

Ken Robinson (2010) in his TED talk on the learning revolution believes we need to change metaphors back from an industrial factory view of schooling to a view of education that is more organic. Read his story and consider what a new metaphor of education that is responsive to new times might look like.

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My wife just finished writing a novel, and I think it's a great book, but she disappears for hours on end. You know this; if you're doing something you love an hour feels like five minutes. If you're doing something that doesn't resonate with your spirit, five minutes feels like an hour. And the reason so many people are opting out of education is because it doesn't feed the spirit, it doesn't feed their energy or their passion.

I think we have to change metaphors. We have to go from what is essentially an industrial model of education, a manufacturing model, which is based on linearity and conformity and batching people. We have to move to a model that is based more on principles of agriculture. We have to recognise that human flourishing is not a mechanical process, it's an organic process. And we cannot predict the outcome of human development; all we can do, like a farmer, is create the conditions under which they will begin to flourish. (Robinson 2010)

New pedagogies

Teacher quality is the single greatest factor in explaining student achievement more important than classroom related issues such as resources, curriculum guidelines, and assessment practices or the broader school environment such as school culture and organization. (Lovat 2003)

The role of pedagogy—the teaching and learning philosophies and theories that guide teachers' practice—is fundamental when discussing the way we will address

Pedagogy is the theory of teaching and learning.

questions of relevance and purpose in education. Shulman (1987, 2004) speaks of pedagogical content knowledge as that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding. Past research from Education Queensland (Department of Education Queensland 2001) on the evaluation of the qualities of an effective teacher identified a number of key characteristics. These include:

- » *sense of responsibility*: 'They acknowledged they could not force students to learn—and considered themselves responsible.'

- » *expressions of efficacy*: ‘They viewed all students as capable of learning.’
- » *conceptions of their role*: ‘They were interested in talking and reflecting about their failings and changes they made to their teaching ... they engaged in professional conversations with colleagues about their teaching.’
- » *understanding of curriculum*: ‘They problematised assessment practice ... they were willing to subvert the curriculum and create spaces for learning activities they valued ... they were involved in extracurricular activities.’

Those teachers who rated low on their productive pedagogies evaluation on effective teaching included:

- » *lack of responsibility for students’ learning*: ‘They saw students as responsible for their own learning (and failures) and that factors outside of the teacher’s control largely determined student outcomes.’
- » *they taught to the middle*: ‘They aimed their teaching at middle level and assumed that some students just would not learn.’
- » *role of teachers*: ‘They saw themselves as *explainers* and complained about not having time.’
- » *guarded*: ‘They were largely in the dark about the pedagogical work of their colleagues and were guarded about their own work.’

In New South Wales in 2003 the Quality Teaching Program painted a similar picture. Two key issues were identified that were to become the focus of new reform:

- 1 Quality of student learning outcome is directly dependent on the quality of the teacher.
- 2 The essential components of teaching are command of subject and knowledge of and capacity to implement effective pedagogical practices. They believed these ideas about effective teaching needed to fit within the expanding understanding of the complexities of knowing and learning and the multiple contexts in which current students would ultimately function (New South Wales 2003).

The Quality Teaching and Learning Program is still a key framework that is used to support a discourse of practice for teachers that provides opportunities for teaching and learning to be relevant in new times. The Quality Teaching and Learning model includes three dimensions: pedagogy that is fundamentally based on promoting high levels of intellectual quality; pedagogy that is soundly based on promoting a quality learning environment; and pedagogy that develops and makes explicit to students the significance of their work. The following provides a definition of each of these three dimensions of intellectual quality, quality learning environments and significance used in the NSW Quality Teaching model.

Intellectual quality refers to pedagogy focused on producing deep understanding of important, substantive concepts, skills and ideas. Such pedagogy treats knowledge as something that requires active construction and requires students to engage in higher-order thinking and to communicate substantively about what they are learning.

Quality learning environment refers to pedagogy that creates classrooms where students and teachers work productively in an environment clearly focused on learning. Such pedagogy sets high and explicit expectations and develops positive relationships between teachers and students and among students.

Significance refers to pedagogy that helps make learning meaningful and important to students. Such pedagogy draws clear connections with students' prior knowledge and identities, with contexts outside of the classroom and with multiple ways of knowing or cultural perspectives.

The model of teaching and learning we espouse supports students in achieving entry-level literacy competence with print and electronic media; critical self-thinking and self-analytic skills for coping with complex community changes and uncertainties; and educability for retraining across their lifespan through a range of media.

For educators to engage and achieve their goals of meeting the needs of their students, teachers will need to develop a spirit of critical reflection and to develop their own professional knowledge and language (Beattie 2001; Fendler 2003; Moon 2008). That is, without the 'language of pedagogy' how can we share, discuss and build a profession in a collaborative way?

Where to from here?

Part of learning is to question things that we take for granted, to discover issues that need to be debated, to uncover hidden realities that need to be transformed. The more we learn, the more burdened we are because it becomes our responsibility to bring that knowledge to others, to make it explicit and to do something with it (Lima 2005, pp. 92–3).

The fundamental premise informing the principles of teaching and learning is the importance of relevance. Whether learning occurs in a formal schooling context, on a virtual discussion board, a community inserted computer terminal, from viewing television, in the workplace or talking with our neighbour, for education to be valid and useful to the learner it needs to be relevant. Decontextualised, fragmented, abstract facts from a textbook or skill-based training packages not only present a model of learning that is bound to disenfranchise even the most enthusiastic learner, they are very limited in capacity to be relevant to the specific needs of young people in the 21st century. Knowledge constructed in this way and inculcated by old teaching and learning models may well have been adequate, even appropriate, to particular historical times in schooling, but it is not adequate to today's economic, civic and cultural circumstances. As the earlier discussion on teaching and learning suggested, it is essential for educators to recognise the importance of young people being seen as active and critical constructors of their learning. Our greatest critics and our greatest allies will be students and how they judge the relevance and purpose of the education we provide for them.

Not only do these learning experiences provide relevance and purpose to schooling, they also illustrate that children can be knowledge generators not just knowledge consumers. Children are

Social actor: children are of the social world; beings rather than becomings.

supported to be experts, **social actors** and competent active citizens capable of being key players in designing sustainable futures. Learning in this context is about contributing to the

world now, not about preparation for the future. Other key attributes of the program was the use of new technologies, integration of discipline areas and utilising an inquiry model or action research model that supported deep learning and high order thinking (Malone 2009, p. 178).

Recent educational reforms and the language that has accompanied them are encouraging schools and their communities to rethink new models of learning that take into account the lived experiences of students and support multiliterate and multimodal forms of learning. Even a specific physical space called a classroom is under question with the introduction of virtual classrooms and project-based learning in the community. But as Welborn aptly states, it will be teachers who will continue to make a difference in ensuring the relevance of teaching and learning. She says:

I may be naïve, but I believe that what I do day in and day out *does* make a difference. Teachers *do* change lives forever. And I teach in public school because I still believe in public school. I believe that the purpose of public school, whether it delivers or not, is to give a quality education to all kids who come through the doors. I want to be a part of that lofty mission. The future of our country depends on the ability of public schools to do that. (Welborn 2005, p. 17)

While changes to the ways in which we think about teaching and learning may seem unclear and even overwhelming, understand that you are not alone. Most schools still operate within the traditional hierarchy that largely ignores students' knowledge, experience and perceptions. Your experience as a learner within these old systems should serve you well as a starting point for judging for yourself what did or did not work in schools for you as a student. But don't be fooled into believing that because you succeeded in school that 'schools' worked for everyone. And think about what it means to say it 'worked'. I am sure you will recall many students who seemed a nuisance at school. Yet if we actually looked closer at what was going on we might have realised they were actively resisting a system which did little to support their individual needs.

You and your learning community are starting the journey into the world of teaching and learning, drawing on this unique position you now find yourself in. You are the first generation of teachers who have experienced these contemporary times and are transforming education in light of it. But be wary of thinking like the teachers described by Alison Cook-Sather:

.... educators think that we know what education is and should be. Because we [educators] have lived longer and have a fuller history to look back upon, we certainly know more about the world as it has been thus far. But we do not know more than students living at the dawn of the 21st century about what it means to be a student in the modern world and what it might mean to be an adult in the future. (Cook-Sather 2002, p. 12)

In spite of frequent overhauls of the education system, the experience of schooling for most children and their teachers is that school stays the same (Burke and Grosvenor 2003). The powerful driver that keeps the wheels of the machine turning has a great investment in not changing the institution that has become school. Maybe, like 12-year-old Robert, our vision needs to be driven not by questions of change or transformation but by questions like: why do we even have schools?

My ideal school is no school—Robert, 12 years old. (Burke and Grosvenor 2003)

Author Arthur C. Clarke has often been cited as making two key statements about the relevance of schooling and teachers: 'If a teacher can be replaced by a machine then they should be' and 'If a child has interest, then education will happen'.

The purpose and relevance of what we teach and how we teach will be fundamental to our own understanding of contemporary education. We need to ask ourselves some hard questions: Do children actually need teachers? Or schools? Imagine you had to justify your job to the children in your classroom—what would you say?

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Chapter Summary

There are a number of key issues for teaching and teachers in new times:

- » At the start of the 21st century the world is changing and transforming at a rapid pace. Whether it is issues of globalisation, war, population growth or nationhood, we need to start considering how we will manage to live together.
- » New technologies and changing work economies have transformed the roles of workers from being on the factory floor to now sitting at a computer. People move from job to job and need to know how to apply knowledge rather than to simply acquire it.
- » Teachers who are committed to addressing the needs of learners in the 21st century need to be aware of their role in these new times and construct relevant pedagogies to support new ways of teaching and learning.
- » Teachers are success stories of the old education system—therefore, to understand how to provide relevant education, we need to step outside our own school experiences.
- » Teaching and learning is a two-way exchange and children and adults should see themselves as collaborators in the education enterprise, not as independent parties.

Taking Action

Revisit the classroom scenarios in this chapter and describe what may be going on in them. How does the literature support the learning demonstrated? What do these children appear to know? How is Lathner Primary School part of the educational revolution? Where is Anna Jones as class teacher positioned and how does she position her students? What role does she play in getting students actively involved in their learning?

Author's reflections

Life on the planet has changed dramatically since I was at university learning to teach. With the average age of teachers knocking on the door of 50, I share a similar story to many teachers who are now working in schools. We learnt how to teach in a very different world. When I did my undergraduate degree I spent two hours a week learning how to draw enormous colourful pictures on the chalkboard. There was a workshop space specifically designed at university for doing this. Using computers for teaching was still a way off and mobile phones—well, those were those large bricks that only wealthy or important people had connected in their cars. Over the past twenty years I have watched technology infiltrate our lives in new and wonderful ways and seen children become increasingly competent and aware of their capacity to be independent and skilled in engaging with and knowing their world. I have also over this time seen many innovative teaching programs rise and then fall to the wayside. At the beginning of the 21st century I am excited but also concerned about the state of education in Australia and overseas. My advice to you as you start your journey is to be open to innovation from wherever it arises. Transforming the education system, I believe, will come from a realisation that schooling should draw from real life and learners should be viewed as children. What does this mean? Does it sound a little cryptic? Just like the slow revealing of the sunrise on an early morning ride in the forest, the chapters of this book, individually and together, will endeavour to reveal a new way of thinking about learners and life in the 21st century that will provide you with the tools to rethink schooling in new times. As one of the authors, I invite you to take that ride with us.

References

ACDE (2001). *New Learning: A Charter of Australian Education*. ACDE: RMIT University.

ACDE (2004). *New Teaching, New Learning: A Vision for Australian Education*. Canberra: Australian Council of Deans of Education Inc.

Arnold, R., and Ryan, M. (2003). *The Transformative Capacity of New Learning*. ACDE discussion paper. ACDE: RMIT University.

- Bauman (2002). *Society Under Siege*. Cambridge: Polity Press.
- Beattie, M. (2001). *The Art of Learning to Teach: Preservice Teacher Narratives*. Columbus, OH: Merrill, Prentice Hall.
- Beck, U. (1992). *Risk Society: Towards a New Modernity*. London: Sage.
- Beck, U. (2000). *Brave New World of Work*. London: Sage.
- Bigum, C., and Lankshear, C. (1998). Literacies and technologies in school settings: Findings from the field. Keynote Address to ALEA/ATEA National Conference, Canberra.
- Burke, C., and Grosvenor, I. (2003). *The School I'd Like: Children and Young People's Reflections on an Education for the 21st Century*. Oxon, England: Routledge Falmer.
- Cook-Sather, A. (2002). Authorising students' perspectives: Toward trust, dialogue, and change in education. *Educational Researcher*, 31(4), 3–14.
- Delors, J. (1996). *Learning the Treasure Within*. Report to UNESCO International Commission on Education for Twenty-first Century. UNESCO: Paris.
- Department of Education Queensland (2001). *The Queensland School Reform Longitudinal Study: Teachers' Summary*. Queensland: Education Queensland.
- Fendler, L. (2003). Teacher reflection in a hall of mirrors: Historical influences and political reverberations. *Educational Researcher*, 32(3), Proquest Education Complete.
- Lima, A. (2005). Teaching as a spiritual journey. In S. Nieto (ed.), *Why We Teach*. New York: Teachers College Press, pp. 87–96.
- Lovat, T. (2003). The role of 'teacher' coming of age? ACDE discussion paper, ACDE: RMIT University.
- Luke, A. (2001). Policy and practice with a difference: Generational change, professionalization, literate futures. Keynote address, Australian Language and Literacy Association and English Teachers Association Annual Conference, Hobart.
- Malone, K. (2009). Education for Sustainable Development, youth and new learning, or 'would you tell me, please, which way I ought to go from here?' In P. Blaze-Corcoran and P. Osano (eds), *Young People, Education and Sustainable Development: Exploring Principles, Perspectives and Praxis*. The Netherlands: Wageningen Publishers, pp. 171–80.
- Ministerial Council for Education, Early Childhood Development and Youth Affairs (1998). www.mceetya.edu.au/mceetya/nationalgoals/.
- Mitra, S. (2010a). *The Child Driven Education*. TED Talks presentation www.ted.com/talks/lang/eng/sugata_mitra_the_child_driven_education.htm, accessed 29 December 2010.
- Mitra, S. (2010b). *How Kids Teach Themselves*. TED talks presentation, www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html, accessed 29 December 2010.
- Moon, J. (2008). *Critical Thinking: An Exploration of Theory and Practice*. New York: Routledge.
- New South Wales (2003). *Pedagogy of the Future*. NSW: NSW Department of Education.
- Nieto, S. (2005). (ed.), *Why We Teach*. New York: Teachers College Press.
- Nieto, S. (2009). From surviving to thriving. *Educational Leadership*, 65(5), 8–13.

OECD (2009). *Education at a Glance 2009: OCED indicators*. Paris: OECD.

Papert, S. (1993). *The Children's Machine: Rethinking School in the Age of the Computer*. New York: Basic Books.

Robinson, K. (2010). *Bring on the Learning Revolution*. TED talks presentation, www.ted.com/talks/sir_ken_robinson_bring_on_the_revolution.html, accessed 29 December 2010.

Rudduck, J. (2007). Student voice, student engagement, and school reform. In D. Thiessen and A. Cook-Sather (eds), *International Handbook of Student Experience in Elementary and Secondary School*. Dordrecht, The Netherlands: Springer, pp. 587–610.

Ryan, M., Carrington, S., Selva, G., and Healy, A. (2009). Taking a 'reality' check: Expanding pre-service teachers' views on pedagogy and diversity. *Asia-Pacific Journal of Teacher Education*, 37(2), 155–73.

Satterthwaite, D. (1996). The scale and nature of urban change in the south. Report for the Human Settlements Programme. London: Institute for Environment and Development.

Shulman, L. (1987). Knowledge and teaching: Foundation of the new reform. *Harvard Education Review*, 57(1), 1–22.

Shulman, L. S. (2004). *The Wisdom of Practice: Essays on Teaching, Learning, and Learning to Teach*. S. Wilson (ed.), San Francisco: Jossey-Bass, Inc.

Tomlinson, J. (2001). *Globalisation and Culture*. Cambridge, UK: Polity Press.

Townsend, T. (2002). Engaging students in the global classroom. *Journal of the HEIA*, 9(3), 24–30.

UNCHS (1996). *An Urbanizing World: Global Report on Human Settlements*. Oxford: Oxford University Press.

UNICEF (2008). *The State of Asia-Pacific's Children 2008*. New York: UNICEF.

Warner, D. (2006). *Schooling For the Knowledge Era*. Victoria: Australian Council for Educational Research Ltd.

Welborn, J. (2005). The accidental teacher. In S. Nieto (ed.), *Why We Teach*. New York: Teachers College Press, pp. 15–22.