

ACEL Queensland Miller-Grassie Address October 21, 2025

Dr Stephanie MacMahon

Thank you, Bruce, and thank you to ACEL Queensland for this honour. I am deeply grateful and humbled to receive this award, and I hope to do justice to the extraordinary legacy of Dr Miller and Associate Professor Grassie.

I begin by acknowledging the traditional owners and custodians of the land and waterways on which we gather tonight—the Quandamooka people. I recognise their enduring connection to this place and the profound contributions Aboriginal and Torres Strait Islander peoples have made to community, leadership, teaching, learning, research, culture, and creativity. I pay my respects to elders, and also acknowledge Indigenous colleagues here with us tonight.

I would also like to thank and acknowledge the many educators, leaders, schools, and industry partners that I have had the honour of working and learning with over the years, as well as my UQ Learning Lab team and School of Education colleagues. Without you, none of this work would be possible. This award is very much dedicated to all of them and their passion for creating a positive narrative around education, learning, teaching, leading, and research.

I also extend my congratulations to the other awardees this evening, and to the other nominees recognised by their peers for making a positive difference through their leadership. Awards and events like these are vital to contributing to and sharing the positive stories of Educational Leadership—they allow us to celebrate stories of joy, creativity, and impact. As Rick Rubin reminds us in his book *The Creative Act* (2023):

“Look around you—there are so many remarkable accomplishments to appreciate.”
Tonight, we do just that.

I want to talk a little to this idea of creativity this evening. Creativity is a guiding principle in my work—as a leader, teacher, learner, researcher, and advocate for the **REAL Science of Learning**. Creativity invites us to embrace complexity – to think deeply, to wonder, to be curious, to explore multiple perspectives, and to design solutions – individually and collectively - that are both novel and useful, including for complex challenges such as supporting learning across the lifespan.

At the recent ACEL National Conference, I unpacked what the REAL SoL is and is not, and how it can be a powerful lens to frame the complexity of learning, and therefore, the deeply human endeavour of teaching.

Let me take you to Vienna to elaborate...

This semester I have been on research sabbatical, an opportunity I am immensely grateful for. I have had the opportunity to travel for 6 weeks, attending and presenting at conferences across Europe and in Singapore. As a classically trained pianist and music and

arts educator, I was excited to spend a couple of days in between conferences in Vienna, a city central to the western classical music and arts traditions. Whilst at the time of my visit it was summer holidays and there were no concerts on at the Opera House, I was able to go on a tour of this historical architectural marvel. It was spectacular. I was particularly captivated by the Gustav Mahler Hall – a long recital hall at one end of the Opera House. On the walls hung 13 large tapestries, each depicting scenes from Mozart’s comic opera, *The Magic Flute*. Rich in colour, detail, and narrative, they were created over a period of six years following WWII by a team of multidisciplinary craftspeople.

As a curious person, viewing these tapestries made me wonder about their creation...and so I did a little superficial googling and learnt the following interesting things about the art of tapestry.

Tapestry weaving involves two threads:

- The **warp**—the structural thread running the length of the work.
- The **weft**—the colourful, fragile threads woven into the warp to create the shapes, characters, story, and design. This yarn can vary greatly in structure, texture, colour, form, and behaviour when it is woven into the work.

Weavers work from a full-size image behind the warp, adapting to the behaviour of the yarn, coordinating movements, and responding to the materials and each other to achieve a shared goal. It’s slow, intricate, meaningful, and often deeply collaborative work. (I’m sure you know where I am going with this analogy...)

Being the Science of Learning nerd that I am, as I was reflecting on these magnificent tapestries, they reminded me of a paper by Professor Mary-Helen Immordino-Yang and her colleagues (2024) from the Science of Learning and Development Alliance, whose work we draw from and reference frequently in our own. In their paper, *‘Weaving a colourful cloth: centring education on Humans emergent developmental potentials’*, the authors use the metaphor of weaving a colourful cloth – a tapestry - to represent the **complexity, diversity, and interdependence** inherent in human development and learning. Just as a cloth or a tapestry is made of many threads woven together in intricate patterns, the authors describe how **education must integrate multiple dimensions of human experience**—the biological, psychological, emotional, cognitive, cultural, spiritual, and social—to support learning.

The Science of Learning, drawing on research from education, psychology and neuroscience, is contributing important insights to our understanding of learning, teaching, and leadership across the lifespan and in diverse contexts. It is also affirming many ideas and practices that we as educators know are essential to learning, but are far more complex to measure:

- that human connection is fundamental to creating the conditions for learning, teaching, leadership, and wellbeing,
- that quality relationships matter,
- that emotions and the feelings they elicit are subjective but powerful in shaping learning through managing and regulating attention, memory, executive functions, social awareness, identity, motivation, engagement,
- that learner variability and uniqueness is the norm, not the exception,

- that learners – including adult learners such as our teachers, colleagues and ourselves – thrive in environments that foster agency and meaning-making, when they are active participants in their learning, making sense of their learning in culturally, professionally, and personally meaningful ways (Darling-Hammond, et al., 2020; Immordino-Yang et al., 2024).

As I said, the Science of Learning can help us to frame the complexity of learning and learning leadership – it is like the warp that provides a structure for the tapestry, and the weft that brings the design and narrative for learning to life.

However, aspects of the Science of Learning have been lost in translation into educational practice, reduced to singular constructs in an attempt to detangle, isolate, and emphasise one type of thread over others. An outcome of this has been an increasingly polarising discourse around education.

I suspect that the intention to reduce the Science of Learning in this way is intended to make the complexity of learning and teaching more simple, more manageable, more comfortable, to provide tangible strategies and practices that can have a measurable and positive impact on learning outcomes. These are important and valuable considerations, but should we be so fearful of the inherent complexity of human learning? What can we potentially lose when we reduce the complexity of learning and teaching to a set of strategies or to a singular pedagogical lens?

Let's reflect for a moment on the [ACEL Statement of Commitment to the Profession](#), “...**teaching is a deeply human endeavour**” – and humans are complex. If we are to “**Make a positive difference in the lives of young people**” and those whose learning and professional growth we lead, then we need to embrace the complexity of learning and teaching. We can certainly break learning down into manageable parts – to individual threads or patterns – but we must do so with attention to the interrelatedness and interdependence of learning, and an understanding of the bigger picture. Managing complexity requires creativity, adaptability, responsiveness, reflection, joy. Teaching and the leadership of learning and practice, therefore, are deeply creative endeavours. To weave the colourful cloths and positive narratives of education – ones that tell stories of achievement, optimism, resilience and hope; that reflect our schools, workplaces, and communities – we need to empower and uplift the craftspeople – our educators and our educational leaders.

So, in closing, I invite you to think for a moment about your creative role in weaving these colourful cloths of education...

- What role do you play in creating the imagery and positive narrative that sits behind your community's educational vision?
- When and how do you play the role of the **warp**, providing structure and support?
- When are you part of the **weft**, bringing life, colour, character, and form to the narrative?

At a time when there are considerable forces encouraging a narrowing of how learning - and therefore teaching - are conceptualised and realised, it is important to reflect on how we

are embracing and celebrating the complexity of learning and how we are nurturing the creativity and expertise of our educators and leaders to weave our own inspiring, colourful cloths.

Thank you.

References:

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>

Immordino-Yang, M. H., Nasir, N. S., Cantor, P., & Yoshikawa, H. (2024). Weaving a Colorful Cloth: Centering Education on Humans' Emergent Developmental Potentials. *Review of Research in Education*, 47(1), 1-45. <https://doi.org/10.3102/0091732X231223516> (Original work published 2023)

Rubin, R. (2023). *The Creative Act*. Canongate Books Ltd., London, Great Britain.