



Building Geography's New Frontier: Implementing the Australian Curriculum Geography

Ken Purnell

Central Queensland University

Abstract

The introduction of Geography as a compulsory learning area from Foundation year, such as Kindergarten, to Year 8 in Australia provides new opportunities for learning and teaching. Opportunities, in part, will be driven by challenges associated with the introduction of this learning area. Key challenges are about variability: in take-up of the curriculum; teacher expertise in Geographical education; and resourcing. These challenges are examined in the context of the opportunities they afford for focussed teaching and learning in Geography that draws upon teacher expertise and quality resourcing. The importance of designing and implementing high quality learning experiences for students, based clearly on the Australian Curriculum Geography, is discussed using an exemplar.

Introduction

Most of us have viewed the devastation of beaches on the Gold Coast in 2013 and the resultant loss of amenity, threats to property and the negative impacts on tourism and the local economy (Australian Broadcasting Corporation, 2013). Basic geographical knowledge and understanding of, for example, the three parts to a beach system that interact during periods of high energy waves (the beach face, foredune and offshore bar), that may inform possible planning and engineering solutions may go some way to addressing such issues as people interact with their environments. The litany of stories where geographical understandings and dispositions would enhance our interactions with our world is testimony to the importance of geographical education for all.

All Australian school students aged 5 to 14 – from Foundation to Year 8 – will be studying Geography for about an hour per week associated with the Australian Curriculum (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2013). Some students will elect to do more intensive studies of Geography until Year 12 (about age 18). Advice regarding time allocations for the Geography learning area from

the Queensland Studies Authority (QSA) is, on average, about 30 minutes a week from Prep to Year 2, an hour a week in Years 3 to 6, and about an hour and fifteen minutes per week from Year 7 to 10 (personal communication, T. Gallagher, July 2013). One might anticipate that the numbers of school students electing to study Geography beyond Year 8 may increase as a result. Time will tell.

How students perceive their experiences of geography to Year 8 will influence their choice to study the learning area as an elective in Years 9 to 12 (or parts thereof). The curriculum content for learning and teaching in Geography in Australian schools has been approved and is available for schools (ACARA, 2013). That provides details, *on paper*, that include the rationale for studying Geography, content descriptions and organisation from Foundation to Year 10. Students will be assessed on their learning of the content descriptors of Geography (or at least the end-of-year achievement standard – see ACARA, 2013), and reports on a five-point scale – typically A to E – provided to parents/carers twice a year. So clearly, Geography now has a new frontier in Australian schools as a compulsory learning area. What is interesting though, is that firstly, jurisdictions and schooling authorities and schools have wide views of what Geography will look like in practice, and secondly that there are few specialists in Geography likely to be teaching that learning area in Primary schools.

As a result of the introduction of Geography as a learning area in an unprecedented way for all Australian school students in the 21st Century, there are at least three potential challenges that provide opportunities for higher quality learning and teaching. These are inter-related and are:

1. Variability in take-up of the Geography Curriculum by jurisdictions (states and territories), schools, and individual teachers;
2. Teacher expertise to teach Geography; and
3. Resources for the teaching and learning of Geography including relevant, high quality

teaching resources, and timely and effective professional development for teachers.

These three challenges are examined and solutions explored. An exemplar learning experience plan is then provided that may support teachers in making informed professional decisions associated with implementing the Australian Curriculum.

The Challenges and Opportunities

Firstly, there is variability in the take-up of the Australian Curriculum.

The eight jurisdictions of the Australian states and territories such as NSW and ACT, State, Catholic and Independent schooling sectors, schools, and individual teachers naturally, for various reasons, have a non-uniform approach to implementing the Australian Curriculum (Drabsch, 2013). For example, education is a responsibility that the states and territories share with the Federal Government and thus different positions develop given histories and other matters; teachers also have a variety of professional understandings and dispositions. At the jurisdiction level, that is evidenced with some taking up the Australian Curriculum *verbatim* like Queensland, and others adding *parts* they wish to existing curriculum. Some jurisdictions are simply putting what they consider *common and agreed* into existing curriculum frameworks that typically have eight areas including English, Science and Humanities. The ACARA-developed curriculum will result in a curriculum of 16 learning areas in upper primary – what many would view as a *cluttered curriculum* – an issue in the United Kingdom discussed by Drabsch (2013). Indicative hours of teaching time in the areas vary from 20 to 270 hours per year. And then there is the required twice a year reporting on a five-point scale for each learning area. The year of commencement varies too between jurisdictions. So some like Queensland, as a result of a Queensland Government decision to be *early adapters*, that State has developed curriculum, assessment and reporting advice and guidelines based purely on the Australian Curriculum. Others are taking a different approach such as *bolting on* aspects to existing curriculum documents and associated policies and procedures. Given the potential for a curriculum with 16 learning areas for Years 5 and 6, a ‘Purposeful integration project’ is being looked at in Queensland. That will likely see the Inquiry mode used as an integrating tool for learning areas – so, for example, *Deserts* may be an inquiry in which primary teachers, for various learning areas, have an integrated inquiry that addresses a number of learning areas simultaneously.

Those two positions – full and minimal take-up – are at either end of the spectrum with most jurisdictions in between. However, as a result of the introduction of the Australian Curriculum there have developed opportunities to closely examine existing curriculum, assessment and reporting requirements and to make informed decisions about curriculum renewal as well as relevant changes to standards based assessment and reporting on an A to E (or equivalent five-point scale), twice a year as required (see the *National Education Agreement* – Student reports Schedule E; *Schools Assistance Act 2008* – Funding agreements – reporting to parents, etc. in Part 3, Division 3, Subdivision 3, Item 20; and *Schools Assistance Regulations 2009* – Student reports in Part 5). The responsibility for assessment and reporting lies directly with the eight jurisdictions – such as the NSW Board of Studies for NSW and the QSA for Queensland – to determine for their areas. This provides opportunities for innovation and renewal in assessment and reporting as well as curriculum that will directly impact on schools and ultimately, student learning. As an example, in the standards-based assessment required in the Australian Curriculum, some jurisdictions have provided exemplar assessments with task specific standards in the advice and guidelines to schools and teachers (see Australian Curriculum sample assessments at QSA, 2013a).

Similarly, there are differing approaches of the different schooling authorities in the states and territories. And indeed, school decisions differ widely too. When we get to the teacher level – the people who teach what the students are to learn in the Australian Curriculum – there are high levels of variability of, at one end, early adapters of the Australian Curriculum keen to implement it directly in their classrooms, to others with an attitude of something akin to this too *will pass*.

The complexity of real human activity is enormous in this area of take-up of curriculum documents. The views of different sectors and those of ACARA seem to be divergent as evidenced in Professor Bob Lingard’s research (personal communication, R. Lingard, November 2012). Overall, the politics at the school level and elsewhere are such that there is unlikely to be a *utopia* of settlement. Nor should there be. Education with its history and politics in Australia provides for a rich diversity with continuous quality improvement in practice. Whether that is as a teacher in your classroom, or the Federal Government promoting reforms like ‘Gonski’ aimed at further improving teaching and learning Australia-wide (see, for example, Ferrari & Le Grand, 2013).

Secondly, teacher expertise in Geography varies.

This is especially the case in Primary schools where non-specialist Geography teachers will be teaching that learning area. Some Primary teachers may have studied Geography at school as student themselves but most have not. From about 2015, a number of beginning preservice teachers entering primary education will likely study geographical education as part of their degree. However, most teachers are in service and there will be a significant time-lag of several years before new graduates with expertise in geographical education may be teaching beside them. At the other extreme, there are a few teachers who have a long professional association with geographical education and meet the highest level of national standards for teachers of Geography (for Standards see AGTA, 2013a; GEOGstandards, c2010; Kriewaldt, 2010). The reality is that some learning areas, new to the primary school curriculum, will be taught by teachers without specialist knowledge in those learning areas. Fortunately in the case of Geography, teachers typically have some expertise in aspects of Geography as a result of their own experiences including travel, TV documentaries, magazines with geographical content, and other sources. Most significant is, of course, the professional learning opportunities provided by AGTA (AGTA, 2013b), ACARA, ND, (see, for example, introductory movie on Geography by the Chair of AGTA, Malcolm McInerney at ACARA [2013] and schooling authorities and schools as well as bodies such as QSA with free state-wide workshops in Queensland, for example, the QSA Geography workshops have been oversubscribed and additional ones now planned. Such interest by teachers, schools and others for professional learning in Geography is most encouraging.

It is important to recognise that the experiences of people and how they perceive those experiences is critical in memory formation and thus a person's knowledge and understanding and skills (Doidge, 2010). Indeed, brain plasticity required for this is fundamental in all learning including professional learning by teachers (Johnston, 2009). What teachers *bring to the table* in interpreting the Australian Curriculum Geography in terms of their professional understandings is essential (Lane, 2010; Purnell & Harrison, 2011; Schulman, 2005a, 2005b). Reading and interpreting the Australian Curriculum Geography, and having substantive professional conversations amongst teachers, is fundamental in determining what to teach as well as aspects of how to teach it. Such an understanding allows teachers to make informed professional decisions to design and implement learning experiences for students "and enables individuals and cohorts to take different routes through the terrain" (Luke, Weir, & Woods, 2008, p. 15). It is not enough to simply listen to interpretations of the curriculum by others. First

hand knowledge of it that needs to be developed and then to have shared understandings with other teachers is critical. As Luke, Weir and Woods (2008, p. 38) observe that Shulman's work:

recognised the centrality of teacher overall knowledge of disciplinary knowledge (e.g., maths, art, literature, sciences, history), but it argued that this is necessary but not sufficient for effective teaching and learning. He maintained that knowledge of the school subject (e.g., the official curriculum), knowledge of learners, and pedagogical strategies relevant to content and subject were also significant components of teacher professionalism.

Experienced teachers generally have that expert pedagogical knowledge and knowledge of learners that they bring to the table. Further developing that expertise into specific pedagogical content knowledge for Geography is essential (Lane, 2010).

Luke, Weir and Woods (2008, p. 94) went on to contend that:

Content knowledge includes knowledge of the substance and structure of the academic discipline. Pedagogical content knowledge involves an understanding of pedagogical representations and instructional strategies, and of students' pre-conceptions with respect to particular curriculum topics at particular grade levels. By means of this knowledge, the teacher transforms his or her disciplinary content into 'forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by students' (Shulman, 1987, p. 15) In contrast, curricular knowledge involves an understanding of the curriculum and the instructional materials available for teaching a subject at various grade levels.

It is clear that teacher familiarity with the actual curriculum – not merely interpretations by others (albeit well meaning) – and targeted professional development that supports teacher use of that curriculum are essential in quality teaching and learning in Geography. Such professional support has been successful in implementing new curriculum in areas such as Geography (see, for example, Ofsted, 2011, QSA, 2012, 2013c).

In learning from others, it is now almost 25 years since the national curriculum in Geography commenced in the United Kingdom and the standards of teaching and learning in Geography have achieved continuous improvement (Catling, 2013; Catling, Bowles, Halocha, Martin, & Rawlinson, 2007; Ofsted, 2011). Indeed, there

are numerous examples of quality practice to consider from the UK experiences such as those at Corsham Primary School (Ofsted, 2013). Such resources can provide further insights into quality teaching and learning in Geography.

There is no *magical tablet* to introduce new curriculum into schools, especially in Primary schools where Geography as a subject has not been taught by current teachers. Nor is there *one size fits all* form of professional development for teachers. Each one of us has unique particular expertise derived from our experiences such as our preservice and in-service teacher education, and our interactions with students, classes, colleagues and others as well as the professional dispositions we use in our informed professionalism as teachers.

What is needed is a multi-pronged approach using a variety of strategies. Above all, from evidence-based research we know that what teachers know and can do matters in achieving learning gains with students (Bantick, 2010; Darling-Hammond & Bransford, 2005; Department of Education, Science and Training [DEST], 2005). For example, DEST (2005, p. 21) stated that “highly effective teachers and their professional learning do make a difference in the classroom. It is not so much what students bring with them from their backgrounds, but what they experience on a day-to-day basis in interaction with teachers and other students that matters”. In a nutshell: quality learning is directly related to quality teaching – where quality teachers focus on the priority of achieving learning gains with students using their informed professional knowledge, skills and dispositions (Purnell & Muldoon, 2012). There is an emphasis too of the Australian Government in educational reforms aimed at providing resources to further improve the quality of teaching and learning.

Thirdly, resourcing in Geography varies.

This includes both high quality teaching resources and professional development for teachers. There are some first class resources for teaching Geography in schools available. These include GeogSpace (AGTA, 2013b), units of work and other resources for the Australian Curriculum Geography (see, for example, QSA, 2013b), and a range of new textbooks specifically related to that curriculum. Some of these form what might be considered the *second wave* of curriculum where textbooks and other resources are specifically designed and produced to meet perceived teacher and student needs for the new curriculum. No doubt some of these will be judged to do that well and be very valuable. Resources that are purpose built for the Australian Curriculum Geography are more likely to be of use to teachers than others

where pre-existing resources have been *tweaked* – sometimes effectively and sometimes not – to meet the demands of the new curriculum. As noted above, bolting on to existing artefacts may be useful, as can starting with a fresh slate. The concept of being fit for purpose is critical as *old wineskins are not fit to store new wine* – they burst. So making professionally informed, on-balance decisions in the context of the specifics at each level – national to classroom – is critical.

The actual use of resources in a professionally informed way to teach Geography, and the opportunity for resourcing teachers further through professional development that is both effective and timely, is likely to need attention at all levels. Some jurisdictions, schooling authorities and subject associations are investing heavily in face-to-face and online professional development in geographical education related to the Australian Curriculum Geography. They are also investing in resources developed specifically for the Australian Curriculum Geography from Foundation to Year 10 (see, for example, AGTA, 2013b; QSA, 2013c). Typically, such professional development needs to be both ongoing and timely for teachers to maximise their professional knowledge, understandings and dispositions. The neuroscience tells us that effective professional development will be *just in time* as teachers need it and preferably specifically related in meaningful ways to their particular work needs.

In summary, the variability of take-up, teacher expertise and resourcing for the Australian Curriculum Geography, while creating challenges, also provides opportunities for a richer, high quality experience of Geography for all Australian students Foundation to Year 10.

Learning Experience Plan

In this section, an example of a *Learning experience plan* is provided (see Figure 1). This may be of use to teachers as they implement the Australian Curriculum to consider the specifics associated with content, standards and the like.

Should teachers choose to use this (or a similar) Learning experience plan, it should be noted that using the plan identifies: relevant ACARA content descriptors, the *end picture* of what the student knowledge and understanding should look like at the end of the year, and skills (after the Wiggins & McTighe, 2005 Backward design process in Figure 2 below). It also notes which of the ACARA (2013) three cross-curricula priorities across the learning areas at each year level F-10, and the seven general capabilities across the learning areas at each year level F-10 are addressed. The prior knowledge and understandings and skills at the previous year level, as well as the curriculum

Figure 1: Learning experience plan (LEP) template

Australian Curriculum Learning area(s):

Year(s):

Acknowledgements: QSA staff and website resources at www.qsa.qld.au; ACARA web resources at www.australiancurriculum.edu.au

School name & teacher	LEP title	Duration of LEP
Identify curriculum		
Content descriptions to be taught		<p>General capabilities (7) and cross-curriculum priorities (3)</p> <div style="display: flex; flex-wrap: wrap; padding: 5px;"> <div style="width: 33%; text-align: center;"> Literacy </div> <div style="width: 33%; text-align: center;"> Numeracy </div> <div style="width: 33%; text-align: center;"> ICT capability </div> <div style="width: 33%; text-align: center;"> Critical and creative thinking </div> <div style="width: 33%; text-align: center;"> Ethical behaviour </div> <div style="width: 33%; text-align: center;"> Personal and social capability </div> <div style="width: 33%; text-align: center;"> Intercultural understanding </div> <div style="width: 33%; text-align: center;"> Aboriginal and Torres Strait Islander histories and cultures </div> <div style="width: 33%; text-align: center;"> Asia and Australia's engagement with Asia </div> <div style="width: 33%; text-align: center;"> Sustainability </div> </div>
Knowledge and Understanding	Skills	
<p>Achievement standard: By the end of the year students</p>		

Relevant prior curriculum	Curriculum working towards	Links to other curriculum areas
Teaching and learning	Supportive learning environment	
Teaching strategies and learning experiences	Adjustments for needs of learners	Resources
	<p>Section 6 of the <i>Disability Standards for Education</i> (The Standards for Curriculum Development, Accreditation and Delivery) states that education providers, including class teachers, must take reasonable steps to ensure a course/program is designed to allow any student to participate and experience success in learning.</p> <p>The <i>Disability Standards for Education</i> 2005 (Cwlth) is available from: <www.ag.gov.au> select Human rights and anti-discrimination > Disability standards for education. See resources at www.qsa.qld.edu.au/10188.html</p>	
Further,		
Assessment – make judgments and use feedback	Category / Technique	Timing
Evidence of learning to be gathered.		
Assessment	Make judgments	
Describe the assessment	Assessment date	Identify content descriptions that are the

Assessment		Make judgments
Identify the evidence of learning that will be gathered during this LEP. Concisely describe the purposes of the assessment. State the conditions of the assessment, including the format, length, scope and resources required.		focus of student learning within assessment in this LEP. List task-specific descriptors of quality. These include statements of desirable features in student work.
	Specify when assessment will occur.	
Use feedback		Identify feedback strategies/comments as relevant
Ways to monitor learning and assessment	Teachers meet to collaboratively plan the teaching, learning and assessment to meet the needs of all learners in each LEP. Teachers create opportunities for discussion about levels of achievement to develop shared understandings; co-mark or cross mark at key points to ensure consistency of judgments; and participate in moderating samples of student work at school or cluster level to reach consensus and consistency.	
Feedback to students	Teachers strategically plan opportunities and ways to provide ongoing feedback (both written and informal) and encouragement to students on their strengths and areas for improvement. Students reflect on and discuss with their teachers or peers what they can do well and what they need to improve. Teachers reflect on and review learning opportunities to incorporate specific learning experiences and provide multiple opportunities for students to experience, practise and improve.	
Reflection on the LEP	Identify what worked well during and at the end of the LEP, including activities that worked well and why, activities that could be improved and how, assessment that worked well and why, assessment that could be improved and how, and common student misconceptions that need or needed to be clarified.	

being worked towards at the next year level are stated – where students have come from and are going to in the curriculum. Stated too are any links to related curriculum, the specific teaching strategies and learning experiences, and support including resources and procedures to cater for the diverse range of students, as well as the assessment evidence and making judgments of standards evidenced in student responses. This may be useful to teachers as they consider the specifics of their classes and make informed professional decisions.

The Learning experience plan above may be useful for teachers as they engage with the Australian Curriculum. Completed examples of plans for units of work that are similar are provided by the QSA (QSA, 2013b) and the Queensland Department of Education, Training and Employment (2013).

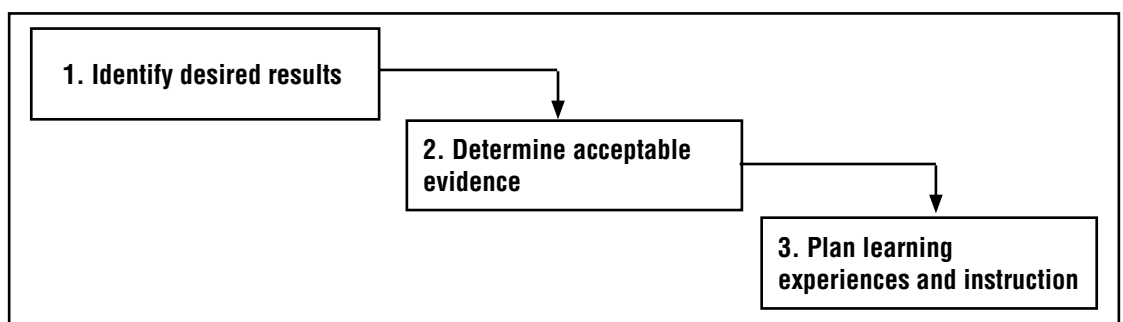
Figure 2 overviews the *Backward design process* (Wiggins & McTighe, 2005) used extensively in curriculum design, informs the Learning experience plan above (Figure 1). Firstly, a teacher identifies what the students should know and understand and the skills that they should have at the end of a learning experiences (whether an hour, a unit of work, a year or several years of schooling) – a picture of what the students should look like; then the teacher identifies what evidence is needed that is acceptable to determine whether the students have arrived at that picture or not; then following having that end picture and acceptable evidence in mind, the teacher develops relevant learning experiences that will assist the student to achieve that picture and provide the evidence of how well they have achieved the end picture (the standards of A to E). In particular, some teachers are using the year level Achievement Standard as the main driver of their planning. For example, if teaching Year 6 Geography then the Year 6 Achievement Standard is: By the end of Year 6, students explain the characteristics of diverse places in different locations at

different scales from local to global. They describe the interconnections between people and places, identify factors that influence these interconnections and describe how they change places and affect people. They describe the location of selected countries in absolute and relative terms and identify and compare spatial distributions and patterns among phenomena. They identify and describe alternative views on how to respond to a geographical challenge and propose a response.

Students develop geographical questions to frame an inquiry. They locate relevant information from a range of sources to answer inquiry questions. They represent data and the location of places and their characteristics in different graphic forms, including large-scale and small-scale maps that use cartographic conventions of border, source, scale, legend, title and north point. Students interpret data and other information to identify and compare spatial distributions, patterns and trends, infer relationships and draw conclusions. They present findings and ideas using geographical terminology and graphic representations in a range of communication forms. They propose action in response to a geographical challenge and describe the expected effects of their proposal. (ACARA, 2013.)

Learning experiences and assessment and reporting all primarily align with that end of year Achievement Standard for such teachers. The evidence provided in student work chiefly focusses on that Achievement Standard. In Figure 2, such a backward design process is overviewed. The Learning experience plan requires teachers to identify what students will look like at the end of the year in terms of the relevant ACARA Achievement Standard: The *1. Identify desired results* in Figure 2. It also requires a clear focus on assessment at the outset of planning (not an after thought), called *2. Determine acceptable evidence* in Figure 2. From that end picture, including what sort of evidence is acceptable that the students have arrived, then planning is done for the various

Figure 2: Backward design process



Source: Wiggins and McTighe, 2005, p.18.

learning experiences to get the students there. The ACARA end of year Achievement Standards may be very useful as drivers of assessment, reporting and learning experiences across the year.

Conclusion

Moving from the various *spaces* that teachers are in in their professional knowledge, skills and dispositions using the *reform* of the implementation of the Australian Curriculum Geography provides some challenges, but more importantly, opportunities. In this paper, it has been argued that the challenges facing the implementation of the Australian Curriculum Geography provide opportunity to build teacher capacity. These relate to variability in curriculum implementation, teacher expertise and resourcing. While these may be problematic, as argued, they also provide a potential catalyst for further continuous quality improvements in the teaching and learning of Geography.

The pathway forward involves using teacher expertise and quality resources to maximise the quality of learning experiences in Geography for school students. The use of planning instruments that give a clear focus on what is to be taught and learnt (see Figure 1), and high quality resources such as GeogSpace (AGTA, 2013b) will contribute to that ongoing capacity building for teachers. Endnote: It is recommended that readers may care to read the 'Briefing Paper NSW Parliamentary Service: The Australian Curriculum' by Talina Drabsch (2013) that provides an informed view on the move to a national curriculum as well as international comparisons.

References

- ABC. (2013). Latest storm stories on Gold and Tweed Coasts. Retrieved from <http://www.abc.net.au/goldcoast/topics/disasters-and-accidents/storm/?page=1>
- ACARA. (2013). *Australian Curriculum Geography*. Retrieved from <http://www.australiancurriculum.edu.au/Geography/>
- ACARA (n.d.). *An introduction to the development of the Australian Curriculum Geography* [Movie]. Retrieved from <http://www.australiancurriculum.edu.au/Geography/Introduction>
- AGTA. (2013a). *Professional standards for teaching Geography*. Retrieved from <http://www.agta.asn.au/Resources/Professional%20standards/index.php>
- AGTA. (2013b). *GeogSpace*. Retrieved from: <http://www.geogspace.edu.au>
- Bantick, C. (2010, February 1). Poor teachers, poor results. *The Australian*. Retrieved from <http://www.theaustralian.com.au/>
- opinion/poor-teachers-poor-results/story-e6frg6zo-1225825236708
- Catling, S., Bowles, R., Halocha, J., Martin, F., & Rawlinson, J. (2007). The state of Geography in English primary schools, *Geography*, 92, 118–136.
- Catling, S. (2013). Introducing national curriculum Geography to Australia's primary schools: Lessons from England's experience. *Geographical Education*, 26, 5–14.
- Darling-Hammond, L., & Bransford, J. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.
- DEST. (2005). Teaching reading report and recommendations: National inquiry into the teaching of reading. Canberra: Commonwealth of Australia.
- Doidge, N. (2010). *The brain that changes itself* (Rev. ed.). Melbourne: Scribe.
- Drabsch, J. (2013). *Briefing Paper NSW Parliamentary Service: The Australian Curriculum*. Retrieved from [http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/0/B18363C26EC0F93ACA257B1800144FDE/\\$File/The%20Australian%20Curriculum.pdf](http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/0/B18363C26EC0F93ACA257B1800144FDE/$File/The%20Australian%20Curriculum.pdf)
- Ferrari, J., & Le Grand, C. (2013, July 24). Kevin Rudd steps in to beat Gonski deadline. *The Australian*. Retrieved from <http://www.theaustralian.com.au/national-affairs/education/kevin-rudd-steps-in-to-beat-gonski-deadline/story-fn59nlz9-1226684016373>
- GEOGstandards. (c. 2010). *Professional standards for accomplished teaching of school Geography*. Retrieved from <http://www.geogstandards.edu.au/>
- Johnston, M.V. (2009). Plasticity in the developing brain: implications for rehabilitation. *Developmental Disabilities Research Reviews* 15, 94–101.
- Kriewaldt, J. (2010). The Geography Standards Project: Professional standards for teaching school Geography. *Geographical Education*, 23, 8–9.
- Lane, R. (2009). Articulating the pedagogical content knowledge of accomplished Geography teachers. *Geographical Education*, 22, 40–50.
- Lambert, D. (2013). Who hung humanities? *Geographical Education*, 26, 25–28.
- Leat, D., Thomas, U., & Reid, A. (2013). The epistemological fog in realising learning to learn in European curriculum policies.

- European Education Research Journal*, 11, 400–412.
- Luke, A., Weir, K., & Woods, A. (2008). *Development of a set of principles to guide a P–12 syllabus framework*. Retrieved from http://www.qsa.qld.edu.au/downloads/publications/ksa_p-12_principles_dev_ppr.pdf
- National Education Agreement. (2012). Retrieved from <http://www.federalfinancialrelations.gov.au/content/npa/education/national-agreement.pdf>
- Ofsted. (2011). *Geography: Learning to make a world of difference*. Retrieved from <http://www.ofsted.gov.uk/resources/geography-learning-make-world-of-difference>
- Ofsted. (2013). *Good practice resource: A creative curriculum to support outstanding teaching and learning in geography: Corsham Primary School*. Retrieved from <http://www.ofsted.gov.uk/resources/good-practice-resource-creative-curriculum-support-outstanding-teaching-and-learning-geography-corsh>
- Purnell, K.N., & Harrison, A. (2011). Inquiry in Geography and Science: Can it work? *Geographical Education*, 24, 34–40.
- Purnell, K., & Muldoon, N. (2012). Informed prescription and informed professionalism in geographical education. *Geographical Education*, 25, 29–38.
- Queensland Department of Education, Employment and Training. *Curriculum into the classroom (C2C)*. Retrieved from <http://education.qld.gov.au/c2c/>
- QSA. (2012). *Australian Curriculum online professional development*. Retrieved from <http://www.qsa.qld.edu.au/18234.html>
- QSA. (2013a). *Australian Curriculum sample assessments*. Retrieved from <http://www.qsa.qld.edu.au/25884.html>
- QSA. (2013b). *Geography Australian Curriculum and resources*. Retrieved from <http://www.qsa.qld.edu.au/26025.html>
- QSA. (2013c). *Professional development and events*. Retrieved from <http://www.qsa.qld.edu.au/events.html>
- Schools Assistance Act 2008. Retrieved from <http://www.comlaw.gov.au/Details/C2011C00862>
- Schools Assistance Regulations 2009. Retrieved from <http://www.comlaw.gov.au/Details/F2011C00744>
- Shulman, L.S. (2005a). Signature pedagogies in the profession. *Daedalus*, 52–59.
- Shulman, L.S. (2005b). *The signature pedagogies of the professions of Law, Medicine, Engineering, and the Clergy: Potential lessons for the education of teachers*. Speech delivered to the Math Science Partnerships (MSP) Workshop: “Teacher Education for Effective Teaching and Learning” Hosted by the National Research Council’s Center for Education, February 6–8, 2005, Irvine, CA.
- Wiggins, G., & McTighe, J. (2005). *Understanding by design* (Expanded 2nd Ed.). Alexandria, VA: Association for Supervision and Curriculum Development.