyslexic individuals who choose entrepreneurial careers. These traits were probed asking in a likert scale in order to measure the “level of entrepreneurship” of dyslexic individuals and non-dyslexic individuals and to find out which one demonstrates higher rates of such behaviour.

3.4 Results

The questionnaire was divided into three parts. The first part was used to gain an understanding of the individual’s background, followed by questions which would allow the data to be separated according to dyslexic and non-dyslexic individuals, and a third part that focuses on the investigation of the entrepreneurial development of each sample.

321 participants took part in the study, of which 70 were dyslexic and represented the target group, and 251 were non-dyslexic individuals.

Questions regarding their course, income level and age anticipated the question about income level, which was further analysed at the end of the questionnaire in order to assess a correlation between the income level of dyslexic individuals and their entrepreneurial intentions and traits. Further details are provided on this in subsequent sections of this chapter.

Participants below £1000	237
Participants in between £1000- 2000	60
Participants in between £2000- 3000	16
Participants in between £3000-4000	5
Participants in between £4000- 5000	0
Participants above £5000	3

Table 3.4: Income Level-Participants.

Age gap	Number of participants
18-21	160
22-25	75
26-30	37
Above 30	49

Table 3.5: Age gap and number of participants.

Faculties distribution	% Of respondents
Faculty of Arts and Humanities	13
Faculty of Engineering	16
Faculty of Medicine, Dentistry and Health	10
Faculty of Science	33
Faculty of Social Sciences	28

Table 3.6: Faculties distribution.

The next question: “Are you dyslexic?” was used to distinguish between the control and target groups, with 70 participants identifying themselves as dyslexic individuals and 251 as non-dyslexic.

The next four questions applied only to the dyslexic group, in order to gain a clear understanding of their diagnosis (if it was an early or late diagnosis) and if this impacted any aspect of their lives or presented them with challenges that they were then compelled to face because of the disability.

The first of these questions asked: “When were you first diagnosed with dyslexia?”. According to the responses, 7 participants were diagnosed during childhood years, 9 this to be during elementary school, 25 participants were diagnosed during high school, a further 24 were diagnosed whilst at university and 4 of the participants received a diagnosis after graduating from university.

The second question in this section had a qualitative focus asking: “What did change in your life once you were diagnosed with dyslexia?”. Please find analyses below:

Themes Quotations	Exemplification
Better self-understand	<i>"I understood my weaknesses better and could use the information to create more efficient revision and learning schedules"</i>
Coping strategy	<i>"Realised I had to develop a different learning method and put in more effort, it explained why I struggled sometimes so I had to change that."</i>
People are more understanding	<i>"People seem to be more understanding when my sentences are structured wrong."</i>
Prejudice by peers	<i>"However since the children at the dyslexic school were so stigmatised by my peers I did not want to go and did not tell my parents about the assessment until many years later. "</i>
Self-awareness	<i>"I became very aware of my difficulties and therefore very self conscious about my literacy skills due to this"</i>
Support	<i>"Got extra time in exam and knew more about why I found things which other people found easy difficult"</i>

Table 3.7: Themes.

Following the section, the last part asked, "Do you feel this was a barrier or a facilitator situation for your future?" as a "Yes" or "No" question followed by a "Why?" question in order to understand the reasons why dyslexia was a barrier or a facilitator once diagnosed and how the diagnosis helped them. The majority (more than 90% of the respondents) stated that the diagnosis served as a facilitator for them. Below are the themes found and its quotations.

Facilitator	Quotations	Barrier	Quotations
Better self-understanding	<i>"I better understand why I need more hours to need an article or write an essay, so I better organize my time."</i>	Late diagnosis made a wrong career choice	"Being dyslexic just explained why I couldn't do things and explained why I couldn't do stuff like pick up a second language which I would have needed for my chosen career in International Development"
Coping strategies	<i>"I have to read things many time before I understand it. I forget what was said on the few previous pages so I don't read many books for pleasure. My memory ability is poor and likes to practice things in private till I get it right before I show others. It's a coping mechanism I think."</i>	Painful experience	<i>"I don't communicate or write as much as I should. I find it something of a painfully slow and frustrating experience."</i>

Extra opportunities	<i>"It meant that I was able to get extra time in exams which massively improved my grades and also made me more aware of where my difficulties were so I know what mistakes to look out for."</i>	Prejudice by others	<i>"I felt a diagnosis was a barrier, because of the stigmatisation and stereotype of kids at the dyslexic school being "slow" and having learning disabilities."</i>
Increase of awareness (both strengths and weaknesses) Increase of determination	<i>"It was a "disability" that I felt might cause people to judge me if I told them. It also made me profoundly aware of my weaknesses." " I may tend to struggle a bit but with my persevering character will help me survive."</i>	Discouragement from others Prejudice by people	<i>"Writing is a very important skill in the scientific process, so many people said it would not be an option for me" "People assume I'm less intelligent than I actually am."</i>
Increase of self-confidence	<i>" I feel I have a bright future and if dyslexia has made it that way then I guess it is a facilitator."</i>	Dyslexic individuals are minority	<i>"Percentage of people at university level with dyslexia is low." "It can also be a barrier, people sometime disregard what you say, or think you have only got where you are because of extra help."</i>

More support (emotional as well)	<i>“I think a lot of it is about the emotional support personally. I have a tutor who takes the time to explain alternative vies towards my experiences and why they would have a negative backlash. I have so much more faith in myself as I don't worry so much bout spelling which allows me to get my expressions out before I want to back away due to frustration.”</i>	Loss of confidence	<i>“Loss of confidence, increased self doubt, nervousness and anxiety around some physical tasks”</i>
Self-acceptance	<i>“Dyslexia in my opinion is just something you have to accept just like if your bad a maths or sport or getting up etc., it's genetics at the end of the day and you have to facilitate how you were born and do the best with what you have.”</i>		

Table 3.8: Facilitators and Barriers.

The third part of the questionnaire aimed to compare dyslexic individuals and

non-dyslexic individuals according to variables such as their attitude, motivation, desire, intentions and perceived behavioural control to become an entrepreneur, and also the entrepreneurial traits previously referenced: *Resilience, Big Picture Thinking, Open-mindedness, Creativity, Teamwork, Empathy, Problem Solving, Optimism, Delegation, Hardworking, Freedom, Communication Skills, Risk and Visual Spatial Skills*. The results are explained in the following section.

3.4.1 Descriptive Analyses

The means and standard deviations are shown in Table 2.9.

Variables	Dyslexic individuals		Non-Dyslexic individuals	
	Mean	SD	Mean	SD
Desire to start a Firm	4.28	1.89	3.50	2.03
Satisfaction to become an entrepreneur	5.32	1.65	4.35	1.97
Attitudes	3.98	1.58	3.72	1.55
Motivation	4.17	1.61	3.76	1.79
PBC	4.38	1.54	3.86	1.64
Resilience1	3.42	1.17	3.52	1.04
Resilience2	3.86	0.94	3.77	1.01
Resilience3	3.23	1.21	3.05	1.08
Resilience4	3.96	0.98	3.67	1.00
Big Picture Thinking 1	3.97	1.06	3.86	1.04
Open-minded	4.36	0.86	4.20	0.86
Creativity1	3.72	1.14	3.32	1.24
Teamwork1	4.22	0.80	3.83	1.04
Empathy1	4.01	1.04	3.85	1.10
Empathy2	4.14	0.90	3.92	0.96
Problem Solving1	3.87	0.94	3.61	1.02
Optimism	3.51	1.13	3.65	1.08
Delegation	3.74	0.94	3.63	0.91
Hardworking	3.96	1.16	3.91	1.00
Big Picture Thinking2	4.00	0.89	3.83	0.93
Problem Solving 2	3.75	0.89	3.58	0.99
Creativity2	4.21	0.87	3.73	1.13
Freedom	4.31	0.82	4.20	0.90
Communication Skills1	3.50	1.15	3.62	1.03
Big Picture Thinking3	3.54	0.97	3.14	1.00
Risk Taking	3.59	0.90	3.04	1.07
Control	4.09	0.81	3.98	0.92
Communication Skills2	3.54	1.08	3.67	1.04
Communication Skills3	3.43	1.26	3.17	1.13
Teamwork2	4.08	0.97	3.84	0.89
Proactivity1	3.96	1.13	3.92	1.04

Table 3.9: Means and Standard Deviation.

3.4.2 Effect Sizes

So far, the descriptive analyses have primarily presented the means and standard deviations, by comparing the results of both dyslexic and non-dyslexic individuals.

According to Cohen (2009), the Effect Size was used for each of the variables

tested in order to quantify the between-group differences, the effect size measure [Cohen’s d] was calculated, using the formula:

$$\frac{\text{Dyslexic individuals mean (target group)} - \text{Non-dyslexic mean (control group)}}{\text{Standard Deviation of Non-Dyslexic individuals (control)}}$$

An Effect Size (ES) of 0 indicates no difference between the two groups and an ES of ±1 indicates a difference of 1 standard deviation measure between the two. Because we are interested in the difference between the dyslexic group and the “control” group, the standard deviation measure used was that for the control group alone, thereby permitting of extrapolation to the more general student population. Conventionally, an ES with an absolute value greater than 0.8 is considered large, greater than 0.5 moderate and greater then 0.2 small (Cohen, 2009). Cohen (2009) stated that a “no-effect” can be defined by results under 0.2, a small effect size is stipulated by 0.2, a medium effect size by 0.5 and a large effect size by 0.8.

Figure 2.1 shows the analysis of the Effect Size from the results of both groups.

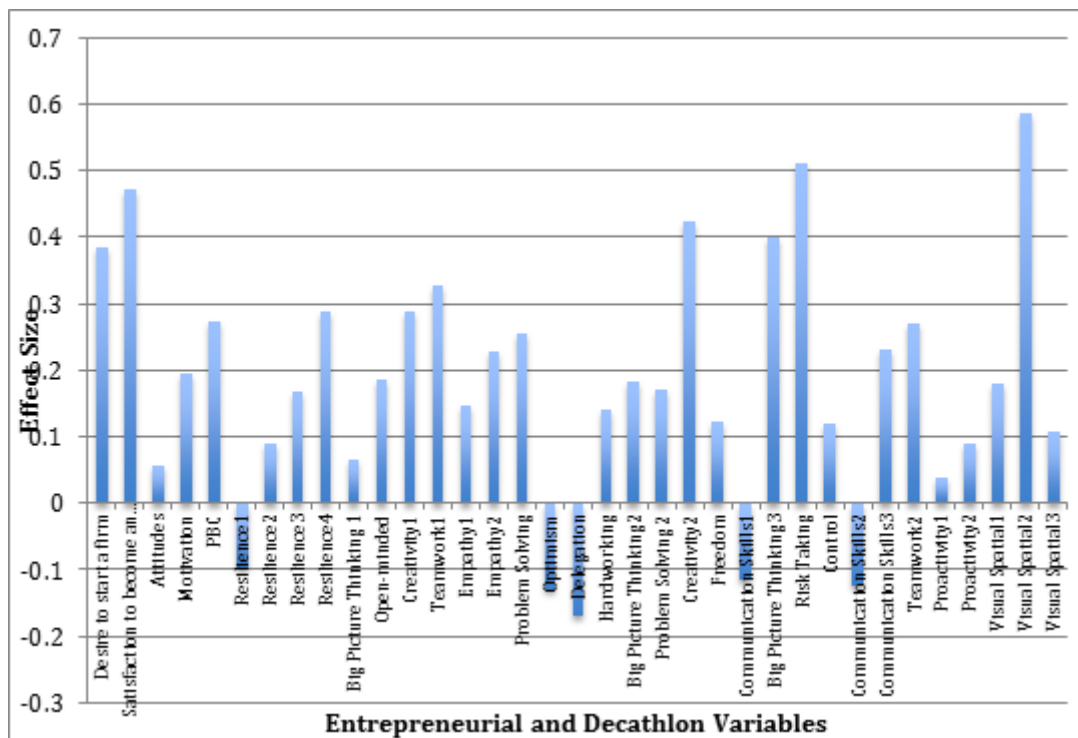


Figure 3.1: Effect Size comparison Dyslexic individuals Vs. Non-Dyslexic individuals.

It may be seen from Figure 2.1 that dyslexic individuals demonstrated increased entrepreneurial intentions and traits, when compared with non-dyslexic individuals.

However, it was needed to identify how significant those means were. Many of the effect sizes ranged between small to moderate, such as: Desire to start a firm (d: 0.38), PBC (d: 0.27), Resilience 4 (d: 0.28), Creativity 1 (d: 0.28), Teamwork 1 (d: 0.32), Empathy 2 (d: 0.22), Problem solving (d: 0.25), Big Picture thinking 3 (d: 0.39), Communication Skills 3 (d: 0.23), Teamwork 2 (d: 0.27). Effect sizes that ranged from medium to large were: Satisfaction to become an entrepreneur (d: 0.47), Creativity 2 (d: 0.42), Risk taking (d: 0.51) and Visual Spatial 2 (d: 0.58).

From Figure 2.1 it can be determined that the dyslexic individuals felt a higher desire to start their own firm, and were more resilient and creative beings than the non-dyslexic individuals. Figure 2.1 also shows that dyslexic individuals preferred working in a team rather than working by themselves, were more empathetic, better in problem solving and have more developed communication skills than non-dyslexic individuals. These results were within the small to medium range, according to the Effect Size. In addition, dyslexic individuals were very distinct from non-dyslexic individuals in their big picture thinking skills, which means they tend to be more visionary. They also marked high (and higher than non-dyslexic individuals) in their motivation to become an entrepreneur, are greater risk-takers than non-dyslexic individuals and showed higher ES in their visual spatial skills.

3.4.3 Inferential Statistics

This section will demonstrate a series of correlations that have been identified. Unlike the previous section, the focus is solely on the dyslexic individuals and the relationship between the two variables of income level and age of diagnosis.

Age of diagnosis vs. Level of Entrepreneurship		
Diagnosis	Empathy	
	Pearson Correlation	0.24
	Sig (2-tailed)	0.047
	N	69
	Problem-Solving	
	Pearson Correlation	0.292
	Sig (2-tailed)	0.016
	N	68

Table 3.10: Age of diagnosis vs. Level of Entrepreneurship.

Table 2.10, shows that there was a weak positive relationship between the age dyslexic individuals were diagnosed with dyslexia and their level of empathy (r: 0.24) and ($p < 0.05$, p : 0.047). Another finding was that there was no relationship

between the age at which the learning disability was diagnosed and their capacity for problem-solving ($r: 0.292$) and ($p: .016$).

		Empathy					Total
Diagnosis	Childhood	0	2	0	3	2	7
	Elementary School	0	1	0	7	1	9
	High School	1	4	4	9	7	25
	University	0	1	2	6	15	24
	After graduating	0	0	0	3	1	4
Total		1	8	6	28	26	69

Table 3.11: Empathy.

Table 2.11 indicates that 5 out of 7 dyslexic individuals who were diagnosed in childhood had a high empathy level (71%). Of those who were diagnosed in elementary school, 8 out of the 9 individuals also presented high levels of empathy (88%). Those who were diagnosed in high school showed a lower level of empathy, with only 16 out of 25, representing 64%. Those who were diagnosed at university (21 out of 24) demonstrated a very heightened sense of empathy, at 87.5%. And finally, those who were diagnosed after university could be considered as being 100% empathetic (4 out of 4). However, given the small sample size of this group it would be beneficial for such a test to be re-applied to a larger sample in order to increase the strength in the relationship among the variables.

		Problem Solving					Total	
		Likert Scale	1	2	3	4	5	
Diagnosis	Childhood	0	1	0	4	2	7	
	Elementary School	0	1	3	3	2	9	
	High School	0	2	8	11	4	25	
	University	1	0	8	10	4	23	
	After graduating	0	0	0	3	1	4	
Total		1	4	19	31	13	68	

Table 3.12: Problem Solving.

Table 2.12 shows that 85% of the participants who were diagnosed with dyslexia during childhood years, demonstrated high “problem-solving skills”. 60% of the participants who were diagnosed in elementary school had a high level of this skill. From those who received their diagnosis in high school, only 60% indicated high problem solving abilities. 60% of those diagnosed with dyslexia at university also had a high level of problem solving skills and finally all participants (100%) who were diagnosed post-university, indicated strong problem solving skills.

Income Level Vs. PBC	
Income	PBC
Pearson Correlation	0.330
Sig (2-tailed)	0.006
N	69

Table 3.13: Income Level Vs. Level of Entrepreneurship.

In Table 2.13, we can see that there is a moderate positive relationship between the income level of dyslexic individuals and their perceived behavioural control ($r: 0,327$) and ($p < 0.05$, $p: 0.006$).

Income	PBC							Total
	<1000	1000-2000	2000-3000	>5000	1	7	15	
<1000	1	7	15	12	13	5	3	56
1000-2000	0	0	0	0	2	4	4	10
2000-3000	0	0	0	0	1	1	0	2
>5000	0	0	0	0	1	0	0	1
Total	1	7	15	12	17	10	7	69

Table 3.14: Perceived Behavioural Control.

From Table 2.14, it is possible to perceive that the majority of dyslexic individuals (56 out of 69, 81%) who answered the questionnaire belong to the “< £1000 monthly income level”, which means that the sample is not well spread, and this could influence some of the analysis. Only 37.5% of those with their income level below £1000 demonstrated a high-perceived behaviour control (PBC), all the other participants who belonged to the categories of above £1000 considered themselves to have a high PBC.

Factor Analysis

A factor analysis was subsequently undertaken to investigate the interrelationships between the multiple variables, and how they clustered together. In order to assess whether there were different “clusters” of skills associated with strengths and dyslexia, a principal components analysis was undertaken on the data for the 35 questions, together with a presence / absence of dyslexia. This revealed 8 factors with an eigenvalue of at least 1.0, together accounting for 61.26% of the overall variance.

Of all the questions in the questionnaire, the main focus was on the variables being tested with a Likert Scale (entrepreneurial intentions and traits) as the others were primarily used to gain participant background information or were open questions, which were analysed with a qualitative approach.

According to Ferguson & Cox (1993), the Kaiser-Meyer-Olkin test is: “a test of sampling adequacy which indicates whether the associations between the variables in the Correlation matrix can be accounted for by a smaller set of factors (p.88)”. In order to identify if a Factor Analysis was adequate for this study, the KMO coefficient has to be higher than 0.5, otherwise the methodology used is inadequate for the data. A KMO of 1 indicates a perfect adequacy of the method; in this study the KMO coefficient was 0.905, which is considered excellent and appropriate to the data.

For completeness, Table 2.15 indicates the eigenvalues for all 36 components and the percentage of the total variance is stated by each of the main components.

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	11.11	30.861	30.861
2	2.325	6.459	37.32
3	1.822	5.062	42.382
4	1.686	4.685	47.067
5	1.476	4.101	51.168
6	1.299	3.61	54.777
7	1.192	3.311	58.088
8	1.144	3.177	61.266
9	0.983	2.73	63.996
10	0.905	2.513	66.509
11	0.844	2.345	68.854
12	0.813	2.257	71.111
13	0.771	2.142	73.253
14	0.721	2.002	75.256
15	0.716	1.989	77.245
16	0.671	1.863	79.107
17	0.591	1.641	80.749
18	0.552	1.533	82.281
19	0.533	1.48	83.761
20	0.523	1.452	85.213
21	0.501	1.391	86.604
22	0.493	1.369	87.973
23	0.463	1.285	89.258
24	0.434	1.206	90.464
25	0.423	1.176	91.64
26	0.392	1.09	92.731
27	0.379	1.053	93.783
28	0.336	0.932	94.716
29	0.33	0.917	95.633
30	0.296	0.822	96.454
31	0.279	0.775	97.229
32	0.256	0.71	97.939
33	0.23	0.64	98.579
34	0.204	0.567	99.146
35	0.192	0.534	99.68
36	0.115	0.32	100

Table 3.15: Total Variance Explained.

The Factor Analysis derived a total of 36 possible components, as shown in Table 2.15, in terms of decreasing eigenvalues. It may be seen that 8 components had an eigenvalue of at least 1.0, and the following analyses are limited to these 8 components, following standard practice. It may be seen that Component 1 (eigenvalue 11.11) accounted for 30.86% of the variance.

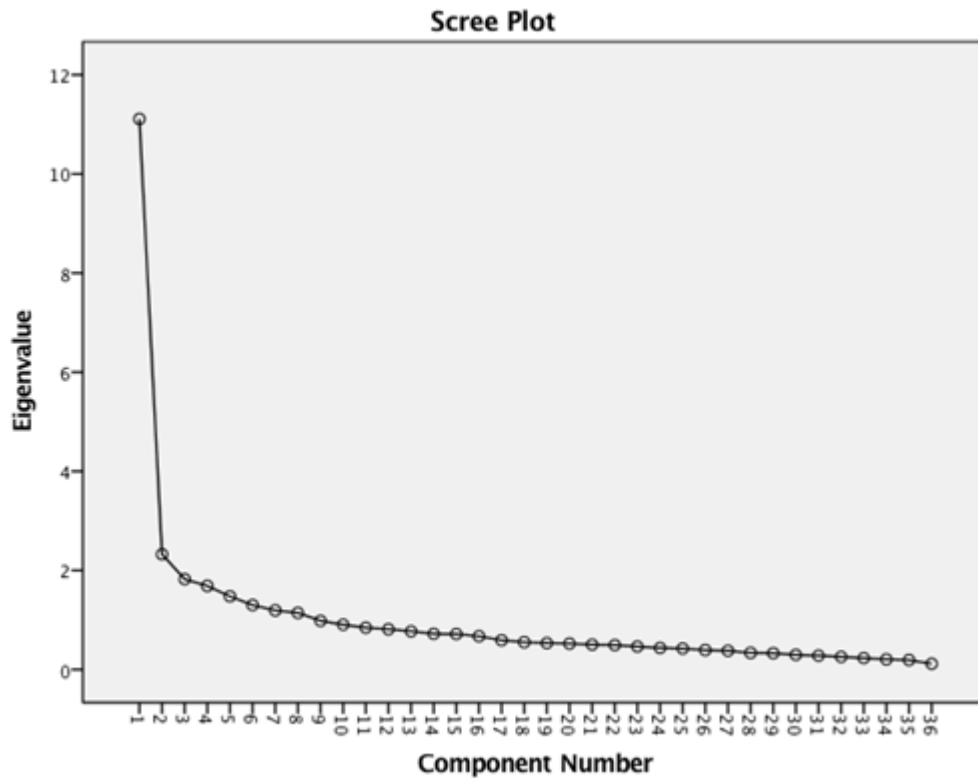


Figure 3.2: Scree Plot.

The Scree Plot shows that the polygonal line rapidly dropped after the eighth component, which are the components that explain the majority of the total variance with 61.26%.

In Table 2.16, we present a component matrix with factor loadings for all variables onto the 8 factors.

Components and Percentage of Variance								
	1	2	3	4	5	6	7	8
	26.69%	6.78%	6.31%	5.08%	4.66%	4.22%	3.47%	3.40%
Dyslexia	0.095	0.328	0.208	-0.021	0.372	-0.063	0.154	-0.454
Desire to start a firm	0.489	0.625	-0.093	0.13	0.102	0.168	0.025	0.204
Satisfaction to become an entrepreneur	0.477	0.625	-0.029	0.053	0.079	0.183	0.004	0.131
Attitudes	0.4	0.39	-0.097	0.08	0.095	0.191	0.027	0.273
Motivation	0.175	0.176	0.4	0.164	0.22	0.275	-0.163	0.269
PBC	0.45	0.485	-0.244	0.059	0.043	-0.088	0.023	0.165
Resilience1	0.546	-0.034	-0.246	-0.476	-0.097	-0.017	-0.032	0.038
Resilience2	0.636	-0.048	-0.092	-0.453	-0.019	-0.14	0.077	0.131
Resilience3	0.456	0.188	-0.171	-0.52	-0.034	-0.201	-0.069	0.093
Resilience4	0.627	0.071	0.09	-0.394	0.139	0.14	0.026	0.019
BPT 1	0.497	0.013	0.068	-0.069	-0.185	0.018	0.137	0.176
OpenMinded	0.571	-0.156	0.394	-0.328	-0.136	0.065	0.192	-0.047
Creativity1	0.551	0.199	0.282	0.019	-0.098	0.084	-0.162	-0.19
Teamwork1	0.517	0.025	0.325	-0.156	0.259	-0.139	-0.224	0.155
Empathy1	0.475	-0.15	0.46	-0.028	0.088	0.321	-0.045	0.015
Empathy2	0.611	-0.278	0.416	-0.2	-0.087	0.113	0.137	-0.103
Problem Solving1	0.683	0.058	-0.2	-0.245	-0.089	-0.041	0.21	-0.023
Optimism	0.336	-0.251	0.176	0.175	-0.12	0.239	0.481	0.309
Delegation	0.575	-0.269	-0.008	0.081	0.315	0.069	0.014	-0.053
Hardworking	0.538	-0.427	-0.104	0.065	0.272	-0.191	-0.11	0.066
BPT 2	0.63	-0.106	-0.115	0.187	-0.144	-0.081	0.171	0.065
Problem Solving2	0.672	0.049	-0.244	0.115	-0.199	-0.22	0.225	0.018
Creativity2	0.653	0.177	0.194	0.139	-0.122	-0.055	0.114	-0.311
Freedom	0.591	-0.011	-0.174	0.272	-0.096	0.105	0.33	-0.23
Communication Skills1	0.615	-0.121	-0.242	0.107	-0.34	0.349	-0.383	-0.076
BPT 3	0.67	-0.055	-0.234	0.029	0.396	0.054	-0.046	-0.248
RiskTaking	0.666	-0.018	-0.224	0.034	0.383	0.008	0.012	-0.261
Control	0.666	-0.19	-0.24	0.194	0.027	0.093	0.178	-0.004
Communication Skills2	0.611	-0.194	-0.208	0.044	-0.365	0.331	-0.383	-0.11
Communication Skills3	0.543	-0.085	-0.164	-0.032	0.073	0.232	-0.169	-0.132
Teamwork2	0.615	-0.197	0.172	0.064	0.062	-0.097	-0.004	0.121
Proactivity1	0.505	-0.377	-0.052	0.391	0.173	-0.148	-0.002	0.253
Proactivity2	0.641	-0.209	-0.003	0.107	0.207	-0.288	-0.263	0.217
VS1	0.593	0.118	0.197	0.157	-0.201	-0.407	-0.134	-0.037

Table 3.16: Component Matrix (unrotated).

Rotation can refine the way factors are being interpreted and according to Field (2011): "Rotation maximizes the loading of each variable on one of the extracted factors whilst minimizing the loading on all other factors. (p.3)". Varimax was the orthogonal rotation chosen for this study.

The highest factor loading, as an absolute value, indicates the factor with which each variable is associated. Considering the absolute values, higher than 0.4, in bold numbers in Table 2.17, the rotated component matrix is presented below.

Components and Percentage of Variance								
	1	2	3	4	5	6	7	8
	10.19%	8.97%	8.57%	8.09%	7.89%	6.57%	5.65%	4.68%
Dyslexia	-0.056	-0.022	0.116	0.115	0.098	-0.195	-0.072	0.671
StartaFirm	0.033	0.119	0.173	0.809	0.06	0.087	0.105	0.117
Satisfaction entrep	-0.033	0.154	0.191	0.751	0.116	0.103	0.061	0.162
Attitudes	0.093	0.116	0.042	0.628	0.096	0.086	0.117	-0.009
Motivation	0.114	-0.221	0.038	0.382	0.489	-0.019	-0.139	-0.055
PBC	0.117	0.248	0.222	0.609	-0.161	0.039	0.098	0.07
Resilience1	0.142	0.702	0.043	0.087	0.048	0.262	0.082	0.005
Resilience2	0.25	0.722	0.134	0.106	0.16	0.07	0.145	0
Resilience3	0.077	0.722	0.146	0.197	-0.016	0.048	-0.091	0.019
Resilience4	0.17	0.541	0.05	0.234	0.398	0.144	0.063	0.196
BPT 1	0.102	0.299	0.224	0.177	0.223	0.088	0.296	-0.118
OpenMinde d	0.047	0.439	0.244	-0.097	0.576	0.055	0.264	0.085
Creativity1	0.035	0.127	0.444	0.206	0.351	0.273	0.013	0.216
Teamwork1	0.392	0.276	0.266	0.185	0.419	-0.052	-0.206	0.058
Empathy 1	0.181	0.039	0.107	0.062	0.688	0.184	0.095	0.086
Empathy 2	0.167	0.318	0.247	-0.156	0.62	0.145	0.284	0.119
Problem Sol ving1	0.172	0.585	0.178	0.202	0.051	0.179	0.356	0.141
Optimism	0.141	-0.016	-0.039	0.073	0.385	-0.055	0.643	-0.211
Delegation	0.555	0.129	0.016	0.053	0.251	0.186	0.195	0.23
Hardworkin g	0.723	0.2	0.084	-0.09	0.087	0.132	0.099	0.037
BPT 2	0.34	0.195	0.302	0.141	0.036	0.185	0.465	-0.024
Problem Sol ving2	0.276	0.344	0.389	0.212	-0.138	0.144	0.483	0.034
Creativity2	0.088	0.141	0.539	0.164	0.215	0.184	0.304	0.355
Freedom	0.188	0.073	0.214	0.161	-0.002	0.276	0.606	0.284
Communica tionSkills1	0.181	0.148	0.206	0.149	0.097	0.833	0.139	-0.107
BPT 3	0.536	0.247	0.03	0.205	0.052	0.308	0.126	0.475
RiskTaking	0.508	0.256	0.065	0.21	0.029	0.253	0.16	0.497
Control	0.444	0.173	0.093	0.162	0.049	0.307	0.496	0.106
Communica tionSkills2	0.174	0.192	0.209	0.052	0.131	0.836	0.133	-0.107
Communica tionSkills3	0.285	0.216	0.028	0.146	0.144	0.473	0.087	0.181
Teamwork2	0.459	0.193	0.285	0.064	0.318	0.078	0.196	-0.014
Proactivity1	0.722	-0.069	0.157	0.053	0.083	0.069	0.289	-0.142
Proactivity2	0.718	0.219	0.311	0.124	0.122	0.101	-0.03	-0.08
VS1	0.256	0.178	0.728	0.113	0.074	0.054	0.074	0.015
VS2	0.092	-0.012	0.736	0.236	0.099	0.059	0.131	0.16
VS3	0.148	0.171	0.689	0.112	0.15	0.164	0.049	-0.069

Table 3.17: Rotated Component Matrix.

Factor 1: This factor is composed by eight variables, which are delegation (0.555), hardworking (0.723), big picture thinking (3) (0.536), risk taking (0.508), control (0.444), teamwork (2) (0.459), and Proactivity (1) (0.722) and (2) (0.718). All of them load strong and positively.

Factor 2: Six variables were found to be positively loaded in this factor. The variables that constitute factor 2 are resilience (1) (0.702), (2) (0.722), (3) (0.722), and (4) (0.541), problem solving (1) (0.585) and open minded (0.439).

Factor 3: This factor comprises five variables that were positively loaded. The variables are creativity (1) (0.444) and (2) (0.539), visual spatial skills (1) (0.728), (2) (0.736) and (3) (0.689).

Factor 4: The variables that compose factor 4 are desire to start a firm (0.809), satisfaction to become an entrepreneur (0.751), attitudes towards becoming an entrepreneur (0.628) and perceived behavioural control (0.609). All these variables positively load between them.

Factor 5: Five variables were found to be positively loaded in this factor. These are motivation to become an entrepreneur (0.489), teamwork (1) (0.419), open-minded (0.576), empathy (1) (0.688) and (2) (0.620).

Factor 6: This factor comprises three variables that were strongly positively loaded are communication skills (1) (0.833), (2) (0.836) and (3) (0.473).

Factor 7: Five variables were found to be positively loaded in factor 7. These are optimism (0.643), big picture thinking (2) (0.465), problem solving (2) (0.483), freedom (0.606) and control (0.496).

Factor 8: The variables that compose factor 8 are dyslexia (presence or absence) (0.671), big picture thinking (3) (0.475) and risk taking (0.497). All variables were strongly positively loaded.

Factor Analysis of the data

In summary, Factor 1R (which loaded primarily on the hardworking proactivity 1 and 2) accounted for 10.19% of the variance. The other seven factors accounted for between 4.68% and 8.97% of the variance respectively. The rotation succeeded in isolating a single dyslexia factor, Factor 8R (4.68% of the variance, that loaded on dyslexia at 0.671. It may be seen that Factor 8R is associated primarily with dyslexia, big picture thinking and risk taking.

3.5 Discussion

3.5.1 Referring back to the hypotheses

In some of the findings, the dyslexic group showed significantly higher ratings for items within all four domains, which were entrepreneur items, social skill items, cognitive items, and work skill items. These ratings occurred not only for the items rated relatively highly by all, such as empathy, but also for other categories which were low preferences for the non-dyslexic students (such as risk taking and visuo-spatial skills), as shown in Figure 2.1. Also, the Varimax rotation revealed a novel and unexpected finding, with a major, dyslexia-specific factor (Factor 8R) associated

strongly with BPT3 (big picture thinking) and risk taking.

For this first study, four hypotheses were developed in order to give direction to the research. An explanation of the findings in each hypothesis is described below, stating if they were corroborated or not, and how previous literature reviews have supported it.

The study of dyslexic adults in A. S. Agahi (2015), taken together with the Sepulveda (2013) highlighted the triads of strengths of successful dyslexic adults in three domains: work skills (resilience, proactivity and flexible coping); cognitive skills (big picture, visuo-spatial and creativity) and inter-personal (social) skills (teamwork, empathy and communication), together with entrepreneurial tendencies that were associated with the dyslexic entrepreneurs. These studies raised important theoretical and applied issues: how general are these findings for other dyslexic adults; how specific are these findings to dyslexia; and how relevant are the findings for supporting dyslexic adults in terms of career choice?

Study 1 addressed these issues by investigating University students, thereby assessing the antecedents of successful careers. In particular, to assess whether the “Dyslexia Decathlon” skills and entrepreneurial tendencies of the dyslexic adults interviewed were actually sculpted by their post-University career experience, or whether they reflected some more intrinsic preferences that could in fact be revealed even in a University context.

I therefore proposed two major hypotheses:

Hypothesis 1: Dyslexic students would also show a preference for all 10 dyslexia decathlon skills.

As previously stated, the study of dyslexic adults of A. S. Agahi (2015) taken cooperatively with Sepulveda (2013) highlighted the triads of strengths of successful dyslexic adults in three domains (work, cognitive and social skills) together with entrepreneurial tendencies that were associated with the dyslexic entrepreneurs demonstrated a pattern on those interviewed dyslexic adults.

Study 1 explicitly compared dyslexic students with their typically achieving student peers. It is crucial to recognize that dyslexic students, despite their success in reaching University, have been diagnosed by means of weak performance in literacy, and have a diagnosis of learning disability. It is, unfortunately, the case that these difficulties are generally also reflected in working memory and in speed of processing (Vellutino et al., 2004), both key skills for University performance. Furthermore, there is almost no research published that has found any consistent dyslexia-specific strengths for dyslexic children or adults.

In summary of the findings, the dyslexic group showed significantly higher ratings for items within all four domains (entrepreneur, social skills, cognitive skills and

work skill items).

Overall, therefore, this hypothesis addressed the antecedents of the dyslexia-characteristic strengths. It was found that (with the exception of some work-related preferences), the entrepreneurial, cognitive and inter-personal skills and preferences that characterize the successful dyslexic adults and entrepreneurs are indeed present in the population of dyslexic students, before they embark on careers.

Hypothesis 2: Dyslexic students would show significantly stronger entrepreneurial tendencies than the non-dyslexic students.

This current study demonstrated some novel results. According to J. Logan (2009), it was already known that dyslexic individuals apply entrepreneurial behaviours as a coping strategy and mechanism that assists them to address and overcome their challenges in life and accomplish their goals. However, whilst it was known that dyslexic individuals had an inclination to become entrepreneurs and that their personality traits were expressive of many entrepreneurial behaviours, a gap in research existed in terms of a comparison between dyslexic individuals and non-dyslexic individuals.

The present study has undertaken a comparative study in between dyslexic students and non-dyslexic individuals and has shown that dyslexic individuals have a higher desire to start their own firms, are more resilient and more creative beings than non-dyslexic individuals. The results clearly identified that dyslexic individuals prefer to work in teams rather than independently. They showed themselves to have higher empathy skills and problem-solving skills and to be more advanced in their communication skills than non-dyslexic individuals. All these findings were within a small to medium ES range.

Other results further demonstrated that dyslexic individuals were more capable to non-dyslexic individuals in areas such as big-picture thinking (vision), which means that they acquire an important entrepreneurial skill that is crucial for setting goals, identifying the right opportunities, exploiting new opportunities and progressing consciously in the right direction and along the path to success (Rauch & Frese, 2007).

Together with big-picture thinking, dyslexic individuals also showed a higher motivation to become entrepreneurs and expressed greater risk-taking tendencies than non-dyslexic individuals. As presented by Eide & Eide (2012), big picture is an ability that allows dyslexic individuals to make links among different ideas and conceptions. Rauch & Frese (2007) stated that risk-taking is very connected to vision, because the latter is important in recognizing opportunities, but risk-taking is crucial for exploiting it. It is also interesting to note that although such a characteristic is very important for entrepreneurs, it does not guarantee success for a company,

because the market forecast is never 100% sure about it (Shane & Venkataraman, 2000). In addition, the factor analysis revealed that both big picture thinking and risk taking were variables strongly associated with dyslexia, as seen in Factor 8R (Table 2.17). Such findings corroborate previous studies and support literature discussed in the present thesis.

The biggest difference found between the dyslexic and the non-dyslexic samples was the response to the variable *visuospatial2* "I tend to think in pictures rather than words". This result had the largest differential effect size (0.59) and also one of the higher "strong or very strong" ratings for the dyslexic sample (43%), which was almost triple for the non-dyslexic group (14%). Visual thinking was identified as a huge preference among the dyslexic individuals and can be seen to be highly associated with dyslexia, which resonates well with both "Mind's Eye" framework and MIND strengths together with the literature previously noted in the literature review (West, 2009; Eide & Eide, 2012).

Maybe an unexpected finding to most dyslexia experts and to society at large is that this study reveals that dyslexic individuals may possess skills that are highly important for a competitive advantage to the present moment. All these findings are highly applied and open opportunities to both dyslexic individuals and employers to jobcraft dyslexia-tailored careers by giving the appropriate support at all stages of a the life of a dyslexic, from their early education until they reach the workplace. It would seem an obligation to ensure that such strengths are assessed and nurtured throughout their lives.

Hypothesis 3: Dyslexic individuals from higher social classes are more likely to possess entrepreneurial intentions and traits than those who are not.

From our findings, we could conclude that individuals with an income level above £1000 had a higher perceived behaviour control than those who earned below £1000.

The hypothesis cannot be corroborated, because from all of the variables of entrepreneurial intentions and traits, only one showed to be significant when crossed with the "income level" question.

PBC: 37.5% of those with their income level below £1000 demonstrated a high-perceived behaviour control, all the other participants who belonged to the categories of above £1000 considered themselves with a high PBC. Income level and PBC showed to be positively correlated with a significance of $p : 0.006$.

Hamilton (2000) stated that employed people tend to have higher earnings than those who are self-employed. The results of this study has shown that those participants with higher perceived behaviour control had a higher income level as compared to those with a lower PBC, which is one of the key characteristics for en-

entrepreneurial intentions, according to Iakovleva & Kolvereid (2009). The study could not identify whether those participants who marked a high score in PBC were already entrepreneurs or simply had one of entrepreneurial intentions high from their personality. As we stated before, one of the main purposes of the first study was to identify entrepreneurial intentions and traits in dyslexic individuals.

Hvide & Møen (2010) stated that the economic theory believes that individuals with a higher income level are more likely to achieve greater success than those who have lower incomes. As we could perceive from the study results, those with income levels under £1000 demonstrated a lower PBC when compared to dyslexic individuals with higher income levels.

Although we found a positive relationship between higher income levels and perceived behaviour control, it is crucial to underline that this finding does not mean dyslexic individuals from higher classes will become entrepreneurs more easily. According to Hvide & Møen (2010), it is important for entrepreneurs to have a high-income level, in order to not rely on pecuniary benefits. Those individuals who belong to the top of the pyramid of the social class do not obtain a benefit from it. They state that the “over the top wealth” may bring more harm than good, because it can decrease alertness and disconcerting management. Also, those individuals who belong to the very top, are not in desperate need of such an income, so it is unlikely than someone from such a background will produce as much as someone from a lower social class.

To conclude, the hypothesis could not be fully corroborated as only one variable from entrepreneurial intentions and traits demonstrated any significance. However, it was possible to identify that those with a higher income level presented a higher perceived behaviour control score.

Hypothesis 4: Dyslexic individuals who received an early dyslexia diagnosis will demonstrate higher entrepreneurial intentions and traits than those who had a late diagnosis.

The variable “age of diagnosis” had some findings in empathy and problem solving.

Empathy: As already presented, a positive correlation has been identified between the “age of diagnosis” and empathy, $p : 0.047$. 71% of dyslexic individuals who received their diagnosis in childhood marked themselves as high in empathy, followed by 88% of those diagnosed in elementary school, 64% of those in high school, 87.5% were at university and 100% of those diagnosed after graduating.

Problem Solving: As previously shown, a positive correlation was found with the “age of diagnosis” and “problem solving”, $p : .016$. 85% of dyslexic individuals who received their diagnosis in childhood, demonstrated high problem solving

skills, followed by 60% of the participants who were diagnosed in elementary school demonstrating a high level of this skill. From those who received their diagnosis in high school, only 60% indicated having high problem solving abilities. 60% of those diagnosed with dyslexia at university also had high levels of problem solving skills and finally all participants (100%) who were diagnosed after graduating indicated strong problem solving skills.

Although there is a significant relationship between the age of diagnosis, empathy and problem solving, a pattern could not be identified that would indicate the optimum age by which to receive a dyslexia diagnosis, as there was little difference between all of the diagnosis age groups.

Previous literature discussed in this study states that the earlier the diagnosis, the better the dyslexic will perform in life. However, it does not discard the possibility of those having a later diagnosis being strong on those skills, as can be seen from this study. According to Nicolson & Fawcett (1995), an early diagnosis is crucial for a good remediation, which makes us believe that in an obvious notion of, the sooner the better. However, there are cases where the diagnosis was not provided during the early stages of the life of a dyslexic individual. This does not mean that they may not have good performance in empathy and problem solving skills even though they have not received an early diagnosis.

Positive dyslexia suggests that dyslexic individuals should have an early diagnosis in order to understand how they work better as dyslexic individuals. In other words, they need to be aware of their strengths and weaknesses in order to perform well (S. Agahi et al., 2014). As we previously mentioned, the earlier an individual receives their dyslexia diagnosis, the easier it may become, because they can focus more on how to excel in their strengths and improve their weaknesses, instead of trying to identify and improve them at a later stage of life.

These results were not conclusive and therefore the hypothesis could not be corroborated. Further research would be needed in order to understand if these traits are developed throughout the life of a dyslexic individual or if they are already born with it.

3.5.2 Further Discussion, Weaknesses and Limitations

Study 1 had three hypotheses as shown in the previous section. Hypothesis 1 was the only one that demonstrated substantial findings.

To summarise the main results, dyslexic students showed higher ratings when compared to non-dyslexic students for the entrepreneurial, social, work and mental items. However, it was possible to identify that the “least developed” from all of the four domains was the “work” domain.

The majority of questions within the DWSF proposed by A. S. Agahi (2015) in-

volve preferences rather than abilities, which clearly has to derive from the individual instead of second parties. Fouad & Bynner (2008) stated that, "An individual's beliefs in his/her ability to accomplish career-related tasks are critical predictors of career choice, particularly in non-traditional careers" p.556, which was also supported by a meta-analysis from Nye et al. (2012).

The findings showed that dyslexic students presented little evidence of the work factors. The students did not find themselves hardworking or proactive. However, they rated themselves high when considering whether they are good at working with difficult people.

The mental/cognitive, entrepreneurial and social skills and preferences that portray the successful dyslexic adult and entrepreneurs were existent in the dyslexic students of study 1 even before they commence their working experiences.

A few limitations and weaknesses were found in the first study. Firstly, all data was collected through qualtrics, which could have excluded those who do not have Internet access. Also, in order to guarantee that all dyslexic students were officially diagnosed with the learning disability, the emails were sent by the DDSS from the University of Sheffield, which excluded university students from other sites.

All markings in the questionnaire were a self-evaluation rather than a measure from a specific skill or ability. However, it is important to state that Zell & Krizan (2014) demonstrated in their metasyntesis that there is a positive correlation between self-evaluation and performance measures.

The "income level" question and hypothesis was a little compromised because of the student sample. Although a positive correlation was identified in this variable and perceived behavioural control, the majority of it classified in the group "below £1000".

And finally, same variables measuring different attributes appeared to have discrepancies in the results. Therefore, the second study was focused on providing a qualitative study in order to fully investigate the underlying reasons for the discrepancies.

3.6 Conclusion

We can conclude from study 1 that, as has been previously before in the literature review, dyslexic individuals do possess unique traits as coping mechanisms that help them to face the challenges they have had to go through in their lives. This is the first time a comparison with both dyslexic and non-dyslexic samples has been undertaken and as can be seen, dyslexic individuals presented higher scores in variables such as resilience, creativity, problem-solving skills, empathy, visual spatial skills, communication skills, higher preference to work with teams and risk-taking skills. Dyslexic participants also expressed a higher desire and motivation to

become an entrepreneur by comparison with non-dyslexic individuals. The factor analysis also presented a finding with a major, dyslexia-specific factor (Factor 8R) strongly associated with BPT3 (big picture thinking) and risk taking.

The Dyslexia Decathlon was found to be present across the dyslexic students group (with the exception of some work-related preferences). The entrepreneurial, cognitive and social skills preferences that were found as a pattern across different studies (Sepulveda, 2013; A. S. Agahi, 2015) are in fact present in the dyslexic students population, earlier to the commence of their careers.

A link between perceived behaviour control and income level was found to be positively connected. It is important to stress that this result is not conclusive in order to state that dyslexic individuals from higher classes are more likely to possess entrepreneurial intentions and traits. Firstly because from all of the variables, only PBC was found to be significant and secondly, none of the entrepreneurial traits tested were found significant with the "income level" variable.

A positive relationship was also found to exist between the age of diagnosis, empathy and problem-solving skills. However, a pattern with the age bracket could not be identified, as all age groups were almost equally distributed. Therefore, whilst a relationship was recognised, the study cannot indicate when would be the more beneficial age/period for an individual to receive a dyslexia diagnosis.

The main objective of this study has never intended to diminish non-dyslexic individuals (regarding the comparative part of the study), but to explore and prove that dyslexic individuals have a uniqueness that should be empowered by schools, companies and society, and for these strengths to be further developed to the benefit of all.

Some further questions were raised following this study. For instance, why some participants marked very high in one question regarding visuo-spatial skills but marked lower in other questions within the same variable. Study 2 was an interesting "follow-up study" that could identify through a deeper qualitative analysis the reasons for the differences between the variables, which demonstrated discrepancies.

Chapter 4

Study 2

4.1 Introduction

In study 1, 70 dyslexic students completed the questionnaire. 39 gave their agreement to undertake a further study. During the first study the following variables were measured in the dyslexic sample to identify how they rated themselves for each variable: resilience, problem-solving, open-mindedness, big picture thinking, creativity, teamwork, empathy, optimism, delegation, hard work, freedom, risk-taking, communication-skills, control, proactivity, visuo-spatial skills. Each variable included more than one question and in four of the variables a marked variation was found in the scores returned within-variable. The objective of this study was to undertake a qualitative study to investigate the discrepancies in the answers within the same variables (resilience, big picture thinking, visual spatial skills and communication skills) by dyslexic students.

The issue of interest in this follow-up study was why in these cases there was a discrepancy in the dyslexic group between questions designed to probe the same attribute (big picture thinking, visuo-spatial skill, resilience and communication skills). Analysis of the individual scores indicated that 10 dyslexic participants in Study 1 showed particularly marked within-variable discrepancies.

4.2 Method

4.2.1 Aims and Objectives

The main objectives of Study 2 were as follow:

- To identify the underlying reasons for discrepancies in resilience from Study 1;
- To investigate the reasons for a large discrepancy in big picture thinking from Study 1;

- To understand the reason for the discrepancy in the answers from visual spatial abilities from Study 1;
- To understand the underlying reasons for the discrepancies in communication skills of Study 1.

4.2.2 Qualitative Research

According to Braun & Clarke (2013), the simplest way to explain qualitative research is that its data is in words, as opposed to the quantitative approach that uses numerical data and statistical methodologies for analysis. Qualitative research uses more than just words (for its data) and its techniques for analysis; it is about the application of values, beliefs, assumptions and actions within a community.

Braun & Clarke (2013) explained and described qualitative research in ten fundamental steps. The first step relates to meaning; qualitative research is not about numbers and quantity, but rather focuses on the meaning of the results. Secondly, it does not have one fixed answer; it commonly draws on a good range of themes to explain one specific situation. Thirdly, context is key; the analysis of the data is linked with what the participant is saying, where and why. Fourth, it can be a very critical approach, as often researchers may touch upon sensitive topics. Fifth, ontological assumptions are the ground for qualitative research; since ontological positions determine the relationship between our inner interpretations and possible practices and the world. Sixth, given that epistemological assumptions are considered as “legitimate” knowledge; epistemology is interested to know the nature of a specific knowledge and what is possible to know. Seventh, qualitative research involves qualitative methodologies, for instance IPA or Thematic Analysis; in this case, the researcher has to be conscious of choosing the best methodology for the specific study he/she is doing. Eighth, it uses all kinds of data, which means it uses uncoded data (raw), naturalistic data and qualitative surveys, among many others. Ninth, qualitative research requires researchers to think qualitatively. And finally, the last fundamental for qualitative research is that subjectivity and reflexivity are valued in this approach.

4.2.3 Research Strategy

A qualitative approach aims to understand certain aspects of society or behaviours in an individual life. Distinct from a quantitative approach, it does not have the goal to measure anything, but tries to analyse the deeper situations, attitudes and experiences of participants. Questions such as “what”, “how”, “why” are questions that a qualitative approach aims to answer (Patton & Cochran, 2002).

According to Saldaña (2011), the goals of a qualitative research will be directly

linked with its final purpose. Also, this type of research can be used in different types of disciplines, such as psychology, anthropology, communication, business social work, and journalism, among others. Outcomes can usually be observations, a new understanding related to society, and an evaluation of how well programmes or new policies worked.

In addition, Storey (2007) stated that qualitative methods are much richer to develop for specific areas of research. In qualitative research, the focus is on the meaning, the unique experience of an individual and sense making, instead of ranking given variables. Another advantage of qualitative research is the direct contact with participants in interviews, focus group or case studies, which can be enriched by non-verbal language too.

This specific approach is very suitable for the second study of this thesis, given its aim to understand some of the results in greater depth and particularly learn about the discrepancies that were identified in the first study. As previously stated, “what”, “how” and “why” questions will be an essential informant for such an analysis.

4.2.4 Participants

The participants of the second study were chosen from a sample of participants from Study 1. Those who demonstrated discrepancies in their answers from the variables which were measured, were contacted via email in order to be invited to participate in a further study. 10 participants were contacted via email, but only 8 replied and accepted to participate in the study. Table 4.1 below offers a brief description of each participant.

Participants	Brief introduction
Participant 1	N was an undergraduate in Landscape Architecture and was diagnosed late with dyslexia.
Participant 2	Ch was an undergraduate in English Language and Literature, she worked part-time and received a late diagnosis of dyslexia.
Participant 3	G was an undergraduate in Business Management and received a late diagnosis in dyslexia.
Participant 4	K was reaching her final year of Chemistry and with English being her second language, she had difficulties in being diagnosed with dyslexia. She received a late diagnosis.

Participant 5	Ca was in the final year of her Masters in International Law. English was her third language, so she faced some challenges in being diagnosed with dyslexia. She received a late diagnosis.
Participant 6	J was an undergraduate in Tissue Engineering and received a late diagnosis of dyslexia.
Participant 7	A was finishing her MA in Social Work and was also working as a Social Worker. She received a late diagnosis of dyslexia.
Participant 8	B was an undergraduate in Material Science and Engineering and received a late diagnosis of dyslexia.

Table 4.1: Table of participants.

4.2.5 Interpretative Phenomenological Analysis

An interpretative phenomenological analysis was chosen for the qualitative analysis for the following reasons. It aims to understand and explore how people conform to their collective and individual world. Phenomenology is used in this method, which means that lived experiences are carefully examined in the analysis. IPA highlights the dynamicity of the research and the activity role of the researcher in the entire case (Smith, 1996).

Interpretative Phenomenological Analyses was presented by J. A. Smith (1996) in order to solve the discussion between the paradigms of social cognition and discourse analysis. He also stated that IPA is a good mediation approach for positions of social cognition and discourse analysis.

IPA is divided into five stages in order to conclude its analysis. This will be explained below, using examples from the transcripts of Study 2, the entire process of it. In Study 3, further exemplification of the chosen method is presented.

Stage 1: Read the transcripts

Storey (2007) stated that the first stage of the IPA is the full read of the transcripts. This process allows researchers to find the central concern in the data.

All the data was transcribed from the 8 interviews that were undertaken and read several times to allow a greater understanding of the participants and gain a good “feel” of the interviews. Further to this, general comments and notes were made when convenient and necessary.

Stage 2: Identify and label themes

According to Storey (2007), this stage involves re-reading all the transcripts as well as the initial notes that were taken, so as to start producing themes in the right hand margin. Of importance to this stage, is the identification of very clear connections between the data and the themes. However, the use of theoretical concepts are also permitted in order to maximize the interpretation of the data. The researcher is expected to take an analytical posture during this stage and not just state themes in a journalistic summary.

Stage 3: Link themes and identify thematic clusters

In order to obey the sequence of the steps, the next stage is to start linking the preliminary themes. For this stage, it is important to remember that some initial themes may be connected to each other and may be incorporated within each other and expressed as a singular theme (Storey, 2007) .

Stage 4: Summary table of themes with quotations

In stage 4 themes are organized together with their constituent sub-themes and illustrative quotations drawn from the transcripts (Storey, 2007) .

Stage 5: Screenshot from the table of themes

Finally, the last stage of the IPA is the capturing of a final table with all the above-mentioned contents incorporated within it.

4.3 Results/Analyses

The aim of Study 2 was to better understand some of the discrepancies that were found in Study 1. The themes, which showed the results that needed further investigation were: Resilience, Communication Skills, Big Picture Thinking and Visuo Spatial Skills.

In this section, I will analyse the main reasons for the discrepancies in the answers from the quantitative study (Study 1) in all the above-mentioned themes and also understand deeper all the variables and dyslexic individuals behaviours in each theme. For instance, why did the dyslexic individuals score a very high average in the question “dealing with difficult people (or situations) enable me to grow” and a low average in the question “I am good under pressure”.

4.3.1 Resilience

The first theme was that of resilience. The previous quantitative study identified a discrepancy between two questions related to the theme of resilience. The first was: “I am good under pressure”, for which dyslexic individuals scored very low. It was analysed the sub-themes for such low average, specially taking into consideration

previous studies stating how resilient dyslexic individuals are.

The main reason why dyslexic individuals marked a low average for this question was that they associated “being good under pressure” with “like to work under pressure”. When asked how they found themselves working under pressure, at first they said they did not like it, but as the response developed further, they stated some of the benefits that pressure can bring to them.

More focus/directions and goals under pressure (8/8)

100% of the participants considered themselves to be more focused under pressure, stating that pressure is a useful tool in enabling them to follow their goals up to their accomplishment. They further reinforced these reflections during the interview, affirming that being under pressure brings with it positive outcomes.

“My outcome of working under pressure is better than when I don’t have pressure. If there isn’t pressure, I kind of don’t work really well. I am not work under pressure I am like pipe in the sky, kind of abstract, I suppose.” (Participant 1)

“It is quite useful for me. . . It helps me push to work better and harder, helps me to find ways to be more efficient with my time or a time issue. . . It helps me to exam the way I am doing things. Sometimes it is harder, in exams, especially when there are multiple questions at once, multiple assignments or the time pressure and to try to solve everything. . . It helps me organising myself. . . Try to figure out what my focus will be on. Working under pressure can help me to keep my focus on, as long there aren’t many sources of pressure on.” (Participant 8)

Another interesting and related feature was the impact of pressure on their sense of focus. The participants made it clear that working under pressure can make them much more focused and determined to finish a specific task, when compared to periods without a deadline.

“It helps me with stress-resistance, keeps me focus. . . I still have problem with discipline, but I am much better when I am working under pressure. For things that I like to do, for example one experiment or research, but I am under pressure and I need to get a lot done it makes me feel that I didn’t learn as much as I could. Because sometimes if you look at one topic, but you have your time limits and you can not look deeper into it and you just have to let it go and for the sake of getting better marks. But if you are not under pressure and you are doing the research and you could look into various areas and look deeper into the subjects. . . I think the outcome of working under pressure is positive for me because I need that kind of ability in order to survive and also I think working under pressure helps me. Like if there is an accident situation, I could react faster than if I don’t have that experience of working under pressure and may not be able to work fast enough and think for a better solution”. (Participant 4)

The participants also showed their awareness of the role of deadlines. Instead of viewing themselves as victims or considering fixed deadlines in a negative light, they use deadlines as an opportunity to work harder over the duration of a specified time in order to accomplish their goal.

“I seem to carry a lot of pressure whether it is rugby or football, but I am quite good at decision making on sports under pressure whereas I am not technically that good in decision making without pressure. I tend to force myself to work much more when I am under pressure, because I have to set deadlines for myself and I also have a very limited time to execute it.” (Participant 3)

“I kind of like to know that I have a deadlines to do things. So I have to know what I have to do next. I like to know that it needs to be done. So if it is a long term piece of work I would break up that to myself into short term things, so I like to know and be very organised.” (Participant 7)

Better organizational skills (4/7)

More than 50% of the participants stated that pressure helps them to keep organised. For instance, where there may be numerous deadlines and responsibilities over a particular period, they will exert much effort to structure and organise themselves and, as they recognise that this will greatly ease the process and enable them to find the time to manage and implement all of the work that is needed.

From the interviews, the following quotations proved powerful in describing this sub-theme.

“I don’t work too bad under pressure to be fair, I am very organised, like very organised.” (Participant 7)

“And the other situation, for the time being is great; I can manage to reconcile both. I really have to organize my life around schedules. And everything began to flow much more easily. I have to start putting on the calendar, setting alarms, because if I do not, I forget it and it does not work. If I organize, it flows much better.” (Participant 5)

More efficiently (8/8)

Another sub-theme that was identified as a pattern regarding all of the participants was that of “efficiency”. All agreed that working under pressure enhances and improves their productivity and results in positive outcomes.

“I think the outcome of working under pressure is positive for me because I need that kind of ability in order to survive and also I think working under pressure helps me. Like if there is an accident situation, I could react faster than if I don’t have that experience of working under pressure and may not be able to work fast enough and think for a better solution.” (Participant 4)

One interesting component that was identified in relation to efficiency was the fact that the participants do not particularly like to work under pressure. Actually, in some cases they were very direct to say they do not enjoy it. However, they assumed that having pressure and a busy schedule makes them feel more productive.

"I don't really mind it, I don't particularly like it, but I don't know anyone particularly enjoys working under pressure. But I do quite like to be under pressure. I like my job and stuffs to be quite intense, if I feel like I didn't have a full day, I don't really like it. I like to think that I fit everything into my day and my day has been very productive and stuff. So, I don't mind working under pressure." (Participant 7)

Another interesting feature related to efficiency was the speed at which a specific task would be executed. The participants found that they would function at a faster pace, given that little time can be spent on tasks which have short deadlines. The following three quotations provide a good illustration of this finding.

"I would say that I get very stressed and I try to do things as fast as possible so I do not lack in time. What worries me the most, the day I have a lot of pressure, is lack of time. And I end up doing as many things as possible in the shortest time possible. Even if I have more time, I try to cut my time in half to see how I get on and then if I have time to go back and see the work, I do it . . . this is usually how I do it." (Participant 5)

"Really depends. Like, if you are under pressure because you have loads of costumers, the store is busy, I can manage it well, because I work in a high speed." (Participant 2)

"It is quite useful for me. . . It helps me push to work better and harder, helps me to find ways to be more efficient with my time or a time issue. . . It helps me to exam the way I am doing things." (Participant 8)

Pressure brings the best out of me/ Pressure helps me to explore skills and strengths (8/8)

All of the participants stated that working under pressure produces improved outcomes when compared with working without pressure. An interesting point in relation to this theme is the ability of the participants to recognise that although working under pressure can feel unpleasant, it nevertheless helps them to grow in various aspects of their lives.

"I think difficult situations have made me explore my abilities. It made me get to places I never imagined I could get. Honestly, since I left Brazil and came to Europe. . . In my first year I went to Italy, then I came here and now I'm doing a master's degree. . . I always realized that difficult situations were necessary for me to achieve my highest potential. So, as much as I do not enjoy working under

pressure, I think the pressure gets the best of me in some ways." (Participant 5)

"Overall pressure helps him to be more focused and execute tasks faster". (Participant 3)

It was also clear to identify that pressure helps the participants to perform to their best ability and to further explore their skills and strengths.

"It is unpleasant but can be helpful, so must go for it. . . It helps me with stress-resistance, keeps me focus. . . I still have problem with discipline, but I am much better when I am working under pressure." (Participant 4)

For instance, in the following quote, one of the participants states that he is aware that he does not work well in the evenings, so he has explored his options in order to work smarter and in a more productive way, by starting the day very early (when under pressure with a high work load) instead of following the usual routine which he uses when there is no immediate pressure.

"I know I work poorly in the evenings. . . So I guess I would have a late night, work hard, and wake up at 4 am in the morning instead of trying to push forwards." (Participant 8)

Avoidance of problems with people/ Turning situations around (6/8)

Still following the theme resilience, the question: *"dealing with difficult people (or situations) enable me to grow"* provided a very positive response, resulting in a high average for the answer. An analysis from these interviews showed that the primary cause for such a high result was the exceptional ability that the participants have with interpersonal skills. A combination of this understanding and a generally easy going personality, means that the participants find it relatively easy to deal with problematic beings.

"In my previous job, my colleagues would pass people on to me, because I am good to deal with it and I use a lot of empathy. I don't think I have that because of social work. Because even when I worked in retail and stuff, I was always dealing with refund and stuff because I was always good at calm people down and I think it is gonna sound really bad, but it helps the fact I am quite a smiley person and I don't look like angry and stuff. . ." (Participant 7)

"I think in my work, social work, you have to work with some difficult people and I think this helps me in my work, my actual employment work, because. . . it is hard to explain. . . I really don't know how. . . I am quite good at turning situations around. I am good at communicating with people to help them. . . So even if the person is difficult I would help them and they would not be hard on me." (Participant 7)

Another interesting point that arose during the interviews was that some participants would not even remember having to manage difficult people, because of their easy-going personality and attitude.

"I never found people that difficult, I suppose. So I never really noticed. Kind of just think is better to let people do their own thing." (Participant 1)

"I think I've never had a problem dealing with difficult people, because I always try to get around the situation." (Participant 5)

Even in cases where challenges were noticed, they would try to draw on their own empathetic personality traits, in order to understand a particular and less favourable behaviour in others.

"I mean, I know I've cross difficult people but I don't think it had bothered me too much. Usually I get along with people, so I think it is hard to me to think about more examples because I try to overcome how difficult the person may be with my personality..." (Participant 3)

"I try to give people the benefit of doubt, try to figure out why they are behaving in that way... I think like... I could let that annoy me but I try to find ways to work around them if I am in a position where I can understand their situation in that scenario and try to understand why they are being difficult to be understood in that situation..." (Participant 8)

Easy going personality/ Understanding personality/Empathy (6/8)

Drawing on past experiences, almost all of the participants demonstrated a very easy-going and understanding personality, which certainly helps to provide a heightened sense of empathy. This specific sub-theme is closely related to the previous one: "turning situation around and avoidance of problems", because they would use their easy-going and understanding personality as a coping mechanism to avoid any problems with other people.

"In my personality probably yes. Because it makes you more understanding to people. Instead of just presuming that they've just been away from you, I would try to understand that person and try to understand what's got them in that situation. And this, of course expand your knowledge as well and it gives you more empathy with people." (Participant 7)

"You learn always from a difficult situation and it really depends what difficult situation it is... if its empathy or if its not... but I think it can be really heart-breaking when you've had someone that you were unable to help..." (Participant 2)

Help people to feel unique (can include "benchmark other's qualities")

Whilst this feature was not mentioned much, it is important to state it and to acknowledge the mechanism that this participant would apply in order to improve her skills and strengths and to feel more comfortable with her weaknesses.

"Picking up a lot of other people skills... "Stealing" what they do to get my own to be good. So, I saw in other's people capacities what I should be doing and learning

with them. . .” (Participant 7)

Participants	Resilience					
	More focus/ Directions and goals under pressure	Better organization skills	More efficiently	Pressure takes the best out of me	Avoidance of problems with people/ Turning situations around	Easy going personality/ Understanding personality/Empathy
1	x	x	x	x	x	x
2			x	x		x
3	x		x	x	x	x
4	x		x	x	x	
5		x	x	x	x	x
6			x	x		
7	x	x	x	x	x	x
8	x	x	x	x	x	x
%	62,5	50	100	100	75	75

Table 4.2: Theme-Resilience.

4.3.2 Big Picture Thinking

The second theme was Big Picture Thinking. In the previous study three questions were asked of the participants in order to measure the BPT behaviour in dyslexic individuals. The first question, “I like to start with the big picture on tasks I am undertaking”, had a low overall score. The second question, “I am good at seeing things we should be doing that we were not doing” had a medium score, and finally the third question, “I am very good at seizing opportunities” had a very high overall score. As can be seen, three questions were asked with the intention of measuring the same theme. However, since the responses resulted in significant discrepancies, it was necessary to undertake a further qualitative analysis on these.

Interviews took place in order to better understand the discrepancies and from analysing the sub-themes, it was concluded that dyslexic individuals are good at having long-term goals and visionary thinking. However, they have problems with organizational skills, which hinders their ability to apply the big picture into practice.

Below are some sub-themes found throughout the interviews, which helped find such conclusion.

Long Term Vision/Long Term Goals - Visionary - Seeing beyond (8/8)

Having a sense of vision was a pattern identified by all of the participants in different times in their lives. All demonstrated very open-minded personalities, which in turn leads to a more creative approach to the development of their own future. Whilst their future options could be viewed with flexibility, they all worked hard and were very determined to reach their goals.

“So there was not internship before, and then I came up with the idea to have more chances to succeed. So then they understood it and they opened the student internship, so we sorted the place for social care students in internships. It helps me in my career as well. . . I was thinking long term. . . I was already in my third year, so this wasn’t help me short term anyway to sort out the placements, but I knew it was good for my future career choice. It was good on my CV, it helps me to get a good reference and it also helps the other students in the future because they have got much wider scope placement for them now.” (Participant 7)

“I think my big picture would be when I was in high school. . . much younger. I wanted to go to other countries to study and I tried my best to improve my English a lot when I was in high school while the other quite didn’t bother. . . And this really helped me with all my applications. . .” (Participant 4)

They also expressed a medium to long-term vision for their life goals, such as going from school to the real world and strategically analysing all the opportunities and possibilities.

“I think coming from an undergrad to a masters, which is what I am doing now I kind of seized the opportunities, I suppose. Even to take a new career path. I think when I was doing sports I was seizing opportunities as well. Going into teams, that kind of stuff. . . I think the fact I am doing a masters, puts me more in a specific career but also doing something that will help in the long run.” (Participant 1)

“So, I initially applied for Economics and Finance I chose that and it was my first choice, and my second choice was business management. I chose Economics and Finance because it is kind of a respected degree, and business because it is more employable and I was more likely to get a job after Uni. But the main reason why I went for business is because it doesn’t restrict me for what I am going to do afterwards, like engineering, perhaps should be another option, so I thought about maximize my opportunities.” (Participant 3)

An interesting finding was their approach to interpreting tasks and challenges that are not necessarily pleasant or favourable for them. Again, they use the big picture thinking strategy to visualize the reason for undertaking a specific task within a given / present moment and to reflect on how that may impact their future choices and opportunities.

“I think essays. . . Absolutely when I am studying. Because you will be doing one piece of work but I always try to think of it in big schemes. . . I always try to think, in the end, this little piece of work will make a huge massive master degree. So not to stress over that too much, I think I've done that a lot the whole time I have been studying. Yeah. . . just tell yourself that because sometimes is hard. Just tell yourself that the bigger picture is more important than this little bit of stress. This really bit of stress now, will pay off for life, hopefully” (Participant 2)

“Hmmm. Best example would be that. . . in my course we get the option of doing a second year and that would line to move up to a masters course and this is something which quite early on i wanted to do, cause i kept quite a great average. So I knew that would be a good opportunity to have a better CV, have more job interviews. . . If something comes out quickly I will take a moment and think about it and look at all the options. . . By the end I chose to go to the masters. . . ” (Participant 8)

Proactivity (6/8)

Another interesting sub-theme, which was identified through the analysis of the “Big Picture Thinking” theme, was “Proactivity”. For instance, participants revealed that they if they became aware of a problem they would feel motivated to solve it. If such an opportunity arose, they could not just ignore it or and not do anything to make it happen. The extracts from the interviews below, serve as good illustrations of this behaviour that they possess.

“Yeah, and it tends to annoy me to be fair, annoys me that people don't. So, some people will think in the problem, but will not do anything about it. And I would go back there, identify the issue and think why I can't I just do this instead? I just don't understand why other people don't get it. I just don't think why they can see it but do nothing about it. I am definitely really proactive, and sometimes this is really good, but I can feel that sometimes this is really annoying for other people. Like, people that are not like that, this must be annoying for them.” (Participant 7)

“When I was working in a call centre, I saw different ways that we could be structuring the lay out of planting to make it possible more attractive to the clients. . . so thinking about aesthetics and how these things can be important. . . ” (Participant 1)

A sense of proactivity was found in different aspects of the lives of the participants as a common and strategically used trait, whether it be from entrepreneurial opportunities which needed proactivity to initiate, or the quick actions taken within the workplace in order to maximize all available opportunities,

“When I as at school. . . about 16 or so, I heard about this website called Alibaba, it is a Chinese website. So, I had the idea to stock this and then sell it to people

in the UK, basically because people didn't want to wait 30 days to have it shipped from China, so I took the initiative and started selling it. ” (Participant 3)

“I saw that I was not doing it, I identified it and started doing it. It happened very fast. A friend of mine told me that they had a position in the company and called me to do an interview. It was lucky you know . . . I went, they liked me and I started. I was scared to death at first, thinking that this was not going to work . . . I really thought I could not handle it, but it was okay.” (Participant 5)

Identify opportunities → Seize opportunities (8/8)

Another feature identified in the Big Picture Thinking was the power of seizing opportunities. As already referred to, this sub-theme is intimately related to the previous sub-theme of proactivity. Such participants have a visionary personality, with the ability to seize different opportunities in their life, and their sense of proactivity, enables them to put their goals into practice and to accomplish them. Below are some examples of how this characteristic finds expression in their behaviour, both in their personal and professional life.

“So . . . My boyfriend and his job at the moment . . . Well . . . he is Indian and in school he was having an international day . . . so he didn't want to do it, but I told him you need a job and if you do it, it will look really good on you and then he did get a job after it. The teacher in there got interested and offered him a job, so it was really good.” (Participant 7)

“I learned that Sheffield University has a research programme in the summer and I paid attention to it and in my second year I sized the opportunity to do the project and I intend to work with research in my life, so if I have one research project in my 2nd year and another one in my 3rd, this means I have 2 more working experiences.” (Participant 4)

It was clear that the application of this sub-theme was not only present in their professional life, but was also drawn on in their personal desires, showing that the participants would seize opportunities very naturally and across various areas of their lives.

“Probably my personal relationship with my boyfriend, because we've been friends for a very long time. It could be completely over, especially because I was at unit at the time and he wasn't. I just thought I was in that kind of situation that I was not losing anything if I go for it. I used to worry too much with things like that and sort of panic as well and that would hold me back. But I think I just got into a certain stage that, specially after college when I was getting into University and was saying yes to things, going after things. So yes, going after that was a good decision, because it is 2 and a half years later and we are still together.” (Participant 2)

Network for opportunities (3/8)

Networking for opportunities was a sub-theme that almost 50% of the participants mentioned. They can take advantage of such a trait given their strong oral communication skills and their desire to seize life opportunities. This is well demonstrated in the following extracts.

“Always when I see something, I always think, “oh, that friend of mine needs a job and this is a good opportunity”. So I think I am good at seeing when others will be good performing something and finding opportunities for them. . . I am also good at networking for opportunities for myself and stuff.” (Participant 7)

“Well, I was studying in an Italian school in Brazil, so my initial idea was to do my degree in Italy and it was very simple . . . everything came up with an internet search, because I wanted to do a History degree, then I discovered Archaeology and found it very cool, I started to research where it would be nice to go and I found Rome and Rome was THE PLACE to go . . . Although I did not finish my degree there, it was not a mistake to go there, I learned a lot, but going there was very difficult, because as much as I had many contacts I had to really run behind to find a place to stay there. So I used a contact of mine that was a teacher and he knew someone in Rome and they helped me find a house. And that person had contacts with the University too, so I kind of used my social network.” (Participant 5)

Participants	Big Picture Thinking			
	Long Term Vision/Seeing beyond	Proactivity	Identify opportunities – > Seize opportunities	Network for opportunities
1	X	x	x	
2	X	x	x	
3	X	x	x	
4	X	x	x	
5	X	x	x	x
6	X		x	
7	X	x	x	x
8	X		x	x
%	100	75	100	37.5

Table 4.3: Theme- Big Picture Thinking.

4.3.3 Communication Skills

In Study 1, Communication Skills also appeared to produce contradictory results. The question, "I am good at explaining things to others" obtained a very low average, even though the question, "I always perform well in oral presentations" had an impressively high average. Following the analysis of the interviews, it was clear that the greatest challenge for dyslexic individuals is at the stage of organizing ideas. Dyslexic individuals tend to do well in presentations, because they dedicate a useful amount of time to rehearsing, practising and domain the knowledge, in order to be able to effectively share a message to a specific public. Such in depth preparation is not always possible, if you are required to explain a subject to a course mate in the middle of the library, for example.

The sub-themes, which were key in revealing such a conclusion, were:

Explanation with knowledge (4/8)

Participants felt that they can be very effective in explaining something to peers, in a professional meeting or in their work environment. However, they also need to obtain the necessary knowledge in order to feel confident enough to transmit this knowledge to another person.

"I feel that I am good at explanations. . . like when I explain a subject to a course mate, for example. If I have the knowledge about the subject I can give a really good explanation. The more knowledge I have, the comfortable I am to explain something." (Participant 4)

"I would probably relate that to my working environment, because we have new colleagues coming to the store and they all need training. Either this or with a costumer. Like, some of them would have issues with a pet they've got at home and they need advise of how to take care of this pet. And it is a nice viewing when you can help somebody with the knowledge you've got and pass that information successfully. Like nutrition for dogs, careful rooms, and things like that. I think I am really successful with that, specially with the experience I have in the store now it is quite rare that I can't help somebody at all." (Participant 2)

Good at explanations when ideas are organized (3/8)

A further point which was identified was that participants use organization as a coping mechanism in order to be able to excel in explanations. The following extracts illustrate this characteristic well.

"If I am prepared, like if I have prepared the oral presentation before, I feel like it will be a good explanation, but when I am just talking and not prepared, I don't feel my explanation is that good. For example, now, I don't even know if I am going to the point with what I am saying. I never think I am getting to the point while I am

explaining. So for instance, if I am going to present in a big auditorium I will prepare everything before hand and I know I will succeed in that and people will get exactly what I am saying.” (Participant 7)

“I think is quite good. . . I am not fast like presenting things, I have to think about it and construct. I think by answering a question I would be ok. I can be simple at my explanation and very straight to the point.” (Participant 1)

The sense of urgency (pressure), which has been stated previously, also helps them to stay focused and organised to achieve their goals.

“A presentation that I had to do work and I had little time to prepare because I had just returned from Portugal and then I put it in my head: I know that I have serious problems with oral presentations and I get very nervous. So I just had to put it in my head that I had no choice I had to prepare myself with the time I had, which was a day and present in the other day. The presentation was great! I think the pressure was 100% and as much as I do not like to work under pressure, I think my performance and the results are incredible. I did not need at any time to read anything, I did not even need to pause, and it was kind of weird, you know? My strategy is exactly the organization of the thoughts because it helps to flow my oral communication. If I do a mini organization of what I’m going to do before is great . . . the good thing is that I was able to identify this . . . I had to go through many embarrassing situations first, but now it’s great.” (Participant 5)

Adaptable communication (4/8)

Another interesting sub-theme is the capacity of dyslexic individuals to use their heightened sense of empathy and strong communication skills to more easily reach the listener.

“I am good at putting stuff in an easier scenario. I am good also at picking out the most important thing out of big scenarios, which makes stuff easier. . . I will be focusing more in this part and not ignoring the rest but giving more attention to what is needed. I will also make it easier like, out of the whole thing, this is what I have to do. Ok, done.” (Participant 7)

“So, basically one of our players is a bit too greedy, it just keeps his head down and tries to shoot too much and people would tell him all the time, but no one was actually paying attention at the reasons why he should hold the ball on, so I explained to him that he was shooting to a dangerous area and if he shoots to an area that no one is there, there is a high possibility that the other team could have the possession of the ball. So, basically I explained to him why the other part and shooting there was kind of unrestricted.” (Participant 3)

Being able to adapt their language for diverse audiences is a very positive trait and half of the participants showed this highly desirable ability, which can be applied

to both their personal and professional lives.

“In a science project I undertook, you were supposed to present it to children. . . I went very well because I adequate my explanation and vocabulary to my audience. . . Teaching DNA to a 6-7 years old was possible with an adequate communication.” (Participant 8)

Preparation and Practice (4/8)

The final sub-theme for communication skills is “Preparation and Practice”. This singular sub-theme can be considered as almost entirely connecting all of the other sub-themes for communication together. Although the participants have good communication skills and this is certainly one of their strengths, they have also shown the importance of self-preparation and gaining good experience from practising, prior to any presentation or public speaking.

“So, in my lab project I think I did alright, because I managed to speak clearly and coordinated and before the presentation I was practising on my own for many times, it helped me to get calmer. . .” (Participant 4)

“Performing to people as well was the most helpful thing and them reading back to me. . . for a presentation, I find it very useful. And also rehearsing.” (Participant1)

Participant 2 is experienced with her job and finds it easy when explaining procedures or products (or whatever) for customers.

Communication Skills				
Participants	Explanation with knowledge	Good at explanations when ideas are organized	Adaptable communication	Preparation and Over practice
1		x		x
2	x		x	x
3			x	
4	x			x
5		x		x
6				
7	x	x	x	
8	x		x	
%	50	37,5	50	50

Table 4.4: Theme-Communication Skills.

4.3.4 Visuo-Spatial Skills

The last theme within which discrepancies were identified amongst the quantitative study responses, was that of the Visuo-Spatial Skills. In Study 1, dyslexic individuals answered three different questions regarding this theme. The first one was, "I have a good ability on visuo-spatial tasks", in which they scored a medium average. The second question was, "I tend to think in pictures rather than words", in which they scored a very high average and finally the third one was, "I have a good long term visual memory", in which they scored a low average.

From the interviews, some very interesting patterns became apparent among dyslexic individuals. Some of them reported that they are good visualizers for specific tasks, which help them in their work. For example, one of the participants who is studying Chemistry explained that she can easily visualize a cell and an atom in her mind. This will be further explored and described in this section.

Almost all of the interviewees identified themselves as thinking much more in pictures rather than in words, stating that pictures helps them to understand complex subjects which can then be converted into knowledge.

Finally, it became possible to understand why their vs3 appeared to be low. They seemed to have a good long-term memory, however, it is very punctual as they can only remember specific events in their life and they are usually in images.

The following sub-themes were identified among all the interviews in order to understand the discrepancies.

Good visualization (5/8)

5 out of the 8 participants identified themselves as having good visualization from past experiences. They have an easy time to "see the unseen" when it comes to spatial tasks. The following reflections from the participants offer a useful and accurate description of such a trait.

"I had to do elevations in a landscape and you have to space out, you know the appropriate distance from plants and pathways and felt I could easily visualize this in my mind and then measuring it out. So from having this easy visualization I could start putting it on practice quite fast." (Participant 1)

"I think like. . . when I am taking the shots for example, I visualize I am going to do, I know what is gonna happen, how it is going to the net. Making an analogy to real life, I am aiming for the final result. Even if I am being the goal keeper, I will not even look at the goal, but I will look at the path the ball has to do to reach the goal." (Participant 3)

Interviewees also demonstrated a very unique ability to combine creativity with visual spatial skills and to produce something tangible that others are able to see

and understand. Their capacity is not just limited to having creative ideas, but also being able to convert these in ways that can be communicated and share with others.

“Well... Four years ago from now, I had a group interview and what I they asked us to do was to set up a fish tank with whatever ornaments you wanted and for what sort of fish that would be for and why. And I remember enjoying that a lot, because I can be quite creative for things like that. But because I took a leader role in that I made it quite successful and we had the highest score of everyone there. And I think it is because I could sort of connect logically what was there, if you know what I mean. So, making sure that the things I had in there was appropriate for what I was discussing. So, I was combining my creative side with my intellectual side.” (Participant 2)

“One of the presentations I did recently ... I was making a presentation of two civil war cases, actually ... so, when I was preparing for the presentation, I saw the photos and at the time I was presenting them, I was associating my presentation with those images ... how the city was devastated after the war ... Then the images were appearing in my head and I just had to explain them.” (Participant 5)

Links with images (8/8)

Interestingly, 100% of the participants stated that they always learn better from image, for instance, that their knowledge and memory association is based on images.

“So... with storytelling and those kind of creative things... but also with memories of people, or specific events when I am using that to comfort myself on conversations I had, but sometimes like... for example, I remember my girlfriend and her smiling at me, I will definitely picture that. So, if I am remembering my grandma, or my girlfriend at the time, I will think in pictures...” (Participant 8)

“I think my brain spends most of his time in pictures. So for instance, in that sentence, as soon as you said “examples” I already connect it with a word. And then as soon as you say pictures, I get an image of pictures of houses in my mind. So, when I study, and my field is social work, I already make connections with pictures and theories. So for example, attachment theory, I immediately think in a child with their parents and make connections from that. It was always like this...” (Participant 7)

“Also when I am studying, a picture always comes to my mind before any word... I am doing chemistry so I need to visualize. Some studies that I do they have do with energy levels, so I imagine the electron jumping from the lower level to the higher level or I have to imagine an atom. I need lots of images for my study. It helps me to understand the content.” (Participant 4)

All participants stated that this link between images and words is beneficial for them under diverse occasions and that they draw on this as a strength to accomplish different tasks and challenges.

"I don't know if I always think in pictures. It is always a link all the time, like someone says something to me and right away I have a picture in my mind and I make those links really easily." (Participant 1)

"I have a very easy time of processing and memorizing from figures and pictures. Face of people, places, things, not numbers. . . But so, when are images, FOR SURE!" (Participant 5)

Pictures help to obtain knowledge /Transmit Knowledge - Storytelling (5/8)

Although this sub-theme is closely linked to the previous one, since they make the image connection in order to acquire the knowledge, it has to be independent because it stresses their acquisition of knowledge and not only recalling knowledge and memories.

"I one hundred times prefer to learn by watching a video than from a book. Definitely prefer to get involved and I definitely learn much more in an activity that I was part of than by just reading it." (Participant 7)

"Because I am doing chemistry and sometimes we have to use molecular model to visualize the chemical. . . and sometimes I don't even bother. . . sometimes I can imagine the molecular model in my brain. Also how different and complicated the molecules are. Creating an image in my brain, makes stuff much easier to understand." (Participant 4)

Image linking is a strategy that the majority of interviewees stated as using as a means of making their tasks easier and becoming more efficient.

"So. . . When I am trying to explain something to a customer I just kind of think the customer doing "oh right yeah" and then all of a sudden, it makes sense. Pick the picture it makes sense in that scenario, translate into words and that's it." (Participant 2)

"I make a lot of image links during conversations, if I'm studying a theory, I get a picture in my head . . . and I think I learn better this way too. Making this kind of relationship is very easy and turned automatic already. For example, in my area there is a lot of text, and sometimes I do it until I do not want to, there are direct images, for example, if I am studying a genocide, I already put an image in my head." (Participant 5)

Photographic long term memory (7/8)

Almost all of the participants expressed that they have a good photographic memory, and also for a long-term period of time. For instance, whilst they would remem-

ber facts that happened earlier in life, for the majority of the time their recollections are only in images.

“So, generally, my long term memory is very good. . . I guess. . . a lot more words than simply images. I am really good at remembering a list of details. . . or how a lecture looks like. . . Generally I am quite good at remembering faces as well.” (Participant 8)

“I remember things that happened 10 years ago. I remember things of when I was a baby. . . like I started running with a kart and my grandmother tried to stop me but I kept going, I think I was less than 2. . .” (Participant 4)

“I remember flashbacks of when I was a child but detailed as well.” (Participant 3)

“So things like that, I can remember when I was really young. . . Like, I remember when I was in France and I was really tiny, like 18 months old and things that I remember doing that my parents haven’t told me about it. . . And my parents were really shocked by it because they don’t see how I could have done it for being so little.” (Participant 2)

Participants	Visual-Spatial			
	Good Visualization	Links with images	Storytelling	Photographic Long term memory
1	x	x		
2	x	x	x	x
3	x	x		x
4		x	x	x
5	x	x	x	x
6	x	x	x	x
7		x	x	x
8		x		x
%	62.5	100	62.5	87.5

Table 4.5: Theme-Visual-Spatial Skills.

4.4 Discussion

4.4.1 Resilience

Under the variable “resilience” in Study 1, it was possible to identify discrepancies in the responses given for the questions, “I am good under pressure”, which presented an overall low score, and “dealing with difficult people (or situations) enable

me to grow”, which scored high. During the qualitative analysis it was possible to identify that participants somehow linked “being good under pressure” with “like to work under pressure”. Many open questions were asked in order to investigate the discrepancy with the questions related to resilience.

62.5% of the participants stated that they are more focussed, and have greater directions and goals when they are placed under pressure. Half of the interviewees mentioned that their organisational skills improve under pressure. 100% of the participants found themselves to be more efficient and believed that an environment or state of pressure draws the best out of them.

Sub-themes that confirmed the high score for the question, “dealing with difficult people (or situations) enable me to grow” were identified during the analysis. 75% of the participants stated their preference to avoid problems with others. Another 75% of the interviews believed that they have an empathetic and easy-going personality.

From this qualitative study, it has been possible to identify specific situations that may be present of dyslexia strengths and will need some adjustments in order to make these qualities their advantage (such as the of pressure). It is important to undertake an in depth analysis of how to benefit from the heightened strengths that are present in the personality of those with dyslexia.

As previously discussed in the literature review, being resilient is a crucial characteristic for the current-day workplace. A sense of uncertainty with the global situation is very common and those who are resilient are capable of facing such situations with greater ease and to find solutions to various situations more quickly. Resilient individuals can also understand the situation and take the best out of a delicate time Coutu (2002).

Interestingly, from the first study dyslexic individuals showed a very high incidence of resilience, and there are some points that require specific attention in this regard. They had no problem working under pressure, believing in fact that pressure makes them work at their best and helps them to explore their strengths and skills. Dyslexic individuals also felt an increased sense of focus when under pressure, choosing to become more organized and efficient with the tasks that they have to perform. These findings confirm the thoughts from Luthans (2002), who stated that a resilient person is able to recover from difficulties, hardships or any challenges and apply it towards further progress and succeed from the challenging experiences.

Jackson et al. (2007) also stated that resilience describes the potential of a person to keep balance, have a certain sense of power and control, being able to calibrate themselves through challenges and adversities, and also to continue one’s

journey with a positive attitude. The findings from this study have shown that participants see in themselves the ability to “turn situations around” and “avoid problems with people’, thus avoiding the need to solve any further problems. This demonstrates a very beneficial mechanism that is used by dyslexic individuals. They have the ability to express their heightened sense of empathy and understanding personality towards others, with a sense of resilience.

4.4.2 Big Picture Thinking

According to Eide & Eide (2012), big picture is an ability that allows individuals to make connections among different ideas and concepts.

From the results of the “Big Picture Thinking” variable, a significant discrepancy was identified in the items, “I like to start with the big picture on tasks I am undertaking”, which scored a low average, and the question, “I am very good at seizing opportunities” that scored very high, with the fourth highest score across all of the other variables.

As previously stated in the results section, 75% of the participants showed a high level of proactivity, which could explain a medium average for dyslexic individuals in the question, “I am good at seeing things we should be doing that we are not doing”. It was possible to see that not all participants indicated this on their interviews, but those who did, showed a proactive personality, which suggests that there is a connection between proactivity and BPT.

Franks & Frederick (2011) believed that big-picture thinking is key for an individual to possess in order to develop the skill of problem-solving. Dyslexic participants showed a high score in the “problem solving” skill of Study 1, as well as for the “big picture thinking” skill, which could corroborate previous literature.

“Seize opportunities” was a result that had high scores in Study 1. The qualitative analysis of Study 2 further supports this, as 100% of the participants considered themselves to possess this characteristic. All participants stated that they are always looking to the future, for instance, one of the participants was still in the middle of her undergraduate course but already applying for a masters course, which is not only indicative of a sense of proactivity, but also an ability to think according to long-term goals with a vision of “seeing beyond” the present. An important consideration to mention is the ease of starting from a broader perspective and to progress with addressing smaller or more detailed matters from the bigger picture.

During Study 2, it was not possible to conclude the reasoning behind the low average from Study 1 for the question, “I like to start with the big picture on tasks I am undertaking”. It was identified that all participants presented “seize opportunities” across their transcriptions as a sub-theme for “Big Picture Thinking”. Therefore, it is only possible to hypothesize that dyslexic participants did not connect the question,

“I like to start with the big picture thinking” for situations that were not necessarily linked with the present scenario or daily tasks as presented in the example from the previous paragraph.

4.4.3 Communication Skills

Communication skill was another theme that appeared in the second study. Nicolson et al. (1999) mentioned that such a strength could develop from a compensation mechanism, since dyslexic individuals are hindered in their writing and reading abilities. Therefore communication is a key skill for dyslexic individuals to use as a compensation. In this theme, certain variables were identified around “communication skill” that seemed to be predominant in dyslexic participants.

The findings demonstrated that half of the participants considered themselves to be good communicators. However, they stressed the importance of gaining knowledge in the areas which require specific communication, in order to be able to apply their communication skills effectively. For instance, another sub-theme that emerged was “Preparation with practice”, which is closely related to the “Explanation with knowledge”. Whilst participants acknowledged a strength in their communication skills, they highlighted the importance of both knowledge and their ability to prepare and practice their expression of this knowledge, in order for it to be communicated to a good standard.

In Study 1, the question, “I am good at explaining things to others” obtained a low average score, while another question measuring communication skill, “I always perform well in oral presentations” obtained a high score. The sub-themes found during the IPA provided an extent of reasoning for such a discrepancy of the variables. 50% of the participants stated that they find themselves good at communication skills when they have enough knowledge to provide an explanation. Another 50% of the interviews stated that they need preparation and over-practice in order to feel confident to perform well in oral presentations. Half of the participants stated that they possess adaptable communication.

The sub-theme that was present in only 37.5% of the participants was, “good at explanations when ideas are organized”. After the analysis of this sub-theme, it was possible to understand that organization (organizing ideas) could compromise their communication skills.

J. Logan (2009) argued the advantage of this skill when speaking about the entrepreneurial world. Such a skill can create wide gains for dyslexic individuals, because it smoothens the process of motivation among a team, eases networking, increases chances to establish mutual trust and also gives more clarity when setting targets and objectives. It was clear to see another sub-theme come to light, which was, “Good at explanations when ideas are organised”. Dyslexic individuals

recognized their strength in communication, whilst remaining aware of possible issues that could hinder this strength, such as a lack of organisational capacity. This finding can be corroborated with what J. Logan (2009) has mentioned above, about the need for clarity in communication when setting goals.

The last sub-theme for “Communication Skills” was “adaptable communication”. Participants declared that they were able to adjust their language to the listeners’ preferences. This is certainly a skill that also has its roots in empathy, given that good communication is needed to be understood and to share the message. A further key requirement, is the ability to understand the listeners’ needs in order to comprehend a specific piece of information.

Ray (1993) identified a strong correlation between persuasion and communication skills. He states that having good communication skills is crucial to “sell their idea” to the market and benefit through profits, increased sales and to achieve success. However, it is important to know that to “achieve success”, a number of variables must be well connected together. In this sense, empathy, as discussed previously, is core to this sum of variables. Having the ability for “adaptable communication” demonstrates heightened empathy and good communication, which could further reinforce a strong sense of persuasion.

Communication skills are known to be one of the core strengths in dyslexic individuals. It is important to be aware, as seen from these findings, that all strengths may have space for improvement. This study has identified that dyslexic individuals need preparation, over-practice, knowledge and organization in order to succeed with their communication skills.

4.4.4 Visuo-Spatial Skill

The last theme identified in this study was “Visuo-Spatial Skill”, which included four sub-themes. The first one was “good visualization”, which largely confirmed this strength in their personality. In Study 1, the participants were found to score a medium average for, “I have a good ability on visual spatial tasks”, a low average score for, “I have a good long term visual memory” and the highest score across all variables of Study 1 for the question, “I tend to think in pictures rather than words”.

5 out of 8 participants stated that they perceived visuo-spatial as being a strength. Eide & Eide (2012) reported this as the capacity and potential to connect thoughts, ideas and general things. 62.5% of the participants of study 2 presented the sub-theme “storytelling”, which they described this connection of thoughts with images transferring to speech.

Based on Eide & Eide’s description of what “visuo-spatial” is, a further sub-theme could be seen to connect well with this, which was, “Link with Images”. All participants stated that they could make links with images and the majority further

mentioned that “pictures help them to obtain knowledge/transmit knowledge”. Participants confirmed that they felt a strong connection with images and indeed that their understanding was much higher when thinking in images rather than in words.

62.5% of the participants demonstrated good visualization skills, in other words, a good ability for visual-spatial tasks, which corroborates the medium average found in Study 1. Additionally, Gohm et al. (1998) and Humphreys & Yao (1993) also stated that visuo-spatial involves thinking with pictures, images, figures and shapes, which also offers dyslexic individuals a strength and advantage to excel in professions that involve this specific intelligence, such as engineering, physical sciences, architecture and arts in general.

Almost all participants also demonstrated an ability for long-term photographic memory, and it was finally possible to understand the reason for such a low average for the long-term visual memory item from Study 1. Participants expressed a good photographic memory for specific life experiences rather than for recalling memories of whole events, hence the low average on long-term memory in Study 1. This finding corroborates Attree et al. (2009) by showing that many dyslexic individuals have a tendency to perform better with three-dimensional thinking, which means that they mainly think in pictures and images to help their process of acquiring new information as well as retaining what has passed. Dyslexic individuals also perform well in work that is spatial-related (Attree et al., 2009).

4.4.5 Further Discussion and Limitations

Study 2 presented a range of discrepancies within four variables from Study 1. It was possible to identify that even though previous literature presented by West (2009), Eide & Eide (2012) and Nicolson (2015) recognized these variables as strengths in dyslexic individuals, there are specific situations in which these skills may not be drawn on or applied as a strength.

One clear example is the variable “communication skills”. The discrepancy in this particular variable was initially unusual given the extensive literature which discusses this as being a very important quality of dyslexic individuals (J. Logan, 2009). Study 1 showed that dyslexic students rated highly in their ability for good oral presentations, but did not consider themselves as being good at explaining things to others. From the themes generated in Study 2, it was possible to investigate the underlying reasons for such a discrepancy. Dyslexic students stated that they invest a lot of time in over practice and do not feel confident in their communication skills if they have not gained extensive knowledge in a specific subject. Clearly, over practice and the need for extensive knowledge are connected to each other, and can be used to explain the high rating for performing well in oral presentations, as in such scenarios it may be anticipated that they would have enough

time for both over practice and to ensure they have gained sufficient knowledge.

It is important to state that Study 2 was a qualitative study based on self-reporting and semi-structured interviews. Therefore, it is not possible to generalise any of the results found in this qualitative study and due to the novel findings, this area is worthy of further research using larger samples and quantitative studies.

10 participants from Study 1 were identified as having the most discrepant answers for the four variables: resilience, communication, big picture thinking and visual spatial. Although all 10 participants were contact, only 80% of them accepted taking part in a further qualitative study. Therefore, it was not possible to analyse all of the views that resulted in the discrepancies.

4.5 Conclusion

From Study 2, it has been possible to conclude that although dyslexic individuals have some unique traits and qualities, these also have certain under-developed aspects and could be the reason for some of the discrepancies associated with the variables of Study 1 (resilience, big picture thinking, visual spatial skills and communication skills). A conclusion for Study 2 is that even though extensive literature has already identified strengths and unique traits in dyslexic individuals, this does not mean that such capacities are completely developed. Therefore, traits that have been identified as potential strengths need constant development in order to be more fully utilised by a person with dyslexia, and for their advantage.

For the next study, research focus was switched to companies. As can be seen from the present study, dyslexic individuals are valuable resources beings to have in companies. They are individuals with high traits of entrepreneurship, which helps them to have a good sense of ownership but also to work for companies and to demonstrate their levels of productivity and proactivity alongside their visionary and creative capacities. That said, the next step would be to undertake a research with employers and to investigate their perspective on dyslexic individuals: what they know about them, if they think dyslexic individuals would be useful for their companies and how they could explore their abilities and skills, to mention a few.

Chapter 5

Study 3

5.1 Introduction

Studies 1 and 2 investigated self-reported preferences in samples of dyslexic and non-dyslexic university students. A key finding was that not all of the dyslexia decathlon strengths appear to be prominent in this university sample, leading to a hypothesis that such strengths might develop in subsequent stages of life, such as through experiences in the workplace. This hypothesis is difficult to test with the cross-sectional approach undertaken here, but it was supported by the findings in Study 2, which showed that dyslexic students considered communication to be a strength, but only under scenarios where they had sufficient time for practice.

These findings give weight to the suggestion that a talent management scheme could be a key requirement for dyslexic workers, and in turn raises the issue of how aware companies are of both the needs and the potential talents of their dyslexic workers.

In this third study, the matter of employability was investigated with dyslexic individuals, with the intention, for instance, of understanding the perspective of companies towards them. 10 of the participants are from Brazil, which is a country that can be said to be under-developed in its knowledge about dyslexia. The Brazilian Dyslexic Association has diagnosed just over 1000 individuals as dyslexic, in a country of 200 million people. This statistic can be used to easily indicate that Brazil is still behind countries such as the United Kingdom, which is the reason for the choice of both countries.

A further target of this study was to understand whether dyslexic individuals might be better suited to specific sectors? During the execution of data collection, we were aware that different companies require a range of skills and capacities and as such, the study aimed to use interviews with human resources managers or heads of personnel from different companies and from different sectors to better

incorporate this range.

5.2 Method

5.2.1 Objectives/Aims

Therefore, the primary objectives of Study 3 were as follows:

- To analyse how advanced companies are in providing specific support to dyslexic candidates;
- To understand from the companies' perspective, their perceptions of/towards dyslexic individuals;
- To investigate if there is a relationship between senior dyslexic employees who have disclosed their learning disability, and the level of company support that they are given;
- To investigate how aware companies are about the potential strengths of those with dyslexia;
- To investigate if there are differences in the approach used by companies in Brazil and in the U.K.

5.2.2 Hypotheses of the study

- (1) Companies will have an overall knowledge about dyslexia.

Was predicted that all companies will have an overall understanding about dyslexia; taking into consideration that both countries have a Dyslexic Association. Therefore, it can be predicted that at least a basic knowledge about the learning disability will be present among the companies.

The null hypothesis holds that companies will not have an overall knowledge about dyslexia.

- (2) Companies will not have any knowledge about Positive Dyslexia.

Although in the previous hypothesis it was predicted that a general basic knowledge would be present among companies (medical model explanation), it is unlikely that companies will have a more profound knowledge of dyslexia and its relationship with positive psychology, as none of these companies provided a dyslexia-friendly section on their website.

The null hypothesis holds that companies will have knowledge about positive dyslexia.

- (3) There will be clear differences between the approaches used by companies in Brazil and the U.K.

The British Dyslexia Association has existed for 40 years and has heavily engaged the government and other institutions, such as schools, in order to provide a dyslexia-friendly community (BDA, 2017). The Brazilian Dyslexia Association was founded in 1983 and appealed for help from the British Dyslexia Association. To date, the Brazilian Association has diagnosed just over a thousand individuals with dyslexia, which can be viewed as a very low number, given the size of the country (ABD, 2013). On this basis, it is therefore possible to understand that the British Association is more developed and has a greater level of influence across the country in matters related to dyslexia, than the Brazilian Dyslexia Association,

The null hypothesis holds that there will be no clear differences between approaches taken in Brazil and the U.K.

5.2.3 Choice of Qualitative Research

This third study followed the same methodology approach as the second one, which also used a qualitative approach. The third study investigated the perception of twenty different companies about their dyslexic job candidates or employees.

A qualitative approach was chosen in order to understand a company's values when facing a situation of whether to employ a dyslexic individual or not, the assumptions they may have and their behaviour or responses to scenarios that involve those who are dyslexic Braun & Clarke (2013).

The use of interviews also allows participants to express themselves freely, including the analysis of "how", "what" and "whys" (Patton & Cochran, 2002). As previously mentioned, this approach is very deep, rich and cannot be quantified (Storey, 2007).

5.2.4 Participants

The participants of Study 3 were employers from twenty different companies. As mentioned before, the target was to find employers from the two countries (UK and Brazil) who would be willing to be interviewed, in order to provide a deeper understanding of the processes and perspectives of diverse companies with different sizes and in different sectors, when facing a "dyslexic employee/applicant" situation.

Large firms were contacted directly via email with a detailed explanation of the study and an invitation request for them to participate in the research as a means of enriching the findings for this field of research. Medium and small-sized companies were more easily contacted through personal contacts (of the research author) with the CEO or other professionals in the company who could arrange a meeting for this matter.

Table 4.1, provides a brief description of each company that was interviewed for the purpose of the study outlined above.

UK Sample			
Company	Sector	Size	Brief introduction
1	Civil Engineering/ Construction	Small	The company had existed for 9 years and had 18 employees. The CEO/Owner of the company participated in the interview.
2	Public Security	Medium	This organisation had around 160 employees in Manchester, but only 32 working in the interviewed unit. The head of the unit provided the interview.
3	Recruitment in IT and Software	Large	This was a multinational company with branches all over the world, but the Manchester branch had 75 employees. The employer who was interviewed was a senior recruiter.
4	Bank	Large	This bank was a multinational company with branches all over the UK and Europe. It had over 20 000 employees and the employer who was interviewed was the manager of risks.
5	Recruitment in health positions	Large	This was a health care recruitment agency, providing social workers, doctors, nurses, psychiatrists, occupational therapists and physios for hospitals and medical centres. The company had over 5000 employees and the interview took place with the head of recruitment.

6	Nursing sector	Large	This organisation had thousands of employees. The employer who was interviewed was the head of the nursing sector.
7	External Relations Department (University)	Large	This university was among the 100 best universities in the world. It had thousands of employees who worked in different sections. The interview took place with the Head of External Relations and he stated that he was currently supervising 5 individuals.
8	Software	Large	This was one of the biggest software companies of in the world, with over 10 000 employees and the interview took place with one of the directors.
9	University (policy's department)	Large	This university had around 6000 employees and was among the best 10 universities in the world. The interview took place with the Deputy Head of Educational Institute Policy who was working for the institution for 8 years.
10	Financial recruitment	Large	This company provided recruitment for financial services. It had over 7000 employees spread across global offices.

Table 5.1: Table of participants.

Brazilian Sample			
Company	Sector	Size	Brief introduction
1	Retail	Medium	This group involved another four companies with a primary focus in retail. It was a medium-sized company with more than 300 employees. The interview took place with the retail general manager who supervised 100 employees.
2	Sport events	Large	This events organisation was responsible for the organization of big football competitions and tournaments. The logistics manager was interviewed for this study and stated that the company had a multinational character with over a thousand employees worldwide. There were 200 employees, under the supervision of the interviewee.
3	Architecture	Small	This architectural company was a small company of 10 employees that worked in the design and architecture sector. For this study, the owner was interviewed.
4	Retail (Finance sector)	Large	This organisation was one of the most famous Brazilian retail companies and had over 18 000 employees and more than 1 000 branches spread across the country. The interviewee was the manager of the finance sector.

5	Research	Large	Company 5 was a research institute that ran studies related to socio-economical scenarios in the country. It was a governmental body with around 700 employees. The interview took place with one of the research directors who supervised around 100 employees.
6	Engineering and Construction	Large	Company 6 was a company in the construction sector with over 40 000 employees. The employee we interviewed worked in the Human Resources department and was responsible for all of the 'new-starters' in the sales team.
7	IT	Medium	This IT company had more than 200 employees. The employee who was interviewed worked in the Human Resources sector and was responsible for the selection and accompaniment of the new starters in the company.
8	Tourism	Medium	This company served the tourism sector, selling travel packages and also supporting exchange students. The general manager of a specific branch was interviewed and she supervises 5 people.

9	Banking	Large	This governmental bank was part of the Brazilian public sector and had over 2000 employees. The participant interviewed supervised 30 employees.
10	Education (school)	Small	This company was an English school in Brazil. It was a small company with 12 employees and the owner was interviewed for the purpose of this study.

Table 5.2: Table of participants.

IPA

In Study 2, the methodology that was chosen was the IPA, due to its power to understand and analyse how individuals comply with their situations in life, both individually and collectively. IPA is used to explore past experiences from participants in order to understand likely behaviours and associated patterns (J. A. Smith (1996)).

Further details related to IPA are largely explained in the “Method” section of Chapter 3.

5.2.5 Choice for IPA

For Study 3, the choice of Interpretative Phenomenological Analysis (IPA) was considered to be the best option, in order to capture from the employers, all of the reflections from past experiences related to scenarios with dyslexic individuals.

Stages of IPA

As explained in Chapter 2, IPA is a methodology that is divided into five stages. All stages associated with this study will be described below.

Stage 1: Read the transcripts

In Study 3, there were 20 participants (10 in the Brazilian sample and the other 10 in the U.K. sample). All interviews were conducted and transcribed by the research author, which enabled a stronger sense of understanding to

be gained about the participants and the transcriptions. The first step was however repeated at least 3 times, once all of the transcriptions were ready, and before moving to the second stage.

This first stage is crucial to understanding the central concerns and to start identifying certain patterns from among the interviews (Storey, 2007). Since there were many interviews to read, some notes were taken while the transcripts were being read, in order to help keep certain patterns in mind.

Stage 2: Identify and label themes

Stage 2, as previously noted, this stage focused on re-reading all of the transcripts, but this time with greater attention to the initial notes and with some preliminary insights around some possible themes that may arise. In this stage, it is important to maximize interpretations and to begin identifying the connections (Storey, 2007).

Figure 4.1 shows a screenshot from an excel document that contains the IPA analysis of Study 3:

Step 1: Initial annotation of interesting and significant comments	INTERVIEW
No knowledge of dyslexics	Civil engineering company: I have no idea if anyone in my company is dyslexic... No one ever made me aware if they are.
No formal knowledge about dyslexics (informal conversations)	Recruitment firm: I know only one, because he is my mate and he told me he is in a common conversation, but I don't know about anyone else.
No knowledge of dyslexics	Software company: I don't know if we publish the figures, but I doubt we do, but I never even heard the phrase dyslexic come up in a conversation in my ten years in the context of recruiting. It is probably a theme for HR, but never crossed my desk.
No formal knowledge about dyslexics (informal conversations)	Bank: I know about two, but I don't know about the others. There would not be a way to know from the company who is dyslexic or not. I just know these two from personal knowledge, because they told me and they work in similar departments.
No knowledge of dyslexics	Recruitment for health positions: Don't know.
No formal knowledge about dyslexics (informal conversations)	NHS Nursing sector: I am aware of one. There will be a lot more than that, it is just that I don't come into contact with...You wouldn't really know if someone is dyslexic if you are not quite close to them, because you wouldn't know if concessions are made. I only know this person is dyslexic, because he wears green glasses, with green lenses in the glasses. He has to see things in green and it helps him. He told me he was dyslexic... I thought it was a bit weird. I was like 'hmm... I am sure this is not dyslexia', but he said he was dyslexic and I thought 'ok, I will go with it'. I know we have people with various disabilities in the hospital, there are some people in a wheelchair, there is a sector of healthcare for employees...It is not something public for dyslexics...When we have anything that may be a problem, then we do make changes and find out how to make changes to make it better to the person, but it is not something that is broadcast in the hospital. It is very individual but I know that they don't discriminate as well, so...
Need to explain there was no discrimination towards dyslexics	
No profound knowledge about dyslexia	
No formal knowledge about dyslexics (informal conversations)	Police Force: I only know about one dyslexic employee that we have in our unit. He told me... we work in a similar role, so it was not something brought from the company, he came in an informal conversation and told me. I think they have very general guidelines on recruitment and with anyone with disabilities, whereas it is an unique environment where you have to be able to perform without your disability interfering it, then it is great and you will be supported. If however, it would impede your abilities in the role then...there is not much we can do.
Have to perform well and not let the disability interfere it	
No prejudice towards dyslexics, as long as they perform well their jobs	
No knowledge of dyslexics	University of Sheffield (events sector): I don't know.
No knowledge of dyslexics	University of Cambridge: I don't know...

Figure 5.1: Screenshot extracted from an Excel document of IPA (Stage 2).

Stage 3: Link themes and identify thematic clusters

A central aim for Stage 3 is to begin considering the links and associations

between the preliminary themes. It is crucial to understand that some initial themes may be connected and combined into one main theme (Storey, 2007). Figure 4.2 shows an example of Stage 3 with a screenshot of IPA.

INTERVIEW	
	2: Second annotation- higher levels of abstraction and use of more psychological terminology
Civil engineering company: So, training courses...so we would train them internally, but as they become managers or seniors we give them courses like basic recruitment and employment federation, ethical standard, but they do a lot of training courses. They are also aware of what they do and what they need. So, training courses, specific for this industry.	Training to provide promotion
Recruitment firm: We have a quarterly and annual appraisal from the manager and everyone has a career development plan, where you wanna get to...regular training, both internally and externally training... We also see strengths and weaknesses...	Appraisals and a career development plan for talent management.
Software company: There are a few things, but the basic structure is the top 2% gets a high programme of development, then the next 15% is called key talents and then you get the next 15-20% kind of in a management program...I think thats it...	The best the employee is, the more investment it will be given to him
Bank: We have mentoring, we female leadership, we have a couple of diversity groups, we have management track... like, 'are you management material, or not?', so we do support people that way.	Diverse programs to invest in employees
Recruitment for health positions: It can range anywhere from 2 weeks to maybe a month... to three months... it just depends on the jobs that they come through. What we will do is... so our clients may have jobs that they may have... I will advertise the job, and then people will send me their cvs...so if you are registered with us... it depends... each time a job comes though I will ask if they want to go view... and if they are happy, they can say yes or no. We don't give any specific training or development for the employee. Because we recruit nursing, nurses as well... sometimes we do training, so e keep that up to date and that goes hand in hand with their jobs, anyway, but this just keeps them updated. Hmm... any manual handling that they may need do...so, anything that is specific to the job...i mean...	Training depends on the role
NHS Nursing sector: We have annual appraisals and we have 6 months reviews. There is a set form for appraisal and it is 'how have you contributed to the trust...'. You know like the trust mission statement, you kind of break it down to how have you helped the trust to achieve this objectives, so you will have evidence to prove that..then it is questions that you have to score yourself... like your punctuality, communication skills and then there is a section for about eight goals, so it is with your line manager, so I line manage 6 people and it will be things like 'what do you want to achieve every coming year', 'what are your weak areas', 'is there anything you would like to explore'... so, recently, one of the members said she really would like to be more involved in management stuff, so I said it is absolutely fine, so next time I am sorting out any project, I will involve you in that... So, if they say, they are really really interested in say helping running a pre-assessment clinic, you could send them on a specific course of that. Or if they said, 'I really want to learn a bit more about managing the team', you can send them to like eight different management courses that you can send them on the trust... stuff like that, so if I identified they that they could do a little bit more, I would get directly involved, so you can kind of give more of a mentorship. You are not allowed to use your appraisal to tell people 'you've done wrong, you are incompetent', it has to be a really positive thing, you can also say 'how can we help you?', 'what can we do for you?', 'are you struggling with this? what can we provide for you?'. So, we put a list of how we gonna go about it, 'what date is it going to be achieved by and then when they have the 6 months review, you look at how they are going with those goals and if there is any changes you can make if they have not been able to achieve it.	Appraisals for talent management. Supportive enviroment

Figure 5.2: Screenshot extracted from an Excel document of IPA (Stage 3).

Stage 4: Summary table of themes with quotations

Finally, Stage 4 is the stage in which the components are put together. All themes and sub-themes were clustered and the respective quotations were also compiled to serve as illustrations (Storey, 2007). Figures 4.3, 4.4 and 4.5 show examples of screenshots showing the tables that are still in the process of being built.

No knowledge about dyslexia. No knowledge about dyslexia in the company. Fear from dyslexics to disclose information. Dyslexia as something different. Dyslexia as a negative attribute.	No interest in dyslexia.	Dyslexia is pejorative. Dyslexia seen as disease. Dyslexia as a negative attribute. Dyslexic has lack of knowledge. Dyslexic as non-equal. Never asked about dyslexia.	No knowledge about dyslexics.	No knowledge about dyslexics.	No knowledge about dyslexia Fear to disclose dyslexia Dyslexia as pejorative
Dyslexic employees have same treatment as non-dyslexics. Knowledge about dyslexics would help to extract skills and abilities.	Merits only, not looking at disabilities.	Nothing is made for dyslexics.	Merits only, not looking at disabilities.	Merits only, not looking at disabilities.	Equal treatments (dyslexic/non-dyslexic)
No knowledge about dyslexics. Knowing about dyslexia could avoid re-work. Importance to know dyslexia.	Avoidance of dyslexics.	Adequate ways to work.	No experience with dyslexics.	Dyslexic as unconventional thinkers. Dyslexic is good visualizing.	No experience with dyslexics
Standard recruitment.	Standard recruitment.	Standard recruitment.	Standard recruitment.	Standard recruitment with a lot of writing.	Standard recruitment
Equal treatment dyslexics and non-dyslexics.	Nothing specific for dyslexics.	Nothing specific for dyslexics.	Lack of knowledge of dyslexia. Avoidance of dyslexics.	Equal treatment dyslexics and non-dyslexics.	Equal treatments (dyslexic/non-dyslexic)
No importance to know dyslexia. Nothing specific for dyslexics.	Dyslexia as a deficit.	Nothing specific for dyslexics.	Nothing specific for dyslexics.	Nothing specific for dyslexics.	Nothing specific for dyslexics Dyslexia as a deficit.
Equal treatment dyslexics and non-dyslexics.	Equal treatment dyslexics and non-dyslexics.	Equal treatment dyslexics and non-dyslexics. Desire to understand how dyslexia affect people.	Equal treatment dyslexics and non-dyslexics.	Equal treatment dyslexics and non-dyslexics.	Equal treatments (dyslexic/non-dyslexic) Desire to understand dyslexia

Figure 5.3: Screenshot extracted from an Excel document of IPA (Stage 4).

Equal treatment	Dyslexia as a negative trait	Unreliability to dyslexics	Desire from employees	Ignorance about dyslexia
Equal treatment	Dyslexia as a deficit	Afraid of putting dyslexics in top positions	Desire to understand dyslexia	No knowledge about dyslexia
Equal selection process	Dyslexia as non-proactive and non self-learners	Avoidance to give dyslexics responsibilities	Desire to have a specific support for dyslexics	No experience with dyslexics
Equal recruitment	Dyslexics as not normal		Desire for more dyslexia knowledge	
Equal feedback	Dyslexia as incapability		Importance to have dyslexia knowledge	No support for managers to work with dyslexics
Equal induction process	Dyslexia as pejorative		Company benefits for having dyslexia knowledge	Not qualified to work with dyslexics
Equal talent management			Investment in dyslexics as positive	Nothing specific for dyslexics
Standard recruitment				No mention of dyslexia
Standard induction				Nothing specific to dyslexic
Standard talent management				Experience and skills are more important than presence of dyslexia
Importance of talent management				No difference dyslexic or no-dyslexic for low performance
Support for individuals in general				
Merits only, not looking at disabilities				

Figure 5.4: Stage 4 - IPA.

Dyslexia as a negative trait/Unreliability to dyslexics	Dyslexia as a deficit	20%	Another theme that came up was "Dyslexia as a negative trait/Unreliability to dyslexics". They are both together, because one is the cause of the other. Companies have a huge lack of knowledge about dyslexia, which leads to a negative perception about the disability, such as dyslexics as incapables, dyslexics as not normal, dyslexics as non-proactive, among others. Once this perspective is put in their mind, it will easily affect how much they can trust dyslexic employees. Some employers stated that they would feel afraid of putting dyslexics in top positions and would avoid giving too many responsibilities.
	Dyslexia as non-proactive and non self-learners	10%	
	Dyslexics as not normal	10%	
	Dyslexia as incapability	30%	
	Dyslexia as pejorative	20%	
	Afraid of putting dyslexics in top positions	10%	
Desire from employers	Avoidance to give dyslexics responsibilities	30%	Although all companies showed a huge lack about dyslexia, only very few of them (30%) felt and explicitly mentioned the desire for a change. Only this small percentage exposed to it. From the list of the desires, some companies mentioned the importance to learn and know more in order to support better dyslexic employees, some also recognize that the company would benefit from that and see an investment in dyslexia as something positive
	Desire to understand dyslexia	40%	
	Company benefits for having dyslexia knowledge	20%	
	Investment in dyslexics as positive	10%	
	Desire to have a specific support for dyslexics	10%	
	Desire for more dyslexia knowledge	10%	
No Knowledge	Importance to have dyslexia knowledge	30%	As mentioned before, all companies that were interviewed showed absolutely no knowledge about dyslexia. This is very serious, because it triggers a number of problems. Without the proper understanding of dyslexia, wrong concepts are made, which will lead to wrong actions and definitely catastrophic results. Companies stated that they also have no support to work with dyslexics, which corroborates for their ignorance in the field. Employers also have nothing specific for dyslexics in the company that could help somehow. And another situation mentioned by employers is that there would be no difference if dyslexic and no-dyslexic were having low performance. With some exceptions, once again, we can see the problem about the lack of knowledge. Dyslexic individuals have some weaknesses that maybe non-dyslexics would not present, which could easily differentiate the reason for low performance.
	No knowledge about dyslexia	100%	
	No experience with dyslexics	90%	
	No support for managers to work with dyslexics	100%	
	Not qualified to work with dyslexics	20%	
	Nothing specific for dyslexics	100%	
	No mention of dyslexia	90%	
Experience and skills are more important than presence of dyslexia/merits only	80%		
No difference dyslexic or no-dyslexic for low performance	50%		

Figure 5.5: Stage 4 - IPA.

Stage 5: Screenshot from the table of themes

As shown in Stage 4, once the process of populating the tables with the themes, sub-themes and quotations has been completed, the logical next and final stage is to finalise table with all of the necessary contents in it. Figure 4.6 below shows an example of the finalized table.

Brazilian Sample Themes and Sub-Themes		
Favour to dyslexics	Percentage	Quotations
Dyslexics as a good cause	20%	"Even in the sense we know more about it, because I did not know the definition of dyslexia before this interview. It's something that is so remote that I can not handle. I think it's important to include for both the student and the teacher and vice versa. It would be nice to do something more targeted dyslexia, but because of the inclusion same, even to act now know better ..." CCAA
Hiring dyslexics as a good cause		
Employing dyslexics as a good cause		
Equal treatment		
Equal treatment	100%	"I would act the same way. Since I already know what dyslexia and how it affects our work, how it changes the performance of the person I will not consider this as a problem, now I treat disability at work in the same way as the non-dyslexic." CI Turism
Equal selection process	100%	
Equal recruitment	100%	
Equal feedback	100%	
Equal induction process	100%	
Equal talent management	100%	
Standard recruitment	100%	
Standard induction	100%	
Standard talent management	80%	
Importance of talent management	80%	
Support for individuals in general	90%	
Merits only, not looking at disabilities	100%	

Figure 5.6: Stage 5 - IPA.

Dyslexia as a negative trait/Unreliability to dyslexics		
Dyslexia as a deficit	20%	"So I think the dyslexic profile if he could fit better, he could make a pre-screening with a person to see if the expectations corresponded to what she wanted, he could suddenly get in touch with her later to see if everything went alright or not ... the only thing I think it's a process that should have enough attention and that consultants already have a hard time with this, and we have a lot of trouble for lack of attention is precisely this registration process , documentation, things involving term. It turns out that we had many customers, each with a different time and they ended up missing the deadline of something or another, or by lack of organization ended up forgetting to enroll someone. So I think this process is a step that would require more attention, but both the previous, as in the post, I think I could frame a dyslexic without problema.Eu would have a little more afraid to leave the dyslexic for the same party more operating." CI Turism
Dyslexia as non-proactive and non self-learners	10%	
Dyslexics as not normal	10%	
Dyslexia as incapability	30%	
Dyslexia as pejorative	20%	
Afraid of putting dyslexics in top positions	10%	
Avoidance to give dyslexics responsibilities	30%	
Desire from employers		
Desire to understand dyslexia	40%	"But I think this is a culture that is not being widespread in businesses ...We still do that much by trial and error, you know? So you see an employee having problem there and you think, ahhh try this, or that. We have a former employee that could already retire, but do not want and he needed to be relocated, so we had to ask the senior in the management and we take it easy ... ask him to do more peaceful specific services, or see that it does not account ... we always check the best service for each person ... and this is very positive." BRB Bank
Company benefits for having dyslexia knowledge	20%	
Investment in dyslexics as positive	10%	
Desire to have a specific support for dyslexics	10%	
Desire for more dyslexia knowledge	10%	
Importance to have dyslexia knowledge.	30%	

Figure 5.7: Stage 5 - IPA.

No knowlegde		
No knowledge about dyslexia	100%	"I have little contact with disability. I do not know how to help in this situation. I can not see an alternative." Votorantim
No experience with dyslexics	90%	
No support for managers to work with dyslexics	100%	
Not qualified to work with dyslexics	20%	
Nothing specific for dyslexics	100%	
No mention of dyslexia	90%	
Experience and skills are more important than presence of dyslexia/merits only	80%	
No difference dyslexic or no-dyslexic for low performance	50%	
Assumptions for not knowing dyslexics		
Fear to disclose dyslexia	10%	"Also within the routine store, this is not a matter that we pay attention. So we can not identify. As much as the person knows if has dyslexia, she will not put in the curriculum for fear of losing that job opportunity, because you have something different or something even seen as a loss for the company." M. Officer
Dyslexics are afraid to disclose	10%	
Company assumes dyslexics are afraid of discrimination / Not appropriate to ask (discrimination)	40%	
Support from company		
Special attention to low-performers (No dyslexic specific)	60%	"First I try to know what the context, because as we have several cases that I have good people start inexplicably have a low performance, sometimes he's going through some family problem, is changing residence ... I try to understand what is the context, communicate to him that these problems people are interfering with the operation and how he wants to solve it. If not that, if an oversight due to lack of interest even, I try to know what that's going on and then I communicate to correct, if the person does not match and it has been reported several times, then I hang up. But I do have a concern to know what's going on." Domingos Architecture

Figure 5.8: Stage 5 - IPA.

5.3 Results

5.3.1 Brazilian Sample

Brazilian Sample Themes and Sub-Themes	
Theme 1 Brazil- Favour to dyslexic individuals by employing them (not explicit mentioned by all)	Percentage
Dyslexic individuals as a good cause	20%
Hiring dyslexic individuals as a good cause	
Employing dyslexic individuals as a good cause	
Theme 2 Brazil- Equal support	
Equal treatment	100%
Equal selection process	100%
Equal recruitment	100%
Equal feedback	100%
Equal induction process	100%
Equal talent management	100%
Standard recruitment	100%
Standard induction	100%
Standard talent management	80%
Importance of talent management	80%
Support for individuals in general	90%
Merits only, not looking at disabilities	100%
Theme 3 Brazil - Dyslexia as a negative trait/Unreliability to dyslexic individuals	
Dyslexia as a deficit	20%
Dyslexia as non-proactive and non self-learners	10%
Dyslexic individuals as not normal	10%
Dyslexia as incapability	30%
Dyslexia as pejorative	20%
Afraid of putting dyslexic individuals in top positions	10%
Avoidance to give dyslexic individuals responsibilities	30%
Theme 4 Brazil - Desire of a better dyslexia understanding	
Desire to understand dyslexia	40%
Company benefits for having dyslexia knowledge	20%
Investment in dyslexic individuals as positive	10%
Desire to have a specific support for dyslexic individuals	10%
Desire for more dyslexia knowledge	10%
Importance to have dyslexia knowledge.	30%

Theme 5 Brazil - No knowledge on dyslexia	
No knowledge about dyslexia	100%
No experience with dyslexic individuals	90%
No support for managers to work with dyslexic individuals	100%
Not qualified to work with dyslexic individuals	20%
Nothing specific for dyslexic individuals	100%
No mention of dyslexia	90%
Experience and skills are more important than presence of dyslexia/merits only	80%
No difference dyslexic or no-dyslexic for low performance	50%
Theme 6 Brazil - Assumptions of dyslexic individuals feeling afraid of disclosure	
Fear to disclose dyslexia	10%
Dyslexic individuals are afraid to disclose	10%
Company assumes dyslexic individuals are afraid of discrimination / Not appropriate to ask (discrimination)	40%
Theme 7 Brazil - Support only for ordinary employees	
Special attention to low-performers (No dyslexic specific)	60%

Table 5.3: Themes and Sub-themes - Brazilian Sample

Theme 1 Brazil - “Favour to dyslexic individuals by employing them”

The first theme that emerged was, “Favour to dyslexic individuals”, which whilst it was not explicitly mentioned by all of the participants, could be perceived in the responses offered by the majority. This theme is linked with the extent of ignorance about this disability, which results in companies thinking that they are doing a good deed or serving a good cause, by including dyslexic individuals in their team. Clearly the majority of companies nowadays have a very limited understanding about the strengths and positive contributions that dyslexic individuals can bring to their workforce. As an illustration of this theme, one candidate stated:

“I did not know the definition of dyslexia before this interview. It’s something that is so remote that it doesn’t if occur to me. I think it’s important to include both the student and the teacher. It would be nice to do something more dyslexia targeted, mainly because of the inclusion since now I know better...” (Education Sector Company)

Theme 2 Brazil - “Equal support”

All of the interviewees, when asked about the processes related to selection, recruitment, induction and talent management, stated that everything was equal for

dyslexic and non-dyslexic candidates / employees, which means that both groups are given exactly the same opportunities to be employed or promoted. The biggest issue with this point of view, as was shared by all participants, is that in reality, since dyslexic individuals request different allowances and have different needs, a uniform approach cannot be considered as an equal treatment. A similar comparison can generally be considered in relation for example to the needs and allowances between men and women. If both genders were given equal treatment, women would not have the right for current maternity leave allowances, which could greatly impact their personal lives and also affect the job itself. The same logic works for individuals with any disability, and not limited to only mentioning dyslexia. Different individuals or groups, need different treatments and different approaches for enabling their contributions to be made reasonably.

The manager of the tourism company mentioned:

“I would act the same way. Since I already know what is dyslexia and how it affects our work, how it changes the performance of the person I will not consider this as a problem, now I treat disability at work in the same way as the non-dyslexic.”

Theme 3 Brazil - “Dyslexia as a negative trait/Unreliability of dyslexic individuals”

Another theme that came up was that of, “Dyslexia as a negative trait/Unreliability of dyslexic individuals”. These have been combined together, because one is the cause of the other. Companies lacked accurate knowledge about dyslexia, which led to a negative perception of this disability, for example, that dyslexic individuals are incapable, not normal and non-proactive, among other perceptions. Once these views have been formed, these will easily affect how much employers can trust dyslexic employees. Some employers stated that they would feel afraid of putting dyslexic individuals in senior positions and would avoid giving them too many responsibilities. The following quotations help to illustrate the concerns related to this theme:

“I would think that he would not be able to perform, he would not manage to get results. . . This negative vision that you have. If I had an employee with dyslexia, I would see the person as a problem.” (Sports Event Company)

“So I think for the dyslexic profile, he could make a pre-screening with a person to see if the expectations corresponded to what she wanted (client arrives and wants to know countries to do a exchange), he could also do the post-exchange contact with the client. . . the only thing I think it’s a process that should have enough attention and that consultants already have a hard time with this, and we have a lot of trouble for lack of attention is with the registration process, documentation, things involving terms and bureaucracy It turns out that we had many customers, each

with a different time and they ended up missing the deadline for something, or by lack of organization ended up forgetting to enrol someone. So I think this process is a step that would require more attention, but the interview with the customer (pre-screening) and post-exchange contact I could delegate to a dyslexic without problems.” (Tourism Company)

Theme 4 Brazil - Desire from employees of a better dyslexia understanding

Although all companies showed a lack of understanding about dyslexia, not even a third (30%) felt and explicitly mentioned the desire for a change. Only this small percentage were open to it. From the list of desires, some companies mentioned the importance to learn and know more, in order to better support their dyslexic employees, some also recognized that the company would benefit from this process and they acknowledged that an investment in dyslexia would be something very positive.

The bank manager stated: *“But I think this is a culture that is not being widespread in businesses . . . We still do that much by trial and error, you know? So you see an employee having problem there and you think, ahhh try this, or that. We have a former employee that could already retire, but do not want and he needed to be re-located, so we had to ask the senior in the management and we take it easy . . . ask him to do more peaceful specific services. . . we always check the best service for each person . . . and this is very positive.”*

Theme 5 Brazil - No knowledge on dyslexia

As mentioned before, of all the companies that were interviewed, none demonstrated any knowledge about dyslexia. This is very serious concern, because it triggers a number of problems. Without a proper understanding of dyslexia, inaccurate concepts are perceived, which in turn leads to wrong actions being taken and to potentially catastrophic results. Companies stated that they also had no support to know how to work with dyslexic individuals, which corroborates their ignorance about the field. Employers also had nothing specific for dyslexic individuals in the company that could help somehow. A further situation mentioned by employers was that there would be no difference if dyslexic and non-dyslexic workers demonstrated low performance. With some exceptions, once again, the problem associated with the lack of knowledge around dyslexia is very clear. Dyslexic individuals do have certain weaknesses that maybe non-dyslexic individuals would not present, which could easily be the reason for low performance.

The construction company employee stated: *“I have little contact with disability. I do not know how to help in this situation. I cannot see an alternative.”*

Assumptions for not knowing about dyslexia

Some companies believe that dyslexic individuals do not disclose the disability, because they fear the perceptions of others and that it may cause discrimination. As an example, the head manager from the retail company, in his view on the dyslexic individuals, stated that they would feel afraid to disclose such information as they could put their jobs at risk.

Theme 6 Brazil - Assumptions of dyslexic individuals feeling afraid of disclosure

Almost half of the participants drew their own conclusions for why dyslexic individuals might not disclose their learning disability to companies. One of the companies stated: "Also, within the routines in the store, this is not a matter we pay attention, so we cannot identify it. As much as the person knows if has dyslexia, she/he will not put in the curriculum for fear of losing that job opportunity, because you have something different or something even seen as a loss (weakness) for some companies".

From the above, it is therefore clear that based on their overall lack of knowledge on the subject, companies did not have the ability to understand the benefits of dyslexia, which resulted in dyslexic employees feeling ashamed and afraid of disclosing it and asking for the appropriate support to enhance their performance. In conclusion, dyslexic individuals should ideally be working towards perfecting their strengths for the benefit of their companies, but because of the prejudice that exists through ignorance and a lack of knowledge, they prefer to struggle with some of their daily tasks, which ultimately costs more money to the company.

Theme 7 Brazil - Support only for ordinary employees

More than half of the companies that were interviewed stated that would give special attention to low-performers in cases when they needed it. What was interesting however is that firstly there was nothing specifically in place to support dyslexic individuals. Secondly, they were open to providing special support for individuals non-dyslexic who are struggling, which may suggest that money is not an issue for such matters. A fundamental question to be answered is, "*why would you give support for general individuals who are struggling with their job, but not to dyslexic individuals?*"

The CEO from the architecture company said: "*First I try to know what is the context, because I have good people start inexplicably to have a low performance, sometimes he's going through some family problems, is changing residence. . . I try to understand what is the context, communicate to the employee that these*

problems are interfering with the operation and how he wants to solve it. If it is not that, if it is an overnight lack of interest, I try to know what is going on and then I communicate to correct, if the person does not improve and it has been reported several times, then I dismiss. But I do have a concern to know what's going on."

5.3.2 UK Sample

UK Sample - Themes and Sub-Themes	
Theme 1 UK - Lack of Dyslexia Knowledge in companies	Percentage
Lack of knowledge about dyslexic individuals/dyslexia (employees).	100%
Unaware of existence of dyslexic employees.	40%
No experience with dyslexic employees	60%
Theme 2 UK - Under Performance and Dyslexia	
Lack of knowledge about adjustments for dyslexic individuals.	80%
Performance concern would not be linked with dyslexia	60%
Understand the reason for low performance	40%
Theme 3 UK - Inexistence of dyslexia support	
Unaware of dyslexic support/No current dyslexic support	60%
Theme 4 UK - No influence on performance by dyslexia	
Skills and experience are more important than the disability itself	70%
Theme 5 UK - Standard support for employees	
Standard recruitment process	80%
No modification for dyslexic individuals in the shortlisting	90%
Standard induction process	100%
No difference between dyslexic and non-dyslexic for induction	80%
No difference if both (dyslexic and non) have same experience and knowledge	60%
HR system to review progress	40%
No specific talent management for dyslexic individuals.	60%
Unaware of dyslexic talent management	40%
Tailored individualized programs	40%
Not aware/No mention of dyslexic individuals for jobs	90%
Theme 6 UK - Disclosing dyslexia is indifferent	
No difference for the company if dyslexia is disclosed	40%
Theme 7 UK - Desire of a better dyslexia understanding	
Desire for a better understanding of dyslexic strengths and weaknesses to help employee	50%
No specific performance management program for dyslexic individuals	50%

Table 5.4: Themes and sub-themes - UK Sample.

Theme 1 UK - Lack of knowledge in companies

The first theme that emerged in this part of the study (with the UK sample) was that of a “Lack of Dyslexia Knowledge in companies”. Almost all of the companies demonstrated a very limited knowledge about the disability, and were unaware of the existence of dyslexic employees in the company. For example, some managers expressed their doubt regarding some co-workers being dyslexic and in some cases even questioned whether they are dyslexic themselves. The manager of the nursing sector mentioned: *“I only know this person is dyslexic, because he wears green glasses, with green lenses in the glasses. He has to see things in green and it helps him. He told me he was dyslexic. . . I thought it was a bit weird. I was like ‘hmm. . . I am sure this is not dyslexia’, but he said he was dyslexic and I thought ‘ok, I will go with it’.”*

This lack of knowledge clearly shows that employers do not know how to strategically place dyslexic individuals in the workplace, which could be a cause of some further issues in the future, since they would excel in some activities but struggle in others. Another sub-theme that was raised under this theme was that over half of the employers mentioned that they have never had an experience with dyslexic individuals. For example, the CEO of the civil engineering company stated: *“I have no idea if anyone in my company is dyslexic. . . No one ever made me aware if they are.”*

Some lack of knowledge was also shown through the use of specific labels, such as “dyslexic individuals can be smart”, “dyslexic individuals can be successful and intelligent”, “dyslexia is not a big problem”, “dyslexic individuals perform just as well as non-dyslexic individuals”. Some companies were a little more aware about dyslexia and treated them more appropriately, without “pity attention”, but still conscious of and working with their weakness and strengths. It was also noticed that some companies were a little careful or hesitant when describing their reality, so as not to appear discriminatory, although a slight sense could be perceived in the language used.

This lack of knowledge also resulted in some employers believing that dyslexia can somehow affect (either positively or negatively) the job, and some companies would even discourage certain professions/jobs for dyslexic individuals. This entire situation was highlighted by the third sub-theme found, which was, “No experience with dyslexic employees”. Clearly, all of the sub-themes are linked and generate the main theme. The manager of HR from the health recruitment company stated: “No, I don’t. . . I haven’t had any (dyslexic employees).” More than half of the participants shared this information, and even those who did not explicitly mention this (100% of participants) made it very clear that they had a major lack of knowledge about

dyslexia (sub-theme 1).

Theme 2 UK - Under performance and Dyslexia

Almost all employers showed a lack of knowledge about providing adjustments for dyslexic individuals in the company. An example, used below is from the interview with the director of the software company: "I don't know. . . I don't know. . . I don't know whether there are any adjustments, I would have to check with HR."

From this, a significant link can be perceived with another sub-theme that emerged, which was that the employers did not consider low performance to be related to dyslexia. Almost half of the interviewees also stated that if employees were demonstrating low performance, they would like to understand the reason in order to provide adjustments, meaning that a low performance would not be linked with dyslexia. The bank manager shared: "*so far my problems with employees are more with the psychological side than like how fast you read. I don't think that (dyslexia) would matter. I would treat them just as normal people and if they need more time, as long as I know about it, because of the management. . . but I would not give them a poor rating on the basis of their spelling skills. . . or the fact that they read slower, is not about time, it is about quality here, so, I would not give them special treatment on purpose, because it is equal for everybody. I may give them more time, but not in the performance evaluation.*"

As has been identified, a lack of knowledge by companies can impact the performance of dyslexic individuals in their workplace. It would not be wise to simply be given tasks that would reinforce their weaknesses without proper adjustments or appropriate levels of support. It would appear that some companies understood that if a dyslexic individual was performing poorly, one reason could definitely be from the disability itself and in some cases they were happy and open to make adjustments and allowances. However, other companies held the belief that dyslexic individuals needed to perform as well as non-dyslexic individuals for given tasks, and that the disability should not be allowed to interfere with this performance. Another example that can be mentioned is from an employer who believed that the company would have no prejudice against a dyslexic individual, as long as he/she performed well in the job.

Themes 3 UK - Inexistence of dyslexia support

More than half of the employers expressed an explicit unawareness *related to any support for dyslexic individuals, as can be seen in this quote from the bank manager: "Well, as I answered before, I would like to but no. Maybe, if I get to HR, they may have something, but not to my knowledge."* Others stated that they could

either make specific allowances for individuals or maybe the company would have no interest at all in making adjustments for employees.

It was also possible to understand certain perspectives expressed by the employers in relation to dyslexic support. Some stated their expectation that dyslexic individuals need to ask for specific help (and they need to know from them). A natural pattern can be seen between the lack of knowledge, the lack of support and the need of employer to rely on the employee in stating the help he/she needs to be given. Some companies also mentioned that nobody had ever asked for dyslexia support. Other employers might not be prepared to receive dyslexic employees, but they already had the desire and the open-mind to provide adjustments for them focusing in their strengths and weakness (job crafting).

Theme 4 UK - No influence on performance by dyslexia

Another sub-theme that emerged from 70% of the interviewees was the notion that “skills and experience are more important than the disability itself”. According to the manager of the health recruitment company: *“No, it wouldn’t make a difference (if employee was dyslexic or non-dyslexic). The skills and experience are more important, because for example a lot of my social workers will work in teams and it would depend on their personality, do they get along with the other social workers on the team?”*

Although this statement may appear to be positive in the sense of not being prejudiced against dyslexic individuals, this perspective could mean that both employees would be treated the same way, which would not be beneficial for dyslexic individuals as they would need different adjustments, tasks and challenges to contribute their strengths and improve their weaknesses.

Some employers were very engaged with training and development for their employees, which would mean specific training would be provided for each role (and this is already a green flag for a possible specific training for dyslexic individuals in their specific roles), while others had a more generic approach and only offered general training.

Theme 5 UK - Standard support for employees

The majority of the U.K companies demonstrated very similar or the same processes for employing dyslexic individuals, as they would have for non-dyslexic candidates. Also, once the dyslexic employee was part of the company, no special training, induction or any specific allowances are provided. Interestingly, some companies stated that they had tailored individualized programs for their employees, which leads to the question of why something similar cannot exist for dyslexic

individuals? As can also be seen, companies did not mention jobs for dyslexic individuals, which could show some lack of knowledge about the strengths in dyslexia, as seen in the response of the bank manager:

“I have no idea. In the job adverts, we don’t mention at all and any other disabilities.” Throughout all of the interviews, it was clear that all of the companies had standard processes for candidate selection, until the management of that employee, which would exclude any different processes. As an example, the civil engineering company CEO shared how their process worked:

“So, we use job adverts and the responses are very good, so now if I need a consultant or administrator staff, I will just ask in the boards people for their cvs. There is also an application form, so we can just ring someone and say, “you have the profile we are looking for, would you like to come in for a chat?” and maybe from then we could go for the interview process. So it is CV analysis, application form for those who receive the call, and we also look for words in cvs on job websites, for these candidates, we will be selecting them ourselves...” The manager of the events sector at the university also explained how the induction process was structured and standardized:

“Ok, so... we have an induction process, which it covers all the basic things that we know about... familiarisation with your environment, understanding access to all the key things you need in IT and etc... And then people may be assigned a mentor, but depending on their role and what they are coming to do...it may be over a period of a few weeks, we have appointments to meet the key people they need to meet. Depending on the role... let’s just say an average, 2 weeks to go through that process. There will be an expectation that they’d doing something and until they get fully up to speed and it would of course take a bit...” The HR system for reviewing progress was also found to be very standardized across almost half of the companies. The recruitment manager for the health positions company shared:

“So, in my company they have a 6 weeks review, a 12 week review and then you have an 18 week review and then a 6 months review. They will go over your performance, how you’ve been since last review, is there anything you want to help with... is there anything you may be finding difficult... so, this happens to be throughout the year. It is not just after they started; it is continuous throughout the whole time with the company basically. We wouldn’t know if we have a dyslexic, unless someone tells you that they were. They don’t disclose any information about anyone, unless...” There was also not a specific talent management programme for dyslexic individuals. The manager of the financial recruitment company stated:

“N/A. Basically, it is not so much on the talent, it is you able to make the sale within the first month? You know... so then you will know if you will stay in the

organization or not. . . After your induction, you get. . . they give you about a month to make a sale or to play someone in a new position or. You know. And then if you haven't after the first month, then the manager will see if they want to keep you for another month or if this is it. We have a 6-months probation period, so within these 6 months they can get rid of you after a day." Some employers demonstrated an awareness that some candidates may need extra support and they seemed very open-minded to provide this. However, there are some aggressive companies in the market, which would not be so open and would not make any allowances (given that these would require an investment of money and resources by the company) for any person.

Theme 6 UK - Disclosing Dyslexia not detrimental

Almost half of the employers stated that there would be no difference for the company if the employee disclosed his/her dyslexia, which clearly demonstrates a misconception about the potential range of valuable contributions that those who have dyslexia can bring to a role.

Among the views shared by companies on the theme of "disclosure" was the belief that employees would not disclose this, unless they suffered from severe dyslexia. Another employer said that disclosing dyslexia could mean instability. One manager argued that if an employee disclosed his/her dyslexia, he/she should add value to this information, which goes together with a better understanding of positive dyslexia for both the employer and the employee.

The area manager from the Public Security stated that "*if something like this came across, it wouldn't make any difference.*" which clearly shows the lack of knowledge about this learning disability positive outcomes for the company.

Theme 7 UK - Desire of a better dyslexia understanding

Half of the employers expressed a desire for a better understanding of dyslexic strengths and weaknesses in order to help employees, which indicates an improved scenario to start investing in information about dyslexia and its advantages. The bank manager mentioned:

"I think a bit more of knowledge about this would be beneficial for me, because I never thought about it before your research, so it clearly shows that as a manager you have to understand those things, but that's it". Half of the interviewees also explicitly stated that there is no specific performance management programme for dyslexic individuals. Again, during the interview process the bank manager shared:

"There is nothing specific for dyslexic, but the rest is always in an individual basis, always. We have the score, your potential, which is where you get your bonus, so. . . and it is always up to the manager and the employee. It is very individual."

This finding is not surprising, since the lack of knowledge about dyslexia has already been clearly identified, which would naturally result in a lack of any investment in it.

An example for this theme is that some companies demonstrated an interest for a better understanding and higher support about the needs of their employees to promote and support their better performance.

5.4 Discussion

The third study focused on companies based in two different countries and how their personnel of these different nationalities approached and recognized the issue of dyslexia in the workplace. Differences in results were found between the U.K. and Brazilian samples, and this section will be dedicated to analysing this in the light of existing theories.

The hypotheses of this study had the intention of identifying whether the companies, which composed this sample, had some knowledge about the disability model (as an overall understanding) and about positive psychology, with the aim of seeing if and how such a knowledge could affect the employees. Looking back at the hypothesis:

- (1) Companies will have an overall knowledge about dyslexia.

From the U.K. sample, the hypothesis has corroborated as the interviewees demonstrated at least a minimum understanding about this learning disability.

In the Brazilian sample, none of the companies showed any knowledge about dyslexia.

- (2) Companies will not have any knowledge about Positive Dyslexia.

For both the British and Brazilian samples, the hypothesis has corroborated. Companies did not show any knowledge about positive dyslexia.

- (3) There will be clear differences between the approaches taken in Brazil and in the U.K.

The hypothesis was corroborated, as both samples showed different views and experiences with dyslexia.

The above results lead to a discussion of the effects of the reality (themes found across the data) this may have into the workplace of these companies. These results have major implications for the experiences of dyslexic workers.

In the U.K. there is existing legislation, which protects those with a learning disability against any prejudice, as well as the provision of eventual support that companies would need to provide for (and they need to know from them) their

employers. Across the 20 interviews undertaken in both countries, none of the employers had been made explicitly aware that even one employee was formally diagnosed as having dyslexia. All of the employers who had experienced “knowing a dyslexic” had been through informal conversations in the company. This scenario helps us to understand the position of both worlds. As studies have previously shown, individuals do not feel comfortable in disclosing this information and are afraid of discrimination, being diminished or feeling like a burden to the employer (Price & Gerber, 2001; Gerber et al., 2004). It is clear to understand that employers do not provide a proper level of support to their dyslexic workers, because almost none had experienced this situation before, which also explains the ignorance about the legislation.

From the Brazilian sample, a sense of “equal treatment” was expressed from the employers towards dyslexic and non-dyslexic employees. This finding reveals how the country regards this learning disability and how individuals face it. As a nation, Brazil can be considered to be very ignorant about dyslexia. The Brazilian Dyslexic Association has officially diagnosed just over a thousand individuals, which means that in a country of 200 million people, less than 0.0005% have dyslexia (Brazilian Dyslexic Association, 2013). According to the International Dyslexic Association, dyslexia is present in 10 to 15% of the population (International Dyslexic Association, 2012). Therefore, we can assume that the only Dyslexic Association in the country is still far too under-developed to raise awareness about the disability and help its population to move forward with a specific and deeper understanding about both its weaknesses as well as its strengths.

The British sample also showed that there was no specific provision for dyslexic individuals for the workplace. Although the U.K. is considered well developed when it comes to supporting dyslexia in schools, and in relation to the support provided from the BDA (British Dyslexia Association), the situation was less supportive for and within companies. The results show that the majority of companies were unaware of any support that could be given to employees with dyslexia. The U.K. sample was clearly more open to having dyslexic individuals in the team and also to make eventual adjustments. Such results are somehow sad, because it comes back to the vicious “sameness circle” mentioned by Walker & Quong (1998). Since childhood, dyslexic individuals had to cope with certain strategies to grow in their own way, without losing their creativity. The workplace as an environment appears to be unprepared to offer any support or take advantage of the best that dyslexic people can offer. It is also interesting to highlight the importance of being different. The market is changing rapidly and it is always demanding new things, but how can we provide new things if we are still caught in the “sameness army”? (Zampetakis

& Moustakis, 2006).

The whole progression of dyslexia in the workplace therefore appear to be stuck, primarily because employers entirely lack knowledge about dyslexia and are sometimes not interested in acquiring this, or there are no specific inclusions related to dyslexia as part of employment processes e.g. (job adverts, recruitment processes, inductions, trainings etc.) for dyslexic individuals. In the cases that were researched as part of this study, there was a sense that all of the employers who took part in this study placed the responsibility to address dyslexia, on the employee. For instance, the interviews included many statements such as, “we do not provide anything, but if something was asked, then we could do something”. The majority of employers also stated that they never experienced a situation in which the candidate or the employee approached the company seeking for support. This denotes the second aspect of the “vicious circle”. According to employers, dyslexic individuals do not disclose the information related to their dyslexia because they are afraid to cause an inconvenience to the organization, feel diminished or suffer discrimination. From the findings of this study, it is clear that all procedures are applied with exactly the same approach / manner for everybody, among 20 companies, of which 10 are from a country which has one of the most developed sense of dyslexia awareness. The majority of these companies acknowledged having no specific job advert, shortlisting, induction process, review progress, talent management and eventual trainings that may be appropriate for those with dyslexia. Such results encourage further thought to be given to the whole situation and to consider who may be primarily responsible, in order to break this circle (Price & Gerber, 2001; Gerber et al., 2004).

There is an understanding of why dyslexic individuals have such a reaction. In the Brazilian sample for instance, numerous statements were made from employers of different companies, which presented misconceptions about dyslexia and about dyslexic individuals. For example, during the interviews some employers shared that they do not think dyslexic individuals are capable of executing good jobs, they are not normal, are non-proactive and non-self-learners. Some employers even described dyslexia as a deficit and as being pejorative. Sadly, this reinforces the fear in organizations to give promotions or greater responsibilities to dyslexic individuals, which essentially demonstrates an extensive lack of knowledge about dyslexia. Furthermore, and even sadder is the fact that these companies lose the opportunity to draw on such hidden talents which can potentially enable growth within the company. According to Gerber et al. (1992), the main difference to make one individual with learning disability successful was their level of control. And by this, Gerber referred to both internal and external factors. Reinforcing these facts, Goldberg et al. (2003) and Raskind et al. (1999) found similar findings for successful individuals

with learning disabilities, such as emotional intelligence, proactivity, determination, realistic and suitable goal setting, proactivity and a high level of self-awareness (maturity in seeking responsibility and see the reality). All of this reaffirms the qualities that dyslexic individuals have and how they could bring positive outcomes to the workplace.

S. Agahi et al. (2014) and Nicolson (2015) made an addition of knowledge of strengths in dyslexia by presenting the “dyslexia decathlon” already mentioned, which defines a triad of work strengths (determination/resilience, proactivity and flexible coping), a triad of cognitive skills (big picture thinking, creativity and visualization) and finally a triad of social skills (empathy, teamwork and communication), all of which are underpinned by unconventional thinking.

It appears therefore not only that dyslexic individuals show a great level of control, whilst also presenting proactivity, emotional intelligence, a goal setting orientation, determination, self-awareness, resilience, flexible coping, creativity, big picture thinking, visualization, empathy, teamwork, communication skills and unconventional thinking. Are these strengths not sufficient to consider the extent to which dyslexic individuals can contribute positively to the workplace especially through creativity and innovation? (Gerber et al., 1992; S. Agahi et al., 2014; Nicolson, 2015; Raskind et al., 1999; Goldberg et al., 2003).

During the interviews, some of the companies gave the impression that they would happily “help” dyslexic individuals by giving them “a chance” and employ them as their contribution to a “good cause”. Having considered the range of facts related to the positive strengths of dyslexic individuals, it is clearer to see that there is no need to consider this a righteous deed assisting a “good cause” as though their employment is a favour, since they are fully capable individuals with a very unique set of strengths.

Another interesting result, which was identified was regarding the desire for more knowledge about dyslexia. As was clearly seen from the interviews with the employers, there is a predominant misconception and lack of knowledge about dyslexia. In the Brazilian sample, the desire for a better understanding of dyslexia was raised by only 10% of interviewees, while the British sample showed a higher interest, with 50% of the employers expressing this interest. Such knowledge is crucial in taking the first step towards the “breakage of the circle”. Only when employers are fully informed and gain an extend of useful knowledge about this learning disability and the potential of its positive outcomes for their companies, will the approach hopefully change. McLoughlin & Leather (2009) stated that dyslexia is not a learning disability that only exists in childhood and then disappears in adulthood. Dyslexia is present throughout all stages of life, and requires both the dyslexic indi-

vidual to understand how to function, as well as their stakeholders, such as those operating in the environments of their family, school and workplace. The ultimate goal is to be able to understand one's weaknesses, but to focus on the known strengths and use this knowledge and its application to its greatest advantage. The approach of Nicolson (2015) with "positive dyslexia" could be a very adequate first step in the new direction. By understanding how an individual with dyslexia operates, it is easier to allocate that person a specific job, which will enable the development and flourishing of their strengths. Job crafting is also another option that can be considered by way of an approach to working with the strengths of an individual. In such a case, instead of reiterating directions of how a certain job should be done, consultations between then employee-employer can enable a bespoke role to be developed, based on the identification together of the most favourable and effective ways to execute a range of tasks.

This scenario shows clearly how the whole employment system is in great need of further information about this learning disability, and calls for an urgent change to be made in departments of personnel and their operations, Companies are not only losing their hidden talents but potentially a significant extent of profit, for not being able to support a dyslexic employee appropriately. The HR department of provides a crucial connection between the company owners/directors and their employees, which means that if they are on top of the new "dyslexic trend" and are more informed about the benefits dyslexic individuals could bring to a company, a more coherent advance can take place. By applying such a change and initiating this new chapter in the workplace, opportunities will open for a new and creative era of thoughts, new ideas and new ways of working to be realised. Equally important, this will help to alleviate and even combat a sense of low self-esteem, lack of confidence and many other unnecessary factors that are currently present in the lives of those who are dyslexic (McLoughlin & Leather, 2009; Nicolson, 2015).

5.5 Conclusion

The main goal for Study 3 was to investigate an in-depth analysis from a company perspective, of the understanding around dyslexic individuals and their functioning in the workplace. It can be concluded that the Brazilian companies who were interviewed were completely lacking in any knowledge about dyslexia. Whilst the U.K. sample was more advanced in terms of its overall knowledge about dyslexia, it also still lacked knowledge on positive contributions or benefits of dyslexia. From the Brazilian sample it was clear that ignorance on this subject sadly resulted in some prejudice, as detected in their language or attitudes - lacking any interest in having dyslexic individuals in their team. The U.K. sample demonstrated an improved basic knowledge of the subject, but there was little understanding of the

positive qualities that those with dyslexia can bring to the workplace and how to exploit their unique traits for the betterment of companies such as to increase their productivity and higher profits.

Nicolson (2015) outlined the potential benefits of dyslexic employees and the Dyslexia Decathlon of skills to 21st century companies benefits to society. The first step of changing any “traditional dyslexia scenario” would be to focus on this new approach and work with the strengths and desirable qualities of those with dyslexia, rather than to perceive and then focus on negative matters. After all, focussing on the improvement of weaknesses does not in itself result in the generation and application of the many positive strengths.

This study aimed to initiate a deeper investigation into the perspectives of companies towards dyslexic employees. A natural next step is to gain a better understanding of professional dyslexic individuals, in order to begin identifying some solutions to overcoming problems for dyslexic individuals in the workplace. In this way, steps can be made towards the final “closure of the circle”, beginning an intervention for the improvement of dyslexic support offered by companies in the environment of the workplace.

Chapter 6

Study 4

6.1 Introduction

The previous three studies focused on dyslexic adults, strengths and workplace. As previously stated, dyslexic individuals have been found to have core entrepreneurial traits as well as a tendency towards entrepreneurial aspirations and achievements (Sepulveda, 2013; J. Logan, 2009). The main objective of the first study was to compare dyslexic university students with those that were non-dyslexic in order to investigate whether entrepreneurial traits are more prevalent and manifest in either one of the samples. The results from this specific university sample showed that dyslexic individuals demonstrated a higher tendency of becoming entrepreneurs. The purpose of the second study was to address a specific issue emerging from Study 1: related to the identification of certain discrepancies within the participants' answers. The most accurate means of understanding or resolving the reasons for this was to undertake a qualitative study with semi-structured interviews that could provide a deeper exploration and thus understanding of the nature of the quantitative findings.

Study 3 addressed the attitudes of senior employers to dyslexic applicants or workers. A large qualitative study was carried out to include 20 interviews given by companies from both Brazil and the United Kingdom, exploring the theme of dyslexia in the workplace, and perceptions and understanding around this. The study considered the level of disclosure from senior executives, the extent of the provision of company support, and the level of awareness that exists within the workplace setting, among other important variables.

As discussed earlier, there was an expectation that the results would vary due to the level of development associated with dyslexia awareness between the two countries. It was possible to understand some patterns of behaviour from these results and new questions were raised regarding the future of dyslexia at the work-

place. However, before answering those questions, it is crucial to identify the other side in this equation, which means that dyslexic individuals need to be questioned in different variables in order to understand the origin of some issues of dyslexic individuals at the workplace. From the interviews in Study 3, it was possible to identify that the majority of companies do not have the provision of any special support for dyslexic individuals. Some companies, usually those that are in more developed countries, are open to making concessions and adjustments for dyslexic workers, upon request, but there are also organizations that would not consider this and may be more likely to view such a request in a negative light. The interviews also highlighted the fact that employers do not experience the “call for help” from dyslexic employees as from within this sample of interviews, no employer had ever experienced the situation where he or she had to make an adjustment for a specific person, upon their request. They believed that dyslexic individuals prefer not to disclose this information for personal reasons and that it would therefore be difficult to offer a special support programme without their openness.

Sumner (2012) discussed the important need for organisations to be approachable in relation to the provision of support for dyslexic workers, in order to directly influence the efficiency and well-being of the employees. However, for organisations to have dyslexia-friendly environments, it is necessary to understand from the perspective of the dyslexic individual why there may be a reluctance in them disclosing about their dyslexia and thus, and withholding this from companies as was identified in the previous study of this thesis. Moody (2015) argues that dyslexic individuals tend to not disclose their learning disability at the workplace, due to past negative experiences.

There is now a great deal of knowledge about how schools can become more “dyslexia friendly”, with the British Dyslexia Association providing extensive support leading to the award of a “quality mark” (see <http://www.bdadyslexia.org.uk/services/quality-mark>). The quality mark is also available for Higher Education and for other organisations, and represents a world leading approach. The key requirements for quality mark for organisations are shown below).

Standard One: Policy

1.1 The organisation's policies:

- a) Highlight inclusive practice for dyslexia and conform to the Equality Act 2010.*
- b) Are accessible and disseminated to interested parties.*

- 1.2 *Relevant policies are regularly monitored for effectiveness.*
- 1.3 *A senior manager has responsibility for the BDA Dyslexia Friendly Quality Mark.*
- 1.4 *Dyslexia support policies are promoted throughout the whole organisation.*

Standard Two: Meeting Needs / Service Delivery For Customers

- 2.1 *Systems and services are checked for accessibility issues relating to dyslexia.*
- 2.2 *Guidelines on good practice when working with dyslexic individuals are provided to:*
 - *all staff, and*
 - *internal and external customers.*
- 2.3 *Written communications with customers (internal and external) conform to the BDA Dyslexia Friendly Style Guide.*

A copy is enclosed within these standards.
- 2.4 *Where forms are used these are available in different formats, e.g. electronically or assistance with the completion of the form(s) is provided.*
- 2.5 *Interactions with customers (internal and external) reflect an understanding of the potential needs of an individual who is dyslexic and are monitored for effectiveness.*

Standard Three: Communication

- 3.1 *Communications meet BDA Dyslexia Friendly Style Guide Standards e.g. size of font, colour of paper, use of plain English, presentation style. A copy is enclosed with these standards.*
- 3.2 *Processes are in place for quality checking communication materials.*
- 3.3 *Communications guidelines are circulated to all personnel.*
- 3.4 *Where form filling is required such forms are available in different formats, e.g. electronically or other assistance to be available if required.*
- 3.5 *Website design follows dyslexia friendly style guide principles. A copy is enclosed within these standards.*
- 3.6 *Signage is accessible, e.g. use of symbols & colour as well as words.*

Standard Four: Training

- 4.1 *A programme of dyslexia awareness raising is available for all personnel.*
- 4.2 *There are individuals within the organisation who have achieved OCN Level 2 Dyslexia Awareness or its equivalent.*
- 4.3 *In-house training is delivered in a dyslexia friendly style.*
- 4.4 *External providers of training deliver the training in a dyslexia friendly style.*

Standard Five: Partnerships

- 5.1 *The organisation, where possible, works with relevant partners associated with the support of dyslexic individuals.*

Standard Six: Employment

- 6.1 *Recruitment practice: Application procedures and systems conform to communications guide (please refer to the BDA Dyslexia Friendly Style Guide) and the BDA Code of Practice for Employers (please refer to BDA website www.bdadyslexia.org.uk).*
 - Interview location and practice proactively supports the needs of the dyslexic interviewee and interviewers.
 - Where tests are administered as part of the recruitment process reasonable adjustments are made available to facilitate access for dyslexic candidates where appropriate.
- 6.2 *All staff are aware of the Equality Act 2010 and its implications.*
- 6.3 *The organisation accesses screening and/or assessments for dyslexia when required.*
- 6.4 *The organisation accesses work based assessments for reasonable adjustments when required.*
- 6.5 *Reasonable adjustments are implemented and monitored for effectiveness appropriately.*

6.6 *Appraisals and performance reviews are implemented with due regard for the needs of the dyslexic employee.*

The BDA Code of Practice for Employers is a valuable document, but after a positive start, the code is designed around minimising difficulties, making appropriate accommodations, and showing awareness of potential problems. Consequently, it may be seen that the quality mark requirements focus around “dyslexia as a disability”, with no awareness of the importance of the positive dyslexia agenda for managing the talents of the workforce such that each employee is able to develop and use their distinctive strengths.

There have been several valuable statements of good practice for dyslexia in the workplace, which have informed the development of approaches such as the BDA Quality Mark. However, one of the most surprising aspects of the research to date on identifying good practice for dyslexic employees is that there are few studies that have derived empirical evidence from dyslexic employees as to their views of how they could be empowered to work to the best of their abilities.

Bartlett et al. (2010) mentions that there is a difference between dyslexic individuals who have been diagnosed from an early age and those who still have little or no information about this learning disability. The former are usually fully aware of their difficulties and already have set strategies to overcome specific weaknesses. The latter, on the other hand, may struggle to understand why difficulties may arise and how to ask for assistance from colleagues or from human resources departments in the work place. Such unresolved difficulties may further be seen by the employer as inefficiency, lack of motivation and laziness, which can lead to demotion or dismissal.

Sumner (2012) described the importance of an approachable and open way in which organisations must function when dealing with dyslexic individuals. This influences the efficiency in the company as well as the well being of its staff. It is important to run a structured and standardized procedure where individuals feel comfortable about disclosing their learning disability, asking for support, discussing their weaknesses and undergoing various strategies to improve their strengths.

According to Moody (2015), the reason why dyslexic individuals prefer to be discrete when it comes to disclosure is extremely understandable. The majority have been bullied, ridiculed, diminished and embarrassed by individuals who hold no knowledge about dyslexia. However, all of these variables influence how they present themselves nowadays. Therefore, they may feel reserved and fearful of disclosing this important information to organisations. Moody (2015) states that because of all of this prejudice and lack of knowledge from many employers and society at large, it may be very challenging for a dyslexic individual to disclose their

learning disability and this may even take years. Some individuals may have further reasons for deciding not to disclose their dyslexia, some may have already built a set of coping strategies to perform better without any extra support, some prefer to maintain this personal information as confidential, some worry about the lack of knowledge about dyslexia and how their learning disability may be interpreted by others. The potential that this could result even in a slight discrimination against them and others may result in their preference to not to be “labelled” as dyslexic. Whilst many companies may not have enough knowledge about dyslexia, but those that do, may be aware that once you detect an employee who is dyslexic, you can generate a much higher efficacy, creativity and overall results for the company by drawing on their unique talents.

Based on all of the findings exposed in this thesis, it is more than clear why companies should find disclosure to be an important matter. Apart from all of the benefits of having a dyslexic employee, there is also the added benefit of helping employees with eventual anxieties that may arise due to underperformance and struggles in specific tasks, adjustments, job crafting and specific support to be given, increase of overall knowledge about this learning disability, raise awareness and encourage more people to talk about it. A sense of confidence may develop in growing numbers when others are known to have already raised and engaged in a discussion about their dyslexia. This factor is so crucial that in this last study, many of the results related to the sample who belong to companies in which a senior employee has disclosed his/her dyslexia to the company (these results will be discussed in more depth in this section) (Moody, 2015; Nicolson, 2015).

Although a lack of disclosure from dyslexic individuals in the workplace is very common, due to the various reason noted above, West (1992) shows that there is a significant relationship between dyslexia and specific job performance enhancements, which involves creative skills among a range of other areas, such as mathematics, physics, chemistry and engineering. However, a more challenging aspect also exists when presented with conventional tasks, and this can be reduced with the right support. The findings supported this idea by showing a positive significant relationship between the disclosures of dyslexic senior workers and the belief that dyslexia helps them to perform well in specific jobs. 84.61% of the participants who belonged to the SED group completely agreed that having dyslexia would help their performance for specific activities.

Sauter & McPeck (1993) stated, “myths about dyslexia are the greatest workplace barrier of all” (p.277), which, clearly contributes to a greater avoidance of disclosure. However, it is important to understand the cause of this and work to reverse the current scenario in order to provide the best working environment for

dyslexic individuals, whilst taking advantage of their talents and unique skills. Once the majority of employers are better informed about dyslexia and companies truly believe in the heightened potential of dyslexic individuals, the theories associated with positive dyslexia can more easily and more fully be put into practice resulting in organisations that are more productive.

The whole system tends to be more flexible with the circumstances of dyslexic individuals in order to maximize their performance through a supportive environment. The availability of the current support given in the workplace is very little according to Bartlett et al. (2010) and as reinforced by Study 3 of this thesis. Comprehensive and empathetic professors and tutors will quickly be substituted by managers and directors who will be constantly asking for high performance and results. Also, the awareness from work colleagues is often smaller compared to those at college, so the support from peers is also a factor which changes depending on the environment.

Sumner (2012) explained the importance of disclosure both for the employee as well as for the company. An exploration of the variables noted earlier in this section, provide some reasons as to why dyslexic individuals may find it challenging to disclose their learning disabilities to their employers. One of the most effective strategies for promoting fearless disclosure is to stimulate senior employees who are dyslexic, to talk about this and make their dyslexia to be known as a public and positive factor for the organisation.

Therefore, following a careful analysis of Study 3, it was thought that a further quantitative study was essential for understanding the position of dyslexic individuals at the workplace, with a view to establishing the views of the dyslexic workers on the issue of managing their talents, and following up on the previous study, to address the issue of disclosure, the need to raise awareness of the learning disability with its associated challenges and opportunities. A 56-item questionnaire was therefore developed for dyslexic adults (with separate versions for students, unemployed adults and employed adults). Following background questions, each questionnaire addressed four issues: those relating to job application; job satisfaction; dyslexia awareness; and potential positive factors in the workplace environment.

6.2 Method

6.2.1 Aims and Objectives

To undertake a quantitative study in order to:

1. Establish quantitative data relating to job recruitment; job satisfaction; dyslexia awareness; and potential positive factors in the workplace environment for dyslexic adults

2. Analyse the preferences and behaviours of professional dyslexic individuals in relation to disclosing dyslexia;
3. Analyse the importance of senior dyslexic worker's disclosure at the workplace and compare with those who do not belong to a company who a senior dyslexic worker has disclosed his/her learning disability to the company;
4. Compare dyslexic students with professionals and their feelings towards disclosure at the workplace;

These aims and objectives lead to the following hypotheses, noted below.

6.2.2 Hypotheses

- (1) *Dyslexic individuals who belong to a company in which a senior dyslexic has disclosed his/her learning disability will give more positive ratings for disclosure at the workplace. It is expected that individuals who have worked or work for companies who have already had a "pilot experience" with a dyslexic before and have seen the benefits that proper adjustments can bring to the business are more likely to be more positive and accepting towards dyslexia disclosure and its awareness in the workplace.*

The null hypothesis holds that dyslexic individuals who belong to a company in which a dyslexic employee in a senior position has previously disclosed his/her learning disability, will not demonstrate a more positive rating for disclosure in the workplace than those companies in which such a disclosure has not taken place

- (2) *Dyslexic students will have a more "dyslexia-positive" view towards the workplace in comparison to dyslexic workers.*

It is expected that students are yet to experience the workplace environment; therefore it is reasonable to think that dyslexic students would have a more positive view towards how the workforce may perceive their dyslexia. The null hypothesis holds that dyslexic students will not have a more "dyslexia" positive view towards the workplace, when compared to professionals

6.2.3 Ethics Approval

The present fourth study received the approval from the Ethics Committee of the Psychology Department at the University of Sheffield. An information sheet was provided on-line to all invited participants explaining the purpose of the study and including some background information from previous research in the field. Participants were then required to sign an electronic consent (on-line) in order to participate in this research and continue with the questionnaire. Confidentiality was

guaranteed to all of the study participants and the anonymity of the responses were maintained. The data collected was only made accessible to the research author supervisor.

6.2.4 Participants

Since the participants for Study 4 were dyslexic individuals who were either currently employed or were about to enter the workforce, for the purpose of this study the questionnaire was distributed to both university students and working professionals. The reason for including both samples was to enable an investigation of the afore-mentioned variables that present a “before and after” employment scenario. In other words, the hope was to gain an understanding of the perspective of a dyslexic individual about dyslexia, both prior to their entry into to the workplace, and following an employment experience, in order to ascertain the reactions and experiences related to learning disability.

A total of 114 individuals participated in the study, of which 34 participants were students (29.82% of the total) and 80 were professionals only (not students), 70.18% of the total. Due to the length of the questionnaire (56 questions overall) there was a drop-out rate of 20.34% with the first question receiving 118 respondents, and the last one only 94. Aside from its length, the questionnaire included an extent of open questions, which could also impact the drop-out rate.

6.2.5 Questionnaire Design

McLoughlin & Leather (2009) have stated that dyslexia is not a learning disability that “fades away” after childhood, but is present throughout the life of an individual. It is crucial then that they can access adequate support during all stages of life in order to develop, maintain and contribute their positive qualities and capacities.

McLoughlin & Leather (2009) have further shared that in order to receive adjustments and accommodations, it is expected that dyslexic individuals will disclose their disability. They have a legislative protection, which obliges organisations to provide support and if they fail to do so they may face Courts and Tribunals.

Develop Human Resources approaches: This is one of the biggest challenges in the transition towards dyslexic inclusion. HR management will be the strongest and most immediate link between management and dyslexic employees. They have the responsibility for ensuring that managers understand the benefits of having dyslexic individuals in the team, as well as providing the necessary accommodations and adjustments to dyslexic individuals so that they can achieve to the best of their ability in their given tasks / work (McLoughlin & Leather, 2009; Nicolson, 2015).

As previously explained in this section, the Disability Act protects individuals

with dyslexia when applying for jobs and receive assurance that the necessary support can be provided. Some companies believe in the importance of adhering to this and contribute to this obligation further by raising awareness about dyslexia through the distribution of information on the company intranet and by providing guidance to employees. The Human Resources department (with Occupational Health) are together responsible for sharing this knowledge to the other employees and also providing all the necessary adjustments and accommodations to the dyslexic workers (McLoughlin & Leather, 2009).

As previously shown in the literature review (Chapter 1), McLoughlin & Leather (2009) discussed that one of the “big steps” to dyslexic inclusion at the workplace is to “re-create the personnel”. Nicolson (2015) also stated the importance of appropriate adjustments and accommodation to dyslexic workers in order to achieve their maximum performance. In Study 3, 20 different companies were interviewed in order to understand their perspective towards dyslexic workers/applicants. From this interview process it was concluded that companies still lack any knowledge of Positive Dyslexia and how this learning disability can bring a positive difference and change to companies. Therefore, the design of the questionnaire for Study 4 was based on previous literature about dyslexia in the workplace, the workplace practice regarding dyslexia presented in this thesis, plus the findings of the qualitative research of Study 3.

6.2.6 Procedure

For the student sample, the 42-item questionnaire was distributed through the DDSS (Disability and Dyslexia Support Service) and only University of Sheffield students participated in this study. For dyslexic workers, the BDA (British Dyslexia Association) issued a magazine advertising the study for those who would be interested in participating.

A total of 114 participants accepted to participate in the study. 34 participants were dyslexic students and 80 were dyslexic workers. They were all provided with the full questionnaire.

6.3 Results

Similar to Study 1, all of the data from Study 4 was received through Qualtrics, and then imported into an excel spreadsheet in order to analyse the results. As previously mentioned, the whole questionnaire had 56 items, comprising 43 closed questions and 13 that were open. Among the 43, some of them also included an option for free text input, though not all participants used this opportunity.

6.3.1 Descriptive Analysis

Age

14.63% of the participants were aged between 20-25 years old. 17.80% were aged between 26-30 years old. 16.26% of the participants were aged between 31-35 years old. Participants aged 36-40 years represented 13.01% and participants aged 41-50 years old represented the majority with 25.20%. Finally there were 13.01% of those 50 years and above.

Disclosing Dyslexia

Participants were asked if they would mention their disability when applying for jobs. 23.48% (27 participants) stated that they would “definitely” disclose their dyslexia, 7.83% stated that they would “probably” disclose it (9 participants), 17.39% may or may not disclose it (20 participants). 27.83% (32 participants) stated that they would “probably not” disclose their dyslexia and finally 23.48% (27 participants) said they would “definitely not” share this information.

Employment

64.91% of the participants (74 participants) were currently employed/active in the workplace, while 35.09% (40 participants) were not employed.

29.82% of the participants (34 participants) were active students when they undertook this study, while 70.18% (80 participants) were not students.

For those who were currently working, 65% (39 participants) were employed by the company for 1-5 years, 13.33% (8 participants) were employed between 6-10 years as were those who were employed for 11-15 years. Finally, 8.33% (5 participants) were in the same company for over 15 years.

Regarding happiness, 55% (33 participants) described themselves as happy with their job, 31.67% (19 participants) were more or less satisfied and 13.33% (8 participants) were unhappy with their current job.

Interestingly, 40.51% (32 participants) were currently looking for another job, while 59.49% (47 participants) were not. Among the reasons given for exploring alternative employment were:

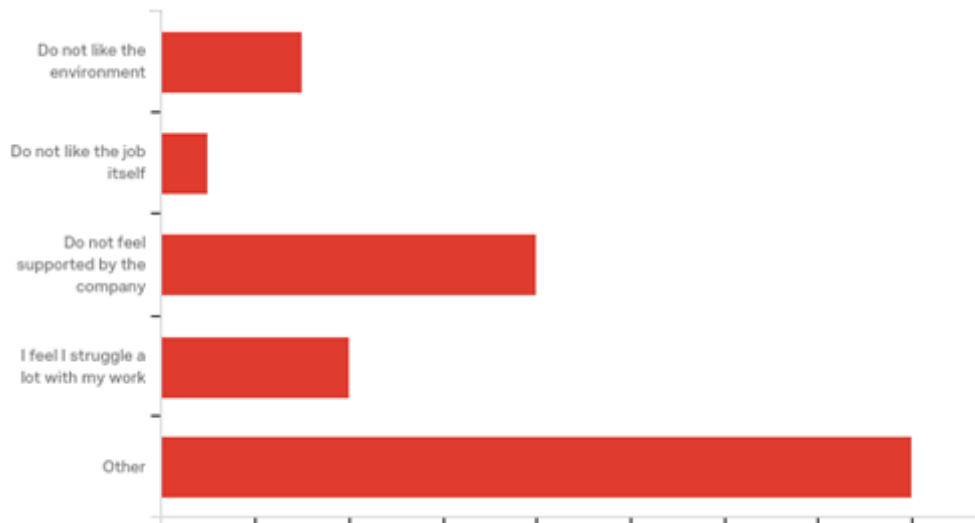


Figure 6.1: Employment status across participants.

9.38% (3 participants) did not like the environment, 3.13% (1 participant) did not like the job itself, 25% (8 participants) did not feel supported by the company, 12.5% (4 participants) felt that they struggle a lot with their work and 50% (16 participants) marked the alternative “others”, which involved dissatisfactions due to unpaid jobs, casual contract work, self-employed, not happy with the salary, no support for dyslexia even though the company is aware, have spelling and reading difficulties, would like more hours of work (from part-time to full-time), looking to further career.

Another interesting finding was that 36.71% (29 participants) who were already professionals would disclose dyslexia in an application form, 24.05% (19 participants) were unsure and would may disclose it or not, while 39.24% (31 participants) would not share it with the company.

An unexpected finding from the dyslexic participants who were professionals was that 48.05% (37 participants) stated that their boss or the Human Resources department definitely knew about their dyslexia. 15.58% (12 participants) mentioned that they probably knew about their disability, while 7.79% (6 participants) were unsure if people in the workplace knew about their dyslexia. 15.58% (12 participants) stated that HR or their bosses would probably have no knowledge about it and 12.99% (10 participants) were sure that their disability was not known by the company.

Only 3.9% (3 participants) were offered a special recruitment procedure when applying for their jobs, while 96.10% (74 participants) were not. Such a finding is indeed controversial if we take into consideration that almost 50% of those dyslexic individuals who are currently working were sure that their employers were aware

of their disability and less than 4% were offered a special recruitment procedure. This percentage increased a little when dyslexic participants who were professionals were asked if their employer provided any kind of support for them. 16.88% (13 participants) stated that they had, while 83.12% (64 participants) stated that no support was given. In the following question, they were asked if any specific dyslexic support was provided by the company. 11.69% (9 participants) stated that their companies did provide it for them, while a big percentage of 88.31% (68 participants) mentioned that no specific support was given or offered.

Again, although the analysis shows that some dyslexic individuals made their dyslexia known to the company only after being hired, there is still a large difference in numbers when between this and the percentage that were sure that their employer was aware of their dyslexia (aside from those who stated that their boss/HR probably knew about it) and the support they receive as a dyslexic employee.

Selection Process

In order to further understand a useful and constructive direction that could be aimed for in relation to the selection process and dyslexia, participants were asked how the process could be changed and improved to better reflect the talents of dyslexic individuals. When comparing the student and professional samples, 81.81% (27 respondents) of the student stated that they could show their strengths better if specific support was offered for their dyslexia, against 63.88% (46 respondents) from the professional sample. 18.18% (6) respondents from the student sample stated that they would not show their strengths better if they had support focussing on their dyslexia, against 36.11% (26 respondents) from the professional sample.

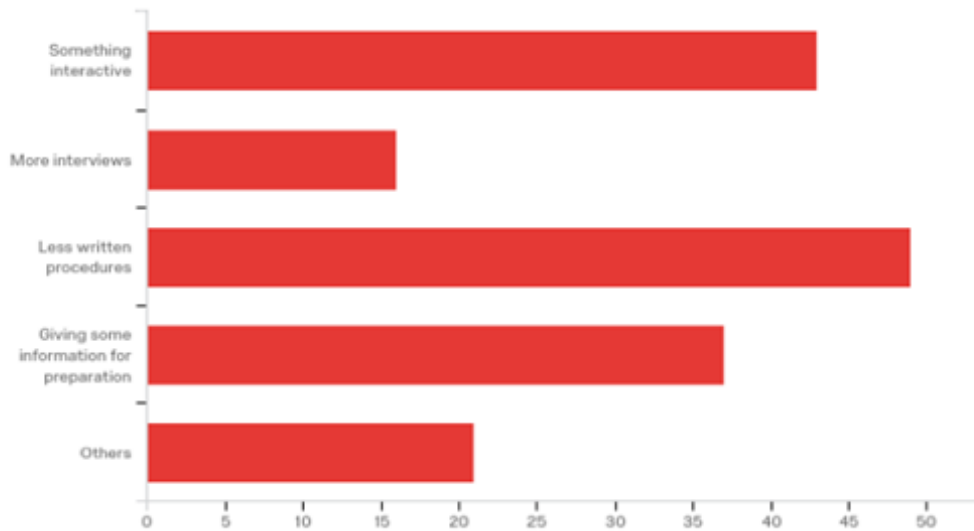


Figure 6.2: Selection process perception by participants.

Figure 6.2 shows that 40.95% (43 participants) believed that an interactive measure could be useful, 15.24% (16 participants) suggested the need for more interviews, and 46.67% (49 participants) stated that the reduction of written procedures would certainly be more helpful for dyslexic applicants. 35.24% (37 participants) suggested that receiving information to assist in their preparation could be helpful during the application process, and 20% (21 participants) offered other suggestions, such as the use of colour awareness, the pace of the interviews (rephrasing questions/using scenario based questions when necessary), employees being consciousness that dyslexia need not be viewed as negative, the creation of a more friendly environment, and the provision of extra time and assistance for reading tasks. Another topic that emerged from the suggestion given by a few of the participants that the applicants should know their own strengths and weaknesses in order to face their responsibility in asking for the support that they believe will enable them to perform their tasks and be most productive.

Comparing both samples of students and professionals, 51.51% (33 participants) from the student sample and 36.11% (26 participants) from the professional sample believed that the inclusion of a more interactive element could be beneficial, 15.15% (5 participants) from the student sample and 15.27% (11 participants) from the professional group suggested the need for more interviews, and 39.39% (13 participants) of the student group and 50% (36 participants) of the professionals stated that fewer written procedures would certainly be more helpful for dyslexic applicants. 39.39% (13 participants) from the student sample and 33.33% (24 participants) from the professional sample suggested that the provision of information

for advance preparation could be helpful during the process, and 24.24% (8 participants) from the student group and 18% (13 participants) from the professional sample shared other suggestions.

In order to analyse how they felt about being dyslexic, a question was asked about how they would react if they saw a job advert specifically for “dyslexic people”.

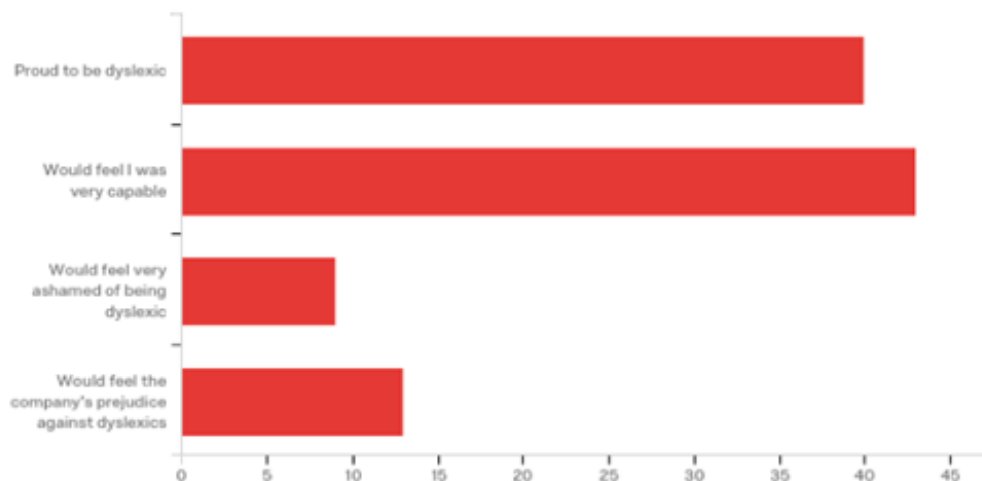


Figure 6.3: Job Advert.

38.10% (40 participant) shared that they would feel proud to be dyslexic, 40.95% (43 participants) shared that they would feel they were very capable, 8.57% (9 participants) stated they would feel ashamed of being dyslexic and 12.38% (13 participants) would feel the company’s prejudice against dyslexic employees.

By comparing the students and professional samples, it was found that 27.27% (9 participant) of the student group and 43.05% (31 participants) of the professional group shared that they would feel proud to be dyslexic, 39.39% (13 participants) of the student sample and 41.66% (30 participants) of the professional sample would feel they were very capable, 21.21% (7 participants) of the student group and 2.77% (2 participants) of the professional group stated they would feel ashamed of being dyslexic and 12.12% (4 participants) of the student sample and 12.5% (9 participants) of the professional group would feel the company’s prejudice against dyslexic employees.

Another issue that was raised was in relation to how a dyslexic individual may feel if competing for a job against a non-dyslexic candidate.

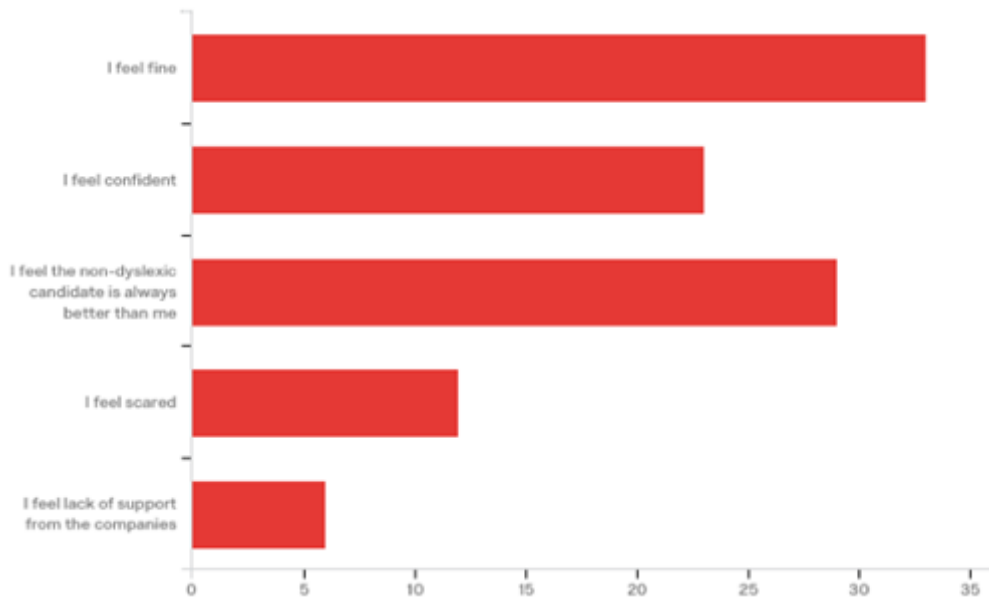


Figure 6.4: Competition against non-dyslexic candidate.

32.04% (33 respondents) declared that they would feel fine, 22.33% (23 respondents) would feel confident. Contrarily, 28.16% (29 respondents) stated that they would feel that the non-dyslexic candidate is always better than them, 11.65% (12 respondents) would feel scared and 5.83% (6 respondents) stated that they would feel the lack of support from the companies in this matter. A comparison of the sum of positive reactions (54.37%) against more negative ones (45.64%), shows that there are some improvements from certain perspectives.

Comparing both samples, 32.25% (10 participants) of the student group and 31.94% (23 participants) of the professional group declared they would feel fine, 19.35% (6 respondents) of the student group and 23.16% (17 participants) of the professional sample would feel confident. 25.80% (8 respondents) of the student group and 29.16% (21 respondents) of the professional group stated that they would feel that the non-dyslexic candidate would always be better than them, 16.12% (5 respondents) of the student sample and 9.72% (7 participants) of the professional sample would feel scared. 6.45% (2 respondents) of the student group and 5.55% (4 participants) of the professional group stated that they would feel the lack of support from companies in this matter.

The results are yet to manifest the ideal scenario where all dyslexic individuals, or at least a high percentage are aware of and believe in their strengths and qualities. Notwithstanding this, more than half of the participants cited that they are proud to be dyslexic, and they that they believe they can make a difference to their companies, and that their dyslexia does not affect them negatively. As such, it

would seem that some forward progress is certainly being made.

The next question contributed to a raised understanding of the previous results. Participants were asked how they think employers and companies would see dyslexia.

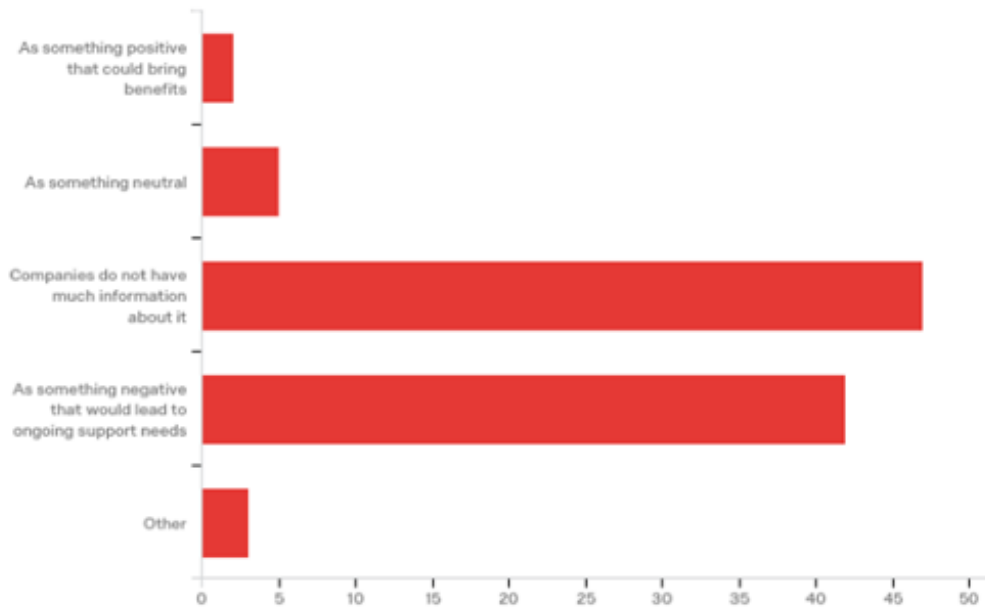


Figure 6.5: Perception of Dyslexia.

Only 2% (2 participants) felt that this would be considered as something positive that could bring benefits, 5.05% (5 participants) believed this to have a neutral impact, 47.47% (47 participants) answered that companies do not have much information about dyslexia, 42.42% (42 participants) believed that it would be viewed as something negative that would lead to constant support and a further other 3.03% (3 participants) answered it as being an excuse for not being intelligent and that companies have no knowledge about it.

Comparing both samples, none of the student sample and 2.89% (2 participants) of the professional group believed that employers see dyslexia as something positive that could bring benefits, 6.66% (2 participants) of the student sample and 4.34% (3 participants) of the professional group believed the impact of this to be neutral, 46.66% (14 participants) of the student group and 47.82% (33 participants) of the professional sample answered that companies do not have much information about it, 43.33% (13 participants) of the student group and 42.02% (29 participants) of the professional group believed that it would be viewed as something negative that would lead to constant support and 3.33% (1 participant) of the student sample and 2.89% (2 participants) of the professional sample answered with

other responses.

It can thus be seen that there is a sense of positive development in the internal perception of dyslexic individuals. A good number are aware of their capabilities, and conscious of having unique skills, and that they just have to manage and overcome a few weaknesses. The more negative perspective is presented by external sources (e.g. companies and employers), but from dyslexic individuals' point of view, which will lead to the vicious circle previously mentioned (company has no knowledge → dyslexic does not disclose information/does not ask for help → nothing changes). As we can see from the next question, dyslexic individuals were asked if they would prefer not to disclose their learning disability if the company had a negative view on dyslexia.

Induction Process

Participants were also asked what, from their perspective, would be a dyslexia-friendly induction process in order to help them:

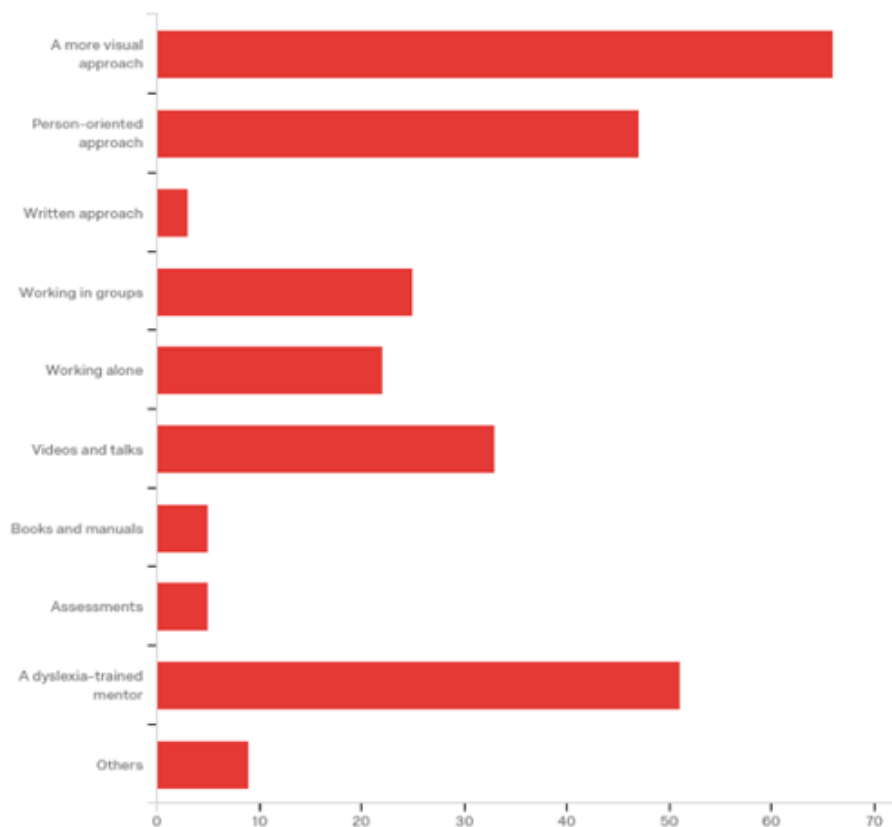


Figure 6.6: Ideas from dyslexic individuals for a dyslexia-friendly induction process.

67.35% (66 participants) asked for a more visual approach, 47.96% (47 participants) mentioned a more person-oriented approach, 25.51% (25 participants)

believed that working in groups could be beneficial, while 22.45% (23 participants) thought that working alone would be better. Only 3.06% (3 participants) would like to see a written approach, 33.67% (33 participants) would like to have videos and talks, 52.04% (51 participants) asked for a dyslexia-trained mentor and 5.10% (5 participants) asked for books, manuals and assessments. 9.18% (9 participants) selected the option for others, which includes the need for advance information in order to be prepared, requests for improved awareness of dyslexia in companies, increased training and easy-to-follow diagrams, and for dyslexia-friendly writing, formatting and colour awareness.

Comparing both groups, the benefit of a visual approach was selected by 60% (18 participants) of the student sample and 69.56% (48 participants) of the professional sample. 43.33% (13 participants) of the student sample and 49.27% (34 participants) of the professional group would like a more person-oriented approach. Using a written approach received a low score from both groups, 0% from the student group and 4.34% (3 participants) from the professional sample. 26.66% (8 participants) of the student sample and 24.63% (17 participants) of the professional group believed that working in groups could be beneficial, while 23.33% (7 participants) of the student sample and 23.18% (16 participants) of the professional group thought that working alone would be better. 50% (15 participants) of the student sample would like to have more videos compared to only 26.08% (18 participants) from the professional sample. The provision of books, manuals and assessments did not receive many votes, with only 6.66% (2 participants) of the student sample and 4.34% (3 participants) of the professional group considering this to be useful. 60% (18 participants) of the student sample and 47.82% (33 participants) of the professional group asked for a dyslexia-trained mentor.

Participants were asked what they thought about advertising specific careers for dyslexic people. 51.04% (49 participants) felt that specific careers would help their talents to flourish, 22.92% (22 participants) felt that the adaptation process would be better, and 13.54% (13 participants) stated that it would be more productive to be only given duties that they have mastered. The other 12.5% would like to be using more of their strengths for the right career, would like to gain a greater awareness of their qualities, and also believe that accommodations could help them to perform better. All of these would not only lead to a better performance, but also increase their confidence and ability to contribute towards a professional path.

Strengths in Dyslexia

In order to understand a little more about the feelings and perceptions of dyslexic individuals in relation to accommodations, changes of tasks and the impact of this on their confidence, the following scenario was considered. They were asked to

reflect on a scenario where their employer knew they had dyslexia and they were having problems with written reports. They were then asked how they would feel if their written duties were transferred to another colleague in exchange for other duties in which they had greater interest or which drew on their capacities, such as teamwork or giving presentations, among others.

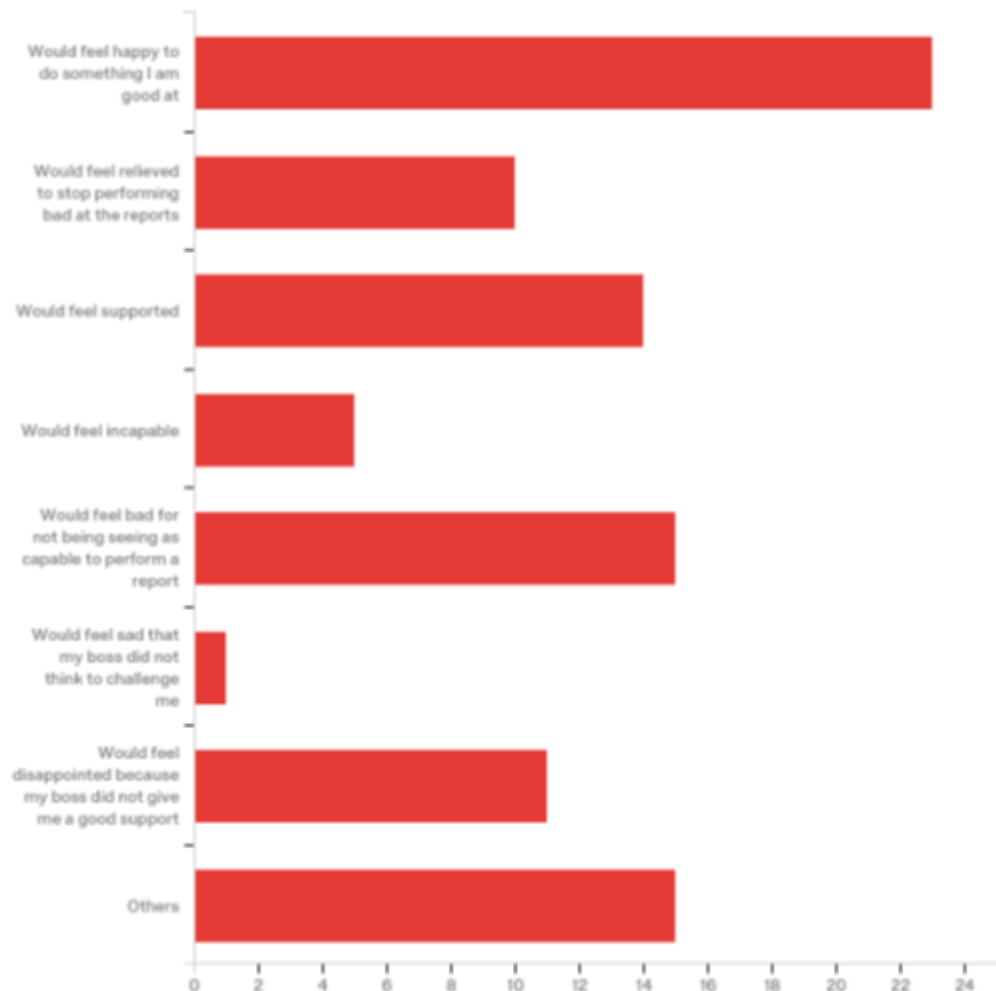


Figure 6.7: Perception of change of duties.

The findings show that 24.47% (23 participants) of the participants would feel happy to do something they were good at. 10.64% (10 participants) would feel relieved to stop performing badly at reports. 14.89% (14 participants) would feel supported. 5.32% (6 participants) would feel incapable. 15.96% (15 participants) would feel bad for not being seeing as capable to perform a report. 1.06% (1 participant) would feel sad, because their boss did not think to challenge them. 11.70% (11 participants) would feel disappointed because would their boss do not

offer them good support and 15.96% (15 participants) marked others, the answers to which included that they would prefer to do it themselves but have it reviewed by another person, they would like to use a software that helps them with written reports, they could be included as part of a team that undertakes the report or they would feel a sense of failure by not doing it.

A comparison between both groups can be found at Table 6.1.

Perception of change of duties - Students Vs. Professionals		
	Students	Professional
Would feel happy to do something I am good at	21.42% (6 participants)	25.37% (17 participants)
Would feel relieved to stop performing bad at the reports	3.57% (1 participant)	13.43% (9 participants)
Would feel supported	17.85% (5 participants)	13.43% (9 participants)
Would feel incapable	7.14% (2 participants)	5.97% (4 participants)
Would feel bad for not being seen as capable to perform a report	10.71% (3 participants)	17.91% (12 participants)
Would feel sad that my boss did not think to challenge me	3.57% (1 participant)	0%
Would feel disappointed because my boss did not give me a good support	14.28% (4 participants)	10.44% (7 participants)
Others	21.42% (6 participants)	13.43% (9 participants)

Table 6.1: Perception of change of duties.

Disclosing Dyslexia

A further measure that was determined was related to how participants would feel if their dyslexia was disclosed to the whole company.

9.57% (9 participants) stated that they would feel insecure, 44.68% (42 participants) were unsure of how people would interpret it, 4.26% (4 participants) would try to build confidence again (just like in school), 7.45% (7 participants) would feel confident and 34.04% (32 participants) would be happy to show colleagues what they are capable of.

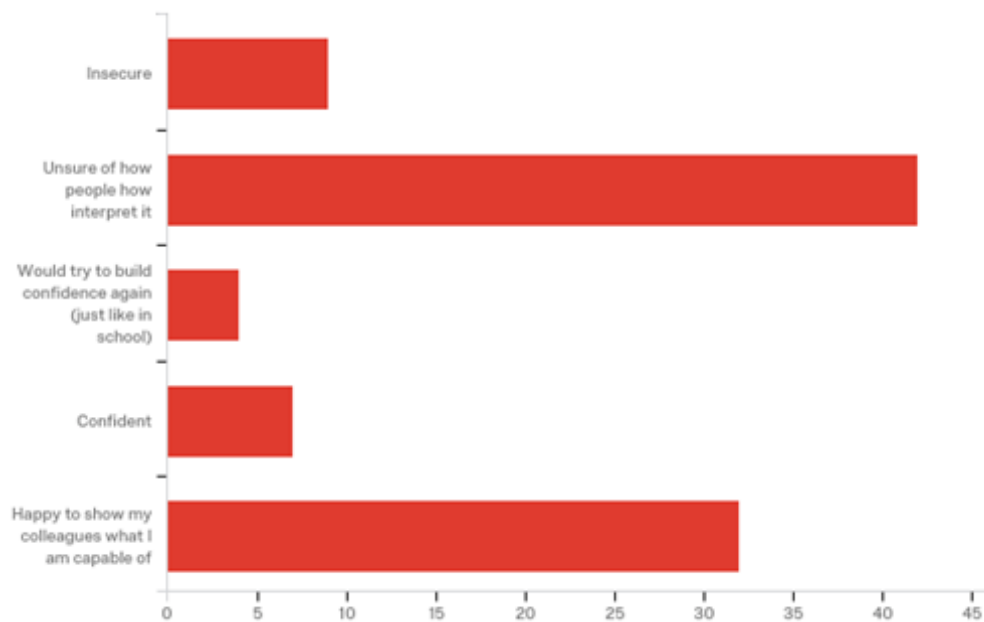


Figure 6.8: Disclosure to the entire company.

A comparison between both groups can be found at Table 6.2.

Disclosure to the entire company - Students Vs. Professionals

	Students	Professional
Insecure	18.51% (5 participants)	5.97% (4 participants)
Insecure of how people would interpret it	48.14% (participants)	43.28% (29 participants)
Would try to build confidence again (just like in school)	7.40% (2 participants)	2.98% (2 participants)
Confident	3.70% (1 participant)	8.95% (6 participants)
Happy to show my colleagues what I am capable of	22.22% (6 participants)	38.80% (26 participants)

Table 6.2: Disclosure to the entire company.

Another scenario presented to the participants was that if the same scenario was applied and the company had a “take” on dyslexia.

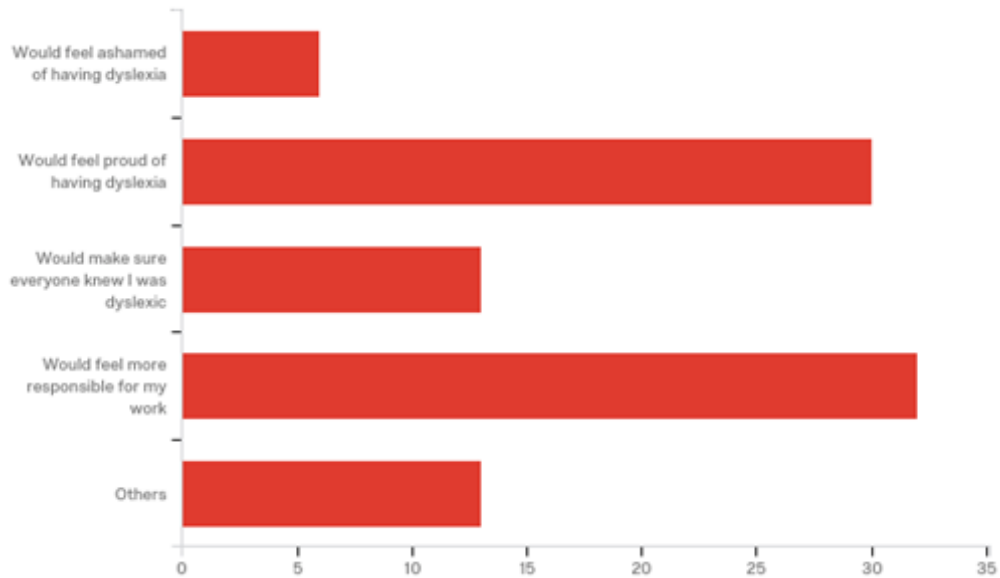


Figure 6.9: Disclosure to the entire company in a positive environment.

6.38% (6 participants) would feel ashamed of having dyslexia, 31.91% (30 participants) would feel proud of having dyslexia, 13.83% (13 participants) would make sure everyone knew they were dyslexic, 34.04% (32 participants) would feel more responsible for their work and the other 13.83% (13 participants) offered other reasons.

A comparison between both groups can be found at Table 6.3.

Disclosure to the entire company "take on dyslexia" - Students Vs. Professionals		
	Students	Professional
Would feel ashamed of having dyslexia	14.81% (4 participants)	2.98% (2 participants)
Would feel proud of having dyslexia	25.92% (7 participants)	34.32% (23 participants)
Would make sure everyone knew I was dyslexic	14.81% (4 participants)	13.43% (9 participants)
Would feel more responsible for my work	33.33% (9 participant)	34.32% (23 participants)
Others	11.11% (3 participants)	14.92% (10 participants)

Table 6.3: Disclosure to the entire company "take on dyslexia".

Further to a consideration of some previous experiences, the current study enquired from the participants whether they are aware of any senior employees in their organisation ever disclosing their dyslexia. 13.83% (13 participants) said yes and the majority of 86.17% (81 employees) stated that they have never seen this occur in their organisation.

Differences between students and workers

Differences were found between the dyslexic students and the dyslexic workers. In the student sample, 82.35% (28 participants) thought they could show more of their qualities and strengths if the company could give better dyslexia-focused support to them, while 17.64% (6 participants) believed that they could not. In the professional group, only 63.88% (46 participants) thought that they could show more of their strengths and qualities in a company which offers dyslexia-focused support.

Disclosure of dyslexia by senior manager

The effect of disclosure of his/her dyslexia by a senior manager in the organisation was investigated by splitting the participants into two groups depending upon their answer to this question.

Table 6.4 suggested interesting results from the samples of dyslexic individuals who have been part of organisations in which senior employees have disclosed their disability, and those for whom dyslexia was not disclosed by senior employees in their work settings. The first variable was regarding the awareness of the Human Resources departments of their companies about their dyslexia.

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
Does your boss or the HR in your company (or previous employer) know about your dyslexia?	Definitely yes	7 (100%)	27 (45%)	34
	Probably yes	0	9 (15%)	9
	Might or might not	0	5 (8.33%)	5
	Probably not	0	10 (16.66%)	10
	Definitely not	0	9 (15%)	9
Total		7 (100%)	60 (100%)	67

Table 6.4: Percentage of senior dyslexic's disclosure Vs. HR knowledge about dyslexia cases.

The next variables showed the support given by the company to employees. 7 dyslexic individuals were from companies in which senior employees have disclosed their dyslexia and 60 participants were from companies where no such disclosure had been made. From the "senior disclosure" group 5 of the 7 of said that their companies did provide them support Out of the 60 participants who belong to the other group, only 7 stated that there was support given by their company, while 53 out of 60 stated the opposite. Table 6.5 illustrates the detailed distribution of this variable.

Does the company or previous employer) provide any kind of support for you?		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
		Yes	No	
Yes	Yes	5 (71.42%)	7 (11.68%)	12
No	No	2 (28.57%)	53 (88.33%)	55
Total		7 (100%)	60 (100%)	67

Table 6.5: Dyslexia disclosure of other employees Vs. Company support.

For the following questions, more participants answered the questions, which resulted in different sample sizes compared to the previous ones. The first variable presented an enquiry into a scenario where a company has a negative view on dyslexia, and whether this would determine a preference towards not disclosing their learning disability. The total number of participants who answered this question was 94. 81 were from companies in which senior employees were never known to have disclosed their dyslexia. From this group, 26 stated that they definitely would prefer not to disclose their dyslexia, 20 said that they would probably prefer not to disclose it, 11 said that they might or might not be willing to disclose it, 13 felt that they would probably disclose it and 11 would definitely disclose it. From the other group, 13 were from companies in which a senior dyslexic was known to have disclosed their dyslexia. The results showed that 2 would probably prefer not to disclose their learning disability, 6 stated that they might or might not be willing to do so, 1 would probably disclose it and 4 of them stated that they would definitely disclose their dyslexia.

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
If you feel that the company has a negative view of dyslexia, would you prefer not disclose that you are dyslexic?	Definitely yes	0	26 (32%)	26
	Probably yes	2 (15.38%)	20 (24.69%)	22
	Might or might not	6 (46.15%)	11 (13.58%)	17
	Probably not	1 (7.69%)	13 (16%)	14
	Definitely not	4 (30.76%)	11 (13.58%)	15
Total		13 (100%)	81 (100%)	94

Table 6.6: Percentage of senior dyslexic's disclosure Vs. Disclosure with a negative view.

94 participants answered the next question, which asked: "If you were having a problem in the company, would it make a positive difference to acknowledge your dyslexia?" 81 out of the 94 were from companies that never had a senior disclosing their dyslexia. The findings showed that 20 of them stated that it would definitely make a positive difference to acknowledge their dyslexia, 24 said it would probably make a positive difference, 21 said that it might or might not make a difference, 13 of them said that it would probably not make a positive difference and 3 stated that it would definitely not make a difference. From those who belong to a company in which seniors have disclosed their dyslexia, 7 out of 13 stated that it would definitely make a positive difference to acknowledge their dyslexia if problems arise, 2 said that it would probably make a positive difference and 4 said they were in between yes or no.

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
If you were having a problem in the company, would it make a positive difference to acknowledge your dyslexia?	Definitely yes	7 (54%)	20 (25%)	27
	Probably yes	2 (15%)	24 (30%)	26
	Might or might not	4 (31%)	21 (26%)	25
	Probably not	0	13 (16%)	13
	Definitely not	0	3 (4%)	3
Total		13 (100%)	81 (100%)	94

Table 6.7: Percentage of senior dyslexic's disclosure Vs. Acknowledgement of dyslexia.

94 responses were received for the question, "Do you think that your dyslexia helps you to perform well in specific jobs?" from both groups - those who belonged to companies in which a senior employee had disclosed his/her dyslexia and those who had never known of a senior dyslexic employee disclosure. Table 6.8 illustrates the comparison between the two samples.

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
Do you think your dyslexia helps you to perform well in specific jobs?	Definitely yes	11 (84.61%)	54 (66.66%)	65
	Probably yes	2 (15.38%)	17 (20.98%)	19
	Might or might not	0	6 (7.40%)	6
	Probably not	0	3 (3.7%)	3
	Definitely not	0	1 (1.23%)	1
Total		13 (100%)	81 (100%)	94

Table 6.8: Percentage of senior dyslexic employees Vs. Dyslexia for specific jobs.

Table 6.9 presents the difference between these samples (employees belonging to companies in which a senior employee had disclosed his/her dyslexia and employees who are in companies where there has been no known case of a senior dyslexic employee disclosure). The findings include the proportion of participants who believed that it would make a difference to know their specific dyslexic strengths when deciding to explore a career path.

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
Would it make a difference to know your specific dyslexic strengths when deciding on a career?	Definitely yes	10 (76.92%)	49 (60.49%)	59
	Probably yes	3 (23.07%)	23 (28.39%)	26
	Might or might not	0	6 (7.40%)	6
	Probably not	0	2 (2.46%)	2
	Definitely not	0	1 (1.23%)	1
Total		13 (100%)	81 (100%)	94

Table 6.9: Percentage of senior dyslexic employees Vs. Specific dyslexic strengths for career decision.

Finally, it was found whether participants would mention their dyslexia when applying for jobs. 94 participants responded to this question, with 81 belonging to the sub-sample of dyslexic individuals from companies in which senior employees have disclosed their dyslexia. 15 out of 81 stated that they would definitely mention their dyslexia, 9 out of 81 mention that they would probably mention it, 15 stated that they may or may not mention it, 19 said they would probably not mention their dyslexia and 23 stated that they would definitely not mention their dyslexia when applying for jobs. A more positive view was presented for this variable from the other sub-sample of 13 individuals belonging to the group of employees from companies where seniors had disclosed their dyslexia. 7 out of 13 stated that they would definitely mention their dyslexia when applying for jobs, 3 of them shared that they may or may not do so and 3 would probably not mention their learning disability (see Table 6.10).

		Has any senior employee in your organisation ever said that he/she is dyslexic?		Total
		Yes	No	
When applying for jobs, do you (or would you) mention your dyslexia?	Definitely yes	7 (54%)	15 (19%)	22
	Probably yes	0	9 (11%)	9
	Might or might not	3 (23%)	15 (19%)	18
	Probably not	3 (23%)	19 (23%)	22
	Definitely not	0	23 (28%)	23
Total		13 (100%)	81 (100%)	94

Table 6.10: Percentage of senior dyslexic's disclosure Vs. Mentioning of Dyslexia when applying for jobs.

6.4 Discussion

Study 4 identified in the results that dyslexic individuals preferred more interactive recruitment processes, with the example of more interviews and less written tasks. Some dyslexics also felt that the selection process could be more beneficial to them if the information could be given in advance for personal preparation and organisation of ideas. Participants also showed that having a senior dyslexic already in the company makes the process more smooth and easier for new dyslexic employees by having a better acceptance and support by the employers. It is very important to add as well that having a senior dyslexic at the company also contributes for better talent identification and mentoring.

Two quantitative hypotheses were stated. I address them in turn. The first hypothesis was:

- (1) *Dyslexic individuals who belong to a company in which a senior dyslexic has disclosed his/her learning disability will give more positive ratings for disclosure at the workplace. Those who belonged to the SED group showed a significantly more open attitude towards disclosure when applying for a job position as well as a greatly increased sense of overall confidence. Significantly higher percentage from the SED group believed that disclosure to the company would have a positive impact if a dyslexic employee were facing problems. Also, those who belonged to the SED sample stated that they had greater support when compared to the NSED group.*

Hypothesis 1 was therefore supported. The second hypothesis was:

- (2) *Dyslexic students will have a more “dyslexia-positive” view towards the workplace by comparison with dyslexic workers*

In the descriptive analysis the comparison between students and workers, regarding disclosure to the whole company showed that dyslexic students tended to feel insecure and less confident compared with the participants who were dyslexic workers. Furthermore, only 63.88% of the non-student dyslexic group believed that they could show more of their qualities/strengths if some specific dyslexia support was provided, compared to 82.35% of the student sample. This suggests that the student sample were more optimistic as to the potential benefit for support - a “dyslexia-positive” view. However, if no specific support is provided, it may lead to a “dyslexia-negative” view.

This study was the final one undertaken for this thesis and its primary aims were to understand the preferences of dyslexic adults for how they might be supported - and how they might thrive - together with their emotions and feelings towards disclosure at the workplace. As has been hypothesized, it was expected that students would have a more positive view on how dyslexia is viewed at the workplace when compared to professionals. The second hypothesis of this final study was that dyslexic individuals who belong to a company where a senior employee had disclosed his/her dyslexia would give a more positive rating for disclosure at the workplace when compared to those who have not had this experience (of dyslexia disclosure) in their workplace.

One of the major findings from this study was the comparison of the samples between employees that belong to the “senior employee dyslexic” (SED group) and employees from companies which have had no experience of seniors (NSED group) disclosing their dyslexia. 100% of those who are part of the first group were definitely sure that their Human Resources department knew about their dyslexia, while only 45% of the second group was sure of this. Bartlett et al. (2010) emphasises the importance of disclosure as a means for the company to be able to anticipate any problems with the employee’s performance. By promoting awareness, it is possible to provide the right support for dyslexic employees at all stages (recruitment and selection, performance and appraisal, training and development).

From the results of this current thesis, the SED group once again described a much higher percentage of support from their companies (71.42%) by comparison with the NSED group (11.66%). As Bartlett et al. (2010) explained, possible adjustments for dyslexic individuals have to be analysed in order to guarantee that these will have constructive and positive results. They mention that sometimes accommodations may not be practical, or may not be very helpful for specific individuals

or cost-effective. It is also important to take into consideration in these percentages that disclosure, as seen in this section, is not something that is very common, which leads to a lack of support due to the lack of information. Viewing the whole scenario can lead us to believe that there are “small flaws” with a number of aspects of the process, such as the reluctance of dyslexic individuals in asking for support, and also the way in which companies do not create the most effective environment for those who would like to disclose their learning disability, to do so.

As explored in Study 3 of this thesis, dyslexic individuals still face a lot of ignorance in the workplace. (Bartlett et al., 2010) has mentioned a number of reasons why dyslexic employers withhold information about their dyslexia from Human Resources, with one of the fundamental reasons being the misunderstanding of others about their dyslexia. The results related to disclosure, even under a negative scenario (where an organisation may have a “bad view” on dyslexia) was very intriguing. 13.58% of the NSED group stated that they would still disclose their learning disability in such a scenario, while 31.0% of the SED group would disclose their dyslexia under the same situation. Such a finding leads us to believe that senior dyslexic employees may positively influence other dyslexic individuals by adding value to their dyslexia and disclosing it in a way that even companies who have no knowledge of dyslexia or may be prejudiced against it, will be able to see the enormous advantages of employing a dyslexic worker. Of particular focus may be their hidden talents, as mentioned in Study 3, and the likely expansion of positive results and outcomes for companies when the appropriate support is offered to dyslexic employees to draw out their gems (McLoughlin & Leather, 2009; Nicolson, 2015).

Another result related to their response as to whether an acknowledgement of their dyslexia when facing a problem, would make a positive difference to the company. Once more, differences were found between the two samples. 69.0% of the SED group believed that it would definitely or probably make a positive difference, while only 55% of the NSED group thought it would definitely or probably make a positive difference. Also, no one from the SED sample believed that acknowledging their dyslexia in this scenario would have any impact on a positive change. Such findings again corroborate the thinking that senior dyslexic individuals could be a crucial help for younger dyslexic individuals to disclose their learning disability with courage. The importance of disclosure from others in the workplace to stimulate the courage of disclosure has already been shown, but clearly, that alone and without the proper support mechanisms, would prove futile. This represents just the first step and the company should for instance be prepared to then consider a range of different scenarios in order to guarantee the maximum support for its employees. As has been explored in this thesis already, such a mechanism will not only benefit

the dyslexic workers, but also the company, since their employees will be enabled to perform more effectively with the appropriate accommodations and adjustments (Moody, 2015; Sumner, 2012).

In addition to the above, the study found a positive significance to senior disclosure and awareness of specific dyslexic strengths when deciding for a career. 76.92% of the participants who belonged to the SED group stated that knowledge of their dyslexic strengths would definitely make a difference for this purpose. This complements the above findings, reinforcing the fact that with the appropriate support and heightened awareness of dyslexic strengths by dyslexic individuals, they will be able to choose their career path more wisely, which may affect their future happiness within the workplace and their long-term high performance.

One of the final results showed that individuals from the SED group were more likely to mention their dyslexia when applying for jobs when compared to the NSED sample. Bartlett et al. (2010) discussed the importance of disclosure from the beginning. Noting that dyslexic individuals may need to hear the same question more than once, may need extra time to formulate answers, provide extra time in case there is a request to read a specific document. Also, it is important for the employer to be aware of how much dyslexia could be resulting in a specific fear or lack of confidence in dyslexic employees from showing their talents, experiences, expertise and intellect.

Interestingly, no one from the SED group would “definitely not” mention dyslexia when applying for a job, as opposed to the NSED group, in which 28.0% of the participants would definitely not disclose it in the first stages of a job application. This is another finding that further indicates that there is a very valuable and important result regarding senior dyslexic individuals disclosing their dyslexia and how it may affect younger workers.

Finally, our last result from this study used a different sample, that of students and non-students and explored their perspective on showing more of their strengths and qualities if the company could provide better support focused on their dyslexia. 82.35% from the student sample believed that they could show more of their qualities versus 63.88% from the workers group. In addition to this finding, the reaction of the student and non-student samples were compared in relation to a scenario of full disclosure to the company. For some findings, such as the sense of insecurity, the non-student sample percentage was three times smaller than the student group. The non-student group also showed higher confidence in their dyslexia. The student sample had a higher incidence for a pattern of building confidence due to people knowing about their dyslexia, which can be compared to the support given during “school times”. As previously mentioned, such a pattern that exists in col-

leges and universities to provide support and constant encouragement to dyslexic individuals, is not so common in the workplace (Bartlett et al., 2010). These findings can suggest that dyslexic students may need dyslexic support from organisations in order to have a “dyslexia-positive” view in the workplace, which may lead to disclosure, better delegation of duties, a better choice of career and a long-term increase in overall results for the company.

6.4.1 Limitations

The present study has several limitations. The first is that in the dyslexic student sample, only the University of Sheffield dyslexic students were contacted. The dyslexic professionals/workers sample was only contacted via the BDA magazine. Both samples lacked the generality that comes from a wider range of participants. However, it was difficult to find a database of the formal diagnosis of individuals with this learning disability.

Another limitation is that all of the participants in Study 4 were located in the United Kingdom, which benefits from the great support of the globally renowned British Dyslexia Association. Therefore, the responses and findings may have differed from dyslexic individuals whose only experience is in countries that did not have enough awareness about dyslexia and did not provide any appropriate support.

6.5 Conclusion

The quantitative analysis of Study 4 has assisted in the understanding of the key role of senior managers in the entire context of dyslexia support in organisations. Having a senior manager disclose his/her dyslexia resulted in significant and positive differences in: overall support, the courage to mention dyslexia when applying for jobs, higher awareness from the company about its dyslexic employees, and the feeling that it is positive to acknowledge dyslexia to solve problems.

As was identified, one of the main connections between dyslexic employees, companies and disclosure is having a senior employee who has been in that position before and who can provide mentorship to those who are still unsure about their strengths and qualities and how to express them in the workplace.

Chapter 7

Conclusions and Directions for Future Studies

7.1 Overview

In this final chapter, a broad overview of all of the four studies undertaken during this PhD will be briefly summarised, Discussions are focused on the main findings and contributions for the field of Positive Dyslexia, in particular about placing dyslexic individuals into the workplace, the perspective of employers about this learning disability, and the strengths and qualities that these individuals can bring to the workplace.

Whilst the field of dyslexia is well known and commonly studied for the provision of specific and appropriate support to school children, such individuals feel less supported as they move into adulthood and the field of dyslexia in the workplace seems to be thinly researched. Therefore, the main goal of this PhD study was to assist in the development of this field and to understand the main issues and challenges faced by dyslexic individuals, alongside the perspective of companies, when including dyslexic individuals to the team. A summary of finding from past chapters will be presented in this section and the conclusion will show a possible solution for intervention.

7.2 Findings from the studies

The main purpose of this thesis was to further expand the research associated with the field of Positive Dyslexia, with new findings that will continue to provide constant empowerment to dyslexic individuals. I was very interested to contribute to the development of the Positive Dyslexia movement, as this learning disability is seen by many as a negative condition, but as we have demonstrated in this piece of work it presents enormous positive perspectives and qualities, and some authors would even say that dyslexia is a gift rather than a Learning Disability.

An extensive literature review was carried out in order to deepen on knowledge about “traditional” dyslexia, positive psychology, positive dyslexia, entrepreneurial behaviours and dyslexia at the workplace. All of this literature was crucial in order to provide enough support for all of the four studies undertaken during the PhD.

Study 1 undertook a comparison between dyslexic and non-dyslexic students among the variables of entrepreneurial behaviours, which also included the dyslexia decathlon (proactivity, flexible coping, resilience, big picture thinking, visualization, innovation, communication skills, empathy, teamwork and unconventional thinking).

Dyslexic individuals demonstrated a higher desire to start their own business ($d: 0.38$) and higher satisfaction in becoming an entrepreneur ($d: 0.47$) when compared to the non-dyslexic group.

This study also found dyslexic individuals to be more resilient and more creative than non-dyslexic individuals. The results also reflected their much greater preference for working in teams; they identified themselves with better problem-solving mechanisms, visual spatial abilities and greater communication skills when compared to non-dyslexic individuals.

The factor analysis in Study 1 revealed that both big picture thinking and risk taking were strongly associated with dyslexia as a major factor, as seen in factor 8R (Table 2.17). Eide & Eide (2012) stated that big picture is a skill that dyslexic individuals have and it gives them the opportunity to link ideas and concepts easily. According to Rauch & Frese (2007) vision is key for setting goals, seeking the correct opportunities and directing themselves towards the path of success. The conjunction of both skills is incredibly good for high performance. One may possess a great vision, however without the ability to recognise opportunities and to take risks, this may not be fully exploited.

Visuo-spatial skills was also present in the dyslexic group and much higher than the non-dyslexic sample. This result resonates very well with previous literature from both “Mind’s Eye” framework and MIND strengths. They discussed the strong relationship this skill has with dyslexia (West, 2009; Eide & Eide, 2012).

These results are remarkably important, because it was possible to identify cognitive, entrepreneurial and inter-personal skills and specific preferences usually present in the successful entrepreneur and dyslexic adult in the dyslexic student group even years before they embarked on their own professional life. These results revealed that dyslexic individuals have skills that are vital for a competitive advantage in current society, which gave a “green card” with diverse possibilities and new opportunities to companies and dyslexic individuals to implement dyslexia-tailored careers and provide specific support so their strengths will gain the spotlight by being appropriately assessed and nurture, not only in their early education, but also

for all stages of their lives.

I conclude that, as literature has previously stated, dyslexic individuals may have developed these unique traits as coping mechanisms through the life events and challenging experiences they have had to go through. However, it has been the first time that some of these traits have been compared between dyslexic and non-dyslexic groups. The main purpose of the comparison was never to diminish the capacity of non-dyslexic people, but to empower those who have this unique learning disability and do not know of its strengths and powers within. It is not only dyslexic individuals, but also the third parties, such as teachers, who may need to have this knowledge in order to help dyslexic students to flourish and develop their strengths even more. The same purpose would apply for employers and organisations in society.

Study 2 was designed to address a limitation that was found in Study 1, which was a discrepancy in some of the dyslexic strengths variables between questions designed to probe the same attribute (resilience, big picture thinking, visual spatial skills and communication skills). This study was very important to analyse how traits that are supposed to be strengths need development in order to excel to the absolute personal advantage.

Resilience was found in Study 1 to be a very important quality of dyslexic individuals. However, in Study 2 it was more deeply investigated and found that although dyslexic individuals may not like to work under pressure, they recognize its benefits. Dyslexic individuals stated that they were more focused under pressure, had better organizational skills, which lead them to being more efficient in their goals and challenges. Interestingly, although they saw pressure as stressful, they also believed it draw the best out of them and helped them to explore their skills and strengths. Such findings are consistent with Coutu (2002) who argued that resilient individuals are those who can understand the present challenges and make the most of delicate periods.

Big Picture Thinking was another important trait, which showed some discrepancies in the results. 75% of the participants demonstrated a high level of proactivity, which could possibly indicate the reason for a medium average for them seeing things that were not being done, but should be. For instance, not all of the participants showed this theme, but definitely those who had, presented a very proactive personality, which suggests that proactivity could be a trait to be further developed in order to achieve a maximum result in BPT. Seizing opportunities was a theme highly predominant in the quantitative analysis (Study 1) and again confirmed in Study 2 with all participants reflecting this.

In Study 2, it was difficult to understand the low average from Study 1 of dyslexic

individuals not liking to start with the big picture when undertaking tasks. For this specific theme, all participants demonstrated a long-term vision, which was something very strong across all of the interviews. One possible explanation for the low average in Study 1 for this variable is that maybe participants did not see a long-term vision directly related to everyday tasks, but once questioned about it in a qualitative in-depth analysis, they reflected upon this and identified that daily challenges were highly connected to bigger aspirations.

Communication skills were already known to be one of the key qualities of dyslexic individuals (J. Logan, 2009; Nicolson, 2015). Study 1 showed that dyslexic individuals do not consider themselves good at explaining things to others. In Study 2, participants demonstrated that they needed access to sufficient knowledge in order to explain a specific subject to others. Together with knowledge, preparation and over-practice gave them more confidence and allowed them to apply their communication skills better.

All participants confirmed in the Visual Spatial variable that they had a strong association with images and indeed their understanding was superior when thinking in pictures rather than words. 62.5% of the participants demonstrated a good visualization a good ability on visual spatial tasks which corroborates with the medium average found in Study 1. Such result mostly had a medium average across participants, because of backgrounds and experiences that would allow them to develop this specific skill, for example, architecture tasks, football strategy, archaeology and visual presentations, among others. Finally, during the second study, it was possible to understand the reason for such a low average on long-term visual memory. Participants showed a good photographic memory of specific past experiences rather than the whole situation, hence the low average on long-term memory of Study 1.

The investigation for Study 3 aimed to understand the employers' perspective towards dyslexic individuals. As previously stated, two countries were chosen as samples: United Kingdom and Brazil. The reason for it was the contrast in the level of development regarding dyslexia between the two countries. A total of 20 companies were selected, from small companies to multi-national enterprises, and in-depth semi-structured interviews were undertaken in order to analyse the working environment that dyslexic individuals are employed in. The analysis from both groups enabled the identification of the main issues and challenges faced by both countries, which were clustered according to the following themes:

Brazilian Sample

- Theme 1: Favour to dyslexic individuals by employing them (not explicit mentioned by all)
- Theme 2: Equal support
- Theme 3: Dyslexia as a negative trait
- Theme 4: Desire of a better dyslexia understanding
- Theme 5: No knowledge on dyslexia
- Theme 6: Assumptions of dyslexic individuals feeling afraid of disclosure
- Theme 7: Support is for ordinary employees

United Kingdom Sample

- Theme 1: Lack of dyslexia knowledge in companies
- Theme 2: Under Performance and Dyslexia
- Theme 3: Inexistence of dyslexia support
- Theme 4: No influence on performance by dyslexia
- Theme 5: Disclosing dyslexia is indifferent
- Theme 6: Desire of a better dyslexia understanding

The themes indicate us that although both countries are still some way from fully developing in dyslexia knowledge and the provision of appropriate support for dyslexic employees in the workplace, the U.K. sample demonstrated a better overall knowledge of this learning disability, which led to less prejudice regarding employment. But how can dyslexic employees achieve maximum results if they are not supported adequately? The Brazilian sample showed a much lower developed knowledge and understanding of dyslexia, which had a direct effect on their views about dyslexia at the workplace.

McLoughlin & Leather (2009) stated that dyslexia is not a learning disability that “fades away” after childhood, but is present throughout the life of an individual. It is crucial then that they have the adequate support at all stages of their lives, in order for their positive assets and qualities to be developed and applied at the forefront of their functioning and used to their advantage with the proper support.

It was concluded that the Brazilian sample had an extensive lack of basic knowledge about the learning disability, which needs to be addressed as a first step, before introducing Positive Dyslexia within companies. The views that were presented on dyslexia were entirely negative and much work would have to be done in conjunction with the Brazilian Dyslexia Association and companies in Brazil, to raise even an initial awareness of dyslexia before a more profound consciousness of Positive Dyslexia can be raised within the country. The U.K. sample had a better basic and overall knowledge, which could lead to a more immediate inclusion of strengths and qualities of dyslexic employees in order to maximize their performance. As such, and given the basis of their initial knowledge, a readiness was demonstrated in the U.K. sample to begin thinking about the “Positive Dyslexia” approach of Nicolson (2015), which would expand their understanding and be more likely to make sense.

Study 4 was carried out with the purpose of developing one of the limitations of Study 3. In the previous study, perspectives and views from employers about dyslexia and dyslexic individuals were analysed. However, some of the findings only addressed the employers’ perspective. Study 4 took the perspective of the dyslexic employee and aimed to identify variables that could empower dyslexic employees towards a higher rate of disclosure in the workplace. The main finding was that senior executive dyslexic employee in companies when who had previously disclosed their learning disability at work were shown to have a better support and acceptance in the companies.

Sumner (2012) argued the importance of having an open and approachable channel for dyslexic individuals at the workplace. They need to feel well supported in a non-judgemental environment, which will lead them to trust the process of disclosure.

From the main finding of Study 4, it can be understood that having a dyslexic senior who has already opened a path for disclosure makes it more comfortable for future dyslexic employees to also choose to disclose their dyslexia at work, and helps companies to gain a greater understanding of the reason for appropriate support and its application.

7.3 Limitations

Study 1

The study had some clear limitations during the execution of the research. The first one was the limited sample. Although people from different social classes, courses and backgrounds were included, they were all students from the same university, which could influence their background social class. It would also be

more interesting to undertake the study using high achievers, so this same study could be repeated with this different sample to identify differences and see which sample will be more likely to possess entrepreneurial intentions (dyslexic students x non-dyslexic students and high achievers dyslexic individuals x high achievers non-dyslexic individuals).

All data were based on a self-evaluation rather than a measure from an objective skill. However, those reports are well sustained in the literature. Zell & Krizan (2014) stated in their metasynthesis of studies taken in this field of research that there is an existence of a moderate correlation between self-evaluations and objective performance measures. It is important to also highlight how difficult it is to determine objective measures of performance.

Another limitation that was found was related to the “income level” section. Since the whole sample was composed by students, the majority of them were classified in the “below £1000”, which did not affect the results, because they were still significant. However, it would be interesting to see a more even sample among the social classes.

As could be seen from Study 1, there were some discrepancies among the same variables (measuring different attributes). A qualitative analysis in these variables would be very beneficial in order to fully understand deeper scenarios of strengths that may still need some development.

Study 2

10 participants from Study 1 had the highest discrepancies in their answers. 8 participants were easily contacted and accepted to take part in the qualitative analysis. However, the other two participants did not reply to any of the invitations sent and it was impossible to reach all the participants who indicated high discrepancies among their answers.

Study 3

Twenty semi-structured interviews were carried out in two different countries in order to understand the company perspectives towards dyslexic individuals. One of the limitations of this study was the inability reach big or multinational companies, which could facilitate future quantitative studies.

It is also important to point out that due to the qualitative nature of the study, the findings could not be generalised. Although patterns were found among the companies, we can only generalise the results with a large and significant quantitative approach.

Study 4

Access by students to the questionnaire used in the final study was facilitated through the University of Sheffield, and through the magazine of British Dyslexia Association (BDA Contact) in order to reach dyslexic professionals.

A limitation was presented in the responses of these samples, as it used the experiences of individuals who live in the United Kingdom, which is the most advanced country for dyslexic support world-wide, and the BDA is globally renowned. It would be very beneficial and interesting to run another study in a country, with a less developed Dyslexia Association and where there is an extensive lack of knowledge about the learning disability.

7.4 Application and change in the real world

Following the extensive work undertaken for this PhD thesis to advance the present situation for dyslexic employees and develop appropriate support, I will venture to propose a dyslexia-friendly initial methodology for companies.

Earlier in this thesis, the ABCDE theory by Seligman (2002) was presented as a positive-psychology-based approach to help individuals to develop their “optimistic explanatory style”. In the theory, A stands for “adverse event”, B for “beliefs”, and C for “consequences”. In order to develop optimistic explanatory style, Seligman then advocates the “DE” approach to these adverse events, where D stands for “disputation” - disputing that the consequence do need to be seen negatively, and E for “energisation” when a series of positive activities is created to combat the ABC cycle.

From the main findings of Studies 3 and 4, a series of factors were identified which were holding dyslexic individuals back from disclosure at the workplace, and might be perceived as a (series of) adverse events. Building on Seligman’s approach, I have created a methodology that could be introduced by both companies and dyslexic individuals toward both the problem of disclosure and the inclusion of dyslexic workers - see 7.1:

The suggested tool identifies A as the adversities faced by dyslexic individuals through their life, from their childhood challenges in learning how to read and write up to (for some cases of late diagnosis) their university and workplace tasks. Depending on the nature and extent of the problems and challenges that were faced, beliefs are generated, which are mostly based on very negative perceptions. Until a dyslexic person understands dyslexia as a whole, they are unaware of what coping mechanisms can help to improve their performance. Therefore, negative experiences and beliefs; have resulted in a lack of confidence and disempowered attitudes and reality. In order to overcome this negative scenario, there is a need

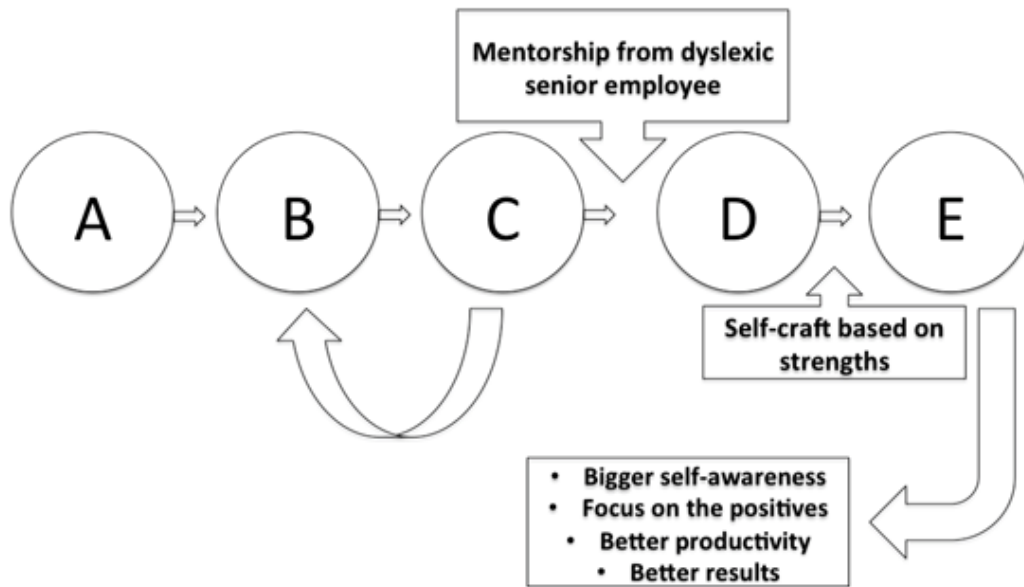


Figure 7.1: Blueprint to dyslexia success at the workplace.

to re-programme ABC, and we propose that companies provide mentorship from dyslexic senior employees who have already faced these challenges and have heightened empathetic skills, which will create a safer and more comfortable environment for younger dyslexic individuals to disclose their learning disability and request appropriate support.

Together, young dyslexic individuals and executives within the company will dispute (D) all the beliefs created over one's life through challenging and negative experiences by viewing them from the positive perspective. The senior executives will guide younger dyslexic employees to "self-craft" various aspects of their work and to understand ways of working that with draw on their strengths, refine their coping mechanism strategies and see more clearly how dyslexia can empower them with unique strengths and gifts. By applying this, dyslexic employees will develop improved self-understanding, and increase their awareness of their strengths and weaknesses (always focusing on qualities, but knowing how to deal with drawbacks). This will energise (E) younger dyslexic individuals to know "the right path" and the senior executives who will be able to see those who are starting their career to know what they are capable of. Energisation will lead to a better productivity by the individual and in consequence, better results for the company.

The proposed outline methodology, obviously, does not seek to solve all of the problems faced by dyslexic individuals in the workplace. However, from all of the major issues identified from among the studies and from previous literature, it does

provide a blueprint for designing a tool that would help companies develop a strategy with a clear theoretical and evidential basis that empower both dyslexic employees and senior management to transform their workplace environment, thereby benefiting both the individuals involved and the performance of their organisation.

7.5 Closing

To conclude this PhD study, it is important to highlight some important facts from these three years of research.

Firstly, this is the first time that a comparison between dyslexic and non-dyslexic individuals has been undertaken revealing a comparative advantage for the dyslexic group. As has been previously stated, the intention was never to diminish non-dyslexic individuals, but to empower those with this unique learning disability to focus on their strengths and develop their coping mechanism strategies to enable them to reach their excellence.

Secondly, it was crucial to undertake a study with employers so as to gain an in depth understanding of their perspectives towards dyslexic individuals. I believe it was the first time one could reach a full circle of understanding of the main problems regarding disclosure and dyslexia in the professional world, using qualitative and quantitative evidence. This led to a purpose for how to initiate the support for dyslexic individuals within the workplace.

Thirdly, the present thesis has indicated the initial blueprint for better - even transformative - support for dyslexic employees at work. We are in the 21st century and the world is rapidly changing. If we continue to perform in the same way, we will have the same results we have always had.

The findings presented in this thesis have revealed fruitful and potential opportunities for exploration of the talents that can be acquired by dyslexic individuals by experience throughout their life. By empowering them with the resources of Positive Dyslexia, it is possible to start preventing negative scenarios through identifying and nurturing strengths, rather than the outdated medical model of attempting to find and remediate weaknesses.

Bibliography

- Agahi, A. S. (2015). *Investigating the strengths of dyslexia in successful Adults and university students* (PhD thesis). University of Sheffield.
- Agahi, S., Sepulveda, P. P., & Nicolson, R. (2014). Careers, talents and dyslexia: Working to one's strengths'. *unpublished*.
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health, 26*(9), 1113–1127.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics, 24*(3), 233–247.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*(4), 471–499.
- Athayde, R. (2009). Measuring enterprise potential in young people. *Entrepreneurship Theory and Practice, 33*(2), 481–500.
- Attree, E. A., Turner, M. J., & Cowell, N. (2009). A virtual reality test identifies the visuospatial strengths of adolescents with dyslexia. *CyberPsychology & Behavior, 12*(2), 163–168.
- Bartlett, D., Moody, S., & Kindersley, K. (2010). *Dyslexia in the workplace: An introductory guide*. Chichester, United Kingdom: John Wiley & Sons.
- Bass, B. M. (1995). Theory of transformational leadership redux. *The Leadership Quarterly, 6*(4), 463–478.
- Baumol, W. J. (1993). *Entrepreneurship, management, and the structure of payoffs*. Cambridge, MA: MIT Press.
- Bird, B. J. (1989). *Entrepreneurial behavior*. Glenview, IL: Scott Foresman & Company.

- Bradley, L., & Bryant, P. E. (1978). Difficulties in auditory organisation as a possible cause of reading backwardness. *Nature*, 271(5647), 746–747.
- Bradstreet, D. (1967). *Patterns of success in managing a business*. New York, NY: Dun & Bradstreet.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London, United Kingdom: SAGE Publications.
- Bull, I., & Willard, G. E. (1993). Towards a theory of entrepreneurship. *Journal of Business Venturing*, 8(3), 183–195.
- Busenitz, L. W. (1999). Entrepreneurial risk and strategic decision making: It's a matter of perspective. *The Journal of Applied Behavioral Science*, 35(3), 325–340.
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9–30.
- Bygrave, W. D. (2011). The entrepreneurial process. *The Portable MBA in Entrepreneurship*, 1–26.
- Caprara, G. V., & Cervone, D. (2000). *Personality: Determinants, dynamics, and potentials*. Cambridge, United Kingdom: Cambridge University Press.
- Carlopio, J., & Andrewartha. (2012). *Developing management skills: A comprehensive guide for leaders*. Frenchs Forest, Australia: Pearson Australia.
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (p. 151-192). New York, NY: McGraw-Hill.
- Claes, R., Beheydt, C., & Lemmens, B. (2005). Unidimensionality of abbreviated proactive personality scales across cultures. *Applied Psychology*, 54(4), 476–489.
- Clarke, J. S. (2007). *Seeing entrepreneurship: visual ethnographies of embodied entrepreneurs* (PhD thesis). University of Leeds.
- Cohen, J. (2009). *Statistical power analysis for the behavioral sciences*. New York, NY: Psychology Press.
- Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2), 97–108.

- Coutu, D. L. (2002). How resilience works. *Harvard Business Review*, 80(5), 46–56.
- Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 34(3), 42.
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management*, 26(3), 435–462.
- Critchley, M. (1970). *The dyslexic child*. London, United Kingdom: Heinemann.
- Dalton, G. W., & Holdaway, F. (1989). *Preliminary findings - Entrepreneur study* (Working paper). Brigham Young University, Provo, UT.
- Davis, R. D., & Braun, E. M. (1997). *The gift of dyslexia: Why some of the smartest people can't read and how they can learn*. New York, NY.
- Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMes. *The Learning Organization*, 5(3), 144–155.
- Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81–90.
- Drucker, P. F. (1984). Converting social problems into business opportunities: The new meaning of corporate social responsibility. *California Management Review*, 26(2), 53.
- Dyer, W. G., & Handler, W. (1994). Entrepreneurship and family business: Exploring the connections. *Entrepreneurship Theory and Practice*, 19(1), 71–83.
- Edwards, J. (1994). *The scars of dyslexia: Eight case studies in emotional reactions*. London, United Kingdom: Cassel.
- Egan, T. M. (2005). Creativity in the context of team diversity: Team leader perspectives. *Advances in Developing Human Resources*, 7(2), 207–225.
- Eide, B., & Eide, F. (2012). *The dyslexic advantage: Unlocking the hidden potential of the dyslexic brain*. New York, NY: Penguin.
- Elliott, J. G., & Grigorenko, E. L. (2014). *The dyslexia debate*. Cambridge, United Kingdom: Cambridge University Press.
- Ferguson, E., & Cox, T. (1993). Exploratory factor analysis: A users' guide. *International Journal of Selection and Assessment*, 1(2), 84–94.

- Field, A. (2001). *Factor analysis using SPSS*. London, United Kingdom: SAGE Publications.
- Filion, L. J. (1991). Vision and relations: Elements for an entrepreneurial meta-model. *International Small Business Journal*, 9(2), 26–40.
- Fitch, R. H., Tallal, P., Brown, C. P., Galaburda, A. M., & Rosen, G. D. (1994). Induced microgyria and auditory temporal processing in rats: A model for language impairment? *Cerebral Cortex*, 4(3), 260–270.
- Fitzgibbon, G., & O'Connor, B. (2002). *Adult dyslexia: A guide for the workplace*. Chichester, United Kingdom: John Wiley & Sons.
- Fouad, N. A., & Bynner, J. (2008). Work transitions. *American Psychologist*, 63(4), 241.
- Franks, K., & Frederick, H. (2011). Dyslexic and entrepreneur: Typologies, commonalities and differences. *Journal of Asia Entrepreneurship and Sustainability*, 11(1), 95–115.
- Fredrickson, J. W., & Mitchell, T. R. (1984). Strategic decision processes: Comprehensiveness and performance in an industry with an unstable environment. *Academy of Management Journal*, 27(2), 399–423.
- Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), 696–706.
- Gartner, W. B. (1988). "Who is an entrepreneur?" is the wrong question. *American Journal of Small Business*, 12(4), 11–32.
- Geers, A. L., Handley, I. M., & McLarney, A. R. (2003). Discerning the role of optimism in persuasion: The valence-enhancement hypothesis. *Journal of Personality and Social Psychology*, 85(3), 554.
- Geers, A. L., & Lassiter, G. D. (2002). Effects of affective expectations on affective experience: The moderating role of optimism-pessimism. *Personality and Social Psychology Bulletin*, 28(8), 1026–1039.
- Gerber, P. J., Ginsberg, R., & Reiff, H. B. (1992). Identifying alterable patterns in employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities*, 25(8), 475–487.
- Gerber, P. J., Price, L. A., Mulligan, R., & Shessel, I. (2004). Beyond transition: A comparison of the employment experiences of american and canadian adults with LD. *Journal of Learning Disabilities*, 37(4), 283–291.

- Gilad, B. (1984). Entrepreneurship: The issue of creativity in the market place. *The Journal of Creative Behavior*, 18(3), 151–161.
- Gohm, C. L., Humphreys, L. G., & Yao, G. (1998). Underachievement among spatially gifted students. *American Educational Research Journal*, 35(3), 515–531.
- Goldberg, R. J., Higgins, E. L., Raskind, M. H., & Herman, K. L. (2003). Predictors of success in individuals with learning disabilities: A qualitative analysis of a 20-year longitudinal study. *Learning Disabilities Research & Practice*, 18(4), 222–236.
- Gratton, L., & Erickson, T. J. (2007). Eight ways to build collaborative teams. *Harvard Business Review*, 85(11), 100.
- Hales, G. (1994). The human aspects of dyslexia. *Dyslexia Matters: A Celebratory Contributed Volume to Honour Professor T.R. Miles*, 172–183.
- Ham, C. L., Johnson, W., Weinstein, A., Plank, R., & Johnson, P. L. (2003). Gaining competitive advantages: Analyzing the gap between expectations and perceptions of service quality. *International Journal of Value-Based Management*, 16(2), 197–203.
- Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, 108(3), 604–631.
- Hayward, M. L. A., Shepherd, D. A., & Griffin, D. (2006). A hubris theory of entrepreneurship. *Management Science*, 52(2), 160–172.
- Held, B. S. (2004). The negative side of positive psychology. *Journal of Humanistic Psychology*, 44(1), 9–46.
- Hmieleski, K. M., & Baron, R. A. (2009). Entrepreneurs' optimism and new venture performance: A social cognitive perspective. *Academy of Management Journal*, 52(3), 473–488.
- Hoffmann, F. J., Sheldon, K. L., Minskoff, E. H., Sautter, S. W., Steidle, E. F., Baker, M. B., D. P. Bailey, & Echols, L. D. (1987). Needs of learning disabled adults. *Journal of Learning Disabilities*, 20(1), 43–52.
- Humphreys, D., L. G. and Lubinski, & Yao, G. (1993). Utility of predicting group membership and the role of spatial visualization in becoming an engineer, physical scientist, or artist. *Journal of Applied Psychology*, 78(2), 250.

- Hvide, H. K., & Møen, J. (2010). Lean and hungry or fat and content? Entrepreneurs' wealth and start-up performance. *Management Science*, *56*(8), 1242–1258.
- Iakovleva, T., & Kolvereid, L. (2009). An integrated model of entrepreneurial intentions. *International Journal of Business and Globalisation*, *3*(1), 66.
- Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education + Training*, *53*(5), 353–370.
- Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, *60*(1), 1–9.
- Jayawarna, D., Jones, O., & Macpherson, A. (2014). Entrepreneurial potential: The role of human and cultural capitals. *International Small Business Journal*, *32*(8), 918–943.
- Kalisch, B. J. (1973). What is empathy? *The American Journal of Nursing*, *73*(9), 1548–1552.
- Kanfer, R. (1992). Work motivation: New directions in theory and research. *International Review of Industrial and Organizational Psychology*, *7*, 1–53.
- Kirk, J., & Reid, G. (2001). An examination of the relationship between dyslexia and offending in young people and the implications for the training system. *Dyslexia*, *7*(2), 77–84.
- Kirton, M. J. (1989). *Adaptors and innovators: Styles of creativity and problem solving*. London, United Kingdom: Routledge.
- Klamer, A. (2011). Cultural entrepreneurship. *The Review of Austrian Economics*, *24*(2), 141–156.
- Knight, F. H. (1921). *Risk, uncertainty and profit*. New York, NY: Hart, Schaffner & Marx.
- Krueger, N. F. (2007). *The cognitive infrastructure of opportunity emergence*. New York, NY: Springer.
- Kurtzberg, T. R., & Amabile, T. M. (2001). From Guilford to creative synergy: Opening the black box of team-level creativity. *Creativity Research Journal*, *13*(3-4), 285–294.

- Laspita, S., Breugst, N., Heblich, S., & Patzelt, H. (2012). Intergenerational transmission of entrepreneurial intentions. *Journal of Business Venturing, 27*(4), 414–435.
- Liñán, F., & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice, 33*(3), 593–617.
- Logan, J. (2009). Dyslexic entrepreneurs: The incidence; their coping strategies and their business skills. *Dyslexia, 15*(4), 328–346.
- Logan, J. M. (2001). *Entrepreneurial success: A study of the incidence of dyslexia in the entrepreneurial population and the influence of dyslexia upon the entrepreneur*. (PhD thesis). University of Bristol.
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management, 14*(2), 139–161.
- Lowrey, Y. (2003). The entrepreneur and entrepreneurship: A neoclassical approach. *SSRN Electronic Journal*.
- Lundberg, I., Olofsson, Å., & Wall, S. (1980). Reading and spelling skills in the first school years predicted from phonemic awareness skills in kindergarten. *Scandinavian Journal of Psychology, 21*(1), 159–173.
- Luria, G., Kalish, Y., & Weinstein, M. (2014). Learning disability and leadership: Becoming an effective leader. *Journal of Organizational Behavior, 35*(6), 747–761.
- Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior, 23*(6), 695–706.
- Lyon, G. R. (1996). Learning disabilities. *The Future of Children, 54*–76.
- Madaus, J. W., Foley, T. E., McGuire, J. M., & Ruban, L. M. (2002). Employment self-disclosure of postsecondary graduates with learning disabilities: Rates and rationales. *Journal of Learning Disabilities, 35*(4), 364–369.
- Mathews, C. H., & Moser, S. B. (1995). Family background and gender: Implications for interest in small firm ownership. *Entrepreneurship & Regional Development, 7*(4), 365–378.
- Mazzarol, T. (2003). A model of small business HR growth management. *International Journal of Entrepreneurial Behavior & Research, 9*(1), 27–49.

- McClelland, D. C. (1961). *Achieving society*. New York, NY: Free Press.
- McClelland, D. C. (1965). N achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1(4), 389.
- McLoughlin, D., & Leather, C. (2009). Meeting the needs of employers and employees in the workplace. *The Routledge Companion to Dyslexia*, 286.
- McLoughlin, D., Leather, C., & Stringer, P. (2002). *The adult dyslexic: Interventions & outcomes* (Vol. 14). Chichester, United Kingdom: John Wiley & Sons.
- Mill, J. S. (1848). Principles of political economy with some of their applications to social philosophy. *George Routledge & Sons*, 467–474.
- Moody, S. (2015). *Dyslexia and employment: A guide for assessors, trainers and managers*. Chichester, United Kingdom: John Wiley & Sons.
- Morgan, E., & Klein, C. (2000). *The dyslexic adult in a non-dyslexic world*. London, United Kingdom: Whurr.
- Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development*, 39(2), 162–185.
- Mortimore, T. (2008). *Dyslexia and learning style: A practitioner's handbook*. Chichester, United Kingdom: John Wiley & Sons.
- Morton, J., & Frith, U. (1995). Causal modelling: A structural approach to developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Manual of developmental psychopathology* (Vol. 1, pp. 357–390). New York, NY: Wiley.
- Mudrack, P. E., & Farrell, G. M. (1995). An examination of functional role behavior and its consequences for individuals in group settings. *Small Group Research*, 26(4), 542–571.
- Nicolson, R. (2015). *Positive dyslexia*. Sheffield, United Kingdom: Rodin Books.
- Nicolson, R., & Fawcett, A. J. (1990). Automaticity: A new framework for dyslexia research? *Cognition*, 35(2), 159–182.
- Nicolson, R., & Fawcett, A. J. (1992). Automatisatation deficits in balance for dyslexic children. *Perceptual and Motor Skills*, 75(2), 507–529.
- Nicolson, R., & Fawcett, A. J. (1994). Comparison of deficits in cognitive and motor skills among children with dyslexia. *Annals of Dyslexia*, 44(1), 147–164.

- Nicolson, R., & Fawcett, A. J. (1995). Dyslexia is more than a phonological disability. *Dyslexia, 1*, 19–36.
- Nicolson, R., Fawcett, A. J., Berry, E. L., Jenkins, I. H., Dean, P., & Brooks, D. J. (1999). Association of abnormal cerebellar activation with motor learning difficulties in dyslexic adults. *The Lancet, 353*(9165), 1662–1667.
- Nicolson, R., Fawcett, A. J., & Dean, P. (2001). Developmental dyslexia: The cerebellar deficit hypothesis. *Trends in Neurosciences, 24*(9), 508–511.
- Northouse, P. G. (2018). *Leadership: Theory and practice*. London, United Kingdom: SAGE Publications.
- Nye, C. D., Su, R., Rounds, J., & Drasgow, F. (2012). Vocational interests and performance: A quantitative summary of over 60 years of research. *Perspectives on Psychological Science, 7*(4), 384–403.
- Palich, L. E., & Bagby, D. R. (1995). Using cognitive theory to explain entrepreneurial risk-taking: Challenging conventional wisdom. *Journal of Business Venturing, 10*(6), 425–438.
- Parker, S. C. (2004). *The economics of self-employment and entrepreneurship*. Cambridge, United Kingdom: Cambridge University Press.
- Patton, M. Q., & Cochran, M. (2002). A guide to using qualitative research methodology. *Médecins Sans Frontières, 14*, 2014.
- Pennington, B. F. (2008). *Diagnosing learning disorders: A neuropsychological framework*. New York, NY: Guilford Press.
- Pennington, B. F., Gilger, J. W., Pauls, D., Smith, S. A., Smith, S. D., & DeFries, J. C. (1991). Evidence for major gene transmission of developmental dyslexia. *Jama, 266*(11), 1527–1534.
- Peterson, C., Maier, S. F., & Seligman, M. E. P. (1993). *Learned helplessness: A theory for the age of personal control*. New York, NY: Oxford University Press.
- Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. New York, NY: Penguin.
- Price, L. A., & Gerber, P. J. (2001). At second glance: Employers and employees with learning disabilities in the Americans with Disabilities Act era. *Journal of Learning Disabilities, 34*(3), 202–210.

- Puri, M., & Robinson, D. T. (2004). Optimism and economic choice. *Journal of Financial Economics*, 86(1), 71–99.
- Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (1999). Patterns of change and predictors of success in individuals with learning disabilities: Results from a twenty-year longitudinal study. *Learning Disabilities Research & Practice*, 14(1), 35–49.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385.
- Ray, D. M. (1993). Understanding the entrepreneur: entrepreneurial attributes, experience and skills. *Entrepreneurship & Regional Development*, 5(4), 345–358.
- Reid, G., & Kirk, J. (2001). *Dyslexia in adults: education and employment*. Chichester, United Kingdom: Wiley.
- Reiter-Palmon, R., & Illies, J. J. (2004). Leadership and creativity: Understanding leadership from a creative problem-solving perspective. *The Leadership Quarterly*, 15(1), 55–77.
- Reynolds, P. D. (1992). Sociology and entrepreneurship: Concepts and contributions. *Entrepreneurship Theory and Practice*, 16(2), 47–70.
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology Bulletin*, 28(6), 789–801.
- Ronstadt, R. (1984). Ex-entrepreneurs and the decision to start an entrepreneurial career. *Frontiers of Entrepreneurship Research*, 437–460.
- Rutter, M. (1999). Resilience concepts and findings: Implications for family therapy. *Journal of Family Therapy*, 21(2), 119–144.
- Saldaña, J. (2011). *Fundamentals of qualitative research*. New York, NY: Oxford University Press.
- Sauter, D. L., & McPeck, D. (1993). Dyslexia in the workplace: Implications of the americans with disabilities act. *Annals of Dyslexia*, 43(1), 271–277.

- Schmidt, F. L., & Hunter, J. E. (2014). *Methods of meta-analysis: Correcting error and bias in research findings*. London, United Kingdom: SAGE Publications.
- Schumpeter, J. A. (2002). New translations from theorie der wirtschaftlichen Entwicklung. *American Journal of Economics and Sociology*, 61(2), 405–437.
- Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of Positive Psychology*, 2(2002), 3–12.
- Seligman, M. E. P. (2006). *Learned optimism: How to change your mind and your life*. New York, NY: Vintage Books.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2014). Positive psychology: An introduction. In *Flow and the foundations of positive psychology* (pp. 279–298). New York, NY: Springer.
- Sepulveda, P. P. (2013). *Dyslexics and their entrepreneur behaviors* (MsC dissertation). University of Sheffield.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. Kent, D. Sexton, & K. Vesper (Eds.), *The encyclopedia of entrepreneurship* (p. 7290). Englewood Cliffs, NJ: Prentice-Hall.
- Sheldon, K. M., & King, L. (2001). Why positive psychology is necessary. *American Psychologist*, 56(3), 216.
- Simonton, D. K., & Baumeister, R. F. (2005). Positive psychology at the summit. *Review of General Psychology*, 9(2), 99.
- Singleton, C. H. (1988). The early diagnosis of developmental dyslexia. *Support for Learning*, 3(2), 108–121.
- Skottun, B. C. (2005). Magnocellular reading and dyslexia. *Vision Research*, 45(1), 133–134.
- Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. *Psychology and Health*, 11(2), 261–271.
- Smith, S. M., Ward, T. B., & Finke, R. A. (1995). *The creative cognition approach*. Cambridge, Massachusetts: MIT Press.

- Snowling, M. (1987). *Dyslexia: A cognitive developmental perspective*. Cambridge, Massachusetts: Basil Blackwell.
- Snyder, C. R., & Lopez, S. J. (2009). *Oxford handbook of positive psychology*. New York, NY: Oxford University Press.
- Spencer, S. M., & Norem, J. K. (1996). Reflection and distraction defensive pessimism, strategic optimism, and performance. *Personality and Social Psychology Bulletin*, 22(4), 354–365.
- Stanovich, K. E. (1988). Explaining the differences between the dyslexic and the garden-variety poor reader: The phonological-core variable-difference model. *Journal of Learning Disabilities*, 21(10), 590–604.
- Stein, J. (2001). The magnocellular theory of developmental dyslexia. *Dyslexia*, 7(1), 12–36.
- Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. *Handbook of Creativity*, 1, 3–15.
- Stewart, W. H., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, 86(1), 145.
- Stewart, W. H., & Roth, P. L. (2004). Data quality affects meta-analytic conclusions: A response to Miner and Raju (2004) concerning entrepreneurial risk propensity. *Journal of Applied Psychology*, 89(1).
- Storey, L. (2007). Doing interpretative phenomenological analysis. In *Analysing qualitative data in psychology*. London, United Kingdom: SAGE Publications.
- Strzalecki, A. (2000). Creativity in design: General model and its verification. *Technological Forecasting and Social Change*, 64(2-3), 241–260.
- Stuart, G. W., McAnally, K. I., McKay, A., Johnston, M., & Castles, A. (2006). A test of the magnocellular deficit theory of dyslexia in an adult sample. *Cognitive Neuropsychology*, 23(8), 1215–1229.
- Sumner, P. (2012). Dyslexia support at university and on work placement. *Supporting Dyslexic Adults in Higher Education and the Workplace*, 101.
- Thorne, K., & Pellant, A. (2007). *The essential guide to managing talent: How top companies recruit, train and retain the best employees*. London, United Kingdom: Kogan Page.

- Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among russian students. *Entrepreneurship & Regional Development*, 11(3), 269–280.
- Treffinger, D. J., Isaksen, S. G., & Stead-Dorval, K. B. (2005). *Creative problem solving: An introduction*. Waco, TX: Prufrock Press.
- Ulhøi, J. P. (2005). The social dimensions of entrepreneurship. *Technovation*, 25(8), 939–946.
- Vail, P. L. (1990). Gifts, talents, and the dyslexias: Wellsprings, springboards, and finding foley's rocks. *Annals of Dyslexia*, 40(1), 1–17.
- Van Gelderen, M., Brand, M., van Praag, M., Bodewes, W., Poutsma, E., & Van Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International*, 13(6), 538–559.
- Van Gelderen, M., & Jansen, P. (2006). Autonomy as a start-up motive. *Journal of Small Business and Enterprise Development*, 13(1), 23–32.
- Vellutino, F. R., Fletcher, J. M., Snowling, M. J., & Scanlon, D. M. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? *Journal of Child Psychology and Psychiatry*, 45(1), 2–40.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth*, 3(1), 119–138.
- Vunova, K. (2009). Relation “entrepreneurial culture-organisational culture” in the process of business development. *Revista Economica*, 46(3), 158–169.
- Walker, A., & Quong, T. (1998). Valuing differences: Strategies for dealing with the tensions of educational leadership in a global society. *Peabody Journal of Education*, 73(2), 81–105.
- Ward, T. B. (2004). Cognition, creativity, and entrepreneurship. *Journal of Business Venturing*, 19(2), 173–188.
- West, T. G. (1992). A future of reversals: Dyslexic talents in a world of computer visualization. *Annals of Dyslexia*, 42(1), 124–139.
- West, T. G. (1999). The abilities of those with reading disabilities. *LD OnLine*.
- West, T. G. (2009). *In the mind's eye: Creative visual thinkers, gifted dyslexics, and the rise of visual technologies*. New York, NY: Prometheus Books.

- Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology, 91*(3), 415.
- Zajac, E. J., & Bazerman, M. H. (1991). Blind spots in industry and competitor analysis: Implications of interfirm (mis)perceptions for strategic decisions. *Academy of Management Review, 16*(1), 37–56.
- Zampetakis, L. A. (2008). The role of creativity and proactivity on perceived entrepreneurial desirability. *Thinking Skills and Creativity, 3*(2), 154–162.
- Zampetakis, L. A., & Moustakis, V. (2006). Linking creativity with entrepreneurial intentions: A structural approach. *The International Entrepreneurship and Management Journal, 2*(3), 413–428.
- Zell, E., & Krizan, Z. (2014). Do people have insight into their abilities? A metasynthesis. *Perspectives on Psychological Science, 9*(2), 111–125.

Appendix A

Study 1 Information Sheet

Entrepreneurial Tendencies and Dyslexia

Dear volunteer,

You are being invited to participate in this research. Before we start the questionnaire, it is important for you to understand the purpose and what is involved in this research.

Please, read carefully the information provided below and feel free to ask any questions that may rise. If something is not clear, or you would like to receive more information in any part, feel entirely free to email me. Take your time to decide whether or not you should participate in this research. Thank you very much for your time!

Project's Purpose

We are interested in whether there is any relationship between various cognitive strengths and the likelihood of becoming an entrepreneur. There is also a relatively high proportion of dyslexic entrepreneurs. In this study we intend to probe the underlying causes of these relationships.

Taking part in the research

Be aware that this research is entirely voluntary and it is up to you to participate or not. If you agree to take part in this research, you will be given this information sheet to keep and will be asked to sign a consent form for University's Ethics regulation.

Remember that you can withdrawal at anytime, without give any reason.

What will happen to me if I take part?

Around 100 volunteers will be responding to this questionnaire and in particular cases, I might need to interview some candidates in order to retrieve more knowledge and information about specific results, which may appear during the research.

What are the possible benefits of taking part in the research?

It is a very good opportunity to discover qualities that you have, which you did not even know you did. This can help dyslexic adults to increase their self-confidence and improve their future performances in life.

Confidentiality

All information given will be kept strictly confidential and will not be revealed to anyone out of the project.

Results: The results from this research will be part of my PhD thesis and if you are interested in having a copy of the result, please just give me your email address and once the study is finished, I can give it to all interested volunteers.

Contact for further information

Research student: Poliana Piacesi Sepulveda

Email: ppsepulveda1@sheffield.ac.uk

Supervisor: Professor Rod Nicolson

Email: r.nicolson@sheffield.ac.uk

Yes, I would like to take part in the research.

No, I don't want to take part in the research.

Appendix B

Study 1 Consent Form

Consent form

Please read the following information and decide whether or not you would like to participate in this study. This experiment has received ethical approval and will be supervised by Professor Rod Nicolson. Results will be kept confidential and not be associated with your name. If you do decide to take part, please note that you are free to withdraw from the experiment at any time and any information you provided would be discarded.

In this study we will be asking volunteers to fill one questionnaire on Entrepreneurial Tendencies and Dyslexia subject. It is expected to overall take no more than 15 minutes.

Appendix C

Study 1 Questionnaire

Entrepreneurial Tendencies and Dyslexia

Q1. What are you studying?

Q2. How old are you?

- (1) 18 to 21
- (2) 22 to 25
- (3) 26 to 30
- (4) Above 30

Q3. What is your average monthly income?

- (1) Below £1000
- (2) £1000 to £2000
- (3) £2000 to £3000
- (4) £3000 to £4000
- (5) £4000 to £5000
- (6) Above £5000

Q4. Are you dyslexic?

- (1) Yes
- (2) No

If No Is Selected, Then Skip To Entrepreneurial Intentions

Q5. When were you first diagnosed with dyslexia?

- When I was a child (1)

Q13. Perceived behavioral control

	Nothing like me (1)	Little like me (2)	Somewhat like me (3)	Like me (4)	Very much like me (5)
I am good under pressure (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can apply negative experiences from my past in a positive way (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can deal well with failure (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dealing with difficult people (or situations) enable me to grow (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to start with the big picture on tasks I am undertaking (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a very open-minded person and I am able to understand people's point of view (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People often ask me for help in creative activities (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am working in a team I like to try to get everyone to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have a strong ability to recall emotions and to sense the emotion of others (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at seeing things from other people's point of view (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When something goes wrong I am confident that I can find a solution (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When trying something difficult I like to think of the things that could go wrong (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I need help with something I generally know the right person to ask (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am hardworking (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at seeing things that we should be doing that we are not doing (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel I am above average when it comes to find a solution for a problem (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a good imagination (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the freedom to do things on my own way (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at explaining things to other people (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very good at seizing opportunities (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When an opportunity arises I am very good at taking it, even if it involves risk (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel I am more successful when I have more control over how jobs are done (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at explaining things to others (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always perform well in oral presentations (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like getting people to work to their strengths (25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to plan ahead and so I can prepare properly for all eventualities (26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am always the one who pushes the team to start the work (27)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a good ability on visuo-spatial tasks (28)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to think in pictures rather than words (29)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a good long term visual memory (30)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix D

Study 2 Information Sheet

Entrepreneurial Tendencies and Dyslexia - Information Sheet

Dear volunteer,

You are being invited to participate in this research. Before we start the interview, it is important for you to understand the purpose and what is involved in this research. Please, read carefully the given information provided below and feel free to ask any questions that may rise. If something is not clear, or you would like to receive more information in any part, feel entirely free to ask me. Take your time to decide whether or not you should participate in this research. Thank you very much for your time!

Project's Purpose

Dyslexic people may face difficulties in engagement in the workplace. They may feel excluded in society and may question, sometimes, their qualities and good points. This study is designed to help dyslexic students identify their strengths, so that it may help them aim for jobs that will suit them. The present study is a follow-up from a study that you took part in November 2014 and investigates why in many cases there was a discrepancy in the dyslexic group between different questions designed to probe the same attribute (big picture thinking, visuo-spatial skill, resilience and communication skills).

Taking part in the research

Please be aware that this research is entirely voluntary and it is up to you to participate or not. If you agree to take part in this research, you will be given this information sheet to keep and will be asked to sign a consent form for the University's Ethics regulations. Remember that you can withdraw at anytime, without give any reason.

What are the possible benefits of taking part in the research?

It is a very good opportunity to discover qualities that you have, which you did not even know you did. This can help dyslexic adults to increase their self-confidence and improve their future performances in life.

Confidentiality

All information given will be kept strictly confidential and will not be revealed to anyone out of the project.

Results

The results from this research will be part of my PhD thesis and if you are interested in having a copy of the result, please just give me your email address and once the study is finished, I can give it to all interested volunteers.

Contact for further information

Research student: Poliana Piacesi Sepulveda

Email: ppsepulveda1@sheffield.ac.uk

Supervisor: Roderick Nicolson

Email: r.nicolson@sheffield.ac.uk

Appendix E

Study 2 Consent Form

Consent form

May 2015

Please read the following information and decide whether or not you would like to participate in this study. This experiment has received ethical approval and will be supervised by Professor Rod Nicolson. Results will be kept confidential and not be associated with your name. If you do decide to take part, please note that you are free to withdraw from the experiment at any time and any information you provided would be discarded.

In this study we have selected participants from an earlier study (November 2014) in which you completed a questionnaire that allowed you to rate yourself on a range of potential strengths. You also indicated that you would be willing to take part in a follow-up, which is why we are contacting you. It is expected to overall take no more than 40 minutes.

By signing this consent form you will be putting yourself forward to participate in the study, which is just a simple interview.

If you wish to participate in this study please sign below, and also provide us with

your email address in order for us to be able to arrange a follow up meeting to discuss the findings.

Signature of Participant: _____

Date: _____

Email / contact: _____

Participant's email address: _____

Signature of Participant: _____

Supervisor's Signature:

Rod Neal

Date: 23/04/2015

Appendix F

Study 2 Interview Schedule

Questions for Structured Interview

1. Could you give me three examples of situations where you had to work under pressure?
2. How do you find working under pressure?
3. Could you give me three examples of how dealing with difficult people enabled you to grow?
4. Could you give me three examples of how dealing with difficult situations enabled you to grow?
5. Could you give an example of when you started with the big picture in one task you were undertaking?
6. Could you give me two experiences in your life that you identified things you (or your group) should be doing that were not?
7. Could you give me three examples in your life where you seized opportunities?
8. Could you give me an example on how you identified an opportunity in your life?
9. Could you give me one example of how you felt your explanation was good for others?

10. Could you share one time that you had to do an oral presentation? How was the outcome of it?
11. Could you give me two examples of how good you were at one specific visuo-spatial task?
12. Could you give me examples of when you think in pictures rather than words?
13. Could you give me two examples of how your long term visual memory works?

Appendix G

Study 3 Information Sheet

January 2016

Dear Sir or Madam,

My name is Poliana and I am currently a second year PhD student at the University of Sheffield, a member of Professor Rod Nicolson's Positive Dyslexia group. My main area of research is Positive Dyslexia and my focus is with dyslexic adults. I have done two studies, the first quantitative and the second qualitative, which established very interesting results about dyslexic adults having a higher tendency for entrepreneurial behaviours when compared to non-dyslexic individuals.

The British Dyslexia Association has made great progress over the past decades in the UK in order to identify dyslexic individuals, remove barriers to their achievement and provide the best support for their reading difficulties. The BDA also played a leading role and created the "Dyslexia Friendly Schools" initiative that provides schools with guidelines and a "kitemark" specific standard in order to better help dyslexic children to succeed in school.

Our goal is to move this further and involve companies so as to create "Dyslexia Friendly Companies". Such an initiative would be beneficial for both dyslexic workers and their companies, since we believe they have qualities that will help to make a difference. However, the first stage is to establish what current practice is in terms of recruiting and managing dyslexic workers.

We would like to invite you to take part in our study. It will take less than an hour, and I am happy to arrange it at your convenience, both time and place. I would be happy to undertake it by telephone or by Skype as you prefer.

Please see the interview schedule attached. We emphasise that this study is undertaken in complete confidence, with the guarantee that strict confidentiality will be maintained, with anonymous codes allocated to all participating companies and personnel. The study has been approved by the ethics committee of the University of Sheffield, and if you wish you may withdraw from the study (and have your data deleted) at any time without needing to give any reason. The questions below have absolutely no intention of assessing your company's approach to dyslexia, merely to document it, and, where possible, to gain suggestions for good practice. We are carrying out this study only with the intention of identifying current practice regarding dyslexia in companies and how we could we start implementing new guidelines in order to help companies and dyslexic individuals to better explore their skills and strengths.

Thank you very much for your attention.

Yours sincerely,

Poliana Sepulveda

Appendix H

Study 3 Interview Schedule

Interview Schedule

1. Disability Legislation
 - (a) How many employees do you have in the company?
 - (b) How many dyslexic employees do you have in your company (if known)?
 - (c) Are there any general accommodations (adjustments) made or available for dyslexic employees in your organisation, or is each case considered on its merits?
 - (d) Do you have any experience with dyslexic individuals in your organisation and if so, could you tell me about it?
2. Recruitment (Job advert/Short Listing/Interview-Selection)
 - (a) What is your standard recruitment process?
 - (b) When creating the job advert, can you think of any types of job where you would specifically try to encourage (or discourage) dyslexic applicants?
 - (c) Do you specifically mention candidates with disabilities, and if so do you mention dyslexia in your job adverts?
 - (d) In terms of shortlisting, is there any modification to the shortlisting process for dyslexic applicants?
 - (e) Again for shortlisting, if you have two candidates with identical cvs, experience and skills, would it make a difference if one declared one they were dyslexic? In what way?

- (f) If someone points out they are dyslexic during the interview, would it be make a difference to the interview or selection process?
- (g) Again for selection, if you have two candidates with identical cvs, experience and skills and interview performance, would it make a difference if one declared one they were dyslexic individuals? In what way?
- (h) Can you think of any other relevant information for recruitment process in terms of dyslexia?

3. Training/On boarding

- (a) What is your standard induction / onboarding /company familiarisation process for new recruits?
- (b) Are there any specific differences for dyslexic recruits?
- (c) If a recruit has revealed that they have dyslexia, is there any process for helping their line managers to understand the likely difficulties they may suffer, the strengths they may have and the ways that their jobs may be crafted for greater effectiveness?
- (d) What is the system for reviewing the onboarding process, and are there any dyslexic employees involved in any developments?

4. Talent Management

- (a) What is your standard talent management process (if applicable)?
- (b) Is there any specific company talent management program for dyslexic employees?
- (c) Does the company believe that it is important to adapt the talent management programme for the individuals involved (in general), and in particular for dyslexic individuals?

5. Performance Management / Job Concerns

- (a) What is your standard performance management process for employees whose performance is causing concern?
- (b) If someone is having performance management issue,/job performance concerns, what difference would it make if the person was dyslexic?
- (c) Does the company believe that it is important to adapt the performance management programme for the individuals involved (in general), and in particular for dyslexic individuals?

6. Any other points you would like to mention?

Appendix I

Information sheet

From: Poliana Sepulveda

Telephone: +44 (0) 7473020720

Email: p.sepulveda@sheffield.ac.uk

June 2016

Dear participant,

My name is Poliana and I am currently a third year PhD student at the University of Sheffield, a member of Professor Rod Nicolson's Positive Dyslexia group. My main area of research is Positive Dyslexia and my focus is with dyslexic adults.

The dyslexia community has made great progress over the past decades in the UK in identifying dyslexic individuals, removing barriers to their achievement and providing the best support for their reading difficulties. The BDA also played a leading role in creating the "Dyslexia Friendly Schools" initiative that provides schools with guidelines and a "kitemark" specific standard in order to better help dyslexic children to succeed in school.

Our goal is to move this further and involve companies so as to create "Dyslexia Friendly Companies". Such an initiative would be beneficial for both dyslexic work-

ers and their companies, since we believe they have qualities that will help to make a difference. However, the first stage is to establish what current practice is in terms of recruiting and managing dyslexic workers as well as understanding dyslexic behaviours towards job application and disclosing the information (about being dyslexic).

My most recent study focused on the recruitment process and I interviewed a range of employers to find whether they treated dyslexic applicants any differently.

We would like to invite you to take part in our study. It will take around 15 minutes.

Please, read carefully the information provided below and feel free to ask any questions that may rise. If something is not clear, or you would like to receive more information on any part, feel entirely free to email me. Take your time to decide whether or not you should participate in this research.

Thank you very much for your time!

Project's Purpose

We are interested in analysing dyslexia and its many challenges in the workplace, whether it is in the recruitment process, training or talent management. In this study we intend to probe the underlying causes of these relationships.

Taking part in the research

Be aware that this research is entirely voluntary and it is up to you to participate or not. If you agree to take part in this research, you will be given this information sheet to keep and will be asked to sign a consent form.

This study looks at the dyslexic employees and the challenges they face in the workplace.

University's Ethics regulation.

The present study has received ethical approval by the University of Sheffield. Remember that you can withdraw at anytime, without needing to give any reason, and

you can ask for your data to be withdrawn at any time, again without needing to give any reason.

What will happen to me if I take part?

I will be asking questions like how you felt that dyslexia affected your confidence when applying for a job, how comfortable would you be disclosing the disability to your employer, what are the best ways for you, as a dyslexic, to show your main strengths in a recruitment process, among many others.

Confidentiality

All information given will be kept strictly confidential and will not be revealed to anyone out of the project. A code will be used to indicate the type of company, number of employees etc., and there will be no mention of the company name within the data records.

Results

The results from this research will be part of my PhD thesis and if you are interested in having a copy of the result, please just give me your email address and once the study is finished, I can give it to all interested volunteers.

Contact for further information

Research student: Poliana Piacesi Sepulveda

Email: ppsepulveda1@sheffield.ac.uk

Supervisor: Professor Rod Nicolson

Email: r.nicolson@sheffield.ac.uk

Appendix J

Study 4 Consent form

Consent Form

To continue to the questionnaire just press "OK". We emphasise that this study is undertaken in complete confidence, with the guarantee that strict confidentiality will be maintained, with anonymous codes allocated to all participating individuals. The study has been approved by the ethics committee of the University of Sheffield, and if you wish you may withdraw from the study (and have your data deleted) at any time without needing to give any reason.

Thank you very much for your attention.

Yours sincerely,

Poliana Sepulveda

Appendix K

Study 4 Questionnaire for employed dyslexic individuals

Questionnaire for employed dyslexic individuals

1. Do you have dyslexia?
 Yes
 No
2. How old are you?
 20-25
 26-30
 31-35
 36-40
 41-50
 Above 50
3. When applying for jobs, do you mention your dyslexia?
 Yes
 No
4. Why?
[Text answer]

5. How do you feel about it?

[Text answer]

6. Are you working at the moment?

Yes

No

7. If yes, how long have you been in this company?

1-5 years

6-10 years

11-15 years

more than 15 years

8. Are you happy with your job?

Yes

No

9. If no, what is the reason for your dissatisfaction with the job?

[Text]

10. Are you currently looking for another job?

Yes

No

11. If yes, what are the reasons for looking for another job?

Do not like the environment

Do not like the job itself

Do not feel supported by the company

I feel I struggle a lot with my work

Other [Text]

12. Does your boss or the HR in your company know about your dyslexia?

Yes

No

13. When the company was recruiting you (even from previous companies), did they have any special recruitment for dyslexic individuals?
- () Yes
- () No
14. If yes, which kind?
- [Text answer]
15. Does the company provide any kind of support for you?
- () Yes
- () No
16. If yes, what do they provide?
- [Text answer]
17. Do they have any special support for dyslexic individuals in the company?
- () Yes
- () No
18. If yes, what do they have?
- [Text answer]
19. Do you think you could show more of your strengths/qualities if the company could give you a better dyslexic support?
- () Yes
- () No
20. In what way?
- [Text answer]
21. What would make a better recruitment for you as a dyslexic, so you could show better your talents?
- () Something interactive
- () More interviews
- () Less written procedures
- () Giving some information for preparation
- () Others... [Text]

22. If a job advert mentions specifically for dyslexic people, how would you feel?
- Proud to be dyslexic
 - Would feel I was very capable
 - Would feel very ashamed of being dyslexic
 - Would feel the company's prejudice against dyslexic individuals
23. How do you feel when you compete for a job against a non-dyslexic candidate?
- I feel fine
 - I feel confident
 - I feel the non-dyslexic candidate is always better than me
 - I feel scared
 - I feel lack of support from the companies
24. If during the interview the company asks if you are dyslexic, would you disclose the information?
- Yes
 - No
25. If yes, why?
- Proud to be dyslexic
 - I can make a difference in a company with my dyslexia
 - My dyslexia does not affect me negatively
 - Others [Text]
26. If not, why?
- Afraid I will not get the job
 - Afraid they may think I will be a problem to the company
 - My dyslexia affect me negatively
 - Others [Text]
27. How do you think employers and companies see dyslexia?
- As something positive that could bring benefits
 - As something neutral
 - Companies do not have much information about it

() As something negative and they would avoid employing dyslexic individuals.

28. If you feel that the company has a negative view of dyslexia, would you prefer not disclose that you are dyslexic?

() Yes

() No

29. Do you think that some employers would see dyslexia as an excuse for low performance?

() Yes

() No

30. Why?

[Text answer]

31. In the induction process, would you think that you would be able to perform better and show more of your strengths if there was a specific process for dyslexic individuals?

() Yes

() No

32. What would you like to have in a dyslexia-friendly induction process in order to help you?

() A more visual approach

() Person-oriented approach

() Written approach

() Working in groups

() Working alone

() Videos and talks

() Books and manuals

() Assessments

() Others [Text answer]

33. If your boss has a good knowledge about dyslexia and knows the best methods to work with dyslexic individuals, do you think this would have a positive outcome in your performance?

Yes

No

34. Why?

[Text answer]

35. Do you think a specific talent management career for dyslexic individuals would be beneficial?

Yes

No

36. In what way?

Specific careers would help my talents to flourish

The adaptation process would be better

It would be more productive to have only duties that I master

Others [Text]

37. In this scenario: Your employer acknowledges that you are dyslexic and you have been showing a struggle with written reports. How would you feel if your written duties were transferred to another colleagues in exchange for some visual duties (eg: slides) for you?

Would feel happy to do something I am good at

Would feel relieved to stop performing bad at the reports

Would feel supported

Would feel incapable

Would feel bad for not being seeing as capable to perform a report

Would feel sad that my boss did not think to challenge me

Would feel disappointed because my boss did not give me a good support

Others [Text]

38. If you were having a problem in the company, would it make a difference to acknowledge your dyslexia?

Yes

No

39. If yes:

- Yes, because the company could give me the right support
- Yes, because the company could research for the right support
- Yes, because it is the company's interest to have a productive and high performance employee
- Other [Text]

40. If no:

- No, because dyslexia is not an excuse
- No, because there would be no support
- No, because they do not have enough knowledge about dyslexia
- Other [Text]

41. How would you feel if the whole company knew you were dyslexic?

- Insecure
- Unsure of how people how interpretate it
- Would try to build confidence again (just like in school)
- Confident
- Happy to show my colleagues what I am capable of

42. How would you feel in the same scenario if the company had a positive impression about dyslexic individuals?

- Would feel ashamed of having dyslexia
- Would feel proud of having dyslexia
- Would make sure everyone knew I was dyslexic
- Would feel more responsible for my work
- Others [Text]

Appendix L

Study 4 Questionnaire for dyslexic students

Questionnaire for dyslexic students

1. Do you have dyslexia?

Yes

No

2. How old are you?

17- 19

20-25

26-30

31-35

36-40

41-50

Above 50

3. When you start applying for jobs, will you mention your dyslexia?

Yes

No

4. Why?

[Text answer]

5. How would you feel about it?

[Text answer]

6. Are you working at the moment?

() Yes

() No

7. Do you think having a dyslexic support in your future job will have a positive outcome?

() Yes

() No

8. If yes, how?

[Text]

9. Will you feel comfortable disclosing your dyslexia for your employer?

() Yes

() No

10. Do you think your future employer have any special support for dyslexic individuals in the company?

() Yes

() No

11. If yes, what would your assume they have?

[Text answer]

12. Do you think you could show more of your strengths/qualities if your future employer could give you a better dyslexic support?

() Yes

() No

13. In what way?

[Text answer]

14. What would make a better recruitment for you as a dyslexic, so you could show better your talents?
- Something interactive
 - More interviews
 - Less written procedures
 - Giving some information for preparation
 - Others... [Text]
15. If a job advert mentions specifically for dyslexic people, how would you feel?
- Proud to be dyslexic
 - Would feel I was very capable
 - Would feel very ashamed of being dyslexic
 - Would feel the company's prejudice against dyslexic individuals
16. How would you feel competing for a job against a non-dyslexic candidate?
- I feel fine
 - I feel confident
 - I feel the non-dyslexic candidate is always better than me
 - I feel scared
 - I feel lack of support from the companies
17. If during the interview the company asks if you are dyslexic, would you disclose the information?
- Yes
 - No
18. If yes, why?
- Proud to be dyslexic
 - I can make a difference in a company with my dyslexia
 - My dyslexia does not affect me negatively
 - Others [Text]
19. If not, why?
- Afraid I will not get the job
 - Afraid they may think I will be a problem to the company

- My dyslexia affect me negatively
- Others [Text]
20. How do you think employers and companies see dyslexia?
- As something positive that could bring benefits
- As something neutral
- Companies do not have much information about it
- As something negative and they would avoid employing dyslexic individuals.
21. If you feel that the company has a negative view of dyslexia, would you prefer not disclose that you are dyslexic?
- Yes
- No
22. Do you think that some employers would see dyslexia as an excuse for low performance?
- Yes
- No
23. Why?
- [Text answer]
24. In the induction process, would you think that you would be able to perform better and show more of your strengths if there was a specific process for dyslexic individuals?
- Yes
- No
25. What would you like to have in a dyslexia-friendly induction process in order to help you?
- A more visual approach
- Person-oriented approach
- Written approach
- Working in groups
- Working alone

- Videos and talks
 - Books and manuals
 - Assessments
 - Others [Text answer]
26. If your future boss has a good knowledge about dyslexia and knows the best methods to work with dyslexic individuals, do you think this would have a positive outcome in your performance?
- Yes
 - No
27. In what way?
- [Text answer]
28. Do you think a specific talent management career for dyslexic individuals would be beneficial?
- Yes
 - No
29. In what way?
- Specific careers would help my talents to flourish
 - The adaptation process would be better
 - It would be more productive to have only duties that I master
 - Others [Text]
30. In this scenario: Your employer acknowledges that you are dyslexic and you have been showing a struggle with written reports. How would you feel if your written duties were transferred to another colleagues in exchange for some visual duties (eg: slides) for you?
- Would feel happy to do something I am good at
 - Would feel relieved to stop performing bad at the reports
 - Would feel supported
 - Would feel incapable
 - Would feel bad for not being seeing as capable to perform a report
 - Would feel sad that my boss did not think to challenge me
 - Would feel disappointed because my boss did not give me a good support

Others [Text]

31. If you were having a problem in the company, would it make a difference to acknowledge your dyslexia?

Yes

No

32. If yes:

Yes, because the company could give me the right support

Yes, because the company could research for the right support

Yes, because it is the company's interest to have a productive and high performance employee

Other [Text]

33. If no:

No, because dyslexia is not an excuse

No, because there would be no support

No, because they do not have enough knowledge about dyslexia

Other [Text]

34. How would you feel if the whole company knew you were dyslexic?

Insecure

Unsure of how people how interpreted it

Would try to build confidence again (just like in school)

Confident

Happy to show my colleagues what I am capable of

35. How would you feel in the same scenario if the company had a positive impression about dyslexic individuals?

Would feel ashamed of having dyslexia

Would feel proud of having dyslexia

Would make sure everyone knew I was dyslexic

Would feel more responsible for my work

Others [Text]

Appendix M

Study 4 Questionnaire for unemployed dyslexic

Questionnaire- Unemployed dyslexic individuals

1. Do you have dyslexia?

Yes

No

2. How old are you?

20-25

26-30

31-35

36-40

41-50

Above 50

3. When applying for jobs, do you mention your dyslexia?

Yes

No

4. Why?

[Text answer]

5. How do you feel about it?

[Text answer]

6. Are you working at the moment?

() Yes

() No

7. If yes, how long have you been in this company?

() 1-5 years

() 6-10 years

() 11-15 years

() more than 15 years

8. Are you happy with your job?

() Yes

() No

9. If no, what is the reason for your dissatisfaction with the job?

[Text]

10. Are you currently looking for another job?

() Yes

() No

11. If yes, what are the reasons for looking for another job?

() Do not like the environment

() Do not like the job itself

() Do not feel supported by the company

() I feel I struggle a lot with my work

() Other [Text]

12. Does your boss or the HR in your company know about your dyslexia?

() Yes

() No

13. When the company was recruiting you (even from previous companies), did they have any special recruitment for dyslexic individuals?

Yes

No

14. If yes, which kind?

[Text answer]

15. Does the company provide any kind of support for you?

Yes

No

16. If yes, what do they provide?

[Text answer]

17. Do they have any special support for dyslexic individuals in the company?

Yes

No

18. If yes, what do they have?

[Text answer]

19. Do you think you could show more of your strengths/qualities if the company could give you a better dyslexic support?

Yes

No

20. In what way?

[Text answer]

21. What would make a better recruitment for you as a dyslexic, so you could show better your talents?

Something interactive

More interviews

Less written procedures

Giving some information for preparation

Others... [Text]

22. If a job advert mentions specifically for dyslexic people, how would you feel?
- Proud to be dyslexic
 - Would feel I was very capable
 - Would feel very ashamed of being dyslexic
 - Would feel the company's prejudice against dyslexic individuals
23. How do you feel when you compete for a job against a non-dyslexic candidate?
- I feel fine
 - I feel confident
 - I feel the non-dyslexic candidate is always better than me
 - I feel scared
 - I feel lack of support from the companies
24. If during the interview the company asks if you are dyslexic, would you disclose the information?
- Yes
 - No
25. If yes, why?
- Proud to be dyslexic
 - I can make a difference in a company with my dyslexia
 - My dyslexia does not affect me negatively
 - Others [Text]
26. If not, why?
- Afraid I will not get the job
 - Afraid they may think I will be a problem to the company
 - My dyslexia affect me negatively
 - Others [Text]
27. How do you think employers and companies see dyslexia?
- As something positive that could bring benefits
 - As something neutral
 - Companies do not have much information about it

() As something negative and they would avoid employing dyslexic individuals.

28. If you feel that the company has a negative view of dyslexia, would you prefer not disclose that you are dyslexic?

() Yes

() No

29. Do you think that some employers would see dyslexia as an excuse for low performance?

() Yes

() No

30. Why?

[Text answer]

31. In the induction process, would you think that you would be able to perform better and show more of your strengths if there was a specific process for dyslexic individuals?

() Yes

() No

32. What would you like to have in a dyslexia-friendly induction process in order to help you?

() A more visual approach

() Person-oriented approach

() Written approach

() Working in groups

() Working alone

() Videos and talks

() Books and manuals

() Assessments

() Others [Text answer]

33. If your boss has a good knowledge about dyslexia and knows the best methods to work with dyslexic individuals, do you think this would have a positive outcome in your performance?

Yes

No

34. Why?

[Text answer]

35. Do you think a specific talent management career for dyslexic individuals would be beneficial?

Yes

No

36. In what way?

Specific careers would help my talents to flourish

The adaptation process would be better

It would be more productive to have only duties that I master

Others [Text]

37. In this scenario: Your employer acknowledges that you are dyslexic and you have been showing a struggle with written reports. How would you feel if your written duties were transferred to another colleagues in exchange for some visual duties (eg: slides) for you?

Would feel happy to do something I am good at

Would feel relieved to stop performing bad at the reports

Would feel supported

Would feel incapable

Would feel bad for not being seeing as capable to perform a report

Would feel sad that my boss did not think to challenge me

Would feel disappointed because my boss did not give me a good support

Others [Text]

38. If you were having a problem in the company, would it make a difference to acknowledge your dyslexia?

Yes

No

39. If yes:

- Yes, because the company could give me the right support
- Yes, because the company could research for the right support
- Yes, because it is the company's interest to have a productive and high performance employee
- Other [Text]

40. If no:

- No, because dyslexia is not an excuse
- No, because there would be no support
- No, because they do not have enough knowledge about dyslexia
- Other [Text]

41. How would you feel if the whole company knew you were dyslexic?

- Insecure
- Unsure of how people how interpretate it
- Would try to build confidence again (just like in school)
- Confident
- Happy to show my colleagues what I am capable of

42. How would you feel in the same scenario if the company had a positive impression about dyslexic individuals?

- Would feel ashamed of having dyslexia
- Would feel proud of having dyslexia
- Would make sure everyone knew I was dyslexic
- Would feel more responsible for my work
- Others [Text]