# Indigenous education:
# Creating classrooms of tomorrow today

## Lester-Irabinna Rigney
*Adelaide University, SA*

Professor Rigney has taught in secondary schools and university teacher education courses across South Australia since 1991. Professor Lester-Irabinna Rigney is Dean of Aboriginal Education, Director of the Wilto Yerlo Centre at Adelaide University, and is one of the most influential Indigenous educationalists in Australia today. In 2009 he received an honorary United Nations award from the Australian Chapter for his work on Indigenous Education. He is on several high-profile expert committees, including the Australian Institute of Health and Welfare COAG 'Closing the Gap' Scientific Reference Group, the National Aboriginal Reference Group 25 Year Indigenous Education Plan and Australian Curriculum and Assessment Reporting Authority, National Languages Curriculum Reference Group. In 2009 he completed a review of the National Indigenous Education document 'Australian Directions' for the Federal Government. Interest in Professor Rigney's work by national and international universities has seen him take up several prestigious Visiting Research Fellowships, including at Cambridge University, United Kingdom; at Fort Hare University, South Africa; and at University of British Columbia, Canada. Professor Rigney is in constant demand as a commentator on national and international Indigenous matters and has published widely on Education, Languages and Knowledge transmission. His recent 2006 co-edited book, titled *Sharing Spaces: Indigenous and Non-Indigenous Responses to Story, Country and Rights*, is the most up-to-date Australian text on Indigenous and non-Indigenous race relations and how they converge in the vulnerable, vital and contested space called 'education'.

## Abstract

Engagement or participation in education is a key factor affecting the life chances of all Australians. What will this look like in the future for Indigenous children who have an overall lower level of participation in education than non-Indigenous Australians? 21st century schooling for Indigenous students in the next decade will look very different to today. This paper discusses the characteristics of curriculum, policy and pedagogy for future schooling of Indigenous children. It uses national and international literature to explore 21st century learning that seeks to revolutionise the way we educate teachers and students. It highlights that Indigenous students live in a multi-tasking, multifaceted, technology-driven, diverse, rapidly changing world which is far removed from the world faced by most of their teachers at the time they entered adulthood. 21st century learning requires new spaces that are culturally safe, coherent and consistent. They do not override Indigenous cultures, but draw upon them as a source of learning foundation on which to build new digital learning structures. They connect school, home, country and community learning in successful ways. A key purpose of the paper is to evaluate the quality of available evidence regarding strategies for improving school attendance, retention and outcomes.

## Introduction

Learning through a quality education has substantial positive social and economic effects for children, including: greater academic achievement; increasing schooling interest and attendance; easing school transition; and raising the self-esteem of all children (Buckskin, Hughes, Price, Rigney, Sarra, Adams, Hayward, Teasdale, & Gregory, 2009; Barnett, 1995, 1998; Buckley, 1996). In Australia, schools maintain a poor record in the education outcomes of Aboriginal and Torres Strait Islander children. Current education policy, with good cause, is firmly fixed on closing education gaps between Indigenous and non-Indigenous children. However, the world is moving into cyberspace through the growth of mobile devices and the digital age that signals yet more challenges for schools that are already under pressure. What is the future of Indigenous education? Can 21st century learning revolutionise the way we educate teachers and students? What advantages can we gleam from digital literacy through greater access to technology? Indigenous education and its future is a sizable issue and one worthy of further exploration.

## 21st century schools the new challenge: are we ready?

Schools have seen a recent influx of new devices – such as the iPad, new T-Touch Tab, iPhones and Smart phones, all of which can connect to the internet over 3G mobile networks. Can these technologies develop an entirely new way of teaching and learning that is better, more successful and more affordable? Are schools ready for these new challenges? Some schools are, but most are yet to fully grasp the technological changes in the digital revolution. Professor Martin Westall reminds us that 'despite changes, schools still, by and large, look similar to the schools of the 20th and even 19th century, and that if schools are to 'maintain relevance', they must 'bridge the gap between how students will live as adults and how they learn' (2008, p. 1–2).

Westall of the *Flinders University Centre for Science Education in the 21st century* argues that 'Young people in the 21st century will spend their adult lives in a multi-tasking, multifaceted, technology-driven, diverse, rapidly

changing world which is far removed from the world faced by most of their teachers at the time they entered adulthood' (Westalll, 2008). Others like Harvard educator Dr Tony Wagner claim that despite the best efforts of educators, schools are 'dangerously obsolete' and he is puzzled why even the best schools do not teach the new survival skills our children need for the future (Wagner, 2008). Wagner calls for the reinvention of schools for the 21st century for the sake of our children who need skills and knowledge to address the successes and ills inherited from the previous generation. New mobile devices and access to the internet in schools is 'becoming a magnet for students' with new scholarly debates about what 'facilities are adequate to achieve educational equality and true opportunity' (Wilhelm 2004, p. 31). The educational changes brought on by the technological revolution in the last ten years are far greater than the previous two hundred. Opportunities abound for Indigenous education in the 21st century and the potential is great for welfare reform, health care and workforce growth. Indeed, these are the right goals for public policy to pursue. However, the challenge of bringing schools with high Indigenous populations into digital learning is made complex when Australia is caught in a historical moment of trying to close basic educational gaps between Indigenous and non-Indigenous students.

## Current and future challenges in Indigenous education

It is not a 'natural' phenomenon when Indigenous students fail school, but a combination of poor social policy, unfair economic arrangements and an 'inclusive curricula' wilderness (Fordham & Schwab, 2007). Matters beyond the school gate need

recognition and resolution if the crisis is to be addressed. There is a current crisis in Indigenous Education (Rigney, Rigney, Hughes 1998). For example, the Productivity Commission reported nationally in 2008, 63.4 per cent of year 5 Indigenous students achieved the national minimum standard for reading compared with their non-Indigenous counterparts of 92.6 per cent (SCRGSP, 2009, 4.41). The crisis is also emphasised in the latest research that indicates that Indigenous children (Rigney, 2003; Rigney 2006; Worby & Rigney 2006; Butterworth & Candy, 1998; SCRGSP, 2009; Fordham & Schwab 2007):

- live in poverty
- suffer higher rates of child abuse and neglect
- are less likely to receive an early childhood education, especially 3–5-year-olds
- are well behind in literacy and numeracy skills
- have poorer health
- have less access to secondary school
- are less than half as likely to proceed through to Year 12.

Because the crisis in education is considerable, it could be argued that technology is a luxury, a tool inessential for basic living and survival. In his book *Digital Nation* Wilhelm (2004) counters this and argues that in the 21st century the capacity to communicate will almost certainly be a key human right where the right to telecommunicate will be as important as drinking water. This premise is predicated on the belief that 'emerging information and communications technologies are essential for individuals and communities to fulfil their life pursuits in an e-enabled world (Wilhelm, 2004, p. 30). Indigenous students must possess these 21st

century capabilities in order to participate in e-commerce and digital economies. If Indigenous Australian societies are to move forward, then schools have a responsibility not only to close the gap, but also to develop in students a deep understanding of technologies. The analytical and policy issues that arise from this poses a conundrum for current Indigenous education policy whose evidence about Indigenous populations are unreliable, not e-enabled but purely focused on closing gaps. These policy tensions need to be resolved.

## 21st century policy and evidence implications

It is without question that 21st century Indigenous education requires 21st century evidence and policy. However, recent research has called into question the orthodox source of evidence centrally used over the past two decades for Indigenous reform, the Australian Census administered by the Australian Bureau of Statistics. Analysing the 2006 Census results, Taylor and Biddle (2008; 2010) found large discrepancies in population figures in what are called 'Indigenous Areas'. The results revealed that in many remote towns, and in many outstations, the change in the census count of Indigenous population between 2001 and 2006 was substantially deficient.

In contrast, in most regional towns, and in particular suburbs of major cities, the change in the count was greater than expected after considering the contribution to population change from net migration and natural increase' (Taylor & Biddle, 2008, p. v). As a consequence, they conclude, 'in many remote locations we cannot use 2006 Census counts at face value and in such places, the census is more like a sample survey of the Indigenous population that will need to be carefully adjusted to assist informed policy-making' (Taylor & Biddle, 2008, p. v).

One drawback according to Taylor and Biddle is the fact that we have no data on the characteristics of those not counted. Because of faulty census data informing Indigenous education, health and social service provision Indigenous communities fiscal settings based on such estimates have been 'commensurately undervalued over the past 35 years' so that 'services and programs provided to remote communities on the basis of official population estimates have been chronically inadequate' (2008, pp. v–vi). Such imprecision and substantial 'under-countering' give rise to issues of public policy concern. Projections for 21st century Indigenous populations and their digital needs require greater accuracy in evidence for public policy to guide fiscal settings.

The current COAG 'Closing the Gap' campaign complements the *Draft Indigenous Education Action Plan* developed by the Ministerial Council and embodies a welcomed new approach to Indigenous education. Because of its infancy, it remains to be seen if 21st century Indigenous education will be assisted favourably by other recent campaigns, including *National Curriculum, the Digital Revolution* and *Building the Education Revolution*. Today's Australian students represent the first generations to grow up in a world in which information and communication technologies are everywhere. While governments need to be commended for their current attention to the crisis in Indigenous education, we still have much work to do in preparing Indigenous children for the 21st century.

Indigenous knowledge, skills and attributes for tomorrow

Many views abound about what skills are needed for tomorrow's classrooms. Wagner's (2008) work examines why parents and educators alike are concerned that the majority of students are ill-prepared for life and work in our current world, let alone the next ten years. In his book, *The Global Achievement Gap*, he outlines seven essential 21st century Survival Skills that children will need for their future:

1   Critical thinking and problem solving

2   Collaboration across networks

3   Agility and adaptability

4   Initiative and entrepreneurialism

5   Effective oral and written communication

6   Accessing and analysing information

7   Curiosity and imagination

Wagner informs us of the changing nature of students. Similarly, a leading US advocacy organisation Partnerships for 21st Century Learning has written a report titled *Framework for 21st century Skills* (PCS, 2009). The 21st century interdisciplinary themes include:

a)   Global awareness

b)   Learning and thinking skills

c)   Financial, economic, business and entrepreneurial literacy

d)   Civic, health and environmental literacy

e)   Information and communication technology (ICT)

f)   Life skills

g)   Modern assessment of 21st century skills

The report argues that to ensure student mastery of 21st century skills, new 21st century standards, assessments, curriculum, instruction, professional development and learning environments must be aligned to support systems that produce 21st century outcomes for today's students. These aspects are a good starting point for discussions on 21st century Indigenous education. From an Indigenous perspective,

for implementation to be applied in Australia, Indigenous interests, cultures, languages and literacy's must be explicit and sustained in the curriculum core. Other priority areas include: community engagement; access and affordability to technology; more inclusive and diverse public policy; digital and health literacy; and environmental literacy. Modern 21st century learning requires new spaces that are culturally safe, coherent and consistent. They do not override Indigenous cultures, but draw upon them as a source of learning foundation on which to build new digital learning structures. They connect school, home, country and community learning in successful ways. The future of digital technologies in Indigenous education is upon us. However, it is important to remember that Indigenous perspectives of Indigenous education in the 21st century are under-theorised in Australia. We have little knowledge of what parents of Indigenous children think about digital education or their needs and aspirations that an ICT education can provide into the 21st century. We have limited knowledge of how to integrate technology into non-English speaking Aboriginal communities. We also remain unaware of its cultural, ethical, moral and socio-political consequences.

## Conclusion

Without modernising Indigenous education for the 21st century teachers face a class of students who: live in digital ghettos; are not e-enabled; whose age in web years is in single digits; and who remain a generation divided. The desires of parents for 21st century Indigenous classrooms require teachers, governments and policy makers to re-think the state of Indigenous education toward bridging any future digital divide. The time to act is now.

# References

Barnett, W.S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children, 5*(3), 25–50.

Barnett, W.S. (1998). Long-term cognitive and academic effects of early childhood education on children in poverty. *Preventive Medicine, 27,* 204–207.

Buckley, P. (1996). What entitles a school to legitimately call itself an Aboriginal school? *The Australian Journal of Indigenous Education, 24*(1), 10–16.

Buckskin, P., Hughes, P., Price, K., Rigney, L-I., Sarra. C,. Adams, I., Hayward, C., Teasdale, B., Gregory, J. (2009), Review of *Australian Directions in Indigenous Education 2005–2008 for the Ministerial Council for Education, Early Childhood Development and Youth Affairs.* Retrieved June 6, 2011, from http://www.mceecdya.edu.au/ verve/_resources/Review_of_Aust_ Directions_in_Indigenous_Ed_2005- 2008Att_Comm.pdf

Butterworth, D., & Candy, J. (1998). Quality early childhood practice for young Aboriginal Children. *Australian Journal of Early Childhood, 23*(2), 20–25.

Fordham, M, A., & Schwab, G, R. (2007), '*Education, Training and Indigenous Futures CAEPR Policy Research: 1990–2007'.* Centre for Aboriginal Economic Policy Research: The Australian National University.

Partnership for 21st century Skills (PCS). (2009), *Framework for 21st century Learning.* Tucson: United States. Retrieved July 10, 2011, from http://www.p21.org/documents/P21_ Framework.pdf

Rigney, D., & Rigney, L-I., & Hughes, P. (1998). *Report of Aboriginal Students and the South Australian Certificate of Education (SACE)* for the Senior Secondary Assessment Board of South Australia (SSABSA), Yunggorendi, First Nations Centre for Higher Education and Research, Flinders University.

Rigney, Lester-Irabinna. (2006), Sharing the Australian Language Space: Reforms for Linguistic Pluralism-Towards the Stabilisation of Indigenous Languages. In G. Worby & Lester-Irabinna Rigney. (2006), *Sharing Spaces: Indigenous and Non-Indigenous Responses to Story, Country and Rights.* API Network, Australian Research Institute, Curtin University of Technology. Western Australia, pp.384–417.

Rigney, Lester-Irabinna. (2003), 'Indigenous Education, Languages and Treaty: The redefinition of a new relationship with Australia', in *Treaty: Lets get it right,* eds. Canberra: ATSIC & AIATSIS, AIASTSIS.

Steering Committee for the Review of Government Service Provision *(SCRGSP).* (2009), *Overcoming Indigenous Disadvantage: Key Indicators 2009.* Canberra: Productivity Commission.

Taylor, J & Biddle, N. (2010), Estimating the accuracy of Geographic Variation in Indigenous populations counts, In *Australian Geographer,* 41, 4, pp. 469–484.

Taylor, J & Biddle, N. (2008), *Locations of Indigenous Population Change: What Can We Say?* CAEPR WORKING PAPER No. 43/2008. Retrieved June 6, 2011, from http://caepr.anu.edu. au/system/files/Publications/WP/ CAEPRWP43.pdf

Wagner, T. (2008), *The Global Achievement Gap: why even our best schools don't teach the new survival skills our children need – And what we can do about it.* New York: Basic Books.

Westall, M. (2008), '*Learning for Life in the 21st century'.* Flinders Centre for Science Education in the 21st century. Flinders Centre for Science Education in the 21st century. Retrieved June 3, 2011, from http://www.flinders.edu. au/science_engineering/science21/ briefings/

Wilhelm, A. (2004), *Digital Nation: Toward and Inclusive Information Society.* Cambridge: Massachusetts, MIT Press.

Worby, Gus, & Rigney, Lester-Irabinna. (2006), *Sharing Spaces: Indigenous and Non-Indigenous Responses to Story, Country and Rights.* Western Australia: API Network, Australian Research Institute, Curtin University of Technology.