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i. Acknowledgements:

The Fellow would like to thank the following individuals and organisations who generously gave their time and their expertise to assist, advise and guide her throughout her Higher Education and Skills Group Fellowship.

Awarding Body – International Specialised Skills Institute (ISS Institute)

The ISS Institute plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice by investing in individuals.

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The International Specialised Skills Institute was founded 28 years ago, by Sir James Gobbo AC, CVO, QC, and former Governor of Victoria, who had a vision of building a community of industry specialists who would lead the up-skilling of the Australian workforce. The Fellowship Program builds shared learning, leadership and innovation across the broad range of industry sectors worked with. Fellows are supported to disseminate learning's and ideas, facilitate change and advocate for best practice through the sharing of their Fellowship learning's with peers, colleagues, government, industry and community.

Since its establishment 28 years ago, ISS Institute has supported over 450 Fellows to undertake research across a wide range of sectors which in turn has

led to positive change, the adoption of best practice approaches and new ways of working in Australia.

The Fellowship Programs are led by investment partners and designed in a manner which ensures that the needs and goals desired by the partners are achieved. ISS Institute works closely to develop a Fellowship Program that meets key industry priorities, thus ensuring that the investment made will have lasting impact.

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Personal acknowledgements

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Sher Kamman

The Parker Academy

CANADA

Toronto Dr Jenny Horsman

UK

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ii. Executive Summary

Linno Rhodes, the Fellow, has worked with adult literacy learners for over 15 years and through her experience, recognises that learners often have a host of other issues that impact on their ability to participate, engage and thrive in the adult learning environment. The reasons adults may not have 'functional literacy skills'¹ are diverse and differ from person to person. They may be multi-layered and involve a diagnosed learning disability or not. The reasons could include missing a lot of school as a child due to health issues, being a carer for a sick parent, living in a family with addiction issues, moving frequently or they may have experienced trauma that impacted their learning.

When trauma impacts on learning, the brain, the mind and the body are involved – it is a holistic experience that then requires a holistic approach to address.

When trauma is inflicted in the classroom or learning environment by teachers, principals, other students or their families the classroom can become an unsafe space for learners.

The Fellowship focussed on the exploration of various areas of neuroscience that can help to address these issues. Within the field of psychology there are key theories that offer an insight into the way people learn, our memory function, behaviours, perception and consciousness. These theories are grounded in neuroscience and the Fellow chose to investigate the specific areas of – attachment theory, mindsight, mindset, regulation of emotional responses and mirror neurons in order to increase teachers capacity to work with adult literacy learners to benefit both learners and teachers.

That trauma-informed practice is becoming more widely accepted and practiced in education settings is a positive move, but there is still some way to go in the adult learning environment. Teachers whose pedagogy incorporates self-reflective tools and an understanding of the basics of the theories outlined in this report will go far toward creating safe learning spaces for adults where learners can experience themselves as successful and capable.

1. Background

Context:

Linno Rhodes (the Fellow) application for the 2017 Higher Education Skills Group, International Specialised Skills Institute Fellowship was based on the idea that adult learners, specifically adult literacy learners who access Adult Community Education (ACE), may have a background that includes generalised and/or learning traumas. The Fellow wanted to explore how to apply neuroscience theories to adult learning pedagogy in order to affect a positive outcome for students.

The main aims of the Fellowship were:

1. To investigate the idea that creating a secure-attachment relationship between the teacher and adult learner will lead to transformational change and develop stronger pathways into further education and employment.
2. To investigate how using tools and theories developed from the branch of psychology known as neuroscience, may change learning experiences from negative to positive and effect meaningful lasting change.

Further, the Fellow set out to explore an approach to teaching adult literacy students that acknowledged:

- » past learning-traumas
- » the relationship between the teacher and the student and the ability that relationship has to heal the effect of past learning traumas

Five main theories pertaining to neuroscience were identified as being game-changers for teaching and learning in ALBE (Adult Literacy and Basic Education):

1. Attachment theory
2. Regulation/co-regulation/dysregulation
3. Mirror-neurons
4. Mindsight
5. Mindset.

With these theories in mind, the Fellow undertook to meet with leaders in the fields and explore how they could offer a new perspective to teachers' pedagogical practice, with the main aim being that learners benefit from the change in practice and have a different approach to their learning that will enable more successful experiences and outcomes

The Fellow understood that the possibility of teachers embracing changes to their practice, through understanding and absorbing these theories, would enable them to make a difference to the experience of adults who are affected by trauma, (especially learning traumas), in the learning environment.

*Trauma, for the purposes of this report, includes, but is not limited to: living in a family affected by alcohol and other drugs, family violence, sexual assault, neglect, serious illness or death of a parent or close family member and interrupted schooling.

*Learning traumas are described as negative classroom or school experiences, such as bullying, berating, physical punishment, put-downs, and other punishments by teachers and other school staff including principals and peers, that occurred in the learner's formative years, resulting in the learning environment itself being a place of threat and danger.

Methodology

Prior to travelling to the chosen international destinations the Fellow;

- » Met with local academics, including Dr Bernie Neville, and Prof Erica Frydenberg of the University of Melbourne to further develop insight and understanding into the line of enquiry.
- » Attended the online reading group led by Sue Marriott of the text "Attachment Disturbances in Adults. Treatment for Comprehensive Repair" by Dan Brown and David Elliott. This was to prepare for the conference in Austin Texas on this same subject. The on-line group ran for 2 hours per week for 6 weeks.

During the international travel the Fellow participated in a range of activities including:

- » Structured professional discussions:
 - » Met with psychologists and occupational therapists who work with children with learning differences
 - » Met with therapists and educators interested and invested in the area of attachment theory and learning.
 - » Met with thought leaders in the field of neuroscience
 - » Participated in a structured professional discussion evening with educators who have worked with disenfranchised people for many years.
- » Conference:

- » Attended a one day conference on "Attachment Disturbances in Adults. Treatment for Comprehensive Repair"
- » Visited a year 7 – 12 school specialising in working with children who have learning difficulties stemming from trauma, disability or other reason.
- » Interviewed literacy teachers implementing innovative practices.
- » Visited Edgeworth University and presented to undergraduate students in teacher training courses on preliminary findings for the Fellowship topic.

Fellowship Period

- » The travel period was for the month of April, 2018.

Fellow Biography

Linno Rhodes enjoys working in the Adult Education field, with a particular focus on adult literacy. She is a member of the Victorian Adult Literacy and Basic Education Committee (VALBEC), the Fine Print Editorial Committee and the Reading and Writing Hotline Steering Committee.

Students at Olympic Adult Education come from 57 different countries and speak 54 different languages at home. 25% of students at OAE have a disability and 33% of those people with disabilities have multiple disabilities.

Currently the Fellow, Linno Rhodes is:

- » Education Manager - OAE
- » President of Victorian Adult Literacy and Basic Education Council (VALBEC)
- » Editorial Committee member: Fine Print, Adult Literacy Journal
- » Steering Committee member – Reading and Writing Hotline

Presentations and Publications:

Linno has presented at VALBEC and ACAL conferences and has had feature articles, reviews and regular articles published in Fine Print across the last 10 years.

The Fellow's work as an adult literacy teacher continues to influence her interest and passion in facilitating a better learning experience for adult literacy students. She recognises that trauma has played a critical role in the experience of learners and looks for ways to address the challenges this has created in the adult learning and teaching environment.

2. Abbreviations

ACAL	Australian Council of Adult Literacy
ACE	Adult Community Education
ACFE	Adult, Community and Further Education
ALBE	Adult Literacy and Basic Education
CALD	Culturally and Linguistically Diverse
EAL	English as an Additional Language
LL	Learn Local
R&W HOTLINE	Reading and Writing Hotline
RTO	Registered Training Organisation
SEE	Skills for Education and Employment
TAFE	Technical and Further Education
VALBEC	Victorian Adult Literacy and Basic Education Council
VET	Vocational Education and Training

3. Fellowship Learnings

The Fellow chose to investigate 5 areas of neuroscience in an attempt to understand how teachers can utilise them to create successful experiences and patterns of learning for adult literacy students.

The areas of investigation included:

1. Attachment theory

- » As developed by John Bowlby, Mary Main and Mary Ainsworth and further expanded on by countless others. (Rhodes was particularly interested in the work of David Brown and Dan Elliot, Attachment Disturbances in Adults- Treatment for Comprehensive Repair, and attended the conference of the same name as part of her Fellowship, in Austin, Texas).

2. Dysregulation and Co-regulation

- » Emotional Regulation is a psychological term used to describe a person's ability to regulate their emotional reactions to an experience.
- » Dysregulation refers to the heightened or suppressed emotional state that is in reaction to an event or moment and that the person is unable to manage the intensity or duration of.
- » Co-regulation is when the presence of a safe other can assist and support another's emotional state, just as a calm therapist would do in a therapy setting, so a calm, reassuring teacher or classmate may do in a classroom. The work of Dr Stephen Porges, who developed the Polyvagal Theory, which very basically "placed an emphasis on the important link between

psychological experiences and physical manifestations in the body,"² is important to take into consideration when thinking about regulation and co-regulation.

3. Mirror Neurons

- » Mirror neurons are located in the pre-frontal cortex, the part of our brain that controls learning. They are the neurons that are responsible for the yawn that seems contagious in a meeting. Mirror neurons are also thought to be responsible for building empathy, being able to understand the intentions of others and build self- awareness. Teachers are able to use mirror neurons to impact and influence the emotional regulatory system of students so as to create a positive learning space.

4. Mindsight

- » 'Mindsight' is a term coined by Dr Daniel Siegel, and refers to "...a kind of focused attention that allows us to see the internal workings of our own minds. It helps us to be aware of our mental processes without being swept away by them, enables us to get ourselves off the autopilot of ingrained behaviours and habitual responses ...It lets us "name and tame" the emotions we are experiencing, rather than being overwhelmed by them. ...it allows us to reshape and redirect our inner experiences so that we have more freedom of choice in our everyday actions, more power to create the future."³

² Pocket Guide to Polyvagal Theory, Porges, Preface.

³ Siegel, Mindsight, xi-xii.

5. Mindset

- » Mindset. Referring to Dr Carol Dweck's work on growth mindset vs Fixed Mindset – often students who have multiple negative experiences of learning, especially from their formative years will have a fixed mindset, purely due to being told so often that they're wrong, they're not good at something (learning) and that they have failed. This thinking is hardwired in the brain and it is important to challenge by offering successful learning opportunities – not by giving work that is easy, but by teaching learning strategies and scaffolding tasks
- » Strengths based work also supports changes to fixed growth mindsets.

Teachers learning about these 5 areas of neuroscience, and encouraging their use in adult learning environments will provide opportunities for bringing about positive learning outcomes for students and teachers alike.



(Fellowship visit with Sue Marriott and Dr Ann Kelley (and the Austin-In-Connection conference organising committee) Dr David Elliott; co-author of 'Treating Disturbances in Adult Attachment').



Attachment theory and how it can apply in the classroom:

Extensive research into attachment theory was undertaken prior to departing on the Fellowship trip including a literature review, videos and podcasts and participation in an online reading group prior to attending the conference 'Treating Disturbances in Adult Attachment' in Austin, Texas.

Attachment theory was originally made famous through the work of Harry Harlow with his experiment on Rhesus monkeys and extended to humans through the work of John Bowlby, Mary Ainsworth and Mary Main. Human infants (as do all mammals) have an innate need to connect with their primary care-giver. When the care-giver, for one reason or another does not have the ability to provide a safe and secure attachment to that infant – importantly - enough of the time, the infant will develop one of two types of insecure attachment systems that they usually carry with them into other relationships. (There are other, more nuanced, parts to this theory but for this report it is unnecessary to go into these).

The theory is based on the premise that if the primary care-giver was able to provide a safe and secure relationship at least 70% of the time, the infant will go

on to have safe and secure relationships – more often than not. If not, they may develop an insecure attachment style. The two types of insecure attachment are anxious/preoccupied and avoidant/dismissive.

The attachment style plays out in classroom dynamics with the teacher – who is an attachment figure for many students. The more anxious/preoccupied student will be overly concerned with the teacher – whether or not s/he likes them / if they're happy, if they need anything/ would like the tables cleaned etc. The avoidant/dismissive student on the other hand is more concerned with being invisible, having no needs to meet and not appearing as if they care about what others are thinking or feeling.

They are both different sides of the same coin – neither is more or less than the other. Teachers too, have their own attachment style that comes into play in the classroom situation. An anxious/preoccupied teacher might be overly concerned about whether the students like them or their teaching ability, whereas a teacher with an avoidant/dismissive attachment style might be aloof and difficult for students to feel they can engage with.

Teachers who understand attachment theory and their own attachment style are more likely to recognise when the manifestations of the insecure systems are playing out in classroom dynamics. Attachment styles explain why adults may seem to act and behave in ways that are counter-intuitive to learning, for example, staring out of the window instead of listening or participating, or becoming distressed because the student is sure the teacher does not like her.

Teachers can recognise these manifestations as insecure attachment styles and address them as such. In the examples given, a teacher might try to make a safe connection with the aloof student by always greeting them warmly – making them feel that the teacher 'sees' them, that they are not invisible. S/he may purposefully use more positive language when addressing the more anxious/preoccupied student to let them know they are also 'seen' and a valued member of the class.

Safe Learning Space - Co-regulation



(Fellowship visit with Debra Hori and Olivia Martinez Hague at The Centre for Connection, Pasadena, California.)

Adults who have 'learning differences', regularly also known as learning disabilities account for many people with literacy and numeracy difficulties. They are generally not catered for in the regular school system and need to work with teachers who create safe learning environments for them in which they can experience learning successes.

Professional discussions and workplace observations made when the Fellow met with Debra Hori and Olivia Martinez Hague at The Center for Connection outlined

the need for learning to always be situated in a safe environment. Learning differences may be treated negatively by parents and teachers alike and also by peers. The negative treatment will become traumatising if it is systemic in nature.

For many students, trauma was inflicted in the classroom by teachers, other students, principals and peers.

People who struggle with learning may have already been living in a traumatic situation – which also impacts on their ability to learn. When trauma is present, the part of our brain needed for learning, the pre-frontal cortex, is too busy trying to protect us from further trauma and so is shut-down for learning. When the limbic system is switched on - the part of our brain responsible for FIGHT FRIGHT FEAR response – the stress hormone is released. When the trauma situation is quietened down, the pre-frontal cortex can come back on-line. However, if the classroom is a place where trauma is situated, then the amygdala is going to be switched on all the time, alert for danger and threat - making it very difficult for any learning to occur. An overload of the stress hormone cortisol, can also lead to a feeling of hopelessness and chronic depression, making learning even more difficult. It is the job of the adult classroom teacher to ensure that the classroom is a safe learning space – where the idea of 'self as a safe and successful learner' can exist in the minds of all learners in the room.

Safety in the adult literacy classroom can be developed at many levels – through creating a space that is visually pleasing and not like a traditional classroom. It is important to challenge the notion that learning has to occur in a classroom set up with the teacher standing at the front and the tables set in rows. For people to feel safe they may need to see all the other people in the room – this can be achieved by creating a circle or U shape with the tables and chairs. The teacher can be a part of the shape – not apart from it.

Soft furnishings can also assist – curtains, cheerful posters, and cushions. Most classrooms display posters, placing students work on the walls is an effective way to achieve a feeling of belonging and welcoming. For emotional safety to occur,

it is important that students feel welcome and that they belong. The teacher can create this by simply greeting each student in a warm way – face to face, maybe even shaking hands if appropriate. Making time and space to say hello individually sends the message that they matter and they are seen.

In the classroom – some ‘rules for safety’ can create the message that the classroom is a safe space that the students have a right to feel safe in. Simple acts like not talking over the top of each other, using “I” statements, and giving feedback in a positive and constructive way may need to be taught to some students. Explicit teaching of these behaviours will help everyone have a common understanding of what the expectations are and will assist to create a feeling of safety. Having to guess at the rules can be an unnerving experience. Once safety in the classroom is established, the limbic system can be ‘at ease’ and the pre-frontal cortex region of the brain is engaged ready to learn.

Mindset and Co-regulation

- » Dr Kirke Olson; The Parker Academy
- » Dr Kirke Olson & Sher Kamman – The Positivity Company.

The Parker Academy in Concorde, New Hampshire is specifically designed for junior to senior school children who have specific learning differences, associated with a diagnosis of autism, anxiety or other mental health issue. This school uses tools developed through neuroscience to inform their daily structures and pedagogy.

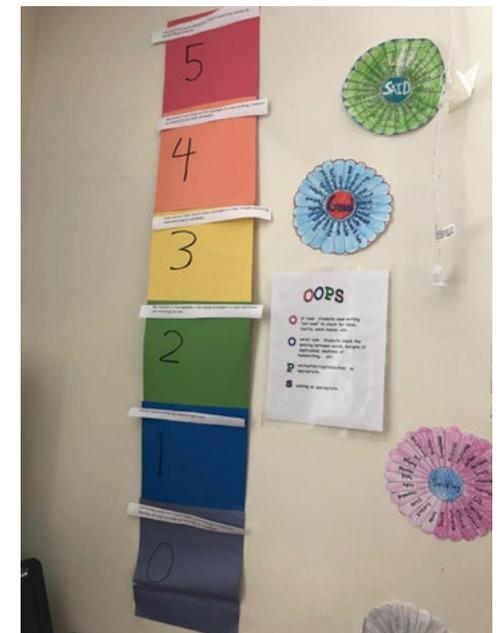
In this school, children and staff members have a mindful moment before the day formally begins. The whole school sit or stand in silence, making intentions for the day, or just being mindful of the space they are in. The importance of being together in this one activity is far reaching – it creates a bond of strength and unity - no one is on their own. That acceptance of all differences is paramount to the schools ethos and success.



Top left: Kirke and group, top right: Kirke Olson, Sher Kamman and Willow, right: emotional regulation

Many of the children who attend this school have learning differences and learning traumas in their backgrounds. Part of the school curriculum is the explicit teaching of ‘growth’ and ‘fixed mindset’ and ‘emotional regulation’ strategies. They are as important – if not more so – than mainstream lessons.

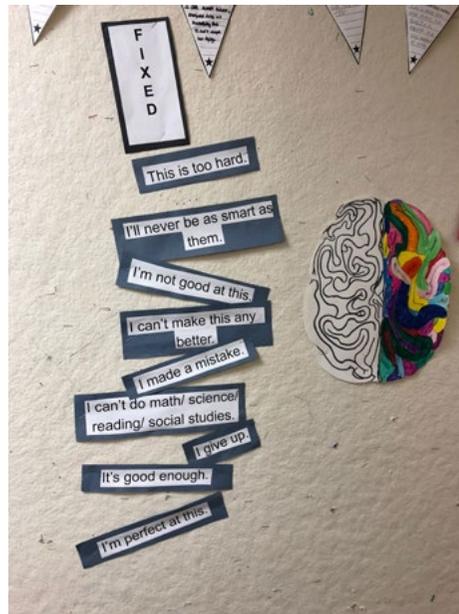
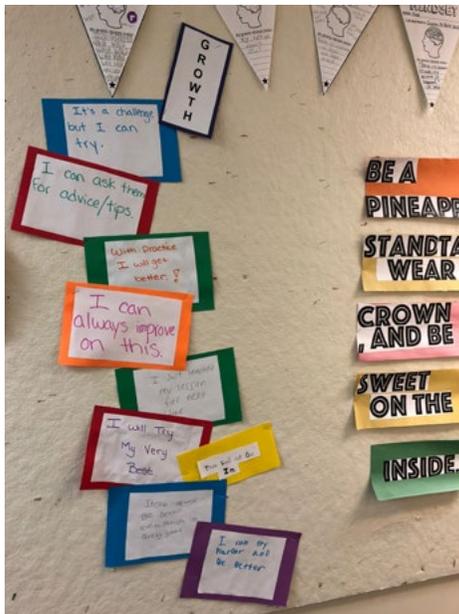
Teaching Mindset (fixed and/ or growth) is not just a tool for school



children – it is something all learners can use to challenge their own thinking on their ability to achieve. In the adult classroom it is especially important to challenge the idea that “I can’t do this (maths for example)...I’ve just never been any good at it”. Teachers of adults in foundation skills classes have the challenge of supporting students to re-think these self-limiting ideas;

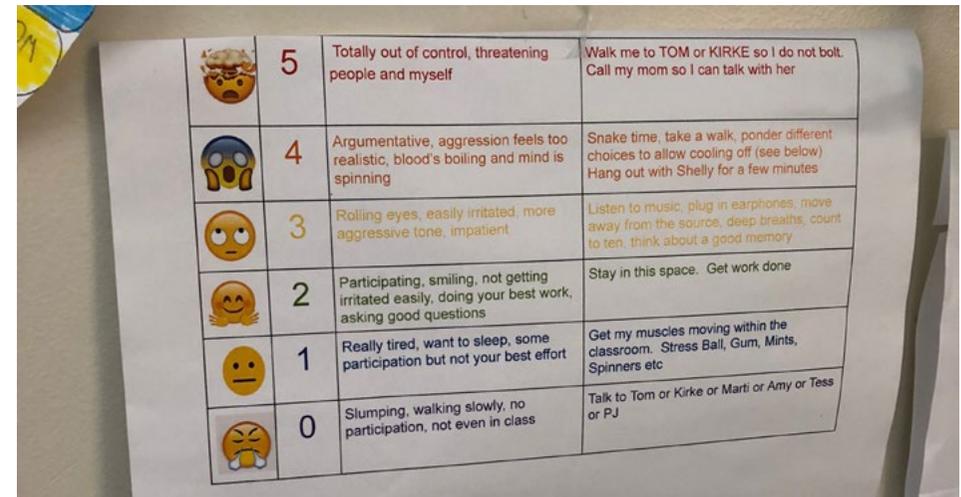
‘Perhaps maths wasn’t taught in a way that you could learn? Are there any areas of maths you like? – lets unpack that...’

Teachers need to be aware of the fixed mindset statements that can run riot in an adult literacy classroom and flip them into growth mindset statements. The Parker Academy hallways are lined with student-made posters revealing their own fixed mindset statements and the matching and converse ‘growth mindset’ statement.



Left: growth mindset, right: fixed mindset

Similarly too, other posters decorate the walls and hallways reminding students what they can do to look after themselves on an emotional level if they become dysregulated. For some students, becoming dysregulated might mean they tune out to varying degrees, from becoming vague to actually falling asleep or needing to leave the premises. Others might have a more heightened experience of dysregulation and put themselves and/or others in danger. The charts the students create show at each step the signs of dysregulation so that intervention can take place. Students can learn to recognise the points at which they are becoming dysregulated and ask for help or seek support.



Self-regulation poster

This is a tool adult learning environments can also implement to assist learners in regulating their emotional responses to classroom activities. Adult literacy and numeracy students who have experienced ‘failure’ with learning can become dysregulated if an activity triggers their negative experiences. Their own regulation chart – perhaps in the front of their book or on the wall, can help the student – and others around them – know what will calm them down enough to remain in the class and feel safe again. Creating a cohesive and supporting culture of safety

within the class will allow co-regulation to occur. Because teaching of emotional regulation is made explicit, all students in the class are 'in the know' and can assist their co-learners to down or up-regulate to achieve emotional regulation.

Adult learners: violence, systemic trauma and learning opportunities; space for a voice.

Mindsight...

- » Mindsight as coined by Dr Dan Siegel. Mindsight is the ability to hold on to your own feelings, emotions and space while recognising the other's state of being.
- » Mindsight is about the capacity we have for empathy and insight and how becoming a more insightful and empathetic or compassionate person leads to positive changes in the brain.
- » CANADA - Dr Jenny Horsman
- » UK - Dr Vicky Duckworth



Teapots

The effects of trauma include silencing, shame and exclusion. Traumatic experiences in the classroom send the message to learners that they do not belong, cannot learn, and are at fault for having learning difficulties – The work done by Dr Jenny Horsman and Dr Vicky Duckworth reflect the difficulties that women especially experience when returning to the learning environment as adults



Jenny Horsman group

and after experiencing violence – either systemic and/or 'domestic'. The resulting exclusionary effects such as shame and a strong and overwhelming feeling of 'not belonging' are difficult to counter and require teachers to be educated about the effects of violence and to be self-reflective in their teaching practice so as to be aware of their own language, teaching styles and pedagogical practice generally.

As the experience of violence is invisible, educators who understand the nature of violence and its effects will be in a position to work with learners and understand that the messages they have been given that they absorb are of silencing, shame and exclusion. Violence erodes a healthy self-esteem and undermines self-worth. These messages cannot be undone easily without many hours spent creating positive learning experiences that counteract negative messages.

The effects of trauma are inhabited in our bodies, so any activity associated with learning that allows the release of endorphins, the chemical that is associated with happy feelings, will reinforce the message that learning is positive, that it can be successful. Activities which give learners a voice – that is, create space for learners to talk without being judged, put down or experience failure, are powerful ways to give the body the message of belonging. Singing in a group is a powerful tool to use to create co-regulation, safety and the release of endorphins. Teachers who can build in singing and other group activities where the body is used, such as simple stretches, mindfulness meditation (can be one minute and eyes do not have to be closed), drawing, cutting and pasting (actual not on a computer), will be giving their students opportunities to engage their bodies in positive learning actions. Educators of adults also need to be very clear that the activities are not borrowed resources from children's lessons – they need to be age-appropriate, lest the adult student feel infantilised.

The results of living with violence are far reaching and can be misinterpreted easily enough. Hypervigilance for example, is an understandable reaction to living with violence (and alcoholism etc) and may be misplaced in the classroom. Teachers must be encouraged to understand that living with violence creates neural pathways that are always oriented to be aware of the threat of violence, thus creating a hypervigilant state. People with this background may be scared to answer questions or may not even be able to do any work on their own as they fear that should they get it wrong the (unconscious threat) result will be violence. Scaffolding is very important with adult learners, building trust, safety and a calm and trusted relationship between teachers and co-learners.

It is especially important for teachers to have 'mindsight' – the ability to recognise their own emotional state while being aware of the other – in this case, student's emotional state. All of the situations given as examples can be difficult for teachers to witness and experience. Having mindsight, allows teachers to check in with themselves mentally and to attend to the needs of their students.

For example, when a student says, "I can't do this – it's rubbish!" it is understandable that the teacher may become upset and challenge the student by asking "Why not? – we practiced it last class!". However, a teacher with mindsight may be able to check in with themselves (think – "oh, I'm feeling a bit angry about that but let's see what is going on for this student – they're clearly dysregulated and need some support. Maybe they're scared to get it wrong and I need to scaffold them through this again. I should review the whole thing on the board so as not to single this student out..."). This kind of thought process is only seconds long, but can have such a positive effect on the student and the whole class, who witness the teacher not getting upset, and creating safety around a learning issue – and demonstrate that it's okay to not know and to need support to review.

Mindsight and mirror neurons are great companions. Mirror neurons act to spread 'emotional contagion' – in the example above, the teacher is sending the message that s/he has their emotions in check in responding to an emotional outburst and has remained calm. The calm response will allow others to calm down, as our nervous systems are looking for actions and events that will calm us down. The social engagement system, which comes from the Polyvagal Theory, as developed by Dr Stephen Porges, searches for safe social engagement with others in an effort to bring the body back to a felt sense of safety.

Activities that intentionally utilise the mirror neurons, such as working in pairs



Edgehill University

or small groups that allow students to have safe face-to-face and close contact with supportive others, can create a learning atmosphere that is safe, secure, co-regulatory and positive.

4. Personal, Professional and Sectoral Impact:

Personal Impact:

The Fellow undertook the learning journey as a solo traveller and enjoyed the opportunity to make personal connections and meet professionals who are experts in the areas she is interested in. She is researching further study in the area and intends to pursue undergraduate studies in Education with a Neuroscience focus.

Professional Impact:

Professionally, the Fellow has been able to share her new skills and knowledge with the team of teachers she leads. She is working on a best practice model to be piloted in the Learn Local RTO where she works and has the support of the CEO. The Fellow uses the learning's to assist in her work with dysregulated students in the workplace. The Fellow has set up a professional Face book page and blog to share ideas about learning and neuroscience. She continues to be actively involved in VALBEC and Fine Print, two key areas of influence in the Learn Local and RTO space, where adult LLN is delivered. The Fellow will continue to liaise with the contacts she made and work to drive change in this area.

Sectoral Impact:

The Fellow made important contacts for the Adult LLN sector through her Fellowship travels resulting in connections that led to securing the Keynote speaker for the ACAL 2018 conference and the 2019 Incoming Fellow Industry Leader Fellow, Dr Kirke Olson presenting the VALBEC Keynote at their 2019 conference.

Since the Fellow has returned, she has presented at a number of conferences including:

- » The International Childhood Trauma Conference, August 1, 2018.
- » The ACAL (Australian Council of Adult Literacy) Conference, 14th of September, 2018.
- » ISSI Illuminate Series presentation, 25th October 2018.
- » Australian X&Y Spectrum Support Conference, 10th November 2018.
- » VALBEC (Victorian Adult Literacy and Basic Education Council) Forum, November 29, 2018
- » Feature article published in Fine Print Ed 2, 2018.
- » VALBEC Conference May 17, 2019.

5. Recommendations

This Fellowship is important for and applicable to:

- » Teachers and others (leaders, managers, decision makers, funding bodies) who work with adults in the area of foundation skills.
- » Adult literacy learners
- » Adult literacy learners who remain in adult education classes despite improving their literacy and numeracy skills to a functional capacity and attaining Accredited Certificates.
- » Adult literacy learners who have endured traumatic experiences that have impacted on their ability to learn, and who have endured learning traumas
- » Adult literacy educators who work in classroom based settings with learners who have endured generalized and learning traumas.
- » The ongoing education of teachers, especially those who work with, or are interested in working with a Trauma Informed Practice model.
- » Fully funded professional development opportunities for teachers and organisations who work with vulnerable learners to promote understanding of the brain, learning traumas and neuroscience. The scope of the professional development should extend further than 'trauma informed practice' and engage teachers in learning circles or similar longer term group work that will grow their capacity in self-reflective teaching practice and understanding of working with traumas.
- » That funding be made available from HESG for the development of teaching and learning tools to be used in a best-practice model to for use in adult learning classrooms. The model should be flexible enough to use with adult literacy learners, adult EAL learners and students enrolled in VET courses, with the goal of increasing student retention and the completion rates of all courses.
- » That all undergraduate level teacher training, from pre-school through to post-compulsory, include units that teach about the brain, learning and neuroscience as outlined in this report.
- » That family violence training be made freely available and must incorporate the effects of trauma on learning and the brain.
- » That the development of a best practice guide (Working With Learners Who Have Experienced Learning Traumas) and delivery to VET Foundation Skills providers, is supported by the Higher Education and Skills Group, Department of Education.

Recommendations

- » That the Certificate IV in Training and Assessment have a compulsory unit added so that all teachers of VET are trained in the effects of trauma, including learning traumas and family violence. The training should outline the impact of trauma on learning and the brain and assess the competency of teachers and trainers to practice reflective teaching which demonstrates the capacity to recognise, address and redress learning traumas and their manifestations and long term effects.

6. References:

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PODCASTS:

Therapist Uncensored <https://www.therapistuncensored.com/>

7. Appendix

“Attachment theory, neuroscience and adult literacy learners” by Linno Rhodes

Attachment theory, neuroscience and adult literacy learners

by Linno Rhodes



Two years ago, I knew nothing about attachment theory, neuroscience and the world of psychology. Now I feel like I'm totally invested and I can't remember a time before—it has become my new world view and my lens. I became very excited when I first started learning about neuroscience and how we, as adult literacy educators, could better understand what is going on for our students who are often people who have lived with one or more of multi-generational poverty, abuse issues, addiction and interrupted schooling and have learned coping strategies to deal with their lived experience of trauma. These coping strategies follow them into the adult classroom and can easily be mistaken for lack of interest.

I tried hard to make sure my teaching was student centred, about their interests, project based. I never said they failed or were wrong. But nothing changed. I didn't replicate outdated modes of teaching that obviously failed them in their school years, and I tried to be innovative. Still nothing changed. There were some successes and it's true, sometimes success is impossible to see or measure. In fact, a couple of years ago I had a letter from one of those students, telling me what a huge difference that class had made to her—I would never have known because she hardly said 'boo'. So, I didn't really know how to make a difference except that I felt like I understood where they had been and the struggles they knew. I knew that I aligned with transformative teaching and learning methods, and that compassion and understanding went a long way. I was inspired by Freire and theories of strength based teaching, that literacy is a social practice. I had the theories but in practice, change was slow.

I want to say, at this point, it is not an 'us' and 'them' situation. Many of 'us' who work in the helping professions have grown up in families that are affected by abuse, alcoholism, poverty, racism (and other traumatic events or situations) and have become good at helping—teaching, nursing, caring—possibly because of it.

After doing some initial learning about neuroscience, particularly about attachment theory, and some basics about

how our brains work, I began to recognise and relate what was happening for students, to my new learning. Ways of working with attachment disturbances in adults were appealing to me as I could see a correlation between how therapists work and how teachers work.

I knew about the International Specialised Skills Institute fellowships from colleagues who had successfully applied so I thought I would apply to research this idea more fully. I was thrilled to be awarded a fellowship and began planning immediately, contacting people whose podcasts I listened to or whose books I had read. To my surprise, almost everyone said 'yes, come and visit'. So, in April I travelled to Pasadena, California; Austin Texas; Concord, New Hampshire; Toronto, Canada; and Manchester, England.

Pasadena

My first stop was Pasadena, a city just outside of Los Angeles. I arrived at LAX at 6am, tired, scratchy and excited as all get out. To cut a long story short, somewhere in the customs queue I lost (and—fortunately—found) my passport. The experience was emblematic of my fellowship journey—but more of that later.

I had been corresponding with Debra Horii and Olivia Martinez-Hauge from the Center for Connection, Pasadena, in the lead up to my trip and was really looking forward to meeting them. The Center for Connection was founded by Tina Payne Bryson who works with Dan Siegel and has co-authored books with him on parenting with a focus on nurturing the developing child's mind.

Olivia, a family therapist and occupational therapist, works with children with special needs and learning differences. Debra is an educational counsellor. She recognises that by helping students and their families and educators understand neuroscience, they can work together to discover which learning strategies work for each individual and that relationships and neuroscience are connected to learning.

We talked for a couple of hours and then met again the following day. I learned that by using neuroscience as a frame through which to view adult learners' traumatic histories and experience of learning, educators can change the way teaching and learning happens.

Olivia and Debra both approach their young students from a strengths based approach, and talk to them about their learning differences, not disabilities. They both work in a framework that sees 'safety' as the basis for any work they do with their clients. They work with the concepts of attachment, self-regulation, safety and neuroscience. They depict our emotions on a continuum that is created by our autonomic nervous system; green is safe, red is highly anxious and emotionally charged and blue is more shut down and unavailable. They explain that for any learning to occur, students must necessarily be regulated, that is in a *green zone*. If students are taught about regulating and co-regulating, where they can recognise when their co-learners and friends (or by extension, their family members) are becoming dysregulated, they are able to help themselves and others to come back to the green space where learning is optimal.

Adults who have a lived experience of trauma, and who are perhaps still living with the ramifications of that trauma, are under continuous stress, which impacts their ability to learn. Having a vocabulary to understand stress and trauma is key to change. Understanding that 'regulation' is a continuum that we all slide up and down on is understanding that it is not the 'I' that is broken, but that it is common to all people. What a huge sense of freedom from the tyranny of self-criticism!

Teaching students about the zones of regulation is introducing them to, or building on, skills of metacognition. Metacognition refers to an awareness of what we think about a topic. So, if we teach our students about being aware of their learning styles, the learning environment, their strengths, passions, and what 'sparks' them to learn, we are teaching them to be aware of themselves as learners and to be more engaged in owning their learning. Students are then able to become more aware of when they are dysregulated or importantly, *becoming* dysregulated. Then, they are able to intervene on their dysregulation, by doing or by being. Maybe it will just take the self-awareness of dysregulation or maybe it will take more.

Concord

In New Hampshire, I stayed with Kirke Olson and Sher Kamman, both psychologists who own a private therapy company based on the principles of positive psychology and where Kirke works as a school counsellor at the Parker Academy in Concord. I learned so much from the day I spent at the Parker Academy, a school for children who have specific learning differences associated with a diagnosis of autism, anxiety or other mental health issue. In this school, children and staff members have a mindful moment before the day formally begins. The whole school sits or stands in silence, making intentions for the day, or just being mindful of the space they are in. The classrooms are open spaces or else they are small rooms with enough space for a couple of students to work with a teacher. The literacy teacher has a lovely big office, with a window looking out to a sculpture made by the children, and a lovely and lively bird enclosure. She has cupboards full of literacy activities and is a passionate advocate for more phonics teaching.

The hallways in the school are covered with children's work, but also they are adorned by posters that help children navigate the regulation system on their own. Children identify the feelings in their bodies and the way that manifests when they are becoming dysregulated. They identify at which point they may be able to regulate themselves, and when they need help. If only we all learned that at a young age.

The amygdala and the pre-frontal cortex

How can we, as educators, bring about this change in our classrooms and centres? The principles of adult learning already guide the way. Classrooms trigger the coping skills that adult learners used at school. I think of students I have known—the two young men who sniped at each other throughout the class, the woman who sobs when she thinks everyone is against her, the one who complains about everything, the one who just says yes to everything and who cleans the tables at the end of the class. I know that in some ways the learning centre is a safe place for them, but it also represents places in the past that were dangerous and threatening, so they are in a state of hypervigilance when they attend class. The amygdala, responsible for the flight, fight, freeze reaction is on alert; students' old behaviours are necessary to keep them feeling safe. We can probably pretty easily map each of these students on the regulation continuum and I don't think any of them would be in the green zone.

The necessity of the old behaviours is a false one. For learning to occur, the pre-frontal cortex, which is the base for secure attachments and being in the green zone of regulation, needs to be in charge; this is where we are when we are being creative. The pre-frontal cortex is the last part of the brain to be developed. One of the older areas is the amygdala, hence the pre-frontal cortex is known as the mammalian brain, and the amygdala is known as the reptilian brain. If you think about dinosaurs either attacking or running fearfully, you've got an idea of the reptilian brain—the amygdala: the flight, fright, freeze response. When students enter our classrooms and their amygdalae are in charge because of old associations with classrooms and learning, it is necessary for us as educators to flip that.

Ways we can do this are many, and each teacher will know what will work for many of his or her students. Some suggestions are:

- a quiet, activity based exercise at the beginning of class—mindfulness moment, journal writing, intention setting, some gentle stretching...
- mirroring activities—identifying moods and making the accompanying faces with a neighbouring student. This is an activity that requires sensitivity to introduce but is good for matching moods with bodily awareness.
- bringing soft furnishings into class—cushions, blankets if it's cold, curtains hung in a windowless room...
- inviting students to bring in photos or other homely things to place on the walls or on shelves
- other activities that engage the right brain.

Brain science tells us that the left brain controls the linear, organisational skills: problem solving, logic, analysis, communication and lists. The right side of the brain controls the more creative dimensions of our thinking—art making, colour, imagination, daydreaming and spatial awareness. Learning activities that incorporate both sides of the brain are far more likely to be engaged with and more accessible to students.

Learning from LAX

As a child I was the one in the family who got separated from the pack and 'got lost'. As an adult, I still manage to separate from my family during outings so I was a bit nervous about travelling alone. I understand now that when I thought I lost my passport in LAX, I was in the red space—highly anxious, the cortisol hormone flooding my brain, making it nearly impossible for me to calm down and check my bags

and pockets. Instead, I ran back to where I thought I lost my passport, fearful that I would be interrogated and sent back to Australia or jailed. The flight, fight, freeze reaction kicked in, and my implicit memories of being lost had taken over. When I found my passport I calmed down immediately and then recalled how I had shoved people out of the way to get back to the place I thought I'd lost it. I was shocked at my behaviour.

Mirror neurons

Introducing the concept of mirror neurons to students can aid them with the ability to engage in self- and co-regulation. Just having another person talking calmly and speaking quietly may be enough for the mirror neurons to be engaged and take a person who is becoming dysregulated back to a regulated space. Mirror neurons are the root of empathy and engage all of the senses. If we see someone eating our favourite fruit, our saliva glands will get ready for a bite; if we hear someone yelling in distress, our heart races; if we witness someone in pain, our empathy is switched on. This is called emotional contagion and means we are in tune with the internal state of others. We want our students to engage their mirror neurons and for teachers to use this skill to develop empathy for others but also for themselves. If the teacher is looking kindly towards a student who is feeling badly about themselves, maybe the mirror neurons will kick in and allow some self-kindness to come in. Then learning can continue.

Austin

The time I spent in Austin, Texas was centred on the Healing Adult Attachment Conference, led by David Elliot, co-author of *Attachment disturbances in adults* (Brown & Elliot, 2016). I was very interested in how we might understand attachment theory in relation to our adult students and how those early attachment systems manifest in the adult student-teacher dyad. Attachment theory is based on research initially undertaken by John Bowlby and subsequently by Mary Ainsworth and Mary Main. The basic premise of attachment theory is that the primary caregiver is a secure base for an infant. How the secure base responds to the infant's needs is an indicator of how that infant will grow to form relationships in his or her life. At the conference in Austin, I learned that there are four defined attachment styles:

- *Securely attached*. The infant's needs are met at least 70% of the time and they grow up to have a secure self-identity. They respond in a healthy way in relationships with others.

- *Insecurely attached (blue)*. The caregiver was not reliably present and the infant learned to not show that they had needs. As adults they are mostly dissociated and avoidant. This person prefers to do it alone, is independent and proud of being so, and is not so attracted to being emotional.
- *Insecurely attached (red)*. The caregiver was there sometimes, other times not, leading the infant into an anxious state of not knowing. The adult is now anxious about being in relationships with others and is never sure of where the relationship is and how to behave. They are more focused on others.
- *The disorganised*. The caregiver was not present enough to meet the infant's needs and consequently the infant and now adult has trouble forming relationships in healthy ways.

Trauma and literacy

My interest in working with adult students through the lens of attachment theory is because the ways of working with attachment styles are also fundamental for working with adult literacy students who have come from a lived experience of trauma. I have borrowed these ideas and reinterpreted them for the adult classroom:

- Provide protection. If the classroom is an unsafe place make it safe.
- Be aware and attuned to your students' emotional space. Ensure the classroom is welcoming to each student.
- If a student shows distress, help them to come into a regulated space.
- Provide support for exploration of themselves as successful learners. Focus on the process of learning rather than the prospect of passing or failing. Make teaching successful learning strategies a priority.
- As a teacher, bring your best self to each lesson. Be present, reliable, consistent and reassuring. Provide good eye contact.

I met with many educators and people who work in the world of therapy during my time in Austin. I was so looked after by so many generous people. My main contacts there were the hosts of a very accessible podcast (Therapist Uncensored) I listen to regularly that introduced me to all of the neuroscience concepts. They organised the conference and also provided enormous support to me throughout the fellowship. During the time I spent with therapists and educators I learned that we

all have the same goal of providing support to those who need it, while recognising that healing and acknowledging our own shortcomings and wounds also need attention.

Toronto and Manchester

My stay in Toronto with Jenny Horsman, was more focused on adult learning environments and the impact of trauma, specifically violence, on learning. I met with several women who had worked in the field for many years and, as with my earlier discussions, we agreed that a sense of emotional and physical safety is critical in the classroom. We also talked about the need for government to recognise that adult learning in the foundation skills is not a vocational skill and this should be reflected in funding: adults who are learning literacy and numeracy do so with immense resilience and courage, and need the support around them for as long as it takes.

In England, with the generous support of Vicky Duckworth, I visited Edgeworth University, situated between Liverpool and Manchester. I gave a presentation to students and lecturers who study or work in the Department of Teaching Adult Literacy Skills. How wonderful is that! Most of the students were quite young—thirty and below—and they have chosen to be teachers of adults. I am so inspired by them.

And so, my journey came to an end, but also a new beginning—not to be too clichéd. I am so grateful to the International Specialised Skills Institute for the fellowship and to my employer, Olympic Adult Education for supporting me to undertake this huge journey. I aim to continue this work by writing, reading, talking and making good eye contact!

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Podcast

Therapist Uncensored:
<https://www.therapistuncensored.com/episodes/>

Organisations

International Specialised Skills Institute:
<http://www.issinstitute.org.au/>

Australian Council of Adult Literacy:
<https://acal.edu.au/>

Victorian Adult Literacy and Basic Education Council:
<http://valbec.org.au/>

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