

Virtual Reality (VR) Technology: Empowering Managers to Reduce and Eliminate Accessibility Barriers for People with Autism Spectrum Disorders

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Abstract. Barriers to accessibility are defined as 'factors in a person's environment that, through their absence or presence, limit functioning and create disability' [1]. There are four elements that are incorporated into this term which includes: physical environment, lack of assistive technology, attitudes of others and the lack of or restrictive services, systems and policies [1]. These barriers to accessibility are present for 13% of the Irish population. Many initiatives have been developed and implemented for people with physical disabilities; however, people with intellectual disabilities (ID) remain invisible. This invisible population accounts for 9.7% of our population or 75% of the population of people with disabilities [2]. Thus, it is imperative that we commence to implement Universal Design (UD) approaches that increase accessibility and empower the invisible to become visible. One such invisible group that holds substantial potential to bring immense value to companies is that of people with Autism Spectrum Disorders (ASD) [3]. ASD currently impacts 1 in 68 people worldwide with this figure growing annually at a rate of 10-17% [4]. 80% of people with ASD are either unemployed or underemployed; this can be attributed to barriers to accessibility [5]. Two of the most common barriers to accessibility experienced by those with ASD are environmental and attitudes of others [6,7]. These barriers have the potential to be overcome through the use of Virtual Reality (VR) technology to provide training and education to managers. VR technology is being used to empower managers to reduce these barriers, increase accessibility and develop inclusive environments and cultures. VR technology can be used to empower managers to recognise and reduce the barriers facing those with ASD. VR is a catalyst for managers to be able to identify the environmental barriers facing people with ASD within a work environment. This solution also provides them with the skills necessary to commence making adaptations to the environment to reduce or eliminate these barriers. The use of this technology and paradigm shift brings many benefits for the individual and the company. A mixed method approach has been used for the purposes of data collection. The tools that were utilised were interviews with HR managers and people with ASD; and surveys were circulated to HR managers, senior managers, Chief Executive Officers and people with ASD. The results of these were positive and clearly verified that there is a need to empower managers to increase accessibility within their organisations.

Keywords. Accessibility, autism spectrum disorders, human resources, virtual reality, workplace

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1. Introduction

Accessibility is defined as 'the design of products, devices, services, or environments for people who experience disabilities [8]. The concept of Accessibility is closely linked to that of Universal Design (UD); the definition of which state that UD is 'the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability [9].

Increasing accessibility for those with disabilities brings benefits to those people but also to the general population. The introduction of environments that are easily navigated are more appealing to all people and in turn will be utilised and enjoyed by the general population. The use of these environments will begin to harvest a culture of inclusion by merely being exposed to people who have diverse needs and abilities [10]. In order to achieve this level of accessibility there are seven key principles to the implementation of universal design, all of which are required to create an accessible environment. The seven principles are: Equitable Use, Flexibility of Use, Simple and Intuitive Use, Perceptible Information, Tolerance for Error, Low Physical Effort, and Size and Space for Approach for use [11].

Within Ireland, currently 13% of the population are experiencing barriers to accessibility on a daily basis [2]. This figure is replicable across the world with many sectors now taking heed to this startling statistic. This portion of society (13%) includes those with visible and invisible disabilities. Due to the nature of visible disabilities, many initiatives have already been put in place to reduce and eliminate the barriers to accessibility. The legislative process has been key to these developments; however, one such group who continue to remain unseen are those with invisible disabilities.

Invisible disabilities are those that are not noticeable immediately; however, these disabilities have a major impact on a person's quality of life and participation in society. Examples of invisible disabilities include: Autism Spectrum Disorders, Epilepsy, Attention Deficit Hyperactivity Disorder, Dyslexia and Learning difficulties, to name a few [12]. The population of people with invisible disabilities is 9.7% in Ireland; again, this figure is replicable across the world [2]. With this in mind, it is important to highlight that even though people with invisible disabilities account for the majority of our disability population there is little emphasis on their needs from a national perspective. People with invisible disabilities hold great strengths with regards to education and potential employment; however, barriers to accessibility prevent them from participating in society in an equal manner compared to the general population and those with visible disabilities. One such group that holds particular skill sets relevant to employers is that of people with Autism Spectrum Disorders.

Autism Spectrum Disorder (ASD) is a complex neurological condition that impacts people with regards to their social, communication and behavioural skills [13]. In recent years, the categorisation of Autism diagnosis' has been restructured and resulted in the amalgamation of Autism, Asperger's and Pervasive Developmental Disorders Not Otherwise Specified (PDD-NOS) under the one umbrella term now known as Autism Spectrum Disorders (ASD) [14].

The diagnosis of ASD is completed through the use of the DSM-5 via a relevant professional [15]. The DSM-5 presents the dyad of impairments which sets out the criteria required to receive a diagnosis. The dyad of impairments involves two categories of criteria; 1) social and communication domain and 2) restrictive and repetitive behaviour domain [16]. In order to receive a diagnosis of ASD a person must experience impairments across the dyad of impairments to such intensity and frequency that it

impacts the quality of their life. Receiving a diagnosis of ASD impacts a person's life with regard to their personal and professional activities.

Currently, 1 in 68 people in Ireland have received a diagnosis of ASD and this figure is replicable across the world. However, in the United States figures from 2017 show that 1 in 36 people have a diagnosis of ASD [17]. All of these figures are set to grow from 10-17% per annum [18]. Therefore, it is important for employers to begin to take heed to this population within our societies.

The figures relating to employment for people with ASD are bleak; 80% of people are either unemployed or underemployed. Society as a whole and particularly employers are experiencing an opportunity cost by not recognising the talents and skill sets held by this population. 40% of people with ASD have a higher than average I.Q. and hold great strengths in the areas of logical thinking, problem solving, data analysis, loyalty, attention to detail and general task performance [18]. These are skills that every employer long to access and retain; however, with the presence of myths and stigma the ideology of hiring a person with ASD is all too daunting for the majority of employers [19].

There are many myths and stigmas around hiring people of all disabilities and this is again applicable to those with ASD. Some of the myths/stigma includes: reduced productivity, increase costs to the business, increase absenteeism/sick rates and additional vulnerability for the employer with regards disability legislation [20]. In reality, all of these myths can be debunked. Employing those with ASD makes good business sense; however, employers and managers require supports to decrease accessibility barriers and to increase awareness around supporting employees with ASD [19]. One of the strategies that can be implemented is the use of Virtual Reality (VR) to empower managers to reduce and eliminate these barriers.

The use of VR is a powerful tool in providing managers with a holistic approach to reducing and eliminating barriers to accessibility for people with ASD [21]. Barriers to accessibility for people with ASD has two elements; the environment and awareness amongst colleagues [7]. Increase awareness amongst employees can be attained through the completion of training programmes and instilling a culture of diversity and inclusion from the top down.

The task of reducing and eliminating barriers to accessibility for people with ASD within an environment can be experienced via a VR sensory environment simulation. This VR experience provides managers with the opportunity to immerse themselves into an environment that is experienced by many people with ASD. This environment portrays the sensory stimulation that is received by someone with ASD within a typical working environment. Through the use of VR managers can experience elements such as lighting and layout of an environment and how this impacts employees with ASD. The lighting within an environment is essential in relation to auditory and visual sensory processing. Fluorescent lighting produces a vibration which results in a buzz which some people with ASD can hear and the intensity of the lighting from this type of bulb is exceptionally intense [22]. This can not only be distracting but it can also be frustrating for people which ultimately results in either decreased productivity or decrease in employee well being. The use of VR can empower managers to reduce or eliminate barriers to accessibility for current or future employees with ASD. VR can be utilised to instill the knowledge and awareness required to facilitate change by providing solutions to both managers and employees when attempting to reduce or eliminate barriers to accessibility [23].

2. Research

This paper reviews the evidence directly related to the presence of barriers to accessibility within the workplace and the methodologies required to eliminate these barriers. As previously stated, there are two categories that present barriers to accessibility within the workplace; 1) the environment and 2) awareness.

The working environment is vital to develop and maintain a happy and healthy workforce; however, people with ASD experience more barriers within their environment compared to other colleagues [24]. Some of the environmental barriers to accessibility for people with ASD include: lighting, sound, layout of the office, alternative work spaces and odors. The presence of these barriers not only provides a difficult working environment for employees; but it results in increased isolation and high turnover of staff as they are unable to sustain their role and have no choice but to leave the company [25]. The above elements impact people with regards to their sensory processing [26].

People with ASD are either hyper or hypo sensitive to sensory stimulation; every person with ASD is affected by sensory processing disorder. Sensory Processing Disorder is the way the nervous system receives messages from the senses and turns them into appropriate motor and behavioural responses [27]. Many academics identify as many as twenty-one senses within our body; however, when addressing accessibility issues, it is important to focus on our five most basic senses (taste, tactile, smell, audio and visual). The consideration of these senses within environments is key to reducing and eliminating barriers to accessibility. For example, having background music playing in an office environment could be exceptionally distracting for someone who has hypersensitivity to audio sensory stimulation. The volume of the music could be amplified by up to ten times for the person with ASD and in turn this could result in causing physical pain to this person. A simple intervention of turning down or off the radio allows this person to function within this environment. Teaching managers the skills of identifying barriers through VR is an effective approach as it allows the manager to immerse themselves in the experience and feel what others may feel.

The creation of awareness amongst employees is key to developing and sustaining an environment that is accessible and inclusive. Developing empathy amongst colleagues is key in fostering relationships that allow for required adaptations without hindering progress for individuals or the team. The introduction of awareness modules develops the empathy required to make an environment truly inclusive [28].

The elements to reducing and eliminating barriers to accessibility are not independent of each other; without one the journey to accessibility will be flawed and ineffective. Therefore, empowering managers through the use of VR is an essential step to ensuring that the environment and the culture of an organisation are addressed. Empowering managers ensures that this process is spearheaded from the top down but it also provides the company with the opportunity to progress their accessibility initiatives in an agile manner.

3. Methodology

A mixed method approach has been utilised for the purposes of this research with both field and desk research being conducted while utilising this methodology. A literature review was completed prior to commencement of field research. The literature review

synthesised with the authors research and experience as a Social Care Practitioner and presents the case for the use of VR to empower managers to increase accessibility within their work environment. Field research was completed in the form of surveys and interviews. The methodologies utilised will be clearly demonstrated within this section and the results of same will be presented in the succeeding section.

Quantitative research, via surveys, was completed with senior managers, HR managers and CEO's of companies within the technology, financial and cybersecurity sectors. The purpose of this survey was to establish the need for accessibility initiatives within target market companies and to establish commitment from companies with regards to accessibility for people with Autism Spectrum Disorders. A sample size of 156 senior personnel was obtained via random sampling.

Qualitative research was completed with HR managers and CEO's via the use of interviews. The purpose of these interviews was to establish current difficulties within the technology, financial and cybersecurity sectors with a specific focus on employee retention, productivity and absenteeism rates. A sample size of fifteen was obtained for the purposes of interviews. Interviews were analysed via Nvivo software and trends identified which will be identified in the subsequent section.

Research was also completed with people with Autism Spectrum Disorders (ASD) and a mixed method approach was also utilised for this purpose. Quantitative and Qualitative research was conducted with people with ASD via surveys and interviews. Random sampling was utilised for the purposes of this survey with a total sample size of seventeen participants obtained across both methods.

4. Results

The results of the field and desk research are poignant in presenting the case for empowering managers to increase accessibility for those with ASD. The field research identified key themes with regards to commitment, need and the confirmation of the presence of barriers to accessibility within the workplace. The desk research themes included negative experiences of employees with ASD within the workplace [18], lack of understanding by colleagues [12], presence of myths and stigma [29] and the need for support for managers in leading employees with ASD [30].

The quantitative research provided results that directly relate the need for VR technology to empower managers to increase accessibility for employees or customers with ASD. 70% of respondents stated that they would engage with an external agency to implement Autism Accessibility initiatives within their organisation. This statistic is important in identifying the need for such services but also in establishing commitment from organisations.

The data collected via qualitative methods (interviews) highlighted that there is currently a skills shortage within the technology, financial and cybersecurity sectors, and high staff turnover amongst employees. Upon completion of the interview process one of the key themes that emerged was that the presence of barriers to accessibility within the workplace was a contributing factor for high rates of staff turnover and in turn skills shortages within the sector. Participants discussed that a number of employees who had not disclosed a diagnosis of ASD had raised concerns about the environment. Upon

further exploration participants identified that these employees had now left the organisation.

The results received from people with ASD were poignant in validating the need for accessibility awareness and initiatives within organisations. The data extracted from these surveys and interviews indicated that 77.8% of people with ASD had a negative experience in the workplace. 100% of respondents also stated that they would specifically apply to an organisation/company if they were aware that the company had implemented accessibility initiatives and completed ASD awareness training.

The adaptation of a holistic approach to data collection has been significant in identifying the needs of both parties and how the gap can be bridged via the use of VR as a tool for learning. The use of a mixed method approach has been significant in ensuring the triangulation of results.

These results clearly highlight that there is an unmet need from the employer's perspective that can be solved via the employment of suitable people with ASD. However, work is required by the employer to ensure that their organisation is accessible. Providing managers with the tools to complete this is essential. Utilising VR and online content is an effective and efficient approach to commence creating an accessible environment. Engaging in this approach will bring many benefits to both the employer and the employee.

The benefits of increasing accessibility are twofold; it benefits the employer but also the employee. Irish society is secluding a population that brings great value to a business. Many International and Global companies have received the benefits of employing those with ASD with J.P. Morgan Chase, Microsoft and EY being some of the leads in this area. J.P. Morgan Chase pride themselves on employing those with ASD; however, one key aspect is that jobs are not created for this cohort rather they are matched to positions currently available within the organisation. This removes the element of charity for the employee with ASD and the organisation, but it also ensures that the employment is sustainable and not a token piece connected to Corporate Social Responsibility (CSR) initiatives.

Measurable impacts have been established within literature with many statistics arising that provide the business case for employing those with ASD. Figures have shown that when matched to a specific job role, people with ASD are at least 50-90% more productive and efficient compared to their Neurotypical colleagues [31]. The adaptations required by people with ASD to have the opportunity to access an environment are minimal. CIPD states that 59% of adaptations required did not cost the employer anything to implement [32]. Mahoney also identified that the most requested adaptation on the Autism at Work programme were noise cancelling headphones; again, a very minimal cost to an employer [31]. Therefore, the minimal costs associated with increasing accessibility for those with ASD are greatly outweighed by the benefits received from the employee. The results have been so staggering for companies like J.P. Morgan Chase that they have committed to growing and scaling this initiative across the majority of their workplaces. Initiatives similar to this have grown by over 2,000% in only a four year period; thus, the results speak for themselves [31].

Managers who take the initiative to increase accessibility for those with ASD will impact current and future employees who are Neurotypical and Neurodiverse. Results show that companies who undertake meaningful Neurodiversity initiatives attract higher standards of potential employees compared to organisation who do not engage in such activities [32]. Some of the benefits of increasing accessibility for those who are Neurodiverse and specifically those who have Autism Spectrum Disorders include:

Increased staff retention: employing those with ASD with appropriate environmental conditions that best meet their sensory needs helps to retain staff in that position for longer. People with ASD generally do not like change; thus, if an employer or HR manager ensures they are happy within their environment it is only natural that the person will remain within that position for a longer period of time [33].

Increased productivity: When people are matched to a position that is based on their strengths and are located within an environment that meets their sensory need their productivity will increase and exceed that of their colleagues [31]. This is applicable when accessibility initiatives have been completed. Comparisons can be drawn pre and post accessibility interventions to substantiate these results in each individual organisation.

Decrease in absenteeism: When managers ensure that an environment is suitable to their employees and employees are happier in their position, HR managers will see an instant decrease in absenteeism [34]. Providing an environment that is accessible eliminates the need to avoid or take a break from that environment.

Attraction of new and diverse talents: employees of the millennial, Generation X and Y subsets are beginning to demand more from their employers with the company culture coming under scrutiny from potential employees [35]. Research has shown that organisations who adopt a culture of Neurodiversity not only attract higher standards of talent pools of those who are Neurodiverse, but they also attract a higher standard of talent pool of those who are Neurotypical [32]. It is widely known that a diverse workforce brings greater competitive advantage to a company and Neurotypicals want to be involved with these types of companies [36]. Results have shown that 100% of people with ASD would specifically apply to an organisation if they became aware that the company had completed accessibility initiatives. These results are key to companies when assessing and developing strategic development plans.

The benefits of increasing accessibility for people with ASD vary and can include: improved mental health and well-being, identifying a purpose within society, increase in independence and development of social networks [18]. These benefits are very much understated; however, they too provide value to society as a whole with one primary benefit of reduced numbers on the live register. This not only benefits the person emotionally, socially and financially it also benefits our Government.

The use of VR by managers to increase accessibility for those with ASD is a very new concept; however, it is allowing managers with the opportunity to learn and implement strategies in a meaningful way that benefits their company. The use of VR allows the manager to self-teach on the sensory environment and its impact on people with ASD and other Neurodiversities. VR solutions can also provide information on practical strategies that require little or no cost to implement and that can be implemented almost immediately. Therefore, the use of VR brings instant change to an organisation in the reduction or elimination of barriers to accessibility for those who have ASD.

5. Conclusion

This paper has provided an overview of the use of Virtual Reality (VR) technology in order to empower managers to reduce or eliminate accessibility barriers for people with Autism Spectrum Disorders. The use of VR allows managers to immerse themselves within an environment and experience the environment similar to that of how some of

their employees may experience it. The use of VR also allows managers to self-teach within the area of accessibility barriers and obtain strategies to reduce or eliminate these barriers within their own environment. This self-teaching approach gives ownership and empowerment to managers to become the champions within their own company in increasing accessibility strategies or initiatives.

The reduction of barriers to accessibility brings great benefits to people with ASD but also to a company. The results presented within this paper provide a strong business case for managers to commence engaging in accessibility initiatives. Employing people with ASD is a competitive advantage and benefits include: increased productivity, decrease in absenteeism, attraction of highly skilled new and diverse talent and increase staff retention. In order to obtain these benefits managers are required to understand how the environment impacts those with ASD. This awareness will allow the manager to enact a culture where Neurodiversity is embraced and in time to eliminate barriers to accessibility. The use of VR within the area of Neurodiversity is a new concept; however, it provides managers with the opportunity to engage in the sensory environment simulation which identifies the barriers to accessibility while also providing strategies to reduce or eliminate these barriers.

The results presented within this paper provide the case for organisations to commence engaging in accessibility initiatives for employees with Autism Spectrum Disorders or other Neurodiversities. This paper synthesises results that create a foundation for further research and development within this area. This paper has framed the potential for the use of VR as a learning tool for managers to reduce or eliminate barriers to accessibility; however, further research is required in order to establish the effectiveness of this tool from an organisational perspective.

References

- [1] World Health Organisation, (2017). Common Barriers to Participation Experienced by those with Disabilities, Retrieved from <https://www.cdc.gov/ncbddd/disabilityandhealth/disability-barriers.html>
- [2] Central Statistics Office, (2017). Census of Population 2016. Retrieved from <http://www.cso.ie/en/releasesandpublications/ep/p-cp9hdc/p8hdc/p9d/>.
- [3] Baldwin, S., Costley, D. and Warren, A. (2014). Employment Activities and Experiences of Adults with High-Functioning Autism and Asperger's Disorder. *Journal for Autism Developmental Disorders*.
- [4] Centre for Disease Control and Prevention, (2012). Data and Statistics. Retrieved from <https://www.cdc.gov/ncbddd/autism/data.html>
- [5] National Autistic Society (2018). Government must tackle the autism employment gap. Retrieved from <https://www.autism.org.uk/get-involved/media-centre/news/2016-10-27-employment-gap.aspx#>
- [6] Beardon, L., & Edmonds, G. (2007). ASPECT consultancy report: A national report on the needs of adults with Asperger syndrome. Sheffield: The Autism Centre, Sheffield Hallam University.
- [7] Robertson, S. M. (2010). Neurodiversity, quality of life, and autistic adults: Shifting research and professional focuses onto real-life challenges. *Disability Studies Quarterly*, 30(1). Retrieved from <http://dsq-sds.org/article/view/1069/%201234>
- [8] Accessibility Ontario, (n.d). Definitions. Retrieved from <https://accessontario.com/aoda/definitions/>
- [9] Centre of Excellence for Universal Design, (2014). The 7 Principles. Retrieved from <http://universaldesign.ie/what-is-universal-design/the-7-principles/the-7-principles.html>
- [10] Hanson, M., Wolfberg, P., Zercher, C., Morgan, M., Gutierrez, S., Barnwell, D. and Beckman, P. (1998). The Culture of inclusion: Recognizing diversity at multiple levels. *Early Childhood Research Quarterly*.
- [11] National Disability Authority, (n.d.). The 7 Principles of Universal Design. Retrieved from <http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/7-Principals-.pdf>
- [12] Wren, T., Reid, C. and McMahon, B. (2008). Workplace discrimination and autism spectrum disorders: The National EEOC Americans with Disabilities Act Research Project.
- [13] Bluestone, J. (2005). The Fabric of Autism. The Handle Institute

- [14] American Psychiatric Association, (2013). Autism Spectrum Disorders. American Psychiatric Association
- [15] Heurta, M., Bishop, S., Duncan, A., Hus, V. and Lord, C. (2018). Application of DSM-5 ASD Criteria to 3 samples of children with DSM-IV diagnoses of PDD. *American Journal of Psychiatry*.
- [16] Vivanti, G. and Vivanti, D. (n.d.). Diagnostic criteria for Autism under the DSM-5. Autism Europe.
- [17] NCHS, (2017). Estimated Prevalence of Children with Diagnosed Developmental Disabilities in the United States, 2014-2016. Retrieved from <https://www.cdc.gov/nchs/data/databriefs/db291.pdf>
- [18] Hendricks, D. (2009). Employment and adults with autism spectrum disorders: Challenges and strategies for success. *Journal of Vocational Rehabilitation* 32 125-134.
- [19] Hagner, D. and Cooney, B. (2003). Building employer capacity to support employees with severe disabilities in the workplace. *Work* 21 77-82
- [20] Unger, D. D. (2002). Employer's attitudes toward persons with disabilities in the workforce: myths or realities? Focus on Autism and Other Developmental Disabilities, 17(1), 2-10.
- [21] Metz, R. (2017). Finally, a useful application for VR: Training employees. Retrieved from <https://www.technologyreview.com/s/609473/finally-a-useful-application-for-vr-training-employees/>.
- [22] Bullock, G. (2018). Light Sensitivity and Autism Spectrum Disorder. Retrieved from <https://www.theraspecs.com/blog/light-sensitivity-autism/>
- [23] Adler, R., Weiser Friedman, L. and Friedman, H., (2008). The Use of Information Technology to Create a Better Workplace for Individuals with Disabilities. *Management Online Review*.
- [24] Parr, A., Hunter, S. and Scott Ligon, G., (2013). Questioning universal applicability of transformational leadership: Examining employees with autism spectrum disorder. *The Leadership Quarterly*.
- [25] Scott, M., Falkmer, M., Girdler, S. and Falkmer, T. (2015). Viewpoints on Factors for Successful Employment for Adults with Autism Spectrum Disorder. *Plos One*.
- [26] Bontempo, T. (2009). Sensory Processing Patterns in High-Ability Adults with Autism Spectrum Disorders in the Workplace. Queens University, Canada.
- [27] Star Institute, (2017). Understanding Sensory Processing Disorder. Retrieved from <https://www.spdstar.org/basic/understanding-sensory-processing-disorder>
- [28] HR Council, (n.d.). Diversity at Work. Retrieved from <http://hrcouncil.ca/hr-toolkit/diversity-supportive-environment.cfm>
- [29] Wiren, T., Armstrong, A. and McMahon, B. (2012). Autism spectrum disorders and intellectual disabilities: A comparison of ADA Title I workplace discrimination allegations. *Journal of Vocational Rehabilitation* 36 159-169.
- [30] Hagner, D. and Cooney, B. (2005). "I do that for everybody": Supervising employees with Autism. Focus on Autism and Other Developmental Disabilities 20 91-97.
- [31] Mahoney, J. (2017). How Our Autism at Work Program Is Helping to Win the War for Top Tech Talent. Retrieved from <https://www.jpmorganchase.com/corporate/news/insights/jmahoney-autism-at-work-program.htm>
- [32] CIPD, (2018). Neurodiversity at Work. Retrieved from https://www.cipd.co.uk/Images/neurodiversity-at-work_2018_tcm18-37852.pdf?platform=hootsuite. Volume 13, Issue 1, pg. 185-209.
- [33] Chartered Accountants Benevolent Association, (n.d). Neurodiversity in the Workplace. retrieved from <https://www.caba.org.uk/help-and-guides/information/neurodiversity-workplace>
- [34] Bailey, S. (2014). Why Diversity can be bad for Business (and inclusion is the answer). Retrieved from <https://www.forbes.com/sites/sebastianbailey/2014/05/20/why-we-should-prioritize-the-i-in-d-and-i/#1bb86137600d>.
- [35] Robert Walters, (n.d.). Diversity and Inclusion in Recruitment. Robert Walters.
- [36] Austin, R.D. and Pisano, G.P. (2017). Neurodiversity as a competitive advantage. retrieved from <https://hbr.org/2017/05/neurodiversity-as-a-competitive-advantage>