

#### CHAPTER 3

# Smoke and Mirrors: Indigenous Knowledge in the School Curriculum

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## Introduction: Researching Indigenous Knowledge in the School Curriculum

This chapter explores the policy and practice of including Māori knowledge in the school curriculum in Aotearoa New Zealand. Such a question is complex and context-dependent, so the details differ in each setting, though similar patterns are seen in other countries, especially Australia, Canada and the United States (collectively known as the CANZUS countries—see Bell, 2014). Similar patterns are also found in sectors beyond schooling, particularly tertiary education. This topic is important for curriculum theorists in Aotearoa New Zealand, where education policy is increasingly moving in this direction, in attempts to overcome inequity for Māori and Pacific students in compulsory schooling. Conveniently for the neoliberal state, the policy of including Māori knowledge in the curriculum helps transfer responsibility for Māori student outcomes to

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individual teachers and schools, by attributing Māori success to culturally responsive pedagogy (as set out in policy—see Ministry of Education, 2011). Under the influence of multiple policy levers that sometimes work against each other, the ideas of 'Māori knowledge in the curriculum' and 'culturally responsive pedagogy for Māori students' have tended to merge, adding to the evident confusion. Teachers are being placed under enormous pressure as a result of policies based on these ill-defined ideas. This chapter critiques Michael Young's (2013) curriculum theory from a Māori-centric perspective, and uses it to unpack the thinking behind these policies, and show how they can easily go wrong. Added motivation to critique Young's ideas from a Māori perspective comes from their adoption by some academics in Aotearoa New Zealand, most notably by Elizabeth Rata (2012), in her debatable campaign against Māori education.

The phrase 'smoke and mirrors' comes from the days of phantasmagoria and refers to an illusion for conjuring up apparitions, but today it is a metaphor for deceptive or insubstantial explanations. This image fits the seductive but slippery notion of including indigenous knowledge in the school curriculum, especially in teaching science. Yet this is an increasingly popular approach in Aotearoa New Zealand, as a way to fulfil expectations on schools and teachers to demonstrate culturally responsive pedagogy. Other theoretical apparitions emerge below, such as the 'crisis' in curriculum theory conjured up by Michael Young (2013), whose article is the focus of the next section. There are, however, additional reasons why 'smoke' and 'mirrors' are fitting title images for this chapter.

In Aotearoa New Zealand for over 30 years, since the mid-1980s inception of neoliberal influences, bicultural education policy has been used as a 'smokescreen' to distract attention away from wealth inequalities, and make individual schools and teachers responsible for Māori student outcomes (Lourie, 2016). The New Zealand Treasury (1987) reasoned that Māori student underachievement was caused by their lack of cultural self-esteem, due to several generations of Māori having been forcibly assimilated to the dominant settler culture, with schools playing an important role in the process. This 'lack of self-esteem' explanation conveniently overlooks ethnic wealth inequity, with Māori families concentrated in the lowest bands of the socioeconomic scales. Educational success has reliably been shown to be directly proportional to family income, so the statistical relative poverty of the Māori population

is effectively guaranteed to produce inequitable school outcomes. Bicultural education policy has therefore been useful to the state as part of a 'politics of distraction':

It continues to be the case that 30 years of bicultural education policy has not yet solved the persistent problem of the educational underachievement of Māori students in the compulsory school sector (Lourie, 2016, p. 643).

The attempt to include Māori knowledge in the school curriculum is like a mirror, in the sense that it tells the mainstream more about itself than about it does about Māori. This is the key point about interculturalism: whether bi- or multi-culturalism, it breaks the shackles of monoculturalism and allows us to 'see' our own culture, which monoculturalism renders invisible (Stewart, 2018b). The next section ties my work into the current field of curriculum theory, as represented by Young (2013). I present a critique of Young's article from my own perspective on curriculum theory, based on over two decades of teaching and research on the science curriculum for Māori-medium schools in Aotearoa New Zealand (Stewart, 2010a).

# 'Working the Ruins' of Curriculum Theory: Responding to Michael Young (Young 2013)

The scholarship of Michael F. D. Young is foundational in curriculum theory and educational sociology, beginning with his seminal work *Knowledge and Control* (M. Young, 1971) and continuing in recent articles such as Young (2013), which recommends a knowledge-based approach to 'overcome the crisis' in curriculum theory. Young's (2013) article is an interesting example of contemporary curriculum scholarship against which to clarify my own position as an indigenous Māori curriculum theorist, revisiting his arguments and noting our points of agreement and divergence. Young is an authoritative commentator on curriculum theory, and his reasoning is based in a comprehensive grasp of the field, from his lifetime of work within it. On certain points I agree with the substance of what he says, but not the slant that he gives it. I agree with most of his main conclusions, but not with all his reasons for reaching those conclusions, as the following discussion highlights.

Young (2013) starts with an overview of curriculum theory, as he understands it—its origins, models, and current status. He argues that today, curriculum theorists have neglected their key task concerning access

to knowledge through the school curriculum, a neglect he terms a "crisis" (p. 103). Young traces how the field of curriculum theory has shifted over time, from the original era of the "technicist model" of curriculum, with its "rigidities and aridities" (p. 104) associated with "Bobbitt, Tyler and Taba" (p. 104), towards "ideology critique" (p. 105), associated with the work of Michael Apple, William Pinar, and others. Their critique "made explicit the way that curricula are not given but always embody prevailing power relations" (p. 104, emphasis added), which Young describes as a focus on "knowledge of the powerful" (p. 104). Young's concern is that, in that shift, curriculum theory has tended to lose sight of "its primary object—what is taught and learned in school" (p. 105, original emphasis). As he writes:

A focus on 'knowledge of the powerful', despite its strengths, almost inevitably shifts the analysis from what goes on in schools to the distribution of power in the wider society and offers little either to teachers or to political movements seeking a more equitable approach to the curriculum. It made the assumption that the existing curriculum, based on 'knowledge of the powerful' could be replaced as a result of political changes—without providing any indication as to what such a new curriculum might be like. As politicians have found, in contexts not limited to education, on the few occasions in history when the Left have gained power, without such alternatives, they are reduced to some variant of the old models that they had previously opposed. (Young, 2013, pp. 104–105)

Young's first sentence, above, offers sound but unoriginal critique of the critical curriculum tradition. A weakness of any critical theory is its tendency to point out what is wrong without offering workable alternatives (Young, 1989). His second point is sledgehammer-like, since there is a diverse range of thinking within the traditions of critical curriculum studies, but in some cases (including in Māori science curriculum) the idea that key curriculum knowledge can be replaced at will has certainly been proposed, and this idea needs to be unpacked and challenged. Young's third sentence is one of several points in the article where he points the finger at 'the Left' but, ignoring that, the point about being 'reduced to some variant of the old models' certainly chimes true with my experience and observations of the field of critical curriculum research and scholarship.

One basic problem with Young's summary of curriculum studies is that a technicist model cannot, on principle, be replaced by one based on ideology-critique, because they are of different logical orders. It follows that we have never transcended the original era of technicist models of curriculum, based on modernist theories of knowledge: an argument articulated by Robert Young in his valuable book on critical theory of education (Young, 1989); and one that also explains why Science curriculum is so resistant to reform (Blades, 1997). Michael Young is of course correct to point to problems relating to knowledge in the curriculum, but his 'solution' of what he calls "powerful knowledge" is illusory. His ideas about "powerful knowledge" are far less contentious than he seems to believe. Has any curriculum studies scholar ever advocated denying a child access to key knowledge such as literacy and numeracy through schooling? Young's simplistic depictions of both "knowledge of the powerful" and "powerful knowledge" generate a reified binary (Gasché, 2007), which is inevitably an unsound basis for discussing the question of knowledge in the curriculum.

The above reasoning shows why it is unfair of Young to accuse curriculum theorists of neglecting their duties, because he is presenting a philosophical conundrum as if it were a clear-cut choice, or a matter of moral fibre on the part of the scholars concerned. This confusion seems to explain why Young blames 'the Left' for the curriculum debates: it is the only rationale left open, without seriously accounting for the effects of the seismic shifts in philosophy that have taken place in the last fifty years. These philosophical shifts have had ripple effects throughout the entire academy, including Education and its sub-disciplines, and in particular curriculum theory, given that the school curriculum is an inheritor of the Enlightenment 'knower' in relation to knowledge. Young's notions of "powerful knowledge" and "knowledge of the powerful" are inadequate representations of the real-world contexts of school curriculum, in all its remarkable complexity, so it follows that his ensuing points built on this binary are also skewed.

Nor do I consider it adequate for Young to argue that politics has displaced theory of knowledge in the evolution he outlines from technicist models of curriculum to ideology-critique. This is because his argument overlooks the fact that everything in education is 'always already' political, given his first principle of curriculum theory, highlighted above ("curricula are not given but always embody prevailing power relations" [p. 104]). Young is correct, in that epistemology, or theory of knowledge, became much more complicated after WWII, in a gradual, cumulative

process that has involved a loss of confidence in the modernist and Eurocentric traditions, especially in knowledge-based contexts such as school curriculum (Williams, 2001). This lack of confidence is manifested in what Young describes as "a fear of knowledge" (p. 107), commonly encountered in contemporary schools, and an example 'manifesto' written by a school to declare its intent to teach knowledge, appended to Young (2013). It is certainly sad to see schools come to this; to feel the need to write such a document. Young is surely correct to say that "curriculum theory needs a theory of knowledge" (p. 107)—otherwise, how could it be curriculum theory? My point is that Young need not blame 'the Left' for the curriculum debates, but rather must take heed of the downstream effects of the knowledge debates within disciplinary philosophy—how changes in epistemology have changed the entire academy AND the world at large, including politics and schools, and how those knowledge debates have ended up destabilising, but not replacing, traditional models of curriculum theory.

Young's reasoning actually demonstrates my main point: we have NOT transcended technicist models of curriculum, as he shows when he points out how his opponents invariably settle for "some variant of the old models". This acknowledgement that the school curriculum has not changed in essential outline, despite years of work in critical curriculum traditions, underlines the fact that the concept of curriculum is, itself, an outcome of the technicist way of thinking about knowledge, and gives the lie to the idea that changing the knowledge taught in the curriculum can overcome social injustice. As Young succinctly remarks, "no curriculum can, on its own, reduce educational inequalities" (p. 114). This is a point that I pick up again below.

Young outlines two consequences of what he styles as curriculum theory's "loss of object": First, that it has opened the field up to:

a whole range of writers in philosophy, literature and cultural studies who raise serious questions about culture and identity in modern society but have little specific to say about the school curriculum. The second consequence is that governments and curriculum designers—at least in the United Kingdom, pay less and less attention to curriculum theorists as specialists in the curriculum field. (Young, 2013, p. 105)

Here I share the frustration that Young seems to express in the first sentence, though deflecting his complaint about recent diverse curriculum scholars, recognising that I am probably among those to whom Young refers. The curriculum research literature is replete to overflowing with theoretical excursions about what must change in what is taught in schools, but not nearly enough research is available that demonstrates examples of successful curriculum reform. Yet great expectations are placed on schools to achieve social change (see the following section, below). It is also easy to agree with Young's second consequence, since educational research seems invariably at risk of disconnection from national curriculum policy processes. Nevertheless, Young's 'crisis' is more like an apparition, conjured up seemingly in order to act as rationale for advocating his "knowledge-based approach to the curriculum" (pp. 109–111), which seems to be a case of 'back to the future', based as it is on the standard principles of curriculum theory.

In this article (as elsewhere), Young recants his own radical past, explicitly referring to having "spent too much time on the political question" (p. 107). He takes a defeatist position, advocating the traditional curriculum despite acknowledging its problems. "At least a knowledgebased curriculum will highlight and not mask the inequalities in our society as so called pre-vocational programmes invariably do" (Young, 2013, p. 115). This conclusion is ethically unsound, since it seems willing to sacrifice even more students to educational failure on the altar of curriculum purity. This statement also contradicts Young's professed social justice motivation in this article concerning the entitlement of all school students to access "powerful knowledge". Students who do not succeed at school do not access the "powerful knowledge" to which they are entitled, but instead learn powerful lessons about being failures. In a rather shocking admission, Young acknowledges this mass failure as "the inescapable practical dilemma of mass secondary education, at least in western capitalist societies" (p. 112), but this not only destroys his ethical position, it also reduces his entire argument to clarification of how he is using the phrase "epistemic access".

In his last section titled "Political objections", Young again names "the Left" and adds "the poststructuralists" as among those who oppose curriculum proposals based on disciplinary knowledge. This is because, Young asserts, they accept

by implication, the relativist argument that there is no such thing as 'powerful knowledge' that is represented by subjects which should therefore be the entitlement of all pupils to have access to. They assume that 'access to subject knowledge' can be discarded as a priority for perhaps a third of each cohort by the age of 14 or 16 on the grounds that those pupils are not interested or find it too difficult or that it puts impossible demands on teachers. (p. 114)

This passage underlines the philosophical weakness of Young's argument. In the first sentence he invokes the familiar binary of universalism and relativism, much discussed in science education and other curriculum contexts (Siegel, 2001, 2002). In the second sentence, he presents a typical extreme version of the relativist position, while capturing the anxiety of classroom teachers made responsible for overcoming intransigent inequities created by macro-level socioeconomic processes (Thrupp, 2008). Contemporary curriculum theory is especially complex and vulnerable to such confusion, given the unresolved nature of the knowledge debate, which emerges in different domains with varying specific emphases. For some reason, many pro-universalism scholars such as Young almost always misrepresent their opponents' positions, as if they have either not read or not understood their work. This weakness is also demonstrated by Elizabeth Rata in relation to her critiques of Māori education (see Stewart & Devine, 2019). In reality, relativism is far more nuanced than Young admits, and ranges from weak to strong (Herrnstein Smith, 2005). Relativism objects to and seeks to ameliorate the imperialist consequences of universalism, since commitment to universalism ultimately denies the right to cultural difference, such as expressed in Māori identity politics (Walker, 2016). Unchecked, universalism readily slips towards cultural assimilation, which acts as cover for a form of political and philosophical supremacy. To address these imperialist weaknesses is not at all to discard the entire edifice of scientific and academic knowledge, nor to say that it can be replaced by other knowledge (such as Māori knowledge—depending on what we mean by this). Young seems to forget that a weak version of relativism is required in order to identify as Māori. His universalist arguments lead to cultural assimilation, which a Māori person experiences as annihilation of one's symbolic self. For this reason, critical Māori curriculum theorists—including me—sit to the relativist side of Young on the universalism-to-relativism theoretical continuum.

It is poignant to critique this article by an elder scholar who blames 'the Left' for curriculum debates, thereby revealing the influence of politics on his own thinking, while scolding curriculum scholars, in general,

for allowing politics to have too much influence in their field. The question of knowledge in the school curriculum is one of the most reflexive of all debates, and notwithstanding disagreements, it is vital to recognise the value of Young's work, thus evoking the post-structuralist metaphor of "working the ruins", used above in the section title (St. Pierre & Pillow, 2000). While I believe Young is basically correct to advocate for a curriculum based on disciplinary knowledge, I think he presents his argument back to front, because a curriculum not based on disciplinary knowledge is arguably not a 'curriculum' at all. To criticise the school curriculum because it sorts pupils according to their success at learning misses the point—this is what schools and curricula are designed to do. A more critical concept that sees 'curriculum' as the product of an underlying technocratic way of thinking about knowledge logically entails that 'curriculum knowledge' means the important knowledges required to function in society and achieve personal potential. The keys to this knowledge are often referred to as 'literacy and numeracy'—which I take to mean critical competence in reading and writing a range of textual and numerical information.

It makes sense to focus on Young's three gems of curriculum wisdom, which, taken together, provide a useful basis for discussing Māori knowledge in the curriculum in the next section. Young's three principles are:

- curricula are not given but always embody prevailing power relations
- curriculum theory needs a theory of knowledge
- no curriculum can, on its own, reduce educational inequalities (from Young, 2013).

### Māori Knowledge in the School Curriculum

Young's first principle encapsulates the essence of critical curriculum theory. Curricula are not 'given'—they are not natural or universal phenomena. Māori curriculum theory is a type of critical curriculum theory, and this principle applies to Māori education as much as any other type of education. Curricula always embody prevailing power relations, which means the ubiquitous influence of politics in education. This principle makes great sense, but only within the context of contemporary Western education: it would have little meaning, for example, within

a pre-European Māori community. Taken seriously, therefore, this principle challenges the conceptual coherence of the notion of a 'Māori curriculum'—showing it to be a conundrum: an idea with contradictory aspects.

In terms of Young's second principle, what theory of knowledge underpins the approach of including Māori knowledge in the curriculum? 'Māori knowledge' is a form of 'indigenous knowledge' from Aotearoa. Both terms are 'umbrella' terms, in the sense that they group together a range of disparate forms of culture: 'indigenous knowledge' is generic, but 'Māori knowledge' though relatively restricted in scope, also depends on the post-colonial ethnic category of 'Māori', which was invented in Aotearoa in about 1850, in response to the influx of British colonisers (Walker, 1989). Pre-European Māori identities (and therefore knowledges) depend on tribal kin groupings, and all things Māori have been under pressure from colonising forces for around 200 years. So the first difficult task is to define Māori knowledge, but the two above factors—its 'umbrella' (i.e. non-standard) nature, combined with 200odd years of subjugation-mitigate against being able to do so satisfactorily in cultural terms OR to an acceptably 'standardised' degree, as required (for instance) for a national curriculum. Classroom teachers are expected to make learning objectives explicit for each lesson. What would explicit learning objectives look like for Māori knowledge, and how would teachers assess work based on Māori knowledge? These 'thought experiments' help to clarify the practical problems involved.

Māori knowledge is so different from standard curriculum knowledge that thinking of a curriculum based on Māori knowledge seems almost to betray its indigenous essence. What is possible or practical differs according to curriculum subject area, yet all subjects are treated as if they are the same. The problems of incompatibility are most severe in subject Science, given its emphasis on naturalistic 'facts' and its basis in the scientific paradigm, but other subjects face similar problems. This is why the Māori-medium curricula have ended up being largely translations of the English-medium curricula (Stewart, 2012). This paragraph speaks back to Young's (2013) dismissive assertion that critics of standard curricula seek wholesale replacement of knowledge content. From a Māori perspective, it would be more accurate to say that critics of standard curricula seek for them to be modified, not replaced.

If (and it is a big 'if') we can agree on what Māori knowledge is and provide access to it, the next question is whether and how it can be

included in the school curriculum: what would this mean in practice? Simply adding items of Māori knowledge into a teaching programme is problematic—liable to distort the Māori knowledge, perhaps by definition invoking caricatures or cartoon versions by cutting indigenous knowledge away from its original cultural contexts and webs of meaning with corresponding fields of practice. Notwithstanding the severe practical difficulties, I argue that the idea of replacing Western knowledge in the Science curriculum with Māori knowledge is impossible on principle, an apparition produced by foggy thinking, and any attempt to, for example, teach rongoā (traditional plant medicines) instead of basic chemistry, will fail (Stewart, 2010b). On this matter I agree with Young's main point that school curriculum necessarily must be based on disciplinary knowledge, since any alternative, despite its attractions, is as insubstantial as the rainbow.

What is considered 'Māori knowledge' varies widely, but could include any combination of the following list of knowledge types:

- Māori language
- Māori values
- Māori facts
- Māori metaphors
- Māori narratives
- Māori perspectives

Clearly some items on this list can conceivably be included in class-room curricula in different ways. The extent to which each item could be included varies according to school type, subject, and class level. For example, Māori metaphors and narratives (which carry Māori values) can be used as examples in otherwise 'standard' curricula, as they are in programmes of literacy and subject English. Māori perspectives (which carry all things Māori) can be used in managing the learning environment, and as examples or sources of critical views in English, art, social studies, etc. Māori language can and should be part of every classroom as a national official language (Stewart, 2014). In some schools, te reo Māori is a medium of instruction, in some it is studied as a distinct subject, and in some schools it is a community language, occurring as part of normal classroom discourse. Understanding the meaning of 'Māori facts' is more difficult: it may be taken as part-and-parcel of the other items in the list,

or it may be taken to mean the same as 'facts'. In short, including 'Māori' content is both a political and an educational intervention, and even very small modifications in classroom curriculum can make a significant difference for Māori students. Judicious inclusion of Māori knowledge in the classroom curriculum is an enrichment exercise: a matter of 'both-and', not 'either-or'.

Young's third principle is that no curriculum can overcome educational inequalities, which is a key insight, but one he uses to justify abandoning altogether the attempt to design curricula that ameliorate traditional inequities in school outcomes. This seems like another example of black-and-white thinking. The wisdom of this principle is that we cannot expect too much of curriculum, but since, as Young argues at the start of his article, curriculum questions must be re-thought anew by each generation (and in each social context), it follows that some possible curricula must lead to better outcomes than others. This process of re-thinking is surely core business for curriculum theorists.

The current policy of including Māori knowledge in the school curriculum is a good test-case for this principle. The well-documented history of Māori education makes sense of the current trend towards a policy to legally enforce the inclusion of Māori knowledge in the school curriculum in Aotearoa New Zealand (Penetito, 2010). A national identity built on a primary bilateral relationship between Māori and Pākehā Treaty partners and a longstanding reputation for "the best race relations in the world" (Human Rights Commission, 2017) are part of the landscape in which biculturalism has flourished in education and the arts. in a safer and more liberal social context than almost any other. The strength of the state school system, combined with the recognition of the key role that schools had played in earlier generations to endanger te reo Māori, are among the factors in why Māori education is almost an obsession in Aotearoa New Zealand, and also a local sub-field of scholarship, albeit one defined by deficit (Ewing & Shallcrass, 1970). While most Māori academics know that almost all Māori families share a history of being unfairly evicted or cheated of their traditional economic land bases, the national myths of egalitarianism and the 'level playing field' of state schools serve to lull Pākehā into a sense of secure superiority, based on social amnesia (Novitz & Willmott, 1989). According to this 'common sense' in New Zealand, Māori were 'lucky' to be colonised and should be 'grateful' to Pākehā (The Spinoff, 2018).

Māori advice to the state school system has always been about the need to better understand their Māori students, but given this strong national amnesia about the history of oppression of Māori, the message is interpreted as meaning that ALL schools must teach Māori language and culture. The growth of a small but successful Māori language school sector in the last 30-odd years, ironically alongside the trajectory of economist and neoliberal influence in education (Stewart, 2018c), has triggered a positivist policy reaction, which is understandable but nevertheless depressing in its illogic. This policy seems to suggest that since Māori-medium schools teach much more Māori language and culture than 'mainstream' state schools, it follows that teaching more Māori language and culture in English-medium schools will improve the outcomes of their Māori students. I recently witnessed Ministry of Education policy staff summarising discussions about the potential of biculturalism in education by writing "the whole of te ao Māori [the Māori world] must be included in schools"—a well-meaning phrase that nevertheless sent shivers down my spine, given its shadow image of symbolic annihilation. The success of the Māori language schools derives from the fact that Māori people run the school and Māori families are involved in their children's education (Tākao, Grennell, McKegg, & Wehipeihana, 2010). The Māori schools are Māori-centred in a way that English-medium schools simply are not: many Māori parents stay away from their children's schools because of their bad memories from their own school days.

The confusion over knowledge that Young argues has created a curriculum "crisis" is certainly evident in this debate. There is a fine line but huge difference between 'replacing' curriculum knowledge with Māori knowledge, and 'enriching' curriculum with Māori knowledge. The ideologies taught as national history in schools in Aotearoa New Zealand must be addressed (Stewart, 2018a). Moreover, bicultural education policies cannot, on their own, do much if anything at a statistical level to reduce Māori inequity. Such policies may help open the door to learning for Māori students, but cannot replace the role of literacy and numeracy in ensuring an individual student's success in life. Māori-medium schools are keenly aware of the importance of literacy and numeracy, and aim for bi-literacy or mastery in both languages.

#### Conclusion

To include Māori knowledge in the school curriculum fits under the umbrella of 'good teaching practice'—but perhaps not if enforced by legislation, since being 'forced' to teach anything seems at odds with the ideals of classroom 'best practice'. Some claims about adding Māori knowledge to the school curriculum are unrealistic about what such initiatives could possibly achieve in terms of Māori equity, and these claims are sometimes based on the false idea that all knowledge is equal. The debates about knowledge in the school curriculum are complex, but Young's three principles work together with Kaupapa Māori research principles to guide a nuanced yet optimistic approach to unpacking this complex curriculum issue. Māori knowledge has endless potential to support and enrich traditional curriculum frameworks.

### REFERENCES

- Bell, A. (2014). Relating indigenous and settler identities: Beyond domination. New York, NY: Palgrave Macmillan.
- Blades, D. W. (1997). Procedures of power and curriculum change: Foucault and the quest for possibilities in science education (Vol. 35). New York: Peter Lang Publishing.
- Ewing, J., & Shallcrass, J. (Eds.). (1970). Introduction to Māori education. Wellington: New Zealand University Press.
- Gasché, R. (2007). The honor of thinking: Critique, theory, philosophy. Stanford, CA: Stanford University Press.
- Herrnstein Smith, B. (2005). Scandalous knowledge: Science, truth and the human. Edinburgh: Edinburgh University Press.
- Human Rights Commission. (2017). Race relations commissioners and conciliators mark significant anniversary. Retrieved from https://www.hrc.co.nz/ news/race-relations-commissioners-and-conciliators-mark-significant-annive rsary.
- Lourie, M. (2016). Bicultural education policy in New Zealand. Journal of Education Policy, 31(5), 637-650. https://doi.org/10.1080/02680939. 2016.1159339.
- Ministry of Education. (2011). Tātaiako: Cultural competencies for teachers of Māori learners. Wellington, New Zealand: Crown copyright.
- New Zealand Treasury. (1987). Government management: Brief to the incoming government, Vol 2, education issues. Wellington: New Zealand Government.
- Novitz, D., & Willmott, B. (Eds.). (1989). Culture and identity in New Zealand. Wellington: GP Books.

- Penetito, W. (2010). What's Māori about Māori education?. Wellington, New Zealand: Victoria University Press.
- Rata, E. (2012). Theoretical claims & empirical evidence in Māori education discourse. *Educational Philosophy and Theory*, 44(10), 1060–1072. https://doi.org/10.1111/j.1469-5812.2011.00755.x.
- Siegel, H. (2001). Incommensurability, rationality, and relativism: In science, culture and science education. In P. Hoyningen-Huene & H. Sankey (Eds.), *Incommensurability and related matters* (pp. 207–224). Dordrecht: Kluwer.
- Siegel, H. (2002). Multiculturalism, universalism, and science education: In search of common ground. *Science Education*, 86, 803–820.
- St. Pierre, E. A., & Pillow, W. S. (Eds.). (2000). Working the ruins: Feminist poststructural theory and methods in education. New York: Routledge.
- Stewart, G. (2010a). Good science? The growing gap between power & education. Rotterdam, The Netherlands: Sense.
- Stewart, G. (2010b). Language issues in Māori chemistry education. *AlterNative*, 6(1), 66–71.
- Stewart, G. (2012). Achievements, orthodoxies and science in Kaupapa Māori schooling. New Zealand Journal of Education Studies: Te Hautaka Matai Matauranga, 47(2), 51–63.
- Stewart, G. (2014). Te reo Māori in classrooms: Current policy, future practice. set: Research information for teachers, set2014(3), 3-7.
- Stewart, G. (2018a). Accurate histories, critical curriculum: A conversation with Tamsin Hanly. *Curriculum Matters*, 14, 69–86. doi:10.18296/cm.0030.
- Stewart, G. (2018b). From both sides of the indigenous-settler hyphen in Aotearoa New Zealand. *Educational Philosophy and Theory*, 50(8), 767–775. doi:10.1080/00131857.2016.1204904.
- Stewart, G. (2018c). Te whai mātauranga: he painga mō te tangata kotahi pea, mō te iwi katoa rānei? Education: A private commodity, or a public good? *New Zealand Journal of Educational Studies*, 53(2), 165–176.
- Stewart, G., & Devine, N. (2019). A critique of rata on the politics of knowledge and Māori education. *Waikato Journal of Education*, 24(1), 93–101. https://doi.org/10.15663/wje.v24i1.665.
- Tākao, N., Grennell, D., McKegg, K., & Wehipeihana, N. (2010). *Te piko o te māhuri: The key attributes of successful Kura Kaupapa Māori*. Retrieved from https://www.educationcounts.govt.nz/\_\_data/assets/pdf\_file/0005/81158/954-KWA-English-21092010.pdf.
- The Spinoff. (2018). Bob Jones and NBR divorce over 'Māori Gratitude Day' column. Retrieved from https://thespinoff.co.nz/media/07-02-2018/bobjones-and-nbr-divorce-over-maori-appreciation-day-column/.
- Thrupp, M. (2008). Secondary teaching, social contexts and the lingering politics of blame. Retrieved from http://www.cpag.org.nz/assets/Presentations/Politics%20of%20blame.pdf.

- Walker, R. J. (1989). Māori identity. In D. Novitz & B. Willmott (Eds.), Culture and identity in New Zealand (pp. 35–52). Wellington: GP Books.
- Walker, R. (2016). Reclaiming Māori education. In J. Hutchings & J. Lee-Morgan (Eds.), Decolonisation in Aotearoa: Education, research and practice (pp. 19–38). Wellington, New Zealand: NZCER Press.
- Williams, M. (2001). Problems of knowledge: A critical introduction to epistemology. Oxford and New York: Oxford University Press.
- Young, M. (1971). Knowledge and control: New directions for the sociology of education. London: Collier-Macmillan.
- Young, M. (2013). Overcoming the crisis in curriculum theory: A knowledge-based approach. *Journal of Curriculum Studies*, 45(2), 101–118. https://doi.org/10.1080/00220272.2013.764505.
- Young, R. (1989). A critical theory of education: Habermas and our children's future. New York: Harvester Wheatsheaf.