# The value of dyslexia

Dyslexic strengths and the changing world of work

In association with:





# Acknowledgements and information

The authors would like to thank Made By Dyslexia for providing the supportive quotes and persona case studies.

About Made By Dyslexia: Made By Dyslexia is a global charity led by successful dyslexic individuals. Our mission is to help the world properly understand, value and support dyslexia by developing campaigns and tools to explain dyslexic thinking. Our goal is to democratise support so every dyslexic is discovered and enabled to flourish.

#### www.madebydyslexia.org

The authors of this report recognise that those with dyslexia will have varying cognitive profiles. For the purpose of this report, dyslexic abilities have been recognised through a typical group of skills which a dyslexic individual is likely to be strong in.

Throughout this document dyslexia is referred to independently and as part of a sub-group:

# Neurodiversity (Cognitive-diversity), Neuro-typical and Neuro-divergent.

Neurodiversity considers those that are both neuro-typical and neuro-divergent. Those who are neuro-divergent are considered to have different neurocognitive functioning from a typical (neuro-typical) cognitive profile<sup>1</sup>.





# Contents

Forewords		
Executive summary	5	
Report methodology	6	
The changing world of work	8	
What is dyslexia?	10	
Skills mapping	13	
<ul> <li>Reasoning</li> </ul>	14	
<ul> <li>Connecting</li> </ul>	16	
<ul> <li>Exploring</li> </ul>	18	
<ul> <li>Communicating</li> </ul>	20	
Imagining	22	
<ul> <li>Visualising</li> </ul>	24	
Dyslexia and future skills demand	26	
Personas and interviews	29	
<ul> <li>Education overview</li> </ul>	34	
<ul> <li>Employment overview</li> </ul>	36	
Recommendations	38	



The world of work is changing. The often talked about 'skills gap' shows a need for creative, different thinkers to make sense of the rapid change and the disruption we're facing in the world today. Dyslexic individuals have a range of natural strengths that make them 'hard wired' to step right in and fill this gap.

If we are to prepare dyslexic individuals for this changing world and enable them to flourish, we must ensure that educators are enabled and empowered to support them adequately.

As this report finds, in education a limited knowledge of dyslexic abilities and traditional approaches to exams can influence dyslexic individuals from reaching their full potential. This, coupled with a focus on dyslexic challenges, means that valuable dyslexic strengths are often missed.

There needs to be a refocusing, now more than ever, of how dyslexic ability is viewed in the context of the changing world of work: schools must recognise dyslexia as a valuable way of thinking; understand the importance of discovering dyslexic challenges and strengths; and provide support which enables dyslexic individuals to reach their full potential.

We hope this report will be the tipping point that enables the world to see the value of dyslexia and highlights why dyslexia should be a priority in schools. As this report shows, the working world can benefit from dyslexic minds.

Kate Griggs Founder and CEO



# Forewords





When asked, most people have heard of dyslexia and associate it with an inability to spell and read. In fact, dyslexia has a range of common challenges and strengths. These strengths are often ignored entirely and left unrecognised.

In this report, we analyse how dyslexic strengths match closely to the pressing skill requirements of the changing world and have provided recommendations to nurture and grow these abilities. Our findings show the huge benefits to be had from taking action to maximise dyslexic strengths. With this in mind, we trust our work will help in seeing the value of proactively educating, recruiting, developing and retaining those with dyslexia.

For our team this experience has opened our minds to the opportunity that dyslexia brings – something that as dyslexic individuals, we found to be very personal.

We wish to thank all those who contributed at EY, EY Seren and externally, who brought the strengths and challenges of dyslexia to life. This report was entirely a team effort and working with Richard Sedley, LK Coleman, Adam McNally, Mary Buxton, Jason Buck, Anna Nagele, Hannah Pitts and Janki Lalji has been a thoroughly rewarding experience. That said, a special mention must go to Ben Cooke for driving the project, showing the dyslexic traits of creativity and determination in abundance.

Richard Addison Dyslexia Network Partner Sponsor





# **Executive summary**

#### The changing world

The world of work is changing, and changing fast.

A revolution in the skills needed by both society and employers is already underway. There will be a significant growth in demand for flexible skills in a highly collaborative and interdisciplinary environment; a transformative approach is needed to build an increasingly diverse talent pool.

People with the ability to thrive in this new order are in high demand and short supply.

#### The value of dyslexia

With this backdrop of change, how does dyslexia fit in? Our research shows that dyslexic strengths provide a significant opportunity for organisations to harness a different, and widely untapped, pool of talent.

Dyslexia influences at least 1 in 10 people<sup>2</sup> and is a genetic difference<sup>3</sup> in an individual's ability to learn and process information. As a result, dyslexic individuals have differing abilities, with strengths in creative, problem solving and communication skills and challenges with spelling, reading and memorising facts. Generally, a dyslexic cognitive profile will be uneven when compared to a neuro-typical cognitive profile. This means that dyslexic individuals really do think differently.

What does this mean in work? These varied cognitive profiles give dyslexic individuals natural abilities to form alternative views and solve problems creatively. Heightened cognitive abilities in certain areas, such as visualisation and logical reasoning skills and natural entrepreneurial traits<sup>4</sup> can bring a fresh, often intuitive perspective.

#### **Untapped talent**

Dyslexic strengths align closely with business needs and can become part of the solution. A greater awareness of these strengths, neuro-diverse abilities and of the skills needed in the future, can help educators facilitate and employers capture untapped talent. However, dyslexia is commonly viewed for its challenges, rather than strengths. In education and employment, there can be a negative perception of dyslexia as a result, which can influence dyslexic individuals from reaching their full potential, and some organisations from realising the full value of dyslexic strengths.

A change in perception of dyslexia can help build a talent pipeline that is flexible and adaptable to the changing world of work, Over time, we would like to think that a strengths-based approach would become part of day-to-day life.

#### The way forward

First we must recognise and maximise the strengths that dyslexia brings and avoid focusing on just the relative challenges. This should be a priority for leaders. Clear leadership is a core building block in creating a psychologically safe<sup>5</sup> environment in which dyslexic strengths can flourish.

The next step is to improve the availability of, and access to, dyslexia screeners, assessments and information about dyslexia. These can greatly assist dyslexic individuals with self-help and provide a useful resource for recognising, understanding and supporting dyslexic abilities in education and employment.

Finally, employers should implement a neuro-diverse talent strategy, and adopt a strengths-based approach to hiring, talent, and work on a day-to-day basis, focusing on four levels:

- 1. Build capability Determine how dyslexic strengths can be deployed in the organisation to help meet business objectives.
- 2. Target performance Use assistive technologies, tailored processes and a specific strengths-based performance criteria to enable dyslexic individuals to perform exceptionally in roles.
- 3. Drive motivation Adjust workplace design and provide the support, coaching and mentoring schemes to build dyslexic confidence.
- 4. Enhance efficiency Train managers to recognise, facilitate and accompany dyslexic strengths to achieve greater organisational and individual productivity.

<sup>2</sup>Better Training, Better Teaching, Dyslexia International 2014 p.2

<sup>&</sup>lt;sup>3</sup>Connecting The Dots, Made By Dyslexia 2017 p.7

<sup>&</sup>lt;sup>4</sup>Dyslexic Entrepreneurs: Their Incidence; Their Coping Strategies and Their Business Skills, Logan, J 2009 p.17

 $<sup>^5 \</sup>mbox{The Two Traits of the Best Problem-Solving Teams, Reynolds, A and Lewis, D 2018$ 



# Report methodology

The objectives of this report are to:

- Show the value of dyslexia in the changing world of work
- ► Highlight current dyslexic experiences through education and employment
- > Provide recommendations for attaining dyslexic strengths for educators and employers

The report methodology has five sections as highlighted below. The first section provides context for the changing world of work and a set of general core work-related skills that are growing in demand. The second section explains what dyslexia is, its relevant challenges and strengths, and provides a set of typical dyslexic thinking/general skills. The third section maps dyslexic thinking/general skills with core work-related skills and future skills demand. The fourth section personalises the journey of dyslexic individuals through education and employment, and provides observational points. The fifth section provides recommendations.



#### The Future of Jobs, The World Economic Forum

The World Economic Forum's change in demand for core work-related skills 2015-2020, all industries<sup>6</sup> study formed the foundation for our analysis and provides:

- ► A set of core-work related abilities, skills and cross-functional skills that are represented across industries<sup>7</sup>
- ▶ The skill/ability family demand for now and the future
- ▶ The scale of skill demand to 2020 across skill/ability families

# 2

#### Dyslexic thinking/general skills, Made By Dyslexia

Made By Dyslexia's dyslexic thinking/general skills<sup>8</sup> study formed the basis for our analysis and provides:

► A set of typical dyslexic skills

#### Mapping dyslexic skills to future skills demand

Combining Made By Dyslexia's dyslexic thinking/general skills and The World Economic Forum's core work-related skills/abilities we have mapped by positive association the number of connections between each skill. This associates dyslexic skills with that of core work-related skills at an individual level.

<sup>6</sup>Future of Jobs Survey, The Future of Jobs, The World Economic Forum 2016 p.22
 <sup>7</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53
 <sup>8</sup>Connecting The Dots, Made By Dyslexia 2017 p.12-14

We have then aggregated these individual level findings and used the growing skills demand 2020 figures from The World Economic Forum's change in demand for core work-related skills, 2015-2020, all industries table to align dyslexic skills to future skills demand.

In both cases the full spectrum of connections is shown, however we have focused on where dyslexic individuals will typically have strengths relative to skill at a 'strong', 'very strong' or 'exceptional' association.

## 4

#### Personas and interviews

To provide context to the challenges and strengths of dyslexia along individual journeys, we conducted interviews across a range of ages and experiences in education (school, college and university) and employment, to determine how each individual experienced living with dyslexia.

The interviews were compiled into four 'personas', creating accurate duplications of real dyslexic individuals in today's society as highlighted below. This enabled us to present observations on areas that may inhibit attaining dyslexic strengths.

- ▶ Persona 1 Chris, dyslexia doesn't play an important role in day-to-day life
- Persona 2 Michelle, experiences multiple challenges with dyslexia and doesn't receive the necessary support
- Persona 3 Shreya, actively seeks support and techniques to compensate for dyslexic challenges
- ▶ Persona 4 Tom, dyslexia was a challenge early in life, now it's fully embraced as a strength

#### 5 Recommendations

Drawing from the dyslexic skills mapping and our persona research, we provide recommendations for attaining and retaining dyslexic strengths for educators and employers.

# 1-2-3-4-5

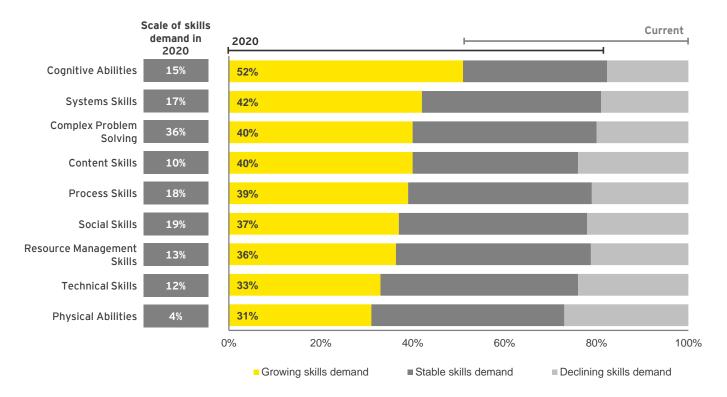
# The changing world of work

Disruption is all around us; technological innovation continues to challenge and change how we work. This is moving faster than ever before, transforming our work environment.

As human effort converges with machines, automation is creating new roles whilst displacing others, leading to a change in demand for workplace skills.

In order to understand this rapidly changing work environment, The World Economic Forum has categorised a set of core work-related skills across a set of job families and determined the stability of these skills to 2020<sup>9</sup>.

#### Change in demand for core work-related skills, 2015-2020, all industries



Share of jobs requiring skills family as part of their core skill set, %

Source: Future of Jobs Survey, World Economic Forum

The result shows a significant change in core work-related skills across all industries, highlighting how there is a requirement for flexible skills and abilities in a highly collaborative and interdisciplinary environment.

Technically-related subjects and skills alone are not sufficient to support this scale of change. The required cognitive talent is also much harder and takes longer to train than skills most associated with formal education routes.

Without action from industry, skills demand will be mismatched by skills availability in the employment market; a transformative approach is needed to build an increasingly diverse talent pool.

The World Economic Forum's core work-related skills framework<sup>10</sup> consists of 35 individual abilities, skills and cross-functional skills\*.

#### Abilities Cognitive Abilities Cognitive Flexibility

Creativity

Logical Reasoning

**Problem Sensitivity** 

Mathematical Reasoning

#### Visualisation

#### Physical Abilities

Manual Dexterity and Precision

Physical Strength

#### Basic Skills

Content Skills

Active Learning

Oral Expression

Reading Comprehension

Written Expression

#### **ICT Literacy**

#### Process Skills

Active Listening

**Critical Thinking** 

Monitoring Self and Others

Cross-functional Skills

Complex Problem Solving Skills

**Complex Problem Solving** 

Resource Management Skills

Management of Financial Resources

Management of Material Resources

People Management

Time Management

#### Social Skills

Coordinating with Others

Emotional Intelligence

Negotiation

Persuasion

Service Orientation

**Training and Teaching Others** 

System Skills

Judgement and Decision Making Systems Analysis

#### Technical Skills

Equipment Maintenance and Repair

Equipment Operation and Control

Programming

**Quality Control** 

Technology and User Experience Design

Troubleshooting

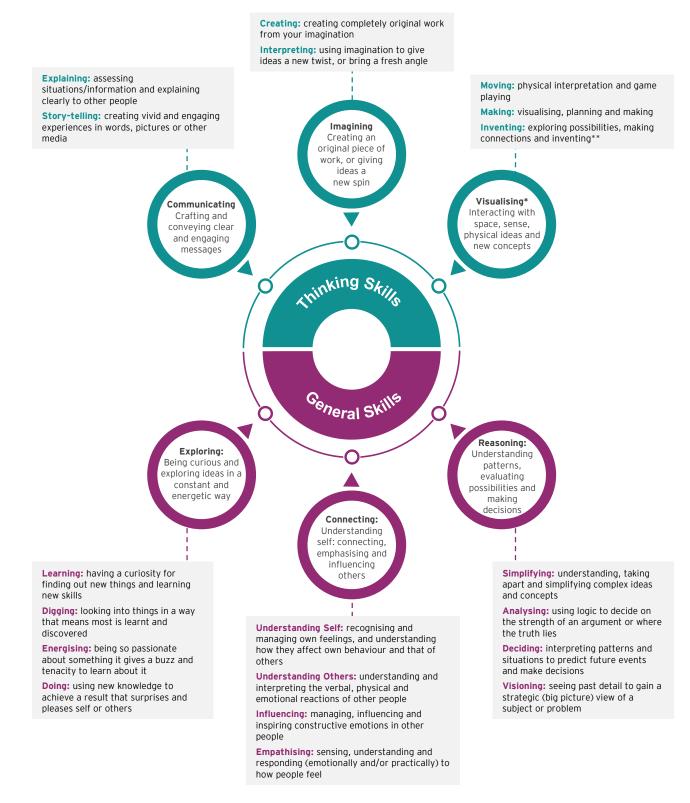
\*Skill family (dark grey) individual skills/abilities (lighter greys)

<sup>10</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p. 52-53

	5
What is dyslexia?	
Given this significant transformation in the world of work, organisations will need to approach the question of building the skills required to meet future demand creatively.	I'm very conscious of my challenges, and work very hard to counter them, but it takes a lot of concentration.
A deeper understanding of differing cognitions, particularly dyslexia, should be part of this fresh approach.	In turn, dyslexic individuals also have strengths as a result of thinking and working differently. An uneven cognitive profile can lead dyslexic individuals to be
Dyslexia is known to be a difference in thinking, however dyslexia is primarily known for its challenges, typically with learning and processing information. (As part of this section, we have highlighted a	exceptional in specific areas. Dyslexia has driven my great analytical abilities. I'm able to absorb knowledge through
collection of typical comments from our interviews with dyslexic individuals <sup>11</sup> .)	non-conventional means very effectively.
My dyslexia gives me difficulties. I find it hard to express myself in a concise manner.	dyslexia, I can help my colleagues connect solutions together better.
It takes me longer than my peers to read through notes, and to understand complex writing.	I have big picture thinking, good- interpersonal skills and creative abilities.
I have issues with my spelling and processing speed, it's very slow.	I am very detail orientated and I can get my head around complex detail faster – I have a very creative mind in respect of finding new solutions to an existing problem.
Those with dyslexia often mask, disguise or avoid tasks entirely that they find challenging, leading to coping strategies that take a concerted physical and mental effort to 'fit the mould'. This can have an impact on an individual's well-being.	This is explained by Made By Dyslexia's dyslexic thinking/general skills framework, shown across the ability to Reason, Connect, Explore, Communicate, Imagine and Visualise <sup>12</sup> .
If I tell people about my dyslexia at work, it could potentially be seen as making excuses and people see it as my weakness.	
When I'm under pressure my challenges are more likely to show.	

<sup>11</sup>Dyslexia Survey, EY 2018<sup>12</sup>Connecting The Dots, Made By Dyslexia 2017 p.12-14

#### Dyslexic thinking/general skills, Made By Dyslexia



\*Skill family \*\*Individual skills





# Skills mapping

So far, we have observed the impact that the changing world of work will have on skills and abilities across industries, and covered typical dyslexic thinking and general skills.

Instead of focusing solely on the challenges of dyslexia, we want to demonstrate the relevance and applicability of dyslexic strengths to the changing world of work, by mapping dyslexic skills to core work-related skills and future skills demand.

Through this exercise we want to transform the perception of dyslexia and provide a useful benchmark to identify dyslexic abilities.



# Reasoning

In Reasoning, dyslexic individuals exhibit the ability to understand patterns, evaluate possibilities and make decisions at:

- An exceptional level in Visioning; Deciding; Analysing and Simplifying to Logical Reasoning; Complex Problem Solving; Active Learning and Critical Thinking across Cognitive Abilities; Complex Problem Solving Skills; Content Skills and Process Skills
- A very strong level in Visioning; Deciding; Analysing and Simplifying to Problem Sensitivity; Creativity; Cognitive Flexibility; Systems Analysis; Written Expression and Technical and User Experience Design across Cognitive Abilities; System Skills; Content Skills and Technical Skills
- A strong level in Visioning; Deciding; Analysing and Simplifying to Visualisation; Mathematical Reasoning; Judgement and Decision Making; Management of Material Resources; Management of Financial Resources; Troubleshooting and Quality Control across Cognitive Abilities; System Skills; Resource Management Skills and Technical Skills

#### **Dyslexic strength**

#### Exceptional

- Logical Reasoning
- Complex Problem Solving
- ► Active Learning
- Critical Thinking

#### Very Strong

- Problem Sensitivity
- ► Creativity
- Cognitive Flexibility
- Systems Analysis
- ► Written Expression
- Technical and User Experience Design

#### Strong

- Visualisation
- ► Mathematical Reasoning
- ► Judgement and Decision Making
- ► Management of Material Resources
- Management of Financial Resources
- Troubleshooting
- Quality Control

# 66

Dyslexia has given me an entrepreneurial outlook on life. I'm incredibly comfortable with change and this enables me to come up with new and fresh ideas.

Claudia Douglass, Managing Director and Co-Founder, Innovision

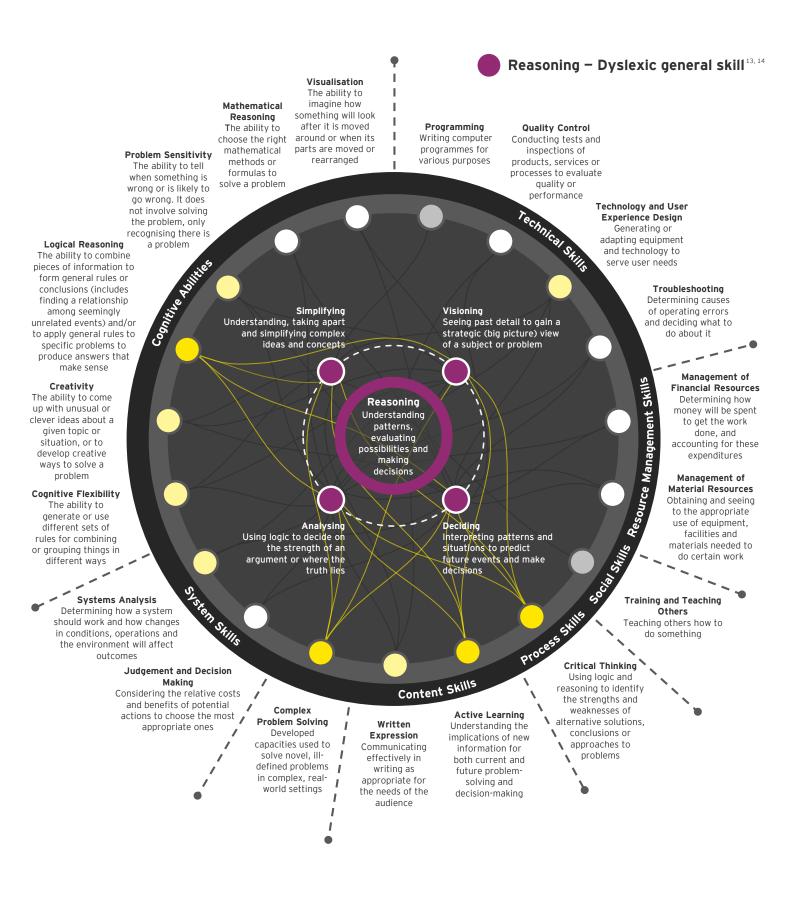
Dyslexia is hugely beneficial – thinking differently and finding unconventional ways to problem solve comes naturally. This is important for decision making and has allowed me to deliver an impact to my role.

Andrew Pike OBE, Director, International Communications, Prime Minister's Office and Cabinet Office Communications Dyslexic individuals thrive on change and step up to the challenge – the ability to work across boundaries and think differently is a natural trait.

Dr Maggie Aderin-Pocock MBE, Space Scientist and Science Communicator

Dyslexic skills align with 21st century career skills; collaboration, critical thinking and creativity are really important STEM skills.

Professor Sara Rankin, Leukocyte and Stem Cell Biology at the National Heart and Lung Institute, Imperial College London



<sup>13</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53

<sup>14</sup>Connecting The Dots, Made By Dyslexia 2017 p.14



# Connecting

In Connecting, dyslexic individuals exhibit the ability to understand self; connect, empathise & influence others at:

- An exceptional level in Empathising; Influencing; Understanding Others and Understanding Self to Oral Expression; Monitoring Self and Others; Persuasion; Negotiation; Emotional Intelligence; Coordinating with Others and People Management across Content Skills; Process Skills; Social Skills and Resource Management Skills
- A very strong level in Empathising; Understanding Others and Understanding Self to Active Listening across Process Skills
- A strong level in Empathising; Influencing and Understanding Others to Cognitive Flexibility; Complex Problem Solving; Service Orientation across Cognitive Abilities; Complex Problem Solving Skills and Social Skills

#### **Dyslexic strength**

#### Exceptional

- ► Oral expression
- Monitoring Self and Others
- Persuasion
- Negotiation
- ► Emotional Intelligence
- Coordinating with Others
- ► People Management

#### Very Strong

► Active Listening

#### Strong

- ► Cognitive Flexibility
- ► Complex Problem Solving
- Service Orientation

### 66

We need individuals who can influence and persuade their colleagues; make connections, understand people and to build a creative narrative. These are highly valued strengths.

Steve Hatch, VP Northern Europe, Facebook

I have a unique ability to manage people, I find inventive ways to motivate, negotiate with and persuade my team, this is my dyslexic advantage.

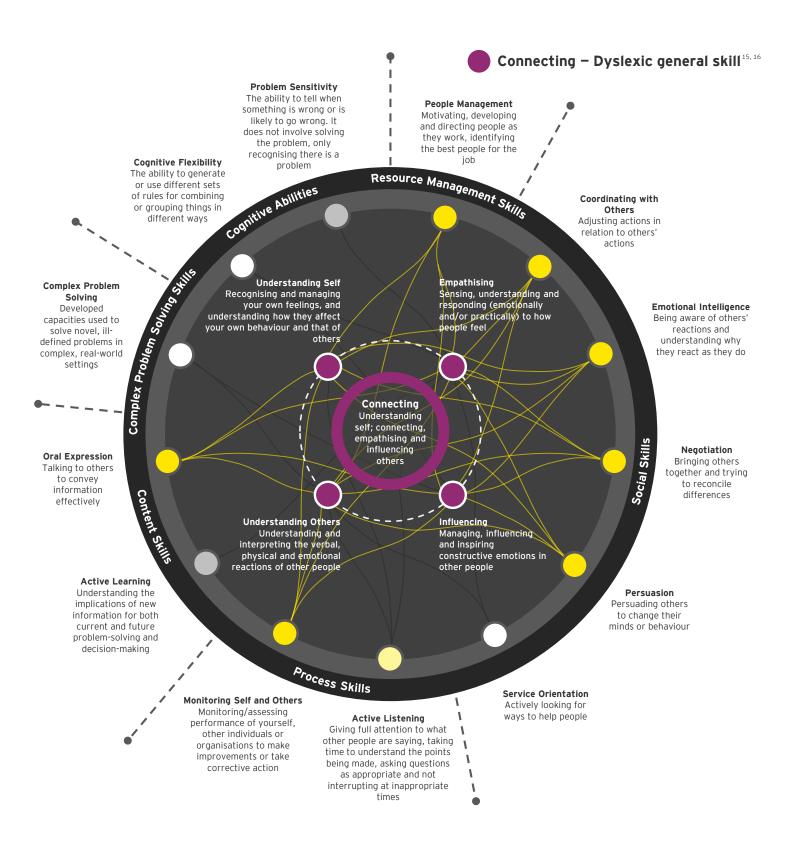
Andrew Pike OBE, Director, International Communications, Prime Minister's Office and Cabinet Office Communications Communication is such an important part of our business and my job. Being able to empathise with our members is a hugely important part of what we do.

Nick Jones MBE, Founder and CEO, Soho House & Co.

Being dyslexic enables you to simplify things very quickly. It enabled me to see the big picture and I could make decisions more creatively and effectively as a result.

Roland Rudd, Founder and Chairman, Finsbury

**?**?



<sup>15</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53 <sup>16</sup>Connecting The Dots, Made By Dyslexia 2017 p.14



# Exploring

In Exploring, dyslexic individuals exhibit the ability to be curious and explore ideas in a constant and energetic way at:

- An exceptional level in Doing; Energising; Digging and Learning to Creativity and Active Learning across Cognitive Abilities and Content Skills
- A very strong level in Doing; Digging and Learning to Cognitive Flexibility across Cognitive Abilities
- A strong level in Doing and Digging to Complex Problem Solving across Complex Problem Solving Skills

## Dyslexic strength

#### Exceptional

- ► Creativity
- Active Learning

#### Very Strong

Cognitive Flexibility

#### Strong

► Complex Problem Solving

## 66

We need an appropriate mix of people, including those with a different and curious approach and to show leadership with that approach – dyslexia provides a unique opportunity.

Claudia Douglass, Managing Director and Co-Founder, Innovision

The pace of change at which we are moving is much faster that before and for that environment you need highly curious people, people who look at things differently – dyslexic individuals have the ability to explore ideas in a unique way.

Lord Davies of Abersoch CBE

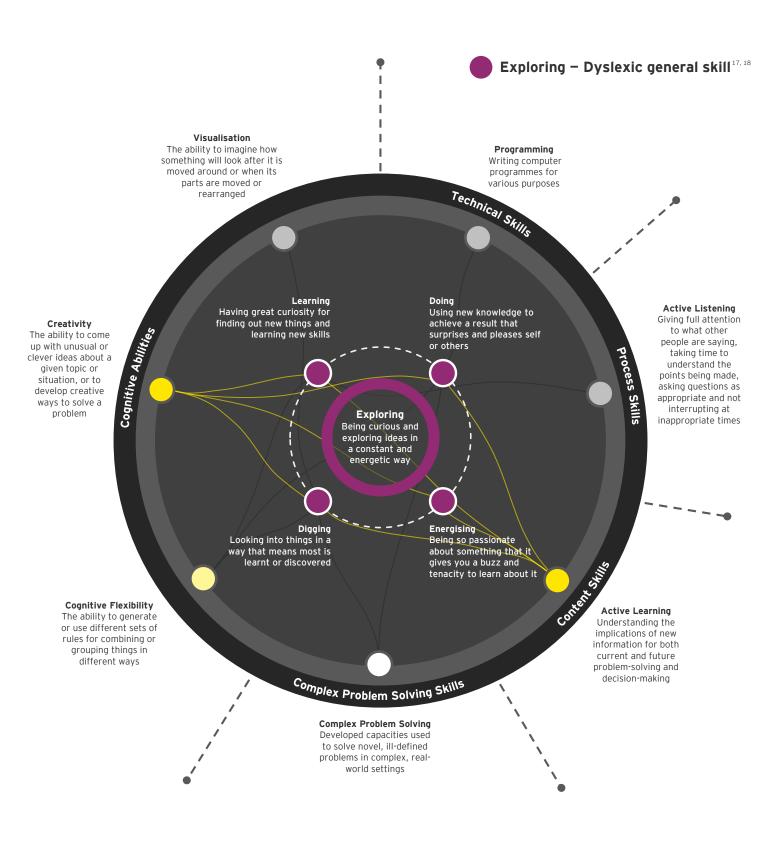
I was good at finding stories, finding relationships and gaining peoples trust this I can attribute to my dyslexia.

Roland Rudd, Founder and Chairman, Finsbury

I have an unconventional route to problem solving and find alternative and creative ways to figure things out, I've learnt to play to my dyslexic strengths.

Andrew Pike OBE, Director, International Communications, Prime Minister's Office and Cabinet Office Communications





<sup>17</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53

#### $^{\rm 18}{\rm Connecting}$ The Dots, Made By Dyslexia 2017 p.14



# Communicating

In Communicating, dyslexic individuals exhibit the ability to craft and convey clear and engaging messages at:

- An exceptional level in Explaining and Storytelling to Visualisation; Creativity; Written Expression, Oral Expression; Training and Teaching Others and People Management across Cognitive Abilities; Content Skills; Social Skills and Resource Management Skills
- A strong level in Explaining to Problem Sensitivity; Logical Reasoning; Systems Analysis; ICT Literacy; Active Learning and Active Listening across Cognitive Abilities; Systems Skills; Content Skills and Process Skills

#### **Dyslexic strength**

#### Exceptional

- Visualisation
- ▶ Creativity
- Written Expression
- Oral Expression
- ► Training and Teaching Others
- People Management

#### Strong

- Problem Sensitivity
- Logical Reasoning
- Systems Analysis
- ► ICT Literacy
- Active Learning
- Active Listening

66

As a modern business you need a diverse set of skills – technical experts who can manage and develop others and those who can communicate effectively and join up the different parts.

Steve Hatch, VP Northern Europe, Facebook

As a scientist I have found that I am able to take complex ideas and simplify them, story tell and bring science ideas to life in my own unique way, this has been a huge advantage.

Dr Maggie Aderin-Pocock MBE, Space Scientist and Science Communicator

One of the great advantages of being dyslexic is simplification. Having to see things slightly differently allows for better decision making and is a real help when running a company.

Nick Jones MBE, Founder and CEO, Soho House & Co.

I realised my dyslexia gave me different skills, one of these was communication, being good with people – this gave me an edge that I was able to build into a strength.

Roland Rudd, Founder and Chairman, Finsbury

**?**?

Communicating – Dyslexic thinking skill<sup>19,20</sup> Visualisation People Management The ability to imagine how Motivating, developing and something will look after I directing people as they it is moved around or work, identifying the best I. when its parts are moved people for the job Resource Management Skills or rearranged **Problem Sensitivity** The ability to tell when something is wrong or Training and is likely to go wrong. It Teaching Others does not involve Teaching others how solving the problem, SocialSkills to do something only recognising there is a problem Logical Reasoning The ability to combine Active Listening Explaining pieces of information Giving full attention Assessing situations to form general rules to what other information, and explaining or conclusions people are saying, Color (includes finding a clearly to other people taking time to relationship among understand the seemingly unrelated points being made, events) and/or to asking questions as apply general rules to appropriate and not specific problems to interrupting at produce answers that inappropriate times Communicating make sense Crafting and conveying clear and engaging messages Active Learning Creativity Understanding the The ability to come up implications of new with unusual or clever information for Story-telling ideas about a given topic both current and creating vivid and engaging or situation, or to future problemexperiences in words, develop creative ways to solving and pictures or other media solve a problem decision-making SISPen Skills Oral Expression Content Ski Systems Analysis Talking to others to Determining how a system convey information should work and how changes effectively in conditions, operations and the environment will affect outcomes ICT Literacy Written Expression Using digital technology, Communicating communications tools, effectively in writing as and networks to access. appropriate for the manage, integrate, needs of the audience evaluate and create information

<sup>19</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53
 <sup>20</sup>Connecting The Dots, Made By Dyslexia 2017 p.13



# Imagining

In Imagining, dyslexic individuals exhibit the ability to create an original piece of work, or give new ideas a spin at:

- An exceptional level in Creating and Interpreting to Visualisation; Creativity; Cognitive Flexibility; Written Expression and Programming across Cognitive Abilities; Content Skills and Technical Skills
- A strong level in Creating and Interpreting to Logical Reasoning; Systems Analysis and Technology and User Experience Design across Cognitive Abilities; System Skills and Technical Skills

#### **Dyslexic strength**

#### Exceptional

- Visualisation
- ► Creativity
- ► Cognitive Flexibility
- Written Expression
- Programming

#### Strong

- ► Logical Reasoning
- Systems Analysis
- Technology and User Experience Design

# 66

It's much easier to do something well when you're passionate about it. I care deeply about food and drink and giving people a good time, and am lucky that I've been able to turn that into a job.

Nick Jones MBE, Founder and CEO, Soho House & Co.

In my personal experience, dyslexic individuals have excellent spatial awareness skills – this ability to look at things differently is incredibly useful for many industries.

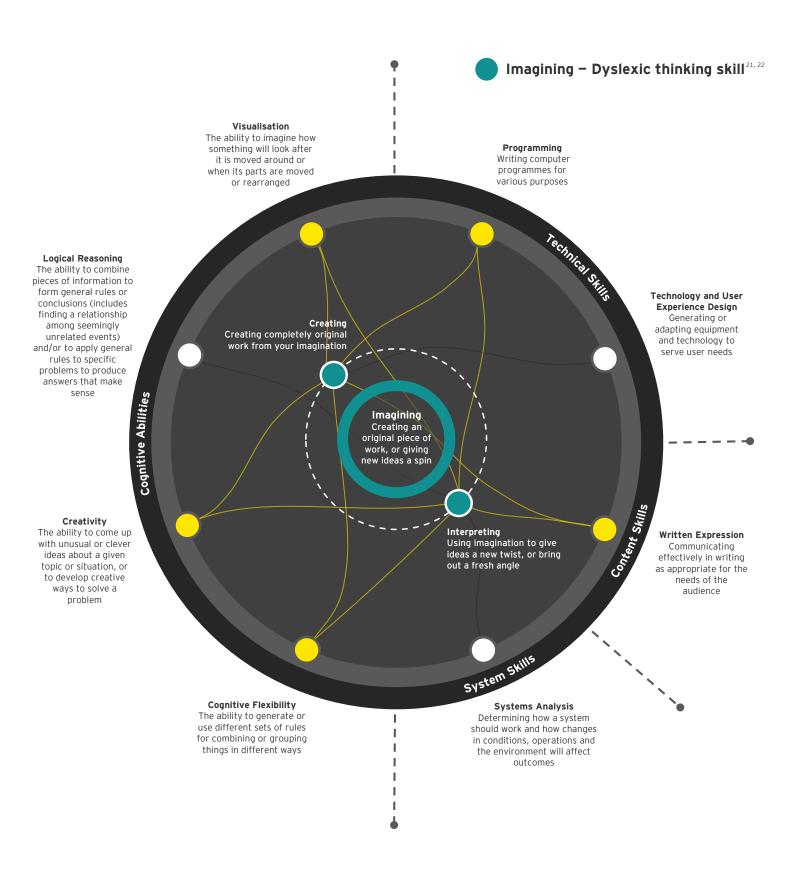
Beth Clutterbuck, VP Global Head of People, Deliveroo

The ability to think outside the box, be creative and entrepreneurial are really important to be a scientist in the 21st century, dyslexia provides an opportunity to build on a set of unique strengths.

Professor Sara Rankin, Leukocyte and Stem Cell Biology at the National Heart and Lung Institute, Imperial College London

I design to music and translate music into spaces. My dyslexic abilities let see things from a completely different perspective.

Kelly Hoppen MBE, CEO Kelly Hoppen Interior Design



<sup>21</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53

<sup>22</sup>Connecting The Dots, Made By Dyslexia 2017 p.13



# Visualising

In Visualising, dyslexic individuals exhibit the ability to interact with space, sense, physical ideas and new concepts at:

- An exceptional level in Making; Inventing and Moving to Visualisation; Creativity and Cognitive Flexibility across Cognitive Abilities
- A strong level in Making and Inventing to Logical Reasoning; Systems Analysis, Complex Problem Solving; ICT Literacy; Written Expression; Active Learning and Programming across Cognitive Abilities; Systems Skills, Complex Problem Solving; Content Skills and Technical Skills

#### **Dyslexic strength**

#### Exceptional

- ► Visualisation
- Creativity
- Cognitive Flexibility

#### Strong

- ► Logical Reasoning
- ► Systems Analysis
- ► Complex Problem Solving
- ► ICT Literacy
- Written Expression
- Active Learning
- ► Programming

66

When I approach a situation, I like to visualise and imagine the scenario in my head, this has helped me tremendously.

Dr Maggie Aderin-Pocock MBE, Space Scientist and Science Communicator

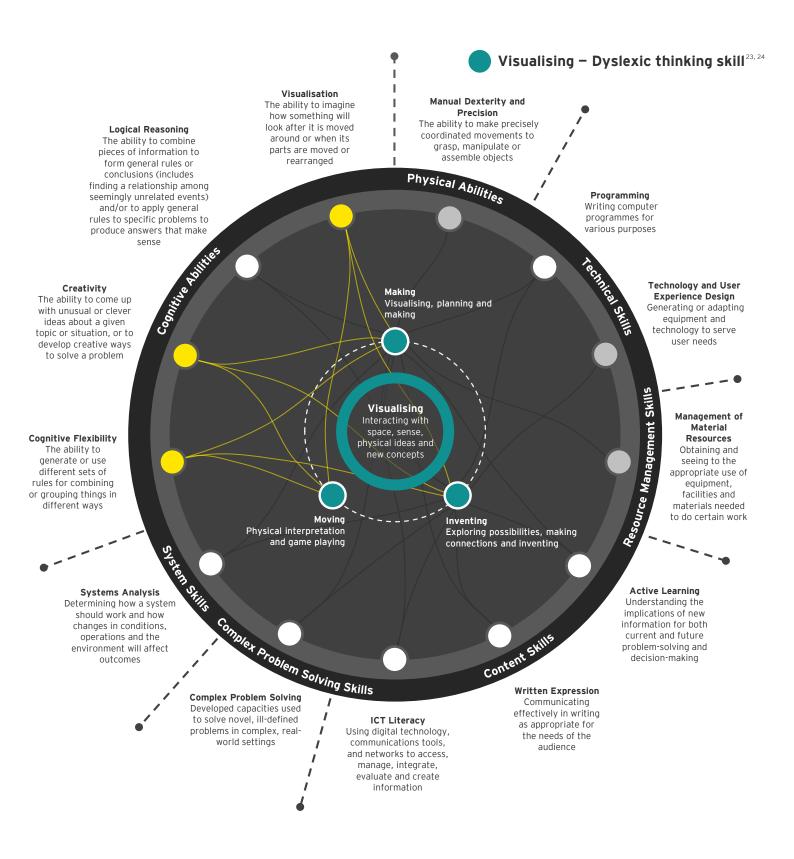
I've always approached problems visually – this is really beneficial when coming up with new ideas and working with different types of people.

Lord Davies of Abersoch CBE

One of the strengths of dyslexia is having a vision, seeing the big picture with the ability to link insights.

Professor Sara Rankin, Leukocyte and Stem Cell Biology at the National Heart and Lung Institute, Imperial College London Dyslexia enables me to visualise designs in my head before I put pen to paper – this has been a huge benefit in my career.

Kelly Hoppen MBE, CEO Kelly Hoppen Interior Design



<sup>23</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53

#### <sup>24</sup>Connecting The Dots, Made By Dyslexia 2017 p.14

# 1 - 2 - 3 - 4 - 5

# **Dyslexia and future skills demand**

When aggregated, the total association between Made By Dyslexia's dyslexic skill families and The World Economic Forum's individual skills/abilities shows there is a demand for dyslexic abilities in the changing world of work.

Dyslexic individuals exhibit the ability to perform at:

- An exceptional level in Reasoning, Exploring, Communicating; Imagining and Visualising to Visualisation; Creativity; Cognitive Flexibility and Active Learning across Cognitive Abilities and Content Skills
- A very strong level in Reasoning; Connecting; Exploring; Communicating, Imagining and Visualising to Logical Reasoning; Systems Analysis; Complex Problem Solving; Written Expression and Programming across Cognitive Abilities; System Skills; Complex Problem Solving Skills; Content Skills and Technical Skills
- A strong level in Reasoning; Connecting; Exploring and Communicating to Problem Sensitivity; Active Listening and Technology and User Experience Design across Cognitive Abilities; Process Skills and Technical Skills

#### Dyslexic strength

#### Exceptional

- ► Visualisation
- Creativity
- ► Cognitive Flexibility
- Active Learning

#### Very Strong

- ► Logical Reasoning
- Systems Analysis
- Complex Problem Solving
- Written Expression
- Programming

#### Strong

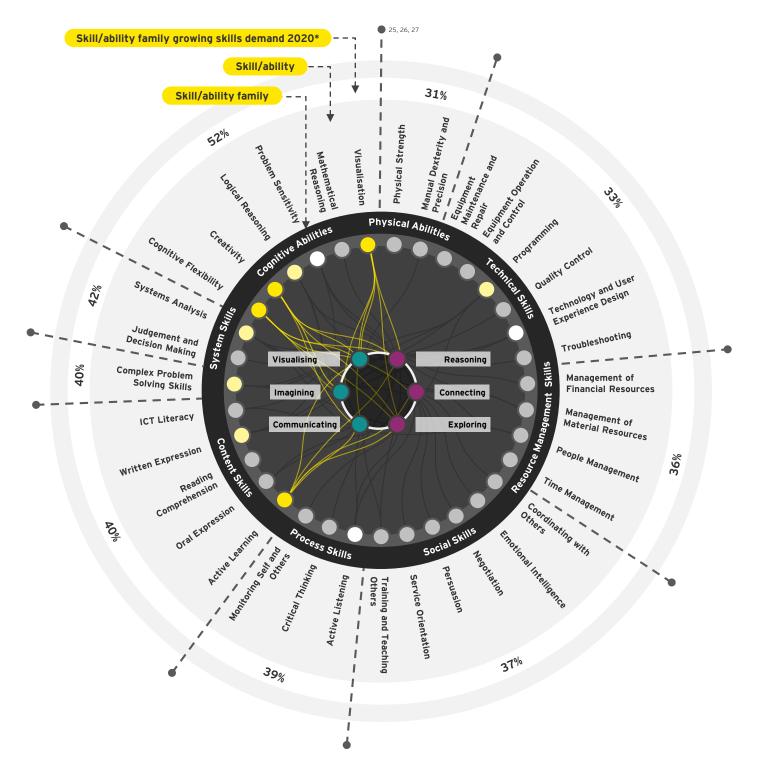
- Problem Sensitivity
- Active Listening
- Technology and User Experience Design

# 66

The world of work is changing faster than ever before. In response, we need a better understanding of the different abilities and skills required for the future. As highlighted in this report, dyslexia provides a significant opportunity for organisations to harness a different and widely untapped pool of talent. By acknowledging this and creating truly diverse and inclusive teams, we can build a better working world.

Jason Lester, Diversity & Inclusiveness Partner Sponsor UK & Ireland, EY

# Dyslexic strengths align to core work-related skills and abilities of the future



\*Please refer to page 8 for 'scale of skills demand 2020' figure

 $^{25}\mbox{Future of Jobs Survey},$  The Future of Jobs, The World Economic Forum 2016 p.22

<sup>26</sup>Core Work-Related Skills, The Future of Jobs, Occupational Information Network/The World Economic Forum 2016 p.52-53

<sup>27</sup>Connecting The Dots, Made By Dyslexia 2017 p.13-14





# Personas and interviews

We now have a better understanding of the strengths dyslexic individuals can bring to the changing world of work.

As part of this understanding, we also wanted to look at the journey to employment a dyslexic individual has through their own eyes.

To visualise typical journeys, we conducted interviews with dyslexic individuals across a range of ages and experiences in education and employment, and created four 'personas' which illustrate dyslexic individuals from different walks of life.

The reality is that although dyslexic individuals can bring valuable strengths to the changing world of work, living with dyslexia currently is often affected by the negative perception associated with dyslexic challenges.

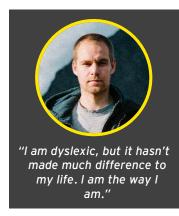
Only 3% of the public believe dyslexia is a positive trait<sup>28</sup>.

From our personas, we aim to highlight how this perception can influence those with dyslexia.

<sup>28</sup>Connecting The Dots, Made By Dyslexia 2017 p.17

# 1 - 2 - 3 - 4 - 5

# Personas



#### Persona 1 – Chris

Dyslexia doesn't play an important role in day-to-day life.

#### Background

Chris works as a creative director for a communications agency and lives with his wife and two daughters in London. He enjoys spending time with his family and their dog outdoors and goes cycling when he needs some time for himself. Just like his family who are quite practical, Chris enjoys making things with his hands, be it at work or at home. His parents are dyslexic as well but haven't had a dyslexia assessment. Overall, dyslexia hasn't caused Chris or his family any real issues. He plays to his strengths and has chosen a career as a visual designer that allows him to do so.

#### Relationship with dyslexia

 Openness
 Never feels the need to refer to dyslexia, but doesn't mind talking about it when someone asks

 Abilities
 Doesn't differentiate between dyslexia and his abilities

 Psychological health
 Dyslexia doesn't affect him much. He's received support when necessary

#### Strengths in education

Creative writing

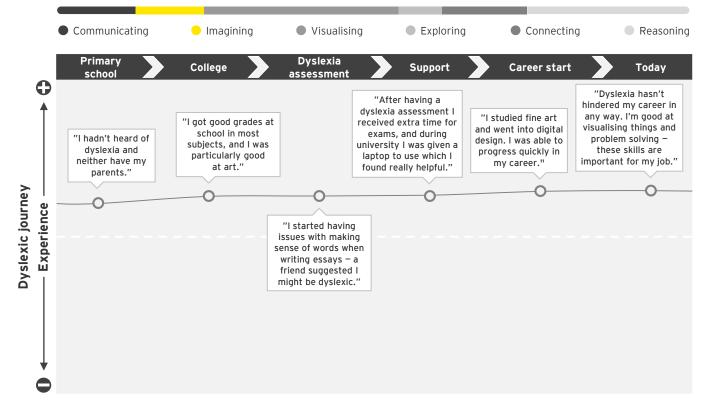
Arts, design and technology

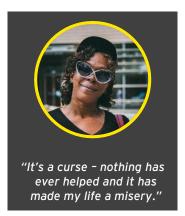
#### Strengths at work

- Visualising and simplifying complex information
- ▶ Communicating ideas effectively to teams and clients
- Problem solving

#### **Dyslexic skills**

Sports





#### Persona 2 – Michelle

Experiences multiple challenges with dyslexia and doesn't receive the necessary support.

#### Background

Michelle works as a carer in a home for the elderly. She lives with her boyfriend in Chelmsford and has two cats. Michelle lives a quiet life, and her friends and family mean a lot to her. Her favourite hobby is knitting and despite being a slow reader enjoys reading novels. Michelle was not able to finish her studies in anthropology or nutrition, something she attributes to her dyslexia. Studying caused her so much stress and anxiety that she suffered from depression. She has recovered from it but still receives support. Since then, she has been doing well in her job as a carer, but gets sad about her missed opportunities.

#### Relationship with dyslexia

Openness	Would like to talk more about dyslexia, but people never ask and she doesn't want to be judged
Abilities	Dyslexia feels like a physical impairment; she believes there is nothing that can really help
Psychological health	Dyslexia is a constant burden; it causes her to have anxiety and depression

#### Strengths in education

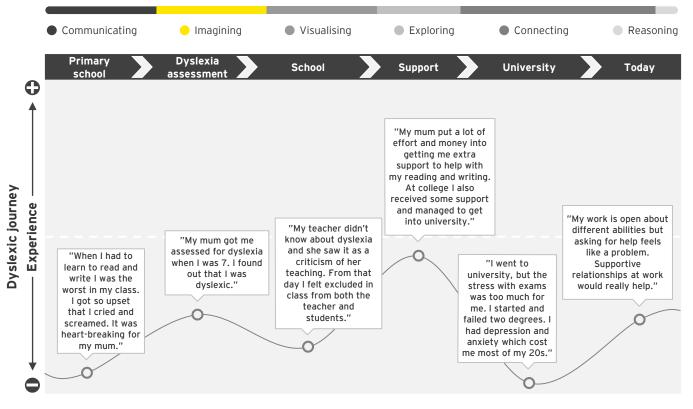
#### Arts and crafts

- Telling stories
- Synthesising and presenting ideas

#### Strengths at work

- Empathetic and caring about others challenges
- ► Good listener
- Encouraging and motivating people

#### **Dyslexic skills**



# 1 - 2 - 3 - 4 - 5

# Personas



#### Persona 3 – Shreya

Actively seeks support and techniques to compensate for dyslexic challenges.

#### Background

Shreya is a mid-level recruitment consultant at a firm in Manchester. She is very focused on her career and is working on a promotion to senior consultant. In school Shreya did a lot of performing arts, now she enjoys watching films and going to the theatre. Before she had a dyslexia assessment she was very self-critical. Today she only tells people about her dyslexia when she has to as she does not want to come across as using it as an excuse at work. She seeks support outside of work wherever she can and is actively involved with a dyslexia support group.

#### Relationship with dyslexia

 Openness
 Doesn't feel like she can talk about dyslexia at work. It seems like an excuse

 Abilities
 She feels her dyslexia has created a glass ceiling, but believes hard work improves her abilities

 Psychological health
 The pace of work can be very stressful, but has learned coping techniques that work well for her

#### Strengths in education

Visual learning

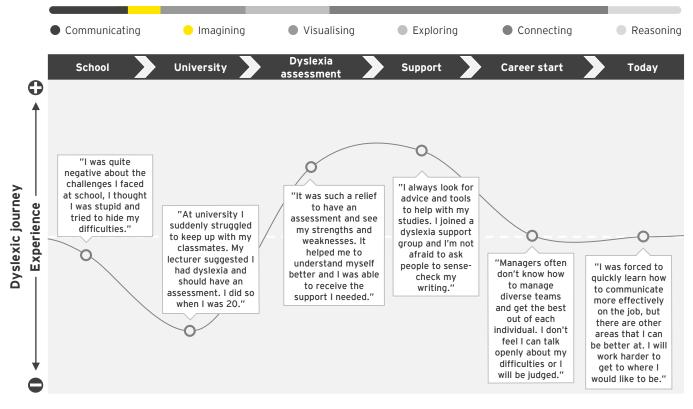
Sports and performing arts

#### Strengths at work

- Communicating and visualising ideas effectively
- Organising
- Creative writing



Music





#### Persona 4 – Tom

Dyslexia was a challenge earlier in life, now it's fully embraced as a strength.

#### Background

Tom runs a small front-end development company in London. He was always good at art and enjoyed maths at school. He taught himself how to code and hackathons became his hobby. His grades weren't good enough for university, but he worked in a variety of jobs whilst continuing to code in his spare time. He always found job descriptions off-putting as they were very descriptive and required perfect written skills, so he rarely applied. A few years ago he founded his company with some friends. He is also an advocate for neurodiversity and the benefits it brings to his business.

#### Relationship with dyslexia

 Openness
 He is proud of his dyslexia and wants to be a role model for other dyslexic individuals

 Abilities
 He is aware of his challenges, but focusing on his strengths allows him to be most successful

 Psychological health
 Dyslexia affected him in the past. Now he thinks about it as a good thing

#### Strengths in education

Arts and design

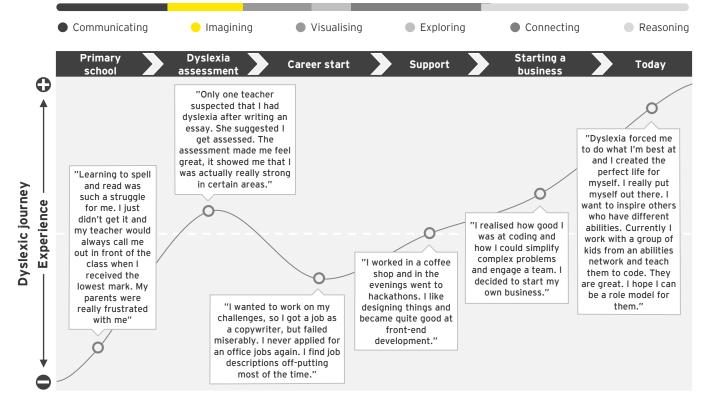
Maths, sciences and technology

#### Strengths at work

- ► Leading a diverse team
- ► Translating complex ideas into actions
- Idea generation and problem solving

#### **Dyslexic skills**

Sports



1)-(2)-(3)-(4)-(

# **Education overview**

The personas highlight how different each individual journey can be. However, regardless of the pathway, the stories featured show that experiences from education can have a long lasting impact for dyslexic individuals.

Looking at education (school, college and university) through the eyes of the personas, and the results of other interviews we have conducted with students and their parents, we can make the following observations:

(As part of this section, we have also highlighted a collection of typical comments from our interviews with dyslexic individuals<sup>29</sup>.)

Awareness of dyslexic abilities at school is often limited. It can be a frustrating and exhausting experience for children and parents, when teachers and schools have limited knowledge of dyslexic abilities.

Every day is a struggle – dyslexia is really tiring and sometimes I get so frustrated that it makes me cry.

Dyslexia is very misunderstood, most people don't know much about it and have a lot of preconceptions, such as dyslexic individuals are a bit stupid or lazy.

The early recognition of dyslexia is essential. A dyslexia assessment can provide clarity for recognising both the challenges and strengths of dyslexia and is fundamental to reduce the psychological impact associated with cyclical school failure.

Seeing the results is a relief, it helps take the pressure off knowing my strengths and makes me more confident.

The assessment opens doors for the required support – getting assessed was the best decision I ever made.

Dyslexia screeners and assessments should be accessible and readily available. The affordability of dyslexia screeners and assessments can inhibit those seeking to gain support for their dyslexia.

We are fortunate that we can afford extra help and make sure our child gets the correct support. It can put financial pressure on families.

I get so much support that others don't get but need.

Tailored support to the individual can be fundamentally important to dyslexic success. Support provided by schools and particularly, 1-to-1 and small group specialised targeted support, coaching and mentoring can contribute significantly to building confidence in dyslexic abilities.

1-to-1 tuition contributes massively to my success. It got me on the right track.

The coaching and tuition helped me to understand myself better and unlocked this new way of thinking.

It can make a real difference when schools focus on improving strengths as well as supporting the challenges. Openness about different abilities and promotion of inclusivity is key to support and nurture dyslexic strengths.

My daughter is dyslexic but she still gets good marks because she's judged for her ideas and that really contributes well to her confidence.

My school is good at making it easy for students with learning difficulties, this helps build my confidence.

<sup>29</sup>Dyslexia Survey, EY 2018

Traditional approaches to exams can play against dyslexic strengths and accentuate challenges. Generalised approaches to testing can lead dyslexic individuals to become frustrated and lose confidence in their ability early on in life, which can lead to long-term impacts when applying to university and later in employment.

At school I don't feel I'm judged on my real skills.

I learn really differently, exams can be very stressful.

Support networks can provide an opportunity for dyslexic individuals to be open about their dyslexia. Talking to like-minded individuals gives those who feel like they're alone the chance to talk to someone with similar experiences and helps build their confidence.

I'm really close with my friends who have dyslexia as well. We support each other a lot and it's good talking to people with similar experiences.

*I like working in groups and bringing people together — it's important to have a support network.* 

#### Conclusion:

- The experience from education can facilitate a negative perception of dyslexia. A focus on dyslexic challenges, generalised approaches to testing and a limited awareness of dyslexia can accentuate this perception, and influence the confidence of dyslexic individuals in education.
- Dyslexia screeners and assessments are key for dyslexic individuals to understand their challenges and strengths, though they are not accessible to all.
- When knowledge of dyslexic challenges and strengths was present, and dyslexia screeners and assessments, tailored support and support networks were in place, this greatly helped dyslexic individuals in education.

## 66

Schools need a better understanding and recognition of dyslexic thinking skills and strengths – focusing on strengths is a must and there needs to be a better way to enable children with different abilities at school.

Kate Griggs, Founder and CEO, Made By Dyslexia

A focus on rounded skill development is the wrong way to focus. For the future we need those who can put their creative minds to solve some of the world's most complex problems – focusing on strengths must play a part of this.

Andrew Pike OBE, Director, International Communications, Prime Minister's Office and Cabinet Office Communications

If I was assessed at an early age then exams wouldn't have been so difficult – it had a huge impact on me at school. I used to panic as I couldn't spell, this led me to get bullied. We must find a better way.

Kelly Hoppen MBE, CEO Kelly Hoppen Interior Design

I was a little bit different at school – I was always called up in class for storytelling and ideas, but I was in the remedial class for reading and writing. The early classroom generally made me feel dumb – we need to create positive experiences at school for everyone.

Dr Maggie Aderin-Pocock MBE, Space Scientist and Science Communicator

Schools view dyslexia as a deficit – this can lead to low self-esteem and confidence when you're young which can have a big impact on what you decide to do – we need to change this mind set.

Professor Sara Rankin, Leukocyte and Stem Cell Biology at the National Heart and Lung Institute, Imperial College London



1-2-3-4-

# **Employment overview**

The personas suggest dyslexic experience is varied at work. Some see dyslexia as nothing more than a difference in how they work, whilst others feel they are seriously challenged, with their later career trajectory affected.

Looking at employment through the eyes of the personas, and the results of other interviews we have conducted with adults in work, we can make the following observations:

(As part of this section, we have also highlighted a collection of typical comments from our interviews with dyslexic individuals $^{30}$ .)

Standardised hiring processes can inhibit dyslexic individuals. Standardised job descriptions and application processes can stop dyslexic individuals from applying for roles and play against dyslexic abilities.

I'm applying for jobs, and when I tick 'dyslexic' in the application, I so far have received a negative response.

The job description has in the past stopped me from applying for a position.

Awareness of dyslexic abilities in the workplace is often limited. Dyslexia is most commonly associated with its challenges, and therefore can be confined to those challenges.

Knowledge is generally not widely available and stereotypes are applied, this affects my confidence.

There is a stigma associated with being dyslexic, some will think that I am not as capable as my peers, whilst others just don't understand it and become uncomfortable discussing it with me. Inclusive working environments can enable better conversations about dyslexia. When dyslexic individuals feel comfortable speaking to colleagues about dyslexia, it enables a greater understanding of abilities and more confidence when working.

I'm comfortable with being dyslexic, and feel I can use my strengths and mitigate any challenges by telling my colleagues.

It's important to explain how I think and work, which can be beneficial when working with others.

Adjusting management styles to focus on strengths can have a positive impact on dyslexic ability. By being flexible and proactively working on challenges and focusing on strengths, better outcomes can be achieved for both employers and dyslexic individuals.

I tailored the role to focus on strengths – this really opened my eyes to managing dyslexic abilities.

l employ four people, who are all dyslexic, we all do what we are best at and this really works.

Support groups, networks, mentoring and coaching at work play a vital role for dyslexic individuals. Speaking and being supported by likeminded individuals allows dyslexic individuals to 'bring themselves to work' and helps with managing ways of working.

I'm working with a dyslexia coach who helps me manage my workload. The required pace of work is sometimes a lot and this really helps.

Having a mentor made me very comfortable and accepting of who I am at work.

<sup>30</sup>Dyslexia Survey, EY 2018

The availability of supportive tools is important for dyslexic confidence at work. Assistive tools give dyslexic individuals confidence in their ability with work that requires significant reading or writing.

I use an audio recorder for meetings and read and write software helps me when working through long documents, this is really useful at work.

Software that assists me with my spelling and grammar helps build my confidence.

#### Conclusion:

- The experience from employment can facilitate a negative perception of dyslexia. A focus on challenges, a limited awareness of dyslexia and generalised hiring processes can accentuate this perception, and influence the confidence of dyslexic individuals at work.
- When awareness of the challenges and strengths of dyslexia, inclusive working environments and flexible approaches to work are present, it creates better and open conversations about dyslexia with work colleagues.
- Tailored interventions at work including mentoring, coaching and use of assistive technologies, provide an essential gateway for dyslexic individuals to manage their work and build confidence in their own abilities.

# From the education and employment observations, we can determine that:

- When dyslexia is solely associated with challenges, it can inhibit dyslexic individuals from reaching their full potential.
- When dyslexia is focused on strengths with challenges supported, it can create positive outcomes through a better understanding of ability.

## 66

Diverse thoughts and perspectives help our clients, and our own business, to be innovative. Having a greater understanding of dyslexia, and the strengths of dyslexic individuals, presents an opportunity for businesses to recruit and retain people with some of the in-demand skills of the future.

Steve Varley, UK Chairman, EY

Work is a place where I have been able to open up about my dyslexia with my team, this takes away anxiety about being judged – we're open as individuals and accepting as a company.

Steve Hatch, VP Northern Europe, Facebook

The ability to be flexible when working enables you to have a team of diverse and capable individuals. You can focus their abilities decisively and effectively, enabling you to achieve greater success.

Roland Rudd, Founder and Chairman, Finsbury

There needs to be a focus on helping individuals understand what they're good at and what they're not so good at - it's important that organisations really understand the value of dyslexic strengths.

Lord Davies of Abersoch CBE

I've always been quite grateful for being dyslexic. You can do things slightly differently. I really believe that recognising people's dyslexic strengths can lead to doing better business, as well as helping individuals.

Nick Jones MBE, Founder and CEO, Soho House & Co.



# Recommendations

The changing world of work requires a

transformational approach to how skills and abilities are recognised. A significant change in demand for the balance in skills and abilities means that those who work collaboratively and across disciplines will be required for the future. The pace at which this change is occurring is significant. For employers, it is a strategic imperative to be able to attract and retain a diverse pool of talent in an increasingly disrupted work environment.

Dyslexic strengths can help meet this business requirement and provide a significant opportunity to harness a different, and widely untapped pool of talent. Dyslexic individuals can perform 'strong', 'very strong' and 'exceptional' across a range of Cognitive Abilities; System Skills; Complex Problem Solving Skills; Content Skills; Process Skills and Technical Skills. This is matched by a demand led requirement for dyslexic strengths in the workplace.

However, dyslexia is commonly viewed for its challenges, rather than its strengths. In education, there can be a negative perception of dyslexia as a result. Generalised approaches to testing, alongside the limited understanding of dyslexia and access to dyslexia related resources, can accentuate this perception. This is similar to employment, where a limited awareness of dyslexic abilities and the generalisation of hiring processes, can also accentuate this negative perception. Overall, a focus solely on challenges can influence dyslexic individuals' confidence, undermining the ability for them to reach their full potential. This can also influence some organisations from realising the full value of dyslexic strengths.

Focusing on strengths, but not ignoring the challenges, making dyslexia-related resources available and creating a more inclusive environment can greatly contribute to building dyslexic confidence; promote better conversations about dyslexia; and enable dyslexic individuals to reach their full potential in both education and employment. Benefits follow from recognising the value that dyslexic strengths can bring to the changing world of work, whilst simultaneously improving the well-being of dyslexic individuals. To mitigate negative perceptions and to influence a positive association with dyslexia, a transformation of actions and views is required across the board. Our recommendations provide a starting point for capturing the strengths of dyslexia for both educators and employers by:

- ► Recognising the value of dyslexic strengths.
- Improving the journey to employment for dyslexic individuals, by equipping educators with the knowledge and training to recognise dyslexic strengths at the earliest opportunity.
- Improving the management of dyslexic abilities in the workplace through targeting and focusing dyslexic strengths to harness greater organisational and individual productivity.

#### 1. Embrace a strengths-based culture

Implement a committed leadership strategy that embraces a strengths-based culture, and a psychologically safe<sup>31</sup> environment. Leaders should acknowledge dyslexic abilities, both the challenges and strengths and more broadly neuro-diverse abilities, to inform cultural behaviours and the perception of dyslexia.

As part of this approach, ability should be measured in a way that enables dyslexic individuals to reach their full potential.

# 2. Democratise access to dyslexia screeners, assessments and information resources

Create a greater understanding of dyslexia by removing barriers and improving the management of dyslexic challenges and strengths.

#### Create better access to dyslexia screeners and assessments

Dyslexia screeners and assessments are key for individuals to understand how they work, and are particularly important for the early recognition of dyslexia in education, and for those who could even remain unassessed in the workplace, to access targeted support. The ability for individuals to access a screener or assessment should not be determined by their financial position – greater equality towards accessing screeners and assessments can help dyslexic individuals reach their full potential, levelling the playing field.

#### Create better access to information resources

Knowledge can enable and empower dyslexic individuals who are seeking to understand their own abilities, and more broadly for parents, teachers and managers alike to be proactive, to bring the best out of those with dyslexia. By creating easily accessible online resources both privately and in the public domain, the challenges and strengths of dyslexia can be recognised, understood and supported for the individual, providing a useful training resource.

# 3. For employers, implement a neuro-diverse talent strategy

To attain dyslexic strengths, adopt a strengths-based approach to hiring, talent, and work on a day-to-day basis.

#### Focus on four levels:

Build capability – Align with a strengths-based leadership strategy to build dyslexic talent and determine how dyslexic strengths can help meet business objectives. This includes talent alignment to roles based on a greater harmonisation and understanding of dyslexic strengths and their deployment in the organisation.

- Target performance Use assistive technologies, tailored processes and a specific strengths-based performance criteria that aligns to a strengthsbased strategy and more broadly, neuro-diverse talent strategy to enable dyslexic individuals to perform exceptionally in roles.
- Drive motivation Motivate and empower dyslexic individuals to reach their full potential, through adjusting workplace design and providing the support, coaching and mentoring schemes to build dyslexic confidence in the workplace.
   Dyslexic individuals at all levels of the organisation can assist with driving greater inclusiveness through networking and building better working relationships, to improve organisational well-being.
- Enhance efficiency Train managers to optimise dyslexic performance through recognising, facilitating and accompanying dyslexic strengths at work. Consistent and tailored feedback sessions can assist with achieving greater individual productivity.





# Contacts

#### **Richard Addison** Partner, EY

T: +44(0) 20 7951 0299 M: +44(0) 7900 137 802 E: raddison@uk.ey.com

#### Claire Spoors

Assistant Director, EY

T: +44(0) 113 298 2510 M: +44(0) 7785 556 468 E: cspoors@uk.ey.com

#### Ben Cooke Consultant, EY

T: +44(0) 161 234 6416 M: +44(0) 7717 133 082 E: bcooke1@uk.ey.com

#### EY | Assurance | Tax | Transactions | Advisory

#### About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

#### Ernst & Young LLP

The UK firm Ernst & Young LLP is a limited liability partnership registered in England and Wales with registered number OC300001 and is a member firm of Ernst & Young Global Limited.

Ernst & Young LLP, 1 More London Place, London, SE1 2AF.

© 2018 Ernst & Young LLP. Published in the UK. All Rights Reserved.

ED NONE

EY-000072741-01 (UK) 08/18. CSG London.

 $\label{eq:linear} \bigcup_{i=1}^{n} \bigcup_{j=1}^{n} \bigcup_{j=1}^{n} \bigcup_{j=1}^{n} \bigcup_{i=1}^{n} \bigcup_{j=1}^{n} \bigcup_{j=1}^{n$ 

ey.com/uk