Are the Disability Support Services at Auckland University of Technology Adequate for Dyslexic Students?

A Lecturer's Perspective

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DECLARATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signature:



Date: 29 November 2019

Table of Contents

DECLARATION OF AUTHORSHIP	2
ACKNOWLEDGEMENTS	4
REFLEXIVITY STATEMENT	5
ABSTRACT	6
INTRODUCTION	7
LITERATURE REVIEW	
Introduction	9
MEDICAL TERMINOLOGY	9
SOCIAL TERMINOLOGY	11
Teachers' Perspective	13
METHODOLOGY & PROCESS	15
Introduction	15
Methodology	15
Phenomenological approach (Transcendental)	15
Semi-structured interviews	16
Action Research method	16
Process	17
DATA ANALYSIS	18
FINDINGS & THEMES	20
Introduction	20
FINDINGS	20
What do you know about dyslexia?	
Would you like to know more about dyslexia?	
What are your experiences with working alongside dyslexic students?	21
Have you come across any students who don't know of or have refused to use the disability support services provided by t	
Are the materials and resources provided by Auckland University of Technology adequate?	
Who should be providing the information? Teachers or university?	
In the beginning of the semester are you told about students' accommodations?	
What are your presentation styles?	
Should lecturers accommodate students with learning disabilities?	
What is your ideal situation?	
Why aren't lecturers' perspective taken into consideration?	
How do vou view Dvslexia? From a Social or Medical perspective?	
Main themes	
FUTURE RESEARCH	
Introduction	22
CASE FOR CHANGE	
CONCLUSION	
Introduction	36
	38
REFERENCES	40
APPENDIX	43
MATERIALS LISTS FOR THIS PROJECT	43

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Throughout my life, I did not think I was smart enough to go to university, let alone complete a dissertation. With the support and motivation, I have received from my friends and family, I have accomplished something I never thought possible. I would urge anyone else who is in a similar position, to do the same. You are worth it, and you too can do it. A smart person once said to me "as long as you put in the effort, you can achieve anything you set out to".

Reflexivity Statement

Due to the nature of this research topic, I recognize my role in my study, my background and experiences may present some potential biases. I am dyslexic. I was diagnosed when I began my studies in 2015. As I am conducting a qualitative study, I recognise it will be somewhat impossible for me to claim complete objectivity throughout my process.

My main goal for this dissertation is to collect accurate information which will add to the current knowledge available. To help remain unbiased, my questions have been reviewed by my supervisor and I will not mention to the participants that I am dyslexic. I will not lead my participants in any way. I will continue to seek help from my supervisor to ensure I am remaining unbiased.

I would also like to mention that the findings and themes discussed throughout this dissertation derive from the five participating lecturers. I cannot assume their thoughts and perspectives are shared between other lecturers.

This dissertation involved human participants, more specifically, employees of Auckland University of Technology. Thus, ethical approval was required by the Auckland University of Technology Ethics Committee and was approved on the 19th of August 2019. Reference number: 19/252. All confidential information will be held on campus and will be destroyed after 6 years.

Abstract

This dissertation explores lecturers' perspectives on dyslexia if they believe the support services provided to the students are adequate, and any possible changes they would like to see. Universities are under pressure to better support dyslexic students, but the current research provides little answers on characteristics, identification, and/or instruction. Most of the social model research focuses on the dyslexics' perspective. The only time a lecturers' perspective is considered is when their teaching methods are scrutinized, but their personal, professional opinion is not taken into consideration. My research helps address this gap in this qualitative study. I will be accomplishing this by interviewing 5 lecturers from the Design and Creative Technologies faculty at Auckland University of Technology and gaining insight into their perspectives, understandings and experiences. The schools within this faculty include; Art and Design, Colab: Creative Technologies, Communication Studies, Engineering, Computer and Mathematical Sciences. 10 interesting themes were found throughout this project. Additionally, 9 suggestions have been made to improve the support for lecturers and students.

Keywords: Dyslexia; Education; Learning Difficulties; Lecturers; Perspective; University; Social Model; Medical Model; Qualitative; Auckland University of Technology.

Introduction

"... some of my brightest students have been dyslexic and at no point would they take any help from anybody..."

Participant 4, personal communication during interview.

In New Zealand, it began in 2007. This was the year the Ministry of Education finally recognised dyslexia as a learning disability. Prior to that, the Ministry denied the motion to recognise learning disabilities (LD), believing there would be conflict within the country's non categorical, needs-based system of special education (Tunmer & Chapman, 2007). Instead, the Ministry of Education opted for a more generic option, to help assist the needs of those who were struggling with reading. The Reading Recovery (RR) program was introduced in New Zealand schools in the early 1980s and is still around today. In 2008, the Ministry of Education released an official document for lecturers, which provides strategies for supporting dyslexic students.

So, at this point, you might be asking yourself, what is dyslexia? Initially, it was thought that for a person with dyslexia, letters on a page would move around uncontrollably. Since then, we have learnt a lot more. We now know that dyslexia is a brain-based condition, which affects the spelling, reading comprehension and writing. Dyslexics specifically have trouble with phonemic awareness (Understood, 2019). The causes of dyslexia are still unknown, as well as the number of people affected by it. Some believe one in ten people have it, others say 5 to 17 percent (Understood, 2019). It is very common for dyslexia to go undiagnosed, individuals being diagnosed as 'slow' or 'struggling' (Dyslexia Foundation of New Zealand, n.d.). I wasn't diagnosed until I began university. Throughout my schooling years, I was constantly told I wasn't trying hard enough and that I was being lazy. Every morning I would wake up with anxiety, dreading going to school as I feared situations where I "wouldn't get it" or I was being "made fun of". It was suspected there was something wrong, but what kid wants to have a label when you went through school seeing "special ed" children being bullied and pushed around? Not me, thank you. So, the day I turned 16, I dropped out of school. When I decided to further my education—a huge step for me because I always thought I was dumb—I fully regretted not finishing college. This is the reasons why I am

basing my dissertation around dyslexia. I am wanting to make a change for other people who have been in my situation.

In this thesis, I will explore the thoughts and perspectives of five Auckland University of Technology lecturers who have worked alongside dyslexic students. Throughout this document, their voice will be indicated *in italic and a different colour*. I will be exploring the current resources and materials available to them and if they feel it is adequate to support students. If lecturers aren't provided with correct and up-to-date resources and materials, how can we expect them to teach their students in suitable ways? The majority of the current research being conducted from a social model perspective has focused on the dyslexics' point of view. The only time lecturers' perspective is considered is when their teaching methods are scrutinised, but their personal, professional opinion is not taken into consideration. The importance of my research is to gain in-depth knowledge into the lecturers' perspective, expand upon the current social model perspectives, and to answer my research question:

"Are the disability support services at Auckland University of Technology adequate for dyslexic students? A lecturers' perspective."

In this dissertation, I will be including my personal journey in dealing with dyslexia. The reason why I have chosen this research topic is because change is needed. By sharing my experiences, I hope to inspire others to share theirs. No one should think less of themselves just because they have a learning disability.

This dissertation is structured into four sections: The first section reviews a few of the current articles that have been conducted from the lecturers' perspective as well as the current differences between the social and medical models of dyslexia. The second section explores the different methodologies that were used to produce the outcome for this research, such as action research and critical theorists' approach. The third and fourth sections will be dedicated to the findings/themes, future research, conclusion and reflection of the research.

Literature Review

Introduction

In this section of the dissertation, I will be reviewing the relevant literature related to medical and social models of dyslexia, as well as teachers' perspectives.

Medical terminology

The medical model of disability views dyslexia as a neurological dysfunction and individuals as disabled by their differences and/or impairments. This model views these differences and/or impairments as something that needs to be 'fixed' or changed by medical and other treatments, even though these differences and/or impairments do not cause pain or illness.

Shaywitz, Morris, & Shaywitz (2008) describe dyslexia as having difficulty reading and difficulty processing and understanding phonemes. Dyslexia can be found in all languages which include both alphabetic and logographic scripts. Dyslexia cannot be outgrown, cured and is not a developmental lag. Dyslexics just think differently. It is believed that intervention programs could be successful as long as the individual is diagnosed in the early stages of education. Neurobiological studies have revealed that there are differences in the neural circuity for reading between dyslexic readers and non-dyslexic readers. It has also been identified that there is a neural signature for dyslexia. These findings have shown the importance of and need for early reading intervention. It was suggested by the authors that there should be accommodations for dyslexics, in particular, extra time, to allow the dyslexic students to fully demonstrate their knowledge. Furthermore, the authors have identified a few issues that would need to be faced in the future: 1) Identify the specific instructional program which would work best for specific types of dyslexia and how to best implement the practices. 2) Identify if dyslexics have difficulties keeping attention. 3) Create a more effective method to identify at-risk children earlier and more accurately.

However, Landerl & Wimmer (2000), argue that deficits in phoneme awareness are only evident in the early stages of reading acquisition, whereas rapid naming and phonological memory deficits are more persistent in dyslexic children. They have reviewed past research done by Landerl et al. (1997) and found that children were given points for partially correct responses. When rescoring the spoonerism task test¹, they found that the English dyslexic children dropped from 76% to 26% and German dyslexic children from 63% to 15%, which has supported their theory.

Manis, Seidenberg, Doi, McBride-Chang, and Petersen (1996), suggests there may be subgroups or categories to dyslexia. The research was conducted on 51 dyslexic children. Two subgroups were identified which fit the profiles commonly known as "surface" and "phonological" dyslexia and also suggests that more subtypes may arise from multiple underlying deficits. Phonological dyslexia is defined as an impairment in the child's ability to map orthography to phonology resulting in poor performances in both words and non-words. Developmental surface dyslexia is defined as a delay in a child's word reading skill. To conclude, the authors have observed dyslexic children in light of multiple impairments suggested by the connectionist model of normal processing. The data showed how impaired word and non-word reading could arise from numerous types of deficits and offers a reasonable foundation for interpreting the behavioural data obtained by previous research and the authors. The authors support the dual-route model² as they believe there is more than one type of dyslexia.

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¹ Spoonerism Task Test: Spoonerisms replace Phonological awareness. Parts of words are manipulated, for example, FISH-BOAT -> BISH-FOAT. The participant needs to find the real words. This puts a high demand on phonological ability.

² The dual-route theory suggests there are two separate cognitive routes which a skilled reader will use to process phonological codes from orthography, called "lexical" and "sublexical". The lexical route is where skilled readers can recognise known words by sight alone. The sublexical route, the skilled reader can "sound out" a written word.

Social terminology

The social model of disability views dyslexia as an effect caused by society and the way it is organised, rather than by the person's impairment or difference. The model looks at how to remove barriers which restrict people with disabilities. Once we remove these barriers, people with disabilities will have the freedom to become more independent and be equal in society, with the ability to control and choose how they live their lives. "...if there's no one in those fields who's dyslexic, then what are you going to get from them out in society... It's going to be a very monocultural view of the world...". People with physical disabilities, such as the inability to walk, aren't expected to walk upstairs. Instead, lifts and escalators have been invented.

Dyslexia becomes a disability when you're expected to process information, be organised and store information like everyone else. A dyslexic is unable to do this. This is when dyslexia becomes a disability. Riddick, B. (2001), argues that while individuals may have impairments, the latter is only transformed into disability by negative attitudes from a society that we live in. The author has compared the learning of reading and spelling from different European languages, including an easy language such as Italian, which is phonologically transparent compared to a more difficult language like English which is not. It is suggested, from a social perspective, that if we made English more phonologically transparent, like Italian, we would see a significant decrease in the difficulties that English dyslexics and non-dyslexics encounter. Through the author's literature review, it is concluded that a social model of disability to change the perspectives, assumptions and misattribution towards individuals with a specific learning disability may play an important role in achieving high literacy standards and high tolerance.

Stephen Macdonald (2009) studied dyslexia from a social model approach and discrimination as a social barrier. Dyslexia becomes a social problem rather than an individual problem. When applying a social model, dyslexia is created by environmental and institutional processes like that of physical disabilities. With the rise of text-based information, we are creating more disabling barriers for people with dyslexia, whereas educational barriers may develop into economic restrictions in adult life.

Macdonald (2009) wanted to define dyslexia using the social model of disability and developed a methodology that was consistent with a social model of disability ideology, ensuring the dyslexics voices were the main point of the research. To ensure the author approached the study from a social model approach, the study primarily used a qualitative biographical approach, with quantitative methods. Macdonald concludes that, by using the social model approach, there is some level of institutional and structural barriers that aids the discrimination of individuals with dyslexia in education and employment. Additionally, the individuals within this study, living with dyslexia seem to influence their social-class status. Individuals from the working-class background appeared to experience higher levels of disabling barriers than those of the middle-class counterparts. Each of the participants experienced alienation within education, whilst the middle-class participants had the opportunity to access resources which allowed them to achieve educational success, thereby increasing their employment opportunities.

Elliot and Gibbs (2008), argue that attempting to differentiate between classes of 'reading disabled' or 'poor reading' and 'dyslexia' is unsupportable, subjective and thus possibly discriminatory. Although the authors stress that the potential of genetics and neurosciences are necessary, they argue that there isn't enough knowledge available to justify a category of dyslexia as a subset of reading difficulties. Through their investigation, the authors wish to answer these following questions; "1. Is dyslexia a clinically or educationally meaningful term for differentiating between children with reading difficulties? 2. To what extent would the dyslexic diagnosis guide the educator in devising appropriate forms of intervention? 3. To what extent should the dyslexic diagnosis result in the differential allocation of resources or other forms of special arrangement?" (Elliott & Gibbs, 2008, p. 476)

To answer the first question, the authors explored the fundamental theoretical and empirical bases in these areas, underlying cognitive processes, intelligence testing and biological factors, used to validate a distinct conceptualisation of dyslexia. To answer the second question, to identify the appropriate way to support dyslexia, the individual would need to be diagnosed. This would suggest that these interventions would better suit dyslexics more than non-dyslexic poor readers. However, this is not the case and there is no clear evidence that shows a particular way

of teaching is more suitable for a dyslexic than for those who are poor readers. Finally, to answer the third question, having a diagnosis has been seen as a principal means of gaining additional help or support for individuals. It also ensures that local authorities, teachers and schools are kept up to date. The authors argue that the diagnosis and classification process is inefficient, as these resources would be better spent on intervention. The intervention will then better support not only dyslexics but also poor readers.

Teachers' Perspective

Worthy, DeJulio, Svrcek, Villarreal, Derbyshire, LeeKeenan, and Salmerón (2016) main objective for their research is to examine teachers' perspectives, understandings, and experiences of dyslexia. Through a qualitative approach, the researchers interviewed 32 Texas public school educators. The authors identified two main themes. First, teachers felt accountable for meeting their students' needs, including students who have been identified as dyslexic. Teachers felt it was their responsibility to comply with the district and laws regulations. If a student is identified as dyslexic, teachers have to provide modifications in the classroom and students were provided with accommodations when it comes to examinations and tests. Second, the teachers identified barriers which interfered with their attempts to support all of their students. Multiple teachers learnt additional information on dyslexia, as the initial information provided by the district was insufficient. The majority of the teachers were committed to providing additional support for their dyslexic students, although the procedures, policies and limited information provided to them interfering with their objective. Additionally, the process to identify if an individual has dyslexia is drawn-out, burdensome, and vague.

In 2018, Worthy, Salmerón, Long, Lammert, and Godfrey attempted to bridge the gap in current dyslexia research. They interviewed teachers about their perspectives of dyslexia, reading challenges and legislation that requires them to teach about dyslexia. Four main themes were found through this research. First, the teachers felt reading instruction should be tailored to each student, regardless of learning disability. Second, due to the lack of knowledge provided, the teachers did not have the confidence to identify and label children as dyslexic. Third, teachers have to wrestle with current policies and ideology to properly support their students. Fourth,

there is discrimination between race, privilege and disability/ability when it comes to labelling. "I've always thought it was kind of political. You know, 'White kids are dyslexic, and Black kids are stupid.'... I think it's just a label for wealthy kids, and poor kids don't get that label." (Worthy, Salmerón, Long, Lammert, & Godfrey, 2018, p. 12)

Methodology & Process

Introduction

In this section of the dissertation, I will discuss the methodologies used throughout the project that helped assist with the work and help analyse the data collected. I will also discuss the process I took throughout this project.

Methodology

Phenomenological approach (Transcendental)

Phenomenology is the study of lived experiences. Phenomenology is concerned with the study of phenomena that arise from the experiences of people in the world. It seeks to better understand the outside world as it is interpreted by and through human consciousness. Edmund Husserl established Phenomenology in the early 20th century (Robert Wood Johnson Foundation, 2008).

I believe this is a great approach to my research question, as I am investing the lived experiences of lecturers who have worked alongside dyslexic students. A part of phenomenology is "bracketing". Bracketing occurs when the researcher sets aside their own experiences, biases, preconceived notions in order to understand how the phenomenon appears to the participants, in my case lecturers. Recruited participants needed to have had a lived experience with the phenomenon of interest.

Limitations

A limitation of Phenomenology is recruitment. Recruiting potential participants can be difficult depending on the phenomenon of interest. Additionally, the number of participants recruited can be a limitation. If only a small sample of participants are recruited, can that data really be a representation of everyone's lived experience? Time is also a limitation. You need time to gather meaningful data, then analyse and interpret that data. Another limitation is the researcher's

baises. Even with the bracketing in place, it is difficult for the researcher to remove all biases. Especially, in my case.

Semi-structured interviews

Semi-structured interviews are defined as the interviewer and participants being engaged in a formal interview. The interviewer develops a list of question, called an interview guide. It is a list of questions and or topics that need to be covered during the interview. The interviewer can follow the interview guide but also has the freedom to stray from the guide when they feel it appropriate.

Semi-structured interviews best suited my project. I was able to develop a list of questions which addressed the main points I wanted to cover. I also had the freedom to expand upon the questions if needed.

Limitations

While there are a lot of advantages to semi-structured interviews there are also some limitations. The researcher needs to have experience in conducting interviews. The interviewer needs to ensure the questions aren't leading. Analysing the data can also be time consuming.

Action Research method

Action research arose from Kurt Lewin's work in social psychology in the 1940s (Robert Wood Johnson Foundation, 2008). Action research is research directed toward solving social problems.

Action research works with and for people, rather than studying them. Researchers and the participants are seen as equals and the findings are delivered to the participants for confirmation. The focus of the research is on generating solutions to practical problems.

I choose Action research method because my research project is based on a social problem. I will be working with people (lecturers) rather than studying them. With the help of lecturers, my aim is to expand on current literature and develop a case for change.

Limitations

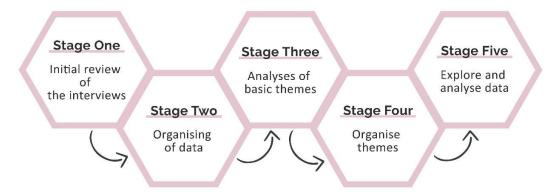
A limitation of action research is ensuring the researcher remains unbiased. Additionally, action research can be time-consuming.

Process

Due to the nature of this project I had to apply for ethical approval. To receive ethical approval, I had to complete the following; a 20-page document detailing the whole process, participant consent form, participation information sheet and a list of questions.

In the 20-page document, you have to include who you will be contacting and how. I will be contacting lecturers from the faculty of Design and Creativity Technologies who have worked alongside at least one dyslexic student. Additionally, lecturers who have worked with me before or who have a conflict of interest were excluded from the study. My supervisor and I approached the Disability Support Services (DSS) to see if they would be interested in my study, and they agreed. The DSS was able to help with recruitment and providing a brief overview of their processes. They also sent out an invitation on my behalf to suitable lecturers who fit our requirements. I could not receive a list of names to personally contact them, a requirement from the ethical process. From there, if a lecturer wished to participate in my study, they could contact me directly. Once initial contact was made from interested lecturers, I began organising meetings. All interviews were recorded. Once the interviews were over, I began organising my information by questions and started to analyse my data.

Data Analysis



In the **first stage**, I familiarised myself with all the data. This involved reviewing the information from the participants' responses from the interview. From there, I transcribed the interviews and re-read all the transcripts to ensure I fully understood the information.

In the **second stage**, I began analysing the data, checking for similarities and differences. I also began organising the data by questions and cross-examined it against each of the answers. This is where I used NVivo to help organise the data. NVivo is a qualitative data analysis program that stores and organises data. It also helps the researcher categorise and analyse their data. Additionally, NVivo helps the researcher to visualise and discover the main themes from their data. In my case, a total of 21 codes were identified. NVivo is similar to the cut and highlight methods of organising. From there, code words were created for the main points, which were sorted and prioritised.

The third stage is where I further analysed the themes. I did this by categorising the questions and highlighting interesting findings. Additionally, I also began to extract direct quotes to use throughout my dissertation. Throughout this stage, 10 main themes were found across the interviews.

In **stage four** I organised the themes and made connections between my findings and research question. At this point, all data were re-analysed through NVivo to ensure I have fully understood the data, and nothing had been overlooked.

In **stage five** I processed the themes and how they may link together. I did this by printing all of my findings, sticking them to a wall and drawing lines between them. Overall 10 main themes were found. These themes allowed me to me make 9 suggestions with an achievable time line.



³ The image is blurred because I cannot release the raw data. Circles indicate the main themes.

Findings & Themes

Introduction

In this section of the dissertation, I will be discussing the findings and themes that were found in my interviews.

Findings

Once the interviewing process was complete, I was able to analyse my data. While most of the findings confirmed my suspicions, a few things arose that I had not suspected.

What do you know about dyslexia?

Participant one:

As far as they are aware, there are two types of dyslexia. The first; Auditory, the dyslexic individual can remember words, but they find it difficult to figure the words out. The second; Poor memory, the dyslexic individual is constantly trying to figure out what they are reading.

Participant two:

Only knows the real basics. Doesn't know of anyone close to them who has dyslexia. They have gone off what they have read/heard and one thing they've heard is that dyslexics see words the wrong way around. But for them, it not about understanding what dyslexia is, but more about understanding that these individuals need extra help.

Participant three:

"...Probably very little..." They understand that there is probably a range. Also, there is a spectrum of how many words jump around the page and how much they don't. There are also different types of dyslexia.

Participant four:

Knows a little but cannot say they are an expert. They understand how the assessment process words, there is a different type of dyslexia and it's on a spectrum. "...I suppose really, that every learner is individual. Just because you got dyslexia doesn't mean you're going to present in the same way or face the same challenges..."

Participant five:

Knows a lot less than they should. Read up on dyslexia for the first time when a self-diagnosed student brought it up but have forgotten most of it since then. Understands that dyslexia is more complex than it appears and there are more knock-on effects for the individual if the issues have interfered with their learning for years.

Would you like to know more about dyslexia?

All participants wished to learn more about dyslexia. One participant would have liked to know more about not just dyslexia but other learning disabilities such as ADHD as well. When lecturers receive an email, at the beginning of the semester, notifying them that a student with a learning disability enrols into our class, it would be nice to include what resources are available for the student (if the student asks) and for the lecturer. "...I'm sure there's so many things I have not even considered about [sic]..."

What are your experiences with working alongside dyslexic students?

Working along dyslexic students can be difficult. Especially when you don't realise dyslexics learn in different ways. I have included a brief summary of the number of students that were enrolled⁴ in 2019 under the Faculty of Design and Creative Technologies.

⁴ I would also like to state that I am aware the numbers do not add up. The system which we received this information from is inconsistent. Additionally, the above numbers are an estimate. It would be possible to extract the exact numbers throughout the city campus, but I was unable to do so within this time frame.

Schools in Faculty of Design and Creative Technologies	EFTS	Domestic	International + Other	Headcount	Domestic	International + Other
Art and Design	1249	1090	159	1360	1193	175
Creative Technologies	171	161	10	187	171	16
Communication Studies	976	918	58	1149	1076	89
Engineering, Computer and Mathematical Sciences	3311	2266	1045	4918	2895	2029
Total	5707			7614		

Students with Accommodations						
Degree		School				
Bachelor of Arts	1	Art and Design	22			
Bachelor of Design	18					
Bachelor of Visual Arts	3					
Bachelor of Communication	29	Communication Studies	29			
Bachelor of Computer and Information Sciences	21	Engineering, Computer and Mathematical Sciences	55			
Bachelor of Engineering (Honours)	16					
Bachelor of Engineering	13					
Bachelor of Mathematical Sciences	5					
Bachelor of Creative Technologies	5	Colab	5			
Total	111		111			

1 EFTS⁵ is equivalent to a student taking four 15-point papers per semester. This explains why there is a difference between EFTS and headcount. This means not every student is studying full-time. There are 111 students with special arrangements⁶ throughout the faculty. That means roughly, 1.5% of the students have a special condition. This does not include students who are self-diagnosed or are unaware.

⁵ Equivalent Full-time Student.

⁶ Please refer to page 18 for a definition and example.

Two of the five participants either currently teach or know of someone who has dyslexia, so their presentations and classes will naturally help dyslexic students learn⁷.

One participant said, if a student is struggling, they will approach them and ask what they need. More one on one sessions, extra time, whatever it is, they would make it happen. But, unfortunately, none of their students had taken them up on the offer. When a student submitted their final assessment, the lecturer was disappointed as they felt if the student had taken them up on their offer the student would have received a better grade.

Another participant said every dyslexic student is different. Sometimes, the class participation form isn't properly circulated, so lecturers are unaware of who is in their class and only find out if a student had a learning disability at the end. "...I've also had students that were dyslexic and didn't tell me, so the only time you know they're dyslexic is when the sticker is on the exam script, after you finish teaching and it's like, that was one of the brightest students in the class..."

Another participant mentioned, that the diagnosed students are aware of their limits and what they require but there are probably more undiagnosed students who need as much, if not more consideration.

Have you come across any students who don't know of or have refused to use the disability support services provided by the university?

Three⁸ out of the five participants had not come across any students who had refused the services. All participants said when students presented with signs of struggling, they would approach the student and suggest that they go to the Disability Support Services (DSS). One participant said they had come across an international student who they suspected had a learning disability and

⁷ I would also like to mention that these presentation styles do not limit any other students learning. The way these lecturers present is with more visuals, less text, recording of the sessions, moving through their classes more slowly and ensuring the materials are available to all students.

⁸ Because I wasn't diagnosed until I started university, I wondered if any of my participants had come across any students who were in similar situations or had refused the services provided by Auckland University of Technology.

referred them to DSS. The student had an assessment completed by the team and found they needed a support network. However, because they were an international student, they had to pay for it. The student refused because they couldn't afford it. "...The team's [sic] done the assessment, they need a support network however because they are international, they have to pay for it and so that's the point which the student has refused..." Similarly, another lecturer has flagged a student and ask them to get an assessment done. The other participant suspected they had taught a lot of students who hadn't known they were dyslexic. "...So, you know, you've got this student not getting the best experience, but you can't do anything about it...".

It also depends on the type of paper being taught. Lecturers who teach project-based papers find it more difficult to detect undiagnosed students as their assignments are more project-based rather than word-based.

Are the materials and resources provided by Auckland University of Technology adequate?

At the beginning of my research, I asked if there were documents available to lecturers which gave them information on learning disabilities and how to support them. My supervisor confirmed there are documents provided by the institute but could not recall them. Later, we went looking for these documents through the staff intranet with the keyword "dyslexia" and found only one document. This document mentions dyslexia once, in the context of encouraging lecturers to a) look out for students who are struggling and then b) refer them to Disability Support Services (DSS). From there, I wanted to see if this was a common occurrence among the other lecturers.

Four out of the five participants agreed that the university provided them with some sort of resources and/or materials but could not recall any of the information. One participant said the resources could be found online through the staff intranet. Another hadn't looked for them. One

participant confirmed all resources students will need should be on Blackboard⁹ a week prior to classes beginning and if a student had a learning disability it should be available 2 weeks prior.

One participant didn't know of any resources "... Clearly they exist but I've never seen them ..."

Who should be providing the information? Teachers or university?

All participants agreed that both of the parties should be held responsible. The university "…is keen on great graduates…", so the university should provide lecturers with current materials and training because lecturers usually aren't specialists. As an educator, it is a part of your responsibility to learn more and help support all students. "…I am expected to be an educator who looks after the students and therefore get the resources I need and so find them online as I need them…"

In the beginning of the semester are you told about students' accommodations?

Students with learning difficulties are given special conditions to help support them through their studies. On the following page is an example of an accommodation memorandum given to lecturers at the beginning of the semester. Four out of the five participants confirmed they were given this document at the beginning of the semester. One participant said the only way they knew about a student with a learning disability was when the student volunteered the information themselves. Additionally, the same participant, said they have never had (in 7 years) an international student tells them they had dyslexia.

I have included a general overview of what the first engagement may look like between students with learning disabilities and the Disability Support Services (DSS).

Students must have a document verifying their learning disability. This document could be completed by a professional such as an Educational Psychologist or a Dr/GP/Specialist. The

⁹ Blackboard: A learning management system at Auckland University of Technology.

documents should have to been competed in a relevant time frame, generally within a 4-5-year period of their first meeting with the Disability Support Services.

Students with lifelong impairments that are not likely to change are exempt. Examples are physical impairments from birth, long-term disabilities or injuries, or impairment by name and impact on studies, for example, Dyslexia (Difficult Reading).

The first engagement can be face to face, via email, phone call and/or other means, e.g., with interpreters. In this meeting, depending on if the student is a prospective, returning or continuing studying, they will discuss the following points: How are they going with their studies? What are they enjoying? Are the current supports working for them? Are any changes required? How is your technology? Do you still need a note taker? Would you like to explore different types of technology? And, do you have your time table for next semester?

From there, an accommodation memo/academic plan and a resource request will be completed. The Disability Support Service will inform the student of the test and/or exam process. The Faculty will ensure their accommodations are met and advise students to review their schedule on SDW¹⁰. Student support plans are personalised to ensure the students receive appropriate support. Each plan created will be available to the faculty, student and examinations office for scheduling. From there, the student will receive ongoing support provided by DSS and faculty.

To give an example, this is a redacted copy of the researcher's accommodation memorandum¹¹:

¹⁰ SDW – Student Digital Workspace. A place where students can find services and information, for example, timetable, events and notices.

¹¹ I would like to state this accommodations memorandum is for exams only. This does not apply to projects or studio-based papers. Also, through my interviews I found out that international students have to pay for the additional help if they need it.



Interim Exam Accommodations Memorandum



If the final result of the student's assessment does not identify the following options as an ongoing need, these supports will no longer be available to the student.

Under the current circumstances, Kelsea can reasonably apply for:

Examination Accommodations	Responsibility for Arrangement		
an additional 20 minutes per hour for written tests and exams	Department/Lecturers		
use of a computer to word-process written tests and exams	Department/Lecturers		
a separate room for written tests and exams	Department/Lecturers		
a Supervisor for written tests and exams	Disability Student Support		
It is important to note that Kelsea will need to give at least two weeks advance notice in writing of appropriate examination timetables and course information so that the above exam accommodation process can be effectively facilitated.	Kelsea to complete and return one 'Exam Form' for each test/exam in which support is required.		

NB: Academic / Exam accommodations are put in place to minimise the impact of a student's impairment in the learning environment.

They are designed to remove barriers which deprive students of an equal opportunity to learn and to demonstrate their knowledge.

What are your presentation styles?

All participants try to accommodate all students' learning styles, not just dyslexic students. If a student is struggling, the lecturer will have a one on one meeting with them and plan to ensure the student meets the deadlines or determine whatever kind of help they need. One participant podcasts their classes. This is because they realise there are other factors that can contribute towards students not attending their class or not fully giving their attention during class. This gives the students the freedom to revisit the lectures in their own time. Another participant ensures all students are on the same page by going through their exercises in steps¹².

Should lecturers accommodate students with learning disabilities?

All participants agreed that lecturers should accommodate students with learning disabilities¹³. These students have paid to attend university and believed it would be unfair if lecturers did not provide a way for students with learning disabilities to learn. "...if there's no one in those fields who's dyslexic then what are you going to get from them out in society..."

One participant said, "...if you're not actually understanding what I'm teaching then there's no point for me or you to be here really...".

Another participant said students with learning disabilities bring more diversity to their fields "...It's going to be a very monocultural view of the world...".

Another participant said lecturers are here to support and give students the best journey that they can get. "...Because someone is dyslexic doesn't mean that they're not intelligent, it doesn't mean that they can't succeed and couldn't get a degree and get a career, it shouldn't be something that should be a block in the way of doing that…"

¹² However, this is only possible because they have small classes. It would be a lot more difficult if they had lecture halls full of students.

¹³ Something that was brought to my attention was the fact that there are some lecturers who believe they should not have to accommodate students with learning disabilities. Ideally, I would have wanted to interview someone with this perspective, unfortunately, I was unable to.

Another participant said, these students have been accepted into the programme and so have clearly developed enough strategies to achieve despite their issues. "...The bigger question for me is what we (Auckland University of Technology) do in conjunction with pre-Auckland University of Technology providers to ensure that we are assessing their suitability fairly when they apply. If they've had no help previously, but we will assist, then we should be adjusting entry pass rates etc. to allow for that..."

What is your ideal situation?

An ideal situation would be on where an online resource/hub exists that can provide lecturers and students with easy access to information and protocols.

Once or twice a year, all lecturers come together for a meeting where they discuss and gather more information on pastoral care issues. It would be ideal to have a course which refreshes lecturers on how to support dyslexic students based on what's current in 2020 and to have development sessions that lecturers can attend, the same way they have opportunities for professional development.

For students with any learning disability, an ideal situation would be one where they can have the confidence to go into any course, especially courses that are word based because it brings more perspectives. "...because we need all sorts of voices..."

From an administrative point of view, it would be great if attendance sheets could include alerts and pictures of the students.

Are the services at Auckland University of Technology adequate?

Four out of the five participants could not comment on whether the services provided by the university are adequate. The one participant said, "yes, if you seek them out first".

When asked if the Disability Support Services should receive more advertisement, one participant said yes, they can start by dropping the disability from their name. They also mentioned the other knock-on effects that come along with having a learning disability. Being poor or lacking in

confidence or when a sibling consistently receives good grades can also hinder a student's confidence. "...Being poor or lacking confidence because a sibling always gets As is also disabling but doesn't come into the conversation. Every student has something that makes study harder. I see dyslexia as one of these factors...."

Another participant said they couldn't comment as they don't really know a lot about the services but said its something you should overdo rather than underdo.

Another participant said, "...yes by moving the office...". Students generally don't realise something is "wrong", so they won't seek these services out because they think it has nothing to do with them.

Why aren't lecturers' perspective taken into consideration?

When asked their thoughts on why lecturers' perspectives aren't taken into consideration, three out of five participants were unsure why.

One participant said it could be because lecturers' do not have enough time to participate in these studies.

Another participant said it's quite common throughout all the education system, to a degree, because in general, lecturers have 30+ students at a time and the system is wanting them to concentrate on the paper more than the individuals (students). "...because you know what's the level of knowledge out there, are people being honest with what they actually know about dyslexia..."

Another participant said, if it was their chosen field, they would say it's because there has always been a monocultural view of the world and tertiary education as always been so word based.

Each of the participants wanted their thoughts and perspective to be taken into consideration. "…I think it would be possibly a good way of triangulating your data and actually looking at how the perspective of the group that's facilitating matches with… [sic]"

How do you view Dyslexia? From a Social or Medical perspective?

When asked which perspective they viewed dyslexia from, social or medical, the answers were mixed.

Participant one views dyslexia from a social perspective because from their understanding dyslexia is hereditary.

Participant two hadn't thought about it, but from the way they teach and their views on dyslexia, they would say social. They also believe it is also a medical issue but views it from a social model.

Participant three said the way they have approached dyslexia, in their job, would be from a medical model but personally, would like to change that. Ideally, they would like to review the way students reproduce knowledge and what would that look like. For example, students should be able to source other platforms like YouTube, audio books, etc.

Participant four said they view dyslexia as not as a disease, just that the brain functions differently. Dyslexia comes from a medical background, but we also need a social perspective. Just because your brain functions differently does not mean there is anything wrong.

Participant five said they initially view dyslexia from a medical model that becomes a predominantly social issue with time. "...I worked with special needs groups for a number of years and came away with a perception of physical, cognitive or sensory differences starting like an acorn that grows into a massive tree during their life – if we let it..."

Main themes

Through these interviews, my assumptions were confirmed but also a few things I had not expected arose. The participants do not know a lot about dyslexia. Some of the participating lecturers knew little about dyslexia, while, what others knew was wrong. Some of the participating lecturers thought this did not matter as much, as long as they ensured their students received the help they needed. Although, all did express the interest in learning more about dyslexia and other learning disabilities.

There seems to be a miscommunication between the participating lecturers and the university. When asked if there are resources available to lecturers, the majority said "yes" but they could not recall any details. When I looked further into it, there was one document which mentioned dyslexia once. Only a few of the participating lecturers had received the accommodation memorandum, while others only found out after the test/examination.

The participating lecturers would like to see more engagement from students. They feel, with the extra help they offer, students would have a better experience and find university less challenging. It was also expressed that the only reason why they could offer extra assistance is that they teach small classes. If they taught in a lecture hall, they would not be able to offer help to that extent.

Additionally, throughout my interviews, I discovered that international students have to pay for any extra support, while domestic students do not. This could be due to funding. New Zealand citizens can receive funding from the New Zealand government. One participant had an international student who they suspected needed additional help from Disability Support Services. The student organised to meet with Disability Support Services and discovered they did need additional help but because they were an international student, they had to pay for it. The student then refused the additional help as they could not afford it. In general, international students pay almost 5 times more than a domestic student over the 3 years of a bachelor's degree (Auckland University of Technology, n.d.).

Future Research

Introduction

In this section of the dissertation, I will be discussing the possible direction this project could take, given more time and resources. I will also be discussing the suggestions made from the participants and from myself.

This research topic has a lot of potentials. If given more time and resources, I believe, I could create a solution to better support all lecturers across Auckland University of Technology. Additionally, I believe the same principles could be implemented into other schools ranging from early childhood to university.

If given more time and resources I would have liked to include all faculties across Auckland University of Technology. The Faculty of Design and Creative Technologies one of five faculties at Auckland University of Technology. Once further research has been conducted throughout each of the faculties it would provide a more encompassing picture. Then I would include management from Auckland University of Technology in creating a change which would benefit all.

When reviewing the social and medical model, it became apparent that there needs to be a middle ground between them. All of the participating lecturers felt they viewed dyslexia from both perspectives. We need to better understand the causes of dyslexia and the ways it can affect an individual but also remove social constraints and norms to become more inclusive. I would have liked to explore the different ways I could have achieved this.

Additionally, I would conduct further research into providing an international student with these services for free, or a way around it.

Finally, I would explore the different ways of removing the stigma around learning disabilities and asking for help. Students may feel as if it is a weakness or feel "dumb" seeking help.

Case for Change

Throughout the interviews, the participating lecturers made suggestions they would like to see. I have also included a few of my own suggestions. The following recommendations are organised from easily achievable, to more difficult/time-consuming.

In 6 months, I believe the following can be achieved;

- Having a resource pack for all lecturers.
 This resource pack which lists what Auckland University of Technologies provides to lecturers and students, for example, Disability Support Services, Counselling, Doctors, and Printing.
- Encouraging students to talk with their lecturers.

 As mentioned in my findings, we know that the accommodation memorandum doesn't always find its way to the lecturers. Encouraging students to talk with their lecturers will help ensure they are aware of them, giving lecturers enough time to prepare for their students. Although, this may be difficult to accomplish, as some students may not want to discuss their learning difficulties. My suggestions would be to force their hand. Make it compulsory for students to organise a meeting. Meetings should be private, to help the students feel more comfortable. I also believe this could also help improve the stigma around learning disabilities.
- Encourage lecturers to use varied resources such as YouTube videos.
 If the lectures can be supported by non-written materials such as videos, podcasts, pictures etc. the lecturers should have the freedom and the ability to provide that to their students.
- Personalised program.
 Some students are procrastinators and so are dyslexics. Having the option for a personalised structure for dyslexic students, or any student would help. This can be private, and no one has to know. For example, for a dyslexic student, they have a first draft deadline, second draft etc., which they would submit to their lecturer to receive feedback.
- Not restricting students access to course notes/slides.
 I have had personal experience with a lecturer who was concerned about students skipping class and therefore did not hand out any materials at all. This practice does not cater for

students who wish to be prepared for classes or have work commitments that prevent them from attending class.

In a years' time, I believe the following can be done;

• Removing the word Disability from Disability Support Services.

I have a few suggestions; E-Learning. **Diverse Learning Styles Support**. Auckland University of Technology Student Support Centre. Removing the word "disability" will help improve the stigma around learning disabilities and could help encourage students to seek help.

• Alternative delivery.

Setting up lecturers to be able to record their lectures and post it as a podcast for their students.

In 1-2 years, I believe the following can be done;

• Personal development opportunities.

Lecturers have the opportunity to attend workshops where they would be able to improve upon their current knowledge of Learning Disabilities. Give lecturers an opportunity to discuss teaching styles and techniques to broaden their knowledge.

• Improve visibility.

Move the Disability Support Services to a more "obvious" space. If the service isn't visible to students, some students might not actively seek them out, as some students don't believe there is something wrong with them.

I would also like any of the information to be used in learning and teaching conferences.

Conclusion

Introduction

In this section of the dissertation, I will be concluding my research. Additionally, I will be reflecting upon my experience throughout this project.

"...I think it's about, you know, if you work hard you can achieve anything. It doesn't matter what is it and not to be discouraged..."

This project, in my opinion, was highly successful. As mentioned earlier, in the literature review chapter, there isn't a lot of research being conducted on this topic, especially at the tertiary level and from the perspective of teaching staff. My overall goal was to broaden the current research and to provide lecturers with a platform to share their thoughts and perspectives. Even with the limited number of participants, I believe I have achieved this goal. The themes and findings that have developed throughout this project have been informative and inspiring.

Through this project, I have found that the participating lecturers are willing to go that extra mile to support their students "...I think if someone needs a bit more attention then I will always try to give them that attention...". Even though, my initial research showed there are some lecturers who feel as if they should not have to. Unfortunately, I did not have the opportunity to meet with a lecturer with this perspective. I definitely would have liked to better understand them and create a solution which could benefit them also. I assume, the reasons why they think this way is because they are teaching at a tertiary level and students should have developed techniques to help themselves. Students will be going into the work place once they finish and should be fully prepared for it. Through personal experience, I had a lecturer who refused to give students access to their slides. I can only assume, the reasons why they choose to do so is because they did not want to give absentee students access to them, to force them to attend class. As a dyslexic, it takes me a few tries to fully comprehend what I am learning. Having access to the slides is therefore critical to my learning. In the end, I unenrolled from that class because I felt incredibly uncomfortable.

Throughout my project, I discovered that international students have to pay for any support. I find this extremely unfortunate as they pay almost 5 times the fees of a domestic student. This could be due to government funding models. Domestic students can receive funding for the equipment through the government. I believe all students should have access to all support and not have to pay for it.

Overall, Auckland University of Technology is attractive to people with learning disabilities because of their hands-on approach to learning. I was referred to them because my first choice did not work out as hoped. I am thankful I was referred to as I feel I would have given up and would not have pursued further education at a different institute.

Most importantly, I hope for my research to make a difference for lecturers at Auckland University of Technology. For their thoughts and perspectives to be taken in to consideration when Auckland University of Technology reviews their guidelines and procedures. To support lecturers to further learn about learning disabilities and to better support their students. Because if our lecturers are misinformed, then how can they create "...Great Graduates..."?

Reflection

Due to the nature of my project, ethical approval was needed. I would be interviewing employees from Auckland University of Technology. I had to ensure the participants' information remained confidential as I would be critically analysing the processes and procedures at Auckland University of Technology.

As part of the process, I had to identify who and how I would be recruiting potential participants. In the end, I chose to invite lecturers from the Faculty of Design and Creative Technologies. The Disability Support Services sent out an invitation on my behalf to potential participants. Participants chose to take part in my research. I could not select potential participants.

I chose to approach one faculty as I only had 15 weeks (one semester). In this time, I had to apply for ethical approval, recruit participants, critically analyse the data and complete the dissertation. I received the ethics approval on 19 August 2019. Only then was I able to send out the invitation and begin the recruitment process. That did not leave me with a lot of time. Additionally, due to time restraints, I had to consider the number of potential participants. In the end, I chose a minimum of five participants as I felt this would be a suitable number for my project.

I recognise I have limited the potential information with the way I have recruited participants. Initially, I wanted a diverse range of participants. When discussing potential participants, it was mentioned that some lecturers believed they should not have to accommodate students with learning disabilities. I assume, these lecturers felt this way because these students are at the university level. Students should have developed techniques to help themselves by this stage. Ideally, I would have liked to include lecturers with this perspective, to better understand them. With their perspectives also taken into consideration, I would have been able to create a solution suitable for everyone.

Additionally, I recognise I have also limited the potential information by only considering lecturers from the Faculty of Design and Creative Technologies. This faculty includes: Art and Design, Colab: Creative Technologies, Communication Studies, Engineering, Computing and Mathematical

Sciences. While this is a diverse faculty, ideally, I would like to have included all faculties, across the university, throughout all three Auckland campuses.

Overall, this project has been enlightening. At the beginning of my Honours degree, I wanted to design a learning tactile for young dyslexic children. But, because of my limited time and ethical requirements, I had to shift my research topic. This led me to the two different perspectives of dyslexia. Throughout my journey, I dove deeper into the different perspectives of dyslexia. Initially, I viewed dyslexia from a medical perspective. Since then, my perspective has shifted. I now view dyslexia from both perspectives as I believe we need both perspectives. We need to better understand what causes dyslexia and to change society to fit all learning styles. Currently, society is built around words, written and spoken. Is there a way around this? I do not know but I feel, if society shifts to become less reliable on written words, it would create an inclusive, accepting world where everyone would feel comfortable.

Since then, I discovered that a lot of the social perspectives are being conducted from the dyslexics' point of view, which is needed to better understand what they are experiencing. Which lead me to want to know more about teachers' perspectives, as they are the ones who are teaching the next generation. What is working for them, what isn't? How do they teach? Is it effective? Are they receiving enough support from their employers/government to support their students? But I struggled to find articles from the perspectives of teachers. I thought this was odd, as they are teaching these young children. We should be exploring their perspectives, to share what is successful for them and what isn't.

This is how I came upon this research topic and I am very proud of what I have accomplished.

References

- **Academic Educational Materials.** (2016, November 21). Understanding Phenomenology [Video file]. Retrieved from https://www.youtube.com/watch?v=d5geMLe5tbM&t=95s
- **Auckland University of Technology.** (n.d.). Bachelor of Creative Technologies. Retrieved from https://www.aut.ac.nz/study/study-options/creative-technologies/courses/bachelor-of-creative-technologies
- **ChrisFlipp.** (2014, February 12). Phenomenology [Video file]. Retrieved from https://www.youtube.com/watch?v=7uNp7okdc-E&t=149s
- **Disability nottinghamshire.** (n.d.). Social Model vs Medical Model of disability. Retrieved from http://www.disabilitynottinghamshire.org.uk/about/social-model-vs-medical-model-of-disability/
- **Dyslexia Foundation of New Zealand.** (n.d.). :: Understanding Dyslexia Dyslexia Foundation of New Zealand::. Retrieved from http://www.dyslexiafoundation.org.nz/d_assessment.html
- **Elliott, J. G., & Gibbs, S.** (2008). Does Dyslexia Exist? Journal of Philosophy of Education, 42(3-4), 475-491. doi:10.1111/j.1467-9752.2008.00653.x
- Landerl, K., & Wimmer, H. (2000). Deficits in phoneme segmentation are not the core problem of dyslexia: Evidence fromGerman and English children. Applied Psycholinguistics, 21(2), 243-262. doi:10.1017/s0142716400002058
- **Lexion.** (n.d.). Testing areas. Retrieved from http://www.lexion.co.uk/about-lexion/testing-areas.html
- **Macdonald, S. J.** (2009). Windows of reflection: conceptualizing dyslexia using the social model of disability. Dyslexia, 15(4), 347-362. doi:10.1002/dys.391
- Manis, F. R., Seidenberg, M. S., Doi, L. M., McBride-Chang, C., & Petersen, A. (1996). On the bases of two subtypes of development dyslexia. Cognition, 58(2), 157-195. doi:10.1016/0010-0277(95)00679-6
- Ministry of Education, New Zealand. (2018, March 22). Dyslexia and learning. Retrieved from https://www.inclusive.tki.org.nz/guides/dyslexia-and-learning/
- **NVivo.** (n.d.). What is NVivo? | NVivo. Retrieved from https://www.qsrinternational.com/nvivo/what-is-nvivo
- **Reading Recovery.** (n.d.). Reading Recovery. Retrieved from https://www.readingrecovery.ac.nz/
- **Reading Rockets.** (2016, April 14). Phonological and Phonemic Awareness. Retrieved from https://www.readingrockets.org/helping/target/phonologicalphonemic

- **Research Methodology.** (n.d.). Action Research. Retrieved from https://research-methodology.net/research-methods/action-research/
- **Riddick, B.** (2001). Dyslexia and inclusion: Time for a social model of disability perspective? International Studies in Sociology of Education, 11(3), 223-236. doi:10.1080/09620210100200078
- **Riddick, B.** (2001). Dyslexia and inclusion: Time for a social model of disability perspective? International Studies in Sociology of Education, 11(3), 223-236. doi:10.1080/09620210100200078
- **Robert Wood Johnson Foundation.** (2008). Action Research. Retrieved from http://www.qualres.org/HomeActi-3592.html
- **Robert Wood Johnson Foundation.** (2008). Critical Theory Paradigms. Retrieved from http://www.qualres.org/HomeCrit-3518.html
- **Robert Wood Johnson Foundation.** (2008). RWJF | Phenomenology/Ethnomethodolgy | Phenomenology/Ethnomethodology. Retrieved from http://www.qualres.org/HomePhen-3590.html
- **Robert Wood Johnson Foundation.** (2008). Semi-structured Interviews. Retrieved from http://www.qualres.org/HomeSemi-3629.html
- **Robert Wood Johnson Foundation.** (2008). What is qualitative research? Retrieved from http://www.qualres.org/HomeWhat-3513.html
- Shaywitz, S. E., Morris, R., & Shaywitz, B. A. (2008). The Education of Dyslexic Children from Childhood to Young Adulthood. Annual Review of Psychology, 59(1), 451-475. doi:10.1146/annurev.psych.59.103006.093633
- **SSWM.** (2010, September 2). Semi-Structured Interviews. Retrieved from https://sswm.info/planning-and-programming/decision-making/gathering-ideas/semi-structured-interviews
- **Tunmer, W. E., & Chapman, J. W.** (2007). Language-related differences between discrepancy-defined and non-discrepancy-defined poor readers: a longitudinal study of dyslexia in New Zealand. Dyslexia, 13(1), 42-66. doi:10.1002/dys.327
- **UK Essays.** (2017, July 11). Criticism of Action Research. Retrieved from https://www.ukessays.com/essays/education/research-methods-and-critique-action-research-in-education-education-essay.php

- **Understood.** (2019). Understanding Dyslexia. Retrieved from https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/dyslexia/understanding-dyslexia
- **What is qualitative research?** (n.d.). Retrieved from http://www.qualres.org/HomeWhat-3513.html
- **Wikipedia.** (2002, August 28). Phenomenology (philosophy). Retrieved October 2, 2019, from https://en.wikipedia.org/wiki/Phenomenology_(philosophy)
- **Wikipedia.** (2012, November 5). Dual-route hypothesis to reading aloud. Retrieved October 19, 2019, from https://en.wikipedia.org/wiki/Dual-route_hypothesis_to_reading_aloud

Appendix

Materials used for this project

Programs

NVivo

Workshops

- Writing abstract, introduction and conclusions sections
- Writing literature review sections
- Writing up Qualitative Research
- NVivo Core Skills for students

Websites

- http://www.qualres.org/HomeCrit-3517.html
- http://www.qualres.org/HomeCrit-3518.html
- http://www.qualres.org/HomeComm-3582.html
- http://www.phrasebank.manchester.ac.uk/
- https://library.aut.ac.nz/doing-assignments/literature-reviews
- https://library.aut.ac.nz/for-lecturers/liaison-librarian-services
- https://openrepository.aut.ac.nz/handle/10292/3
- https://tuwhera.aut.ac.nz/
- http://www.phrasebank.manchester.ac.uk/
- https://www.citefast.com/?s=APA