

ACE Aotearoa submission to:

Select Committee Education and Science: Inquiry into the identification and supports for students with the significant challenges of dyslexia, dyspraxia and autism spectrum disorders in primary and secondary schools

Purpose of submission

We are making this submission

- To draw attention to adult learners whose success and independence is affected by dyslexia, dyspraxia and autism spectrum disorders¹, although they are not in the school system. Findings from the Adult Literacy and Lifeskills (ALL) Survey 2006 showed that around 43 percent of the New Zealand adult population have less than optimal literacy skills, and 51 percent have less than optimal numeracy skills².
- To share with you what adult educators have observed about significant advances in neuroscience which are providing more exact diagnoses and new options for effective intervention; in most cases these interventions and approaches were not available when many adult learners were at school.

Our view is that diagnosis and labelling of dyslexia, dyspraxia and autism spectrum disorders can now, in many cases, be matched by interventions that change outcomes for individuals for the better – if we do not provide such interventions we risk simply labelling learners and ‘permit’ poor results for these learners in the education system. Such interventions are now achieving lasting results, and we believe there is a case for investment in the unrealised potential of adult learners as well as that of school age learners. We would like to see expert upfront diagnosis and intervention programmes available across the education system. We’d like to see this backed up by collaboration between educators across the system so there is no risk of learners being caught between parts of the system having to ‘retell their story’.

About ACE Aotearoa

Adult and Community Education (ACE) Aotearoa is the lead body for adult and community educators and a voice for adult learners. We actively promote and support the diversity of lifelong learning in Aotearoa New Zealand. In particular, we work across the sector and with government and communities to foster collaboration and cooperation so that educators, providers and adult learners are well supported. We are a membership organisation, and represent both our members and the wider sector – always with a focus on what works best for learners. We provide advice and direction for policy development and implementation. We work in partnership with government and have been funded in recent years to improve the accessibility, coherence and quality of learning for adults.

¹ We understand that dyscalculia falls outside the Terms of Reference for this inquiry. We hope that this Select Committee may be able to address this in subsequent work and would then propose the same recommendations to be applied for this disorder.

² Maurice Walker, Karl Udy and Nicholas Pole with assistance from Steve May, Glenn Chamberlain and Fiona Sturrock, Adult Literacy in New Zealand: Results from the International Adult Literacy Survey, 1996

ACE Aotearoa consulted with its members and others involved in community and adult education to develop this submission.

We have worked with other submitters and in particular endorse the submissions from Jan Wigmore/ Andrew Bird, Luana Aulalo and Shirley Maihi. The submissions from Jan and Andrew and Luana taken together paint a diverse picture of the challenges for parents who are trying to access support. This highlights the need for a system which is robust and fair to all learners. Jan and Andrew's submission also provides an excellent and succinct example of what can be achieved using new interventions where these are available. Shirley Maihi is a recognised education leader and her submission provides insight into the schooling system. She tells a story which is consistent with our experience, and we have been working with her identifying solutions which can work across both the formal schooling sector and with adult learners.

We have also been helped to make this submission by the experience of adult educators, in particular the team at Adult Learning Support, Nelson. Their report of student experience from a recent class for students with dyslexia is attached as Appendix A. It provides real insight into the positive improvements that can be achieved for adult learners.

SUBMISSION

1. The diagnoses of dyslexia, dyspraxia and autism spectrum disorders cover a wide spectrum; but there are common approaches that help learners

Learning issues experienced by those with dyslexia, dyspraxia and autism spectrum disorders are strongly 'individual'. Any given learner experience can vary across levels of severity and can be associated with a broad range of other issues (for example, audio processing disorders or memory impairments).

- In the case of dyslexia, brain scans have revealed that eight areas of the brain need to be accessed for reading. If one or more of those areas is not functioning, an individual will experience difficulty in reading. The difficulties experienced by individuals will vary according to which areas of the brain are not functioning³.
- Individuals with dyspraxia are also affected in different ways, at different ages and developmental stages, and to different degrees. As well, the condition is inconsistent in that an individual may be affected one day and not the next⁴.
- The spectrum of autism disorders is now recognised as covering a wide range of severity and intellectual ability, from the person with the severe impairment of classical autism to a person with above average intellectual capabilities but whose function is significantly impaired by their social cognitive difficulties.

We understand that the committee needs to put some boundaries around this individualisation and develop solutions that have positive impacts for a broad range of learners, so we have focussed on outlining the main approaches that we see as key features of a successful and responsive system.

³ B Arrowsmith-Young, *The Woman who Changed Her Brain*, 2012 p 118.

⁴ <http://www.dyspraxia.org.nz/> <http://www.speld.org.nz/dyspraxia.htm>

2. Advances in neuroscience offer new options

ACE Aotearoa works closely with the wider education sector. In recent years members of the ACE sector have followed research and presentations both in New Zealand and overseas about advances in neuroscience, and in particular the idea that what we now know about brain plasticity offers learners – including adult learners - new chances to ‘fix’ the blocks they have experienced to previous education. As advances in diagnostic techniques help us understand the causes of disorders, learners can get the remediation programmes best suited for them. ACE Aotearoa members are not experts in brain function or scientists, but the reported findings are consistent with what we see in our own work as educators.

Most recently ACE Aotearoa members attended the Education Leaders Forum in Auckland (aimed at leaders and aspiring leaders across the learning spectrum from early childhood to tertiary education and education stakeholders). This conference focused on recent research and innovative learning practices for boosting student achievement. The conference was told that “There are important implications for all learners, not just those with disabilities, in a better understanding by all educators of new neuroscience and the general principles and specific practices of brain plasticity which assist learners strengthen weak cognitive capacities underlying learning dysfunctions through a programme of specific cognitive exercises”⁵. This has huge potential for adult learners.

For some time our response to a diagnosis of learning disorder, both for school and adult educators, has been to ‘scaffold’ around the learner, providing additional support, such as reader/writer or resource teacher of learning and behaviour (RTL) time or providing a more carefully structured learning process, such as that offered by the Feuerstein programme⁶. These approaches have yielded results and continue to be part of best practice.

However, there are limitations to these approaches. The provision of direct support, such as a reader/writer for dyslexic learners, can support them through the formal school system, but does not support a transition to independence and self reliance, with poor outcomes for these learners after school or formal education. By contrast, the Feuerstein method has a strong focus on supporting students to ‘learn to learn’ and has been the gold standard where learning difficulties have their basis in emotional, psychological and social disabilities.

What we have observed as adult educators is that there is a core of adult learners who do not benefit even from the best that we have been able to bring to them using these approaches. As an example, Christchurch Polytechnic has developed programmes to ‘fast track’ discouraged adult learners, mainly into trade training programmes. The great majority of those who start the course are able to progress through four levels of foundation learning fast, using the current ‘best practice’ methods. However, a core of around 70 learners has not experienced any benefit from these interventions, despite their high levels of motivation and average or above intelligence levels.

This has led the ACE sector to explore emerging ideas about the application of neuroscience to overcoming learning disabilities⁷. What we have found is that there is evidence that intensive retraining of those parts of the brain affected in learning disorders can change both

⁵ <http://www.smartnet.co.nz/events/ELF/2015.htm>

⁶ <http://www.icelp.info/>

⁷ An overview in : U Frith, D Bishop, C Blakemore, S Blakemore, B Butterworth, U Goswami Neuroscience: implications for education and lifelong learning, Integrating Science and Practice Vol.3 No.1 May 2013

brain structure and brain functioning⁸. This offers the possibility of offering learners programmes to remediate the disorders experienced, rather than building supports around them. Examples of this approach are Fast forWord®⁹, Cogmed¹⁰ and the Arrowsmith Programme¹¹. These programmes are used in some New Zealand schools now, and their use is being considered in the tertiary sector.

Our view is that where these new approaches are proved effective, they should be offered to adult learners as well as those in the school system. It is unlikely that there will ever be a significant number of experts able to diagnose these conditions with precision, or of teachers skilled in the interventions available following diagnosis. We would like to see those scarce skills located where they can be shared across the whole education system.

3. There is a high cost if we fail to address the needs of adult learners with dyslexia, dyspraxia and autism spectrum disorders

Educational non-achievement is a cost to government and a barrier to full productivity for individuals and for New Zealand. In 2013 the cost to the state of those between 16 and 23 years old was estimated at over 4 times higher for those with no qualification, than for those with a Level 3 qualification¹². For many the experience of failure in the compulsory education system leaves them with a resistant attitude toward formal or structured learning.

The findings from the Adult Literacy and Lifeskills (ALL) Survey 2006 showed that around 43 percent of the New Zealand adult population have less than optimal literacy skills, and 51 percent have less than optimal numeracy skills. This means that there are up to one million adults with literacy and numeracy issues that stop them reaching their full potential.

A significant proportion of these learners will have dyslexic, dyspraxic and autism spectrum disorders which have affected their ability to learn in the formal schooling system, but which can be remediated. It is thought that the percentage of all learning disabled students in 'second chance' adult education classes may exceed the percentage in the population as a whole, with some estimates as high as 80%.¹³

Knowledge about dyslexia, dyspraxia or autism spectrum disorders is improving all the time. The best diagnoses and treatments available today were not understood even five years ago. This means that during the time even the youngest adult learners were at school, less was known about the causes of these disorders, how they are manifest and how they can be addressed. Dyslexia, dyspraxia or autism spectrum disorders were both over diagnosed and under treated over this time, resulting in a body of adults who have disorders that might now be remediated. Significant untapped potential resides in these adult learners.

Many of them are of average or better intelligence and are highly motivated. Repetition of educational practices which have not worked for them in the past only reinforces their sense of failure and creates further barriers to learning. They will repay investment in remedial services that deliver good results.

⁸ For instance: Pare´-Blagoev J. The neural correlates of reading disorder: functional magnetic resonance imaging. In Fischer KW, Bernstein JH, and Immordino-Yang MH (Eds), *Mind, Brain, and Education in Reading Disorders*. Cambridge: Cambridge University Press, 2007: 148–167.

⁹ <http://www.scilearn.com/products/fast-forword>

¹⁰ <http://www.cogmed.com/program>

¹¹ <http://www.arrowsmithschool.org/arrowsmithprogram-background/neuroplasticity.html>

¹² Ministry of Education workshop data, drawn from Integrated Data Initiative, 2014.

¹³ Seattle-King County Private Industry Council, *Learning Disabilities Project*, (2000).

For this reason it is our view that remedial programmes for dyslexia, dyspraxia, dyscalculia and autism spectrum disorders must be available for adult learners also. These people can become fully contributing and highly productive members of our community. Programmes that work are a worthwhile investment and have the potential to unlock significant productivity.

4. What ACE educators have seen work

Select Committee have asked to hear about “educational best practice for these groups”. Common “best practice” features for successful remediation that our members have observed are

- **Use of expert neurological assessment.** Rapid advances in screening techniques mean that learners entering school now have a significantly improved chance of getting an accurate diagnosis and appropriate remedial options. Equally, if this screening is made available to adult learners, many find for the first time that their learning issues are not their ‘fault’ and that in fact they can be remediated. This diagnosis alone can be a powerful motivator for adult learners. For this reason we would recommend identifying experts who can provide diagnoses and develop appropriate programmes, and locating this expertise where it is available to the broader adult community as well as in ‘before school’ and school based services.

Quote: The difference assessment can make

“ We enrolled.. a learner with very low levels of literacy and numeracy who, the tutor discovered, was on the high functioning end of the autism continuum. Once the tutor used an appropriate teaching style, he started reading a lot of history, his maths went from Step 1 to Step 3 on the adult learning progressions in two months, he became interested in computers and decided he might learn Japanese. His pathway is still being developed!” *Alternative education programme*

- **Ensuring this diagnosis follows the learner across the education system.** Our members report that frequently they enrol learners who haven’t had the opportunity to be tested for a learning disorder, or have a diagnosis made at school but not followed through on.

Quote: The education system must connect to support the learner

“I have a real concern that whatever is decided will be done in isolation from any thinking about tertiary education and its impact on learners with specific learning difficulties. In the early days the government’s refusal to recognise that dyslexia existed meant that students were not coming to tertiary with a diagnosis or any strategies for learning to learn. Then when we had schools facilitating students getting a diagnosis, we suddenly had identified students with a disability, who were in possession of information about their strengths and weaknesses, and who were better prepared for the rigors of tertiary education. That however did not last... This is a real barrier to the success of students in tertiary education. We need an approach that encompasses the whole of a lifelong learning journey, not just some constituent parts of it.” *Student Support tutor, large Polytechnic.*

- **The availability and use of programmes and approaches that achieve real change in brain function and cognitive skills, rather than simply ‘compensating’ assistance.**

Identifying with accuracy what neurological impairment is causing a learning disorder is only a first step. Unless this diagnosis is matched with the appropriate treatment regime it simply provides a label for the issue.

We understand that current practice is to provide standard allocations of time and support to learners following assessment. This incentivises negative assessments in order to access higher funding and support, but minimises the incentive to schools to invest in intensive programmes for individuals which might actually fix the problem. We are told by adult learners that, for some, the diagnosis of a recognised disorder has been ‘permission to fail’ for both them and for the school system. Practice has been to assign support to these learners – such as reader/writers or special supports. This has masked the impact of the disorder, rather than improved learning ability. This enables achievement in the schooling system but is not sustainable or realistic beyond that level. Using new interventions, more learners will actually improve their functioning, rather than find ‘work arounds’.

Quotes: Learning disorders need specialist teaching

“The multisensory method of learning makes the learning “stick”.”

“Why oh why oh why did they not teach me this way at school - I could have learnt so much more.”
Adult learners

- **Delivery of individualised programmes by educators trained in ‘what works’.** Teachers in the mainstream system receive basic training and are encouraged to work with dyslexia, dyspraxia or autism spectrum disorders, incorporating a range of appropriate strategies in their classrooms. This can be effective in some cases, but in others the complexity of the neuroscience, the highly individual learning issues experienced and the attention to repetition required is more than can reasonably be delivered by a mainstream teacher. For a teacher and teacher aide to be able to integrate the needs of the student into the working class room whilst ensuring minimal disruption in class for both the other students and the pupil in need requires a level of skill and experience that cannot be guaranteed. For this reason we would recommend shared services which can be accessed by schools, ACE and tertiary providers within a community.

Quote: Teachers want to work in partnerships with experts

“As a literacy educator I’m not qualified to diagnose the dyslexic, dyspraxic and autism spectrum disorders. I frequently have learners who I can’t fit, match, or measure to correspond with the TEC Starting Points/or Progressions, they seem to have unique needs of their own that could well be derivative of the dyslexic, dyspraxic and or autism spectrum disorders - and yes, they all deserve a fair field to play on.” *Literacy tutor, South Auckland*

Recommendations

- Early and expert diagnosis, backed up by collaboration across the whole education sector so that diagnosis follows the learner through the system.
- Investment in solutions that provide expert diagnosis and support across the whole education sector. We would like to see 'centres of expertise' which make skilled diagnosis and intensive programmes (programmes that have demonstrated results for adult learners with dyslexia, dyspraxia or autism spectrum disorders) available to a broad range of education and learning centres in any given community. Such centres need not stand alone, but could be attached to any education provider – it is the collaborative access across the sector that will support learners.
- Development of shared and consistent practice across the whole education sector when addressing dyslexia, dyspraxia and autism spectrum disorders.

Appendix One: Outline and comment from Dyslexia Course 2015, Adult Learning Support, Nelson

Focus: Dyslexia – increase knowledge and literacy skills for greater competence at work.

Participants: Minimum of 8 participants from the working community, all whom have dyslexia or dyslexia type symptoms.

Duration: Ran for 10 weeks. All participants wanted to continue the sessions in some way – whether a regular monthly meeting or coming into Adult Learning Support to further develop their new found skills and confidence.

Aim: To equip the participants with knowledge of dyslexia and strategies to better enable them to function effectively in their working and everyday environments.

The speakers ranked the highest rating by all participants closely followed equally by **Peer Support** using the Lexia software programme **CORE 5**.

Course Content:

1. Spelling strategies, at least eight or nine by end of the course.
2. Topics covered by visiting speakers included the anatomy of the dyslexic brain- what actually happens from birth and images to support the presentation, managing dyslexia in the workplace, relaxation techniques for performance anxiety, personal stories from well-known public and former course participants.
3. Introduction to computer resources.
4. Individualised assessment using the Lucid Lads Plus Adult Dyslexia Screening test, if desired. Individualised programmes as per goals set by each learner at the beginning of the course.
5. Relaxation techniques to learn how to relax in stressful situations.
6. Grammar foundation knowledge including – what is a noun, adjective, verb and adverb.
7. Writing techniques – how to write creatively and then read aloud the written word.
8. Skills for the workforce including computer resources e.g. finding synonyms in word, using spell check, business letter templates etc.
9. Knowledge of dyslexia – myths, genetically transferred, how the brain actually works for a dyslexic person.
10. Learning styles assessment as to whether the participant was a sequential, precise, technical or confluent processor.
11. Understand working memory better so the use of different techniques can help with memory retention.
12. Comprehension strategies to teach the three step method for understanding the written word.

What went well?

- Significant increase in learner's confidence – as reported by all the learners and observed by tutors.
- All learners reported how good it was to meet other people with Dyslexia, share stories and not feel alone or that they were unintelligent.
- High rate of attendance. All eight participants were on board and would ring or text prior to the night if unable to attend.
- Comments included:
 - I can understand my Dyslexia now
 - I can spell better - am now prepared to give it a go.
 - Can understand Dyslexia better and also why I have trouble with reading and retaining information.
 - Look at a sentence in a different way.
 - I am more confident.
 - I can understand the magic e.
 - The course was life changing for me.
 - The course was very helpful.
 - I know what my strengths are now and know when I need to ask for help.
 - Loved the variety of the sessions - made learning much easier for me.
 - Why oh why oh why did they not teach me this way at school - I could have learnt so much more.
 - I don't need to ask my husband to spell words for me any more - he has noticed a big difference in this area and he also says I now speak clearer and use much bigger words when I am talking to him and others. My confidence has grown significantly.
 - Multisensory method of learning makes the learning "stick".
 - Can get pictures of words now
 - Learn "tricks" to remember information e.g. people's names by association and/or visual image
 - School was just plain no good for me - here I'm treated with respect and not like a "dummy"
 - Am learning to search for **key words** in my study - am getting better at skimming for the words I need to find
 - I have just written four pages about fishing in my kayak - this is more writing than the total of words I've written in my whole life – I'm amazed with myself!

These are just some of the statements made over the period of the course.