EMBRACING NEURODIVERSITY: SUPPORTING LEARNERS TO SUCCESS

Glenys Ker and Rachel van Gorp
EMBRACING NEURODIVERSITY: SUPPORTING LEARNERS TO SUCCESS

Glenys Ker and Rachel van Gorp

INTRODUCTION

In today’s diverse educational landscape, educators often encounter learners with neurodiverse traits such as autism, ADHD, dyslexia, and other cognitive differences. These learners have unique perspectives, strengths, and challenges that require thoughtful and inclusive approaches to teaching and learning.

In this article, we will present the story of Rachel, a neurodivergent learner as well as an educator, and Glenys, an experienced facilitator of tertiary level learning, as they navigated Rachel’s Master of Professional Practice journey to a successful conclusion. We will provide an overview of neurodiversity theory, Rachel’s interviews with learners and staff, and key findings from her study. These encompass emergent themes, strengths of neurodiverse learners, benefits for individuals and the community, and practical tips for facilitating and supporting neurodiverse learners’ success.

RACHEL'S AND GLENYS'S BACKGROUND

Rachel, a learner with neurodivergent traits including Irlen syndrome, dyslexia, and ADHD, had experienced and overcome challenges in her own learning journey during her undergraduate qualifications. She often felt confused as to why she found aspects of learning challenging, but she discovered that she benefitted from visuals, pictures, and smaller bites of information.

When she started her Master’s study, Rachel was encouraged to undertake the comprehensive Cognitive and Educational Assessment for dyslexia, which involves a thorough preparation and background assessment, followed by two testing sessions that can take up to six hours in total. The testing procedures typically include a variety of standardised tests that assess cognitive and academic abilities to identify dyslexia and to inform educational and intervention planning.

Glenys, an experienced facilitator, had worked with diverse groups of learners for years and was well-versed in a wide range of teaching and learning methodologies. She had developed her own model of effective facilitation (Ker, 2017) but also sought to learn and understand more about neurodiverse learners, knowing that there was no one-size-fits-all approach.

As Rachel and Glenys began working together, they quickly realised that each had much to learn. Rachel decided to focus on two key areas that learners often presented with, namely ADHD and dyslexia. They approached their journey together with an open mind and a willingness to learn from each other. They recognised that Rachel’s neurodiversity presented both opportunities and challenges, and they embarked on a collaborative and inclusive approach to support her unique needs.
UNDERSTANDING NEURODIVERSITY

According to Clouder et al. (2020), neurodiversity encompasses a wide range of learning disabilities such as dyspraxia, dyslexia, ADHD, dyscalculia, autism spectrum disorder, and Tourette syndrome.

Neurodiversity theory posits that neurological differences are a natural and inherent part of human diversity, just like other forms of diversity such as race, gender, or culture. The theory suggests that learners with ADHD, for example, can excel in creative tasks and problem-solving when given opportunities to use their unique cognitive abilities.

Therefore, it is essential for educators to recognise and appreciate the strengths and talents of neurodiverse learners rather than focusing solely on their challenges.

According to Otago Polytechnic’s database, there are approximately 1,055 learners in 2022 who declared a disability, including learning challenges under the neurodiversity umbrella, but only 413 have requested some form of support (Singer, 2016). Thus, Rachel’s research is invaluable in shedding light on the challenges faced by neurodiverse learners and identifying ways to encourage them to access support.

Brimo et al. (2021) highlight that the challenges faced by neurodivergent individuals are complex and multifaceted, including coexisting conditions such as ADHD, learning and language disabilities, sleep disorders, impulse control personality disorders, anxiety disorders, intellectual disabilities, substance use disorders, mood disorders, and autism spectrum disorders (Antoniou et al., 2021).

However, information regarding the exact number of overlaps between these disorders is limited (Brimo et al., 2021). Some challenges may occur independently, while others may coexist. For example, ADHD and autism are often closely linked and share numerous similarities, including attention issues, emotional impulsivity, a lack of self-awareness, and difficulty reading social cues (ADHD New Zealand, n.d.; Antoniou et al., 2021; Brimo et al., 2021; Sewell, 2022).

van Gorp (2022) asserts that neurodivergent learners face significant obstacles when it comes to accessing higher education, as historically, it has been perceived as a space reserved for the privileged. Despite an increasing number of learners from diverse backgrounds enrolling in universities, those from privileged backgrounds still have higher rates of progression to higher education. Research conducted in New Zealand and Australia has shown that learners with neurodiverse conditions, such as dyslexia, are underrepresented in higher education and face significant challenges due to a lack of support and resources. This lack of representation poses a significant challenge for educators and employers worldwide as the number of learners with learning disabilities linked to neurodiversity continues to rise.

van Gorp (2022) concludes that there is a need for a more inclusive and supportive approach to higher education. Learners with neurodiverse conditions should not be excluded from higher education due to barriers that are often beyond their control. Higher education institutions must provide tailored support and accommodations to ensure that these learners can succeed and reach their full potential. This is not only important for individual learners but also for society, as neurodivergent individuals have unique perspectives and strengths that can contribute to a more diverse and innovative workforce.

Kirby (2021) identifies several reasons why some learners may choose not to disclose their neurodivergent condition(s). Some learners may not be aware of their diagnosis or may be hesitant to disclose due to negative past experiences or bias against them. Additionally, some learners may not view themselves as disabled or may simply be uncomfortable sharing personal details. Hayes (2020) and Jansen et al. (2017) argue that calling on learners who do not voluntarily participate in class, despite the perceived advantage of engaging learners who may otherwise remain silent, is not appropriate.
RESEARCH PROJECT

van Gorp (2022) was inspired by Saunders et al.’s (2019) “research onion” as a simple method to approach the project by peeling back the layers, which involved breaking it down into manageable parts. This approach involved examining the choices made at each layer and explaining the rationale behind them and the research methods used for data collection and analysis. Qualitative methodology and autoethnography were employed to gather and interpret data from participants, allowing for a deep understanding of the challenges and capabilities of neurodiverse learners and the strategies used by staff to create successful learning experiences for them. The findings of this project now contribute to the field of neurodiversity and inform the practice of staff and emerging practitioners in creating inclusive learning environments for neurodiverse learners.

During her Master’s journey, Rachel conducted extensive research and studied various theories and ideas to enhance her educational practices for better support of neurodiverse learners. She conducted 13 semi-structured interviews as follows:

- Five interviews with self-identified neurodiverse learners recruited through flyers and the student hub.
- Six interviews with educators from different Colleges within Otago Polytechnic.
- Two interviews with specialised staff from Student Success, one of whom identified as an expert in the field.

Rachel organised collected data in Excel, de-identifying participants and using colour-coded highlighting (for example, pink for relationships, blue for challenges) to identify themes while taking notes.

The study identified several emerging themes related to neurodiverse learners in higher education, including the value of early disclosure, the challenges faced by neurodiverse learners, building relationships and support, and strengths brought by neurodiverse learners. The approach used in the project allowed for the identification of patterns and themes through a six-phase process of thematic analysis using Braun and Clarke’s (2013) framework. Semi-structured interviews prompted participants to reflect on their experiences (ethics approval no. 928), and transcription helped ensure the accurate interpretation of their responses.

THE THEMES THAT EMERGED FROM THE INTERVIEWS

1. Early disclosure – identifying needs at the earliest point is essential.

Participants emphasised the importance of identifying the needs of neurodiverse learners as early as possible in their academic journey. This included encouraging learners to disclose their neurodiversity, such as autism, dyslexia, ADHD, and other conditions, to relevant personnel, such as faculty, support services, or counsellors.

Learner participants found disclosure beneficial as it allowed them to seek help without hiding their challenges. Lecturer participants acknowledged that every learner has a different way of learning and found it helpful when learners disclosed their neurodivergent status. Expert participants emphasised that early disclosure is crucial for support staff to provide effective support. However, some neurodiverse learners may refrain from disclosing due to fear of stigma or concerns about privacy. Overall, the findings highlight the importance of creating an inclusive learning and teaching environment that promotes early disclosure and supports the unique needs of neurodiverse learners.

Early disclosure was seen as a crucial step in accessing appropriate accommodations and support, and in preventing potential academic challenges or setbacks later in the academic term. Participants highlighted the need for a supportive and non-judgmental environment that encourages learners to feel comfortable in disclosing their neurodiversity early on and emphasised the role of educational institutions in creating such an environment.
2. Challenges facing a neurodivergent learner in higher education.

The theme of challenges faced by neurodiverse learners in higher education emerged as a significant area of concern in the interviews. Participants identified various challenges that neurodiverse learners might encounter in the higher education setting, including academic, social, and emotional challenges. Academic challenges included difficulties with time management, organisation, note-taking, and processing information. Social challenges included difficulties with social interactions, forming relationships, and participating in group activities. Emotional challenges included managing stress, anxiety, and self-esteem. Participants highlighted that these challenges could impact the overall well-being and academic performance of neurodiverse learners in higher education. They emphasised the need for appropriate support and accommodations to address these challenges effectively.

These challenges include difficulties with reading, writing, and assessments, as well as sensory overload. Learner participants in the study mentioned self-awareness, reflection, and strong communication skills as strategies they used to overcome these challenges.

Lecturer participants emphasised the importance of acknowledging learners’ challenges and creating individual learning plans to identify and accommodate neurodivergent learning styles and strengths. Lecturers can adapt lessons using visual aids, detailed instructions, and coloured overlays to ease visual stress.

However, it was noted that neurodiverse learners are unique individuals, and educating lecturers about their specific challenges rather than just about neurodiversity in general, is important. Developing a plan to alleviate challenges, based on the learner’s preferences and needs and involving them in the decision-making process, can be beneficial. Success can be achieved by equipping neurodiverse learners with skills and strategies to develop their independence and influence their results. The importance of building connections, finding safe people for neurodiverse learners to engage with, and fostering communities of practice among interested individuals was also highlighted. Undertaking more research with staff and promoting a change in educators’ perspectives towards empathy and knowledge about neurodiverse learners can help improve their learning and teaching experiences.

3. Building relationships and support with neurodiverse learners – making connections and acknowledgements to build an inclusive environment.

This theme also emerged as a key factor in creating an inclusive environment for neurodiverse learners. Participants emphasised the importance of establishing positive relationships and connections with neurodiverse learners to understand their unique needs, strengths, and challenges. This included acknowledging and valuing neurodiversity as a form of human diversity, and creating a supportive and inclusive learning environment that fosters belongingness and acceptance. Participants highlighted the need for faculty, staff, and peers to be educated about neurodiversity, develop empathy and understanding, and actively engage in building relationships and providing support. This included adopting inclusive teaching practices, using appropriate communication strategies, and creating opportunities for neurodiverse learners to connect with peers and engage in meaningful ways.

Learners, lecturers, and support staff all agree on the value of creating connections and acknowledging neurodiversity to foster an inclusive learning environment. Learners feel more relaxed and confident when they have a genuine connection with their lecturers and support staff, and they appreciate when lecturers show compassion and care towards their needs. Lecturers aim to create a safe space for neurodiverse learners, build quality connections, and understand individual strengths and challenges. Expert participants also emphasise the importance of building relationships to establish trust and provide appropriate support. When the relationship between neurodiverse learners and lecturers is strong, it creates a welcoming environment and encourages learners to feel valued and supported in their studies. Communication, understanding, and commitment to learning differences are essential for building effective relationships between neurodiverse learners and educators.
4. Strengths neurodiverse learners bring to the learning and teaching environment encourage discussion about the strengths of neurodiversity.

Participants recognised that neurodiverse learners bring unique strengths to the learning and teaching environment, such as creativity, attention to detail, problem-solving skills, and diverse perspectives. They emphasised the need to shift from a deficit-based perspective to an asset-based perspective when discussing neurodiversity in higher education. Participants highlighted the importance of celebrating and leveraging the strengths of neurodiverse learners and integrating them into the academic curriculum and classroom activities. This included fostering a positive mindset towards neurodiversity and promoting a culture of inclusivity that recognises and values the contributions of neurodiverse learners in the learning and teaching environment.

These strengths include:

- **Creativity:** Neurodiverse learners often have a very creative side, such as drawing, vision, or imagination, which can contribute positively to group activities and projects.
- **Self-awareness and reflection:** Neurodiverse learners tend to have increased self-awareness and the ability to reflect deeply, which can help them better understand their learning preferences and strategies.
- **Unique strengths and talents:** It is important to ask neurodiverse learners about their strengths and how they would like to use them, as they may have unique talents and abilities that can contribute to the learning environment.
- **Different perspectives:** Neurodiversity brings diverse thinking and perspectives to the learning and teaching environment, which can enrich discussions and interactions among learners and educators.
- **Engagement in different teaching methods:** Neurodiverse learners can benefit from incorporating various teaching methods into the learning environment, such as audio and practical examples, formative and practical assessments, and interactive engagement, to cater better to their individual strengths and preferences.
- **Assistance from experts:** Expert participants, such as educators and professionals, can provide assistance to neurodiverse learners based on their individual needs, such as note-taking support, to help them focus on the lecture or lesson content.

Overall, acknowledging and maximising the strengths of neurodiverse learners is essential for creating an inclusive learning environment that values and utilises their unique abilities, talents, and perspectives. Collaborating with neurodiverse learners, other educators, and professionals can help develop tailored learning plans that leverage their strengths and address their challenges effectively.

**BENEFITS AND IMPACT**

The collaborative learning approach embraced by Rachel and Glenys had numerous positive effects on both individuals and the wider educational community. First and foremost, Rachel experienced a sense of belonging and inclusion in her studies. She felt that her unique perspectives and strengths were acknowledged and valued, which boosted her self-esteem and motivation to learn. Rachel also developed agency and self-determination, as she actively participated in decisions about her own learning process. This helped her build confidence in her abilities and fostered a positive attitude towards learning. As a result, Rachel continued to refine her teaching style in her own classroom, constantly seeking ways to adjust and engage with her learners.

Glenys also benefited from working with Rachel. She gained a deeper understanding of neurodiversity and the unique needs of neurodiverse learners. She learned to appreciate the diverse ways in which learners process information and engage with the material. Glenys honed her facilitation skills, incorporating new strategies and approaches to better support neurodiverse learners in her future practice. She also developed a strong sense of empathy and understanding towards neurodiverse learners, which informed her interactions with other learners she worked with.
CHALLENGES AND LESSONS LEARNED

Rachel and Glenys also encountered challenges along their journey. There were times when Rachel struggled with certain tasks or activities, and Glenys had to find alternative ways to support her without compromising Rachel’s autonomy and agency. There were also moments when misunderstandings or miscommunications arose, and both Rachel and Glenys had to work together to overcome these challenges and find solutions. However, they approached these challenges with a collaborative mindset, recognising that they could learn from each other and find creative solutions together.

One crucial lesson that Rachel and Glenys learned was the importance of open and honest communication. They actively engaged in conversations about Rachel’s preferences, needs, and challenges, and sought to understand each other’s perspectives. This allowed them to build a strong rapport and trust, which formed the foundation of their successful working relationship. They also recognised the importance of flexibility and adaptability, as they had to adjust their approaches based on Rachel’s unique needs and preferences, alongside the expectations of the Master’s programme’s requirements. This flexibility extended to Rachel’s work in the wider classroom environment as well, as Glenys adjusted her own facilitation model to better accommodate neurodiverse learners.

HINTS FOR FACILITATING LEARNING FOR NEURODIVERSE LEARNERS

As Rachel and Glenys navigated Rachel’s learning journey of supporting neurodiverse learners, there were several effective strategies that could be helpful for educators in similar situations, including:

1. Creating a supportive learning environment: Neurodiverse learners often thrive in an environment that is inclusive, accepting, and supportive. Educators can create such an environment by establishing clear expectations, providing structure and routines, and offering opportunities for personalised learning. It is also important to create a safe space where learners feel comfortable to share their thoughts, ideas, and challenges without fear of judgment.

2. Using multi-modal teaching strategies: Neurodiverse learners often have different learning styles and preferences. Using a variety of teaching strategies that appeal to different senses can help engage learners and facilitate their understanding. For example, incorporating visuals, hands-on activities, and technology-based tools can be effective in conveying information to neurodiverse learners.

3. Providing clear and concise instructions: Neurodiverse learners may struggle with processing and following complex instructions. Providing instructions that are clear, concise, and presented in multiple formats can help learners better understand and follow the tasks or assignments. Using visual aids, written instructions, and verbal explanations can be effective in supporting their learning.

4. Encouraging learner agency and self-determination: Neurodiverse learners often benefit from having a sense of control and autonomy over their learning. Educators can empower learners by involving them in goal setting, decision making, and self-assessment. This promotes learner agency and self-determination, which can boost their motivation and engagement in the learning process.

5. Providing frequent feedback and reinforcement: Neurodiverse learners may require additional feedback and reinforcement to reinforce their learning. Educators can provide frequent and timely feedback that is specific, constructive, and positive. This helps learners understand their progress, identify areas of improvement, and build their confidence.

6. Practising flexibility and adaptability: Neurodiverse learners may have unique strengths, challenges, and learning paces. Educators need to be flexible and adaptable in their approach, taking into consideration the individual needs of each learner. This may involve modifying instructional strategies, providing additional support, or allowing for accommodations as needed.
INCORPORATING STRATEGIES FOR NEURODIVERSE LEARNERS INTO THE FACILITATION FOR LEARNING MODEL

Utilising strategies for neurodiverse learners aligns with Ker’s (2017) effective facilitation for learning model, which is vital for benefitting neurodiverse learners’ unique needs and experiences:

Improved engagement and motivation: When neurodiverse learners feel supported and understood, they are more likely to be engaged and motivated in the learning process. Effective facilitation models that cater to their unique needs can help boost their interest and participation, leading to improved learning outcomes.

Enhanced learning outcomes: Neurodiverse learners may require different approaches to access and process information. Effective facilitation models that align with their learning styles and preferences can enhance their understanding and retention of information, leading to improved learning outcomes.

Increased self-efficacy and confidence: Neurodiverse learners may face challenges and barriers in their learning journey. Effective facilitation models that promote learner agency and self-determination can help neurodiverse learners develop a sense of self-efficacy and confidence in their abilities, leading to increased self-esteem and motivation to learn.

Greater inclusivity and diversity in education: Incorporating effective facilitation models for neurodiverse learners promotes inclusivity and diversity in education. It acknowledges and values the unique perspectives, strengths, and challenges of neurodiverse learners, creating a more inclusive learning environment that celebrates diversity.

Ker stresses the importance of understanding the nature of learners and acknowledging that every learner presents with their own unique challenges and understandings. She believes that facilitating learners is not a simple set of technical tasks but requires high levels of skill and understanding of the learners. Ker argues that facilitators need to exercise judgment, understand the relational role, and co-construct knowledge with learners through reflection and reflexivity. Her model takes into consideration the challenges and strengths of all learners, and in this instance, the neurodiverse, as they may require additional support and accommodations to ensure their success.

Effective facilitation requires an understanding of the unique learning needs and preferences of neurodiverse learners, and the facilitators must create a safe and supportive learning environment to facilitate their success. Ker’s learner-centred facilitation of learning model is crucial for supporting the success of neurodiverse learners, grounded in an understanding of the unique learning needs of learners.
TIPS FOR LEARNER SUCCESS

van Gorp (2022) believes that the neurodivergent learner is also responsible for creating and sustaining an inclusive learning environment, and suggests some tips for learners:

1. Inclusion – as a learner, creating a supportive environment where everyone’s differences are recognised and valued, allowing us all to reach our full potential.

2. Neurodivergent – showcase your own skills/talents so that other learners and educators know what your strengths are.

3. Classroom – work with others in the class and the educators to ensure that the classroom is safe for everyone and to create a positive and accepting learning environment.

4. Learning – ask for support as you need it. Reach out to others, there is no shame in needing support.

5. Understanding – in order that everyone understands, building relationships with staff and classmates can help you succeed.

6. Success – achieving in your studies is key to your success therefore reach out for support when needed.

7. Individualised Instruction – is crucial for learners with diverse needs. Advocate for yourself and ensure your learning needs are met.

8. Valued – it is important that everyone in the class environment feels valued and knows that they matter. Watch out for those who may be struggling quietly.

9. Education – should be inclusive for all learners, regardless of their differences. Speak up if you notice a lack of inclusivity in your learning environment.

CONCLUSION

Supporting neurodiverse learners in an educational setting requires a thoughtful and inclusive approach. This involves early disclosure of needs, recognising and accommodating individual challenges, building strong relationships, and emphasising the strengths of neurodiverse learners. The benefits of such an approach include improved self-esteem, agency, and motivation for the learners, enhanced understanding, effective facilitation skills, and empathy for the educators. Rachel and Glenys’s journey provides several effective strategies for facilitating learning for neurodiverse learners, including creating a supportive learning environment, using multi-modal teaching strategies, providing clear and concise instructions, encouraging learner agency and self-determination, providing frequent feedback and reinforcement, practising flexibility, and adaptability. Implementing these strategies can positively impact neurodiverse learners, leading to greater success and inclusion in the educational setting.
Glenys Ker is a highly experienced work-based learning and professional practice facilitator and assessor, drawing on an extensive and highly successful background as a teacher and career practitioner in both university and polytechnic settings, at undergraduate and postgraduate levels. She is also an active researcher in the field of work-based learning, integrating her research into the development of facilitators of independent learning.

Glenys is the primary architect of the independent learning pathway (ILP) approach to qualifications offered through Capable NZ, Otago Polytechnic’s work-based and practice-based learning school. Glenys is an experienced leadership and management practitioner, again in multiple educational contexts, including academic and service departments and leadership of independent learning programmes. In her 18 years’ experience in this field, she has worked with and supported many neurodiverse learners – something she is hugely grateful for and has learned so much from.

Glenys has co-authored with her colleague Dr Heather Carpenter a book on her work: Facilitating Independent Learning in Tertiary Education – new pathways to achievement.

Rachel van Gorp is an accomplished Senior Lecturer with a wide-ranging background, including experience in banking, personal training, massage therapy, business ownership, mentorship, and volunteering. As a member of the Otago Polytechnic School of Business, Rachel brings a wealth of knowledge and expertise to her undergraduate teaching programmes.

Rachel is a dedicated advocate for neurodiverse individuals in vocational education and serves as the chair of the Neurodiversity Community of Practice. She is committed to promoting inclusion and equal opportunities for individuals with diverse learning abilities. Her recent completion of her Master of Professional Practice reflects her focus on the essential topic of Neurodiversity in Vocational Education: facilitating success.

With her unique combination of experience, Rachel is able to bring a practical perspective to her teaching, engaging students in real-world scenarios and helping them to develop the skills they need to succeed in their future careers. Her dedication to the field of vocational education has made her a highly respected member of the academic community, and her commitment to promoting neurodiversity is making a significant impact on the lives of her learners and the wider community.

REFERENCES


