# TEACHING FOR ENTERPRISE AND THE CURRICULUM: SHAPING THE WORLD FASTER THAN WE CAN CHANGE

COLIN GIBBS
AUCKLAND UNIVERSITY OF
TECHNOLOGY

ABSTRACT: Over the last few decades, the political agenda has been to gear education towards producing citizens who are capable of competing in an international marketplace.

One purpose of the New Zealand Curriculum Framework (1993) is to outline the ways in which the curriculum can balance "the interests of individual students and the requirements of society and the economy" (p. 1).

In the fullness of such a goal, students will need to demonstrate self-efficacy for enterprise.

In turn, teachers will need to value enterprise in their students, and to teach in ways that show that they believe they can impact on students' willingness and capability to be enterprising.

Is this the case in our schools? The evidence suggests, as Churchill put it, that "we are shaping the world faster than we can change ourselves, and we are applying to the present the habits of the past" (Walsh, 1993, p. 21).

#### **INTRODUCTION**

Education has witnessed quite remarkable change over the last few decades. It seems that a fundamental agenda, in its various guises, is that New Zealand needs to compete in an international marketplace, and education ought to serve this need. The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa (1993) seeks to harness those skills and attitudes considered as essential to achieve this end. What the country needs, the document claims, is a "workforce which is increasingly highly skilled and adaptable, and which has an international... perspective" (p. 1). This curriculum will enable students "to participate effectively and productively in New Zealand's democratic society and in a competitive world" (p. 3). As such, it requires schools to prepare citizens who are capable and predisposed towards generating new solutions and taking calculated risks within local and global marketplaces. By necessity, then, these new citizens need to be skilled information-seekers, competent critical and creative thinkers, motivated self-regulated learners, highly self-efficacious problem-solvers, and enterprising individuals. In simple terms, the intention seems to be that by changing the curriculum of schools to emphasise enterprise, teachers will need to teach towards these ends, and as a result, students will demonstrate more enterprise. The evidence, however, suggests that this may yet be far from being realised.

#### **ENTERPRISE AND ENTREPRENEURSHIP**

Enterprise often is confused with entrepreneurship. Entrepreneurship is understood to imply developing new ideas (new products, new services, and the like) for the purpose of gain (usually, but not necessarily, financial). In the less flattering sense, entrepreneurship sometimes is used to mean "making a quick buck" or to refer to someone as a "wheeler-dealer". As will be discussed later, this confusion between enterprise and entrepreneurship causes some teachers to express considerable reserve about promoting either enterprise or entrepreneurship through learning in students. For the purposes of this present discussion, enterprise is defined as a preparedness to create new solutions, or to generate alternative ways of maximising opportunities or overcoming problems. In this sense, enterprise focuses primarily upon the cognitive and creative capabilities of students to generate new or alternative ideas, rather than necessarily on the exercise of making personal or commercial gains through developing ideas into ventures. Demonstrating enterprise is a necessary but insufficient condition for entrepreneurs. It is possible to demonstrate enterprise without being entrepreneurial. Enterprise, in this sense, is not limited to those engaged in entrepreneurial activity.

Consistent with this definition, key attributes associated with enterprise behaviour include motivation for achievement and autonomy (Caird, 1992; Low & MacMillan, 1988), innovativeness (Bandura, 1997; Caird, 1992), exercise of cognitive control (Bandura, 1997), creative tendency (Brockhaus, 1982; Caird, 1992), goal-directed behaviour (Bird, 1988), intuitive-holistic thinking or vision (Bird, 1988), calculated risk-taking (Brockhaus, 1980), intuition (Caird, 1992), and tolerance of ambiguity (Schere, 1982). To this, I would add self-efficacy for enterprise.

Self-efficacy for enterprise is the self-belief that students have about their capability to be enterprising. Teachers are instrumental in valuing and promoting self-efficacy for enterprise in students, and especially through teaching in ways that demonstrate that they believe they can impact positively on students' willingness and capability to be enterprising.

#### THE NEW ZEALAND CURRICULUM AND ENTERPRISE

The Essential Learning Areas outlined in *The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa* (1993 emphasise enterprise behaviour. To illustrate, in the Essential Learning Area of Technology "students will develop the capability to design and make, and to improve objects, systems, and environments in order to solve problems..." (p. 13). In the Essential Learning Area of The Arts, students will "work individually and cooperatively, to explore, to generate, to shape and to communicate their ideas in creative ways" (p. 15).

Furthermore, the eight Essential Skills that traverse the Essential Learning Areas within *The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa* (1993) explicitly emphasise enterprise. Analysis of three of the Essential Learning

Areas, for instance, indicates an array of indicators that relate to enterprise (see Table 1).

### SELF MANAGEMENT AND COMPETITIVE SKILLS

- show initiative, commitment, perseverance, courage, and enterprise
- adapt to new ideas, technologies, and situations
- develop constructive approaches to challenge and change, stress and conflict, competition, and success and failure
- achieve self-discipline and take responsibility to their own actions and decisions

#### INFORMATION SKILLS

- identify, locate, gather, store, retrieve, and process information from a range of sources
- organise, analyse, synthesise, evaluate, and use information
- identify, describe, and interpret different points of view, and distinguish fact from opinion

#### PROBLEM-SOLVING SKILLS

- think critically, creatively, reflectively, and logically
- exercise imagination, initiative, and flexibility
- identify, describe, and redefine a problem
- analyse problems from a variety of different perspectives
- make connections and establish relationships
- inquire and research, and explore, generate, and develop ideas
- try out innovative and original ideas
- design and make
- test ideas and solutions and make decisions on the basis of experience and supporting evidence
- evaluate processes and solutions

Table 1 Indicators of Enterprise in Three Categories of Essential Skills in The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa (1993, pp. 17-20).

#### TEACHERS' AND STUDENTS' SELF-EFFICACY FOR ENTERPRISE

Findings from social cognitive research suggest that teachers' self-efficacy beliefs relate positively to teacher effectiveness (Gibbs, 2002). Research demonstrates that self-efficacy is a powerful predictor of behaviour (see for instance, Bandura, 1977a, 1977b, 1982, 1997; Scherer, Brodzinski, & Wiebe, 1990). Self-efficacy helps explain the choices that people make, their aspirations, efforts and perseverance even when the odds seem stacked against them.

Such beliefs in one's capability helps us explain why individuals demonstrate enterprise. Self-efficacy for enterprise mediates between what a person knows about and can do in terms of enterprise, and whether they are willing to be enterprising. Self-efficacy for teaching enterprise is the personal belief that one is capable of teaching in ways that enable students to be more enterprising in their thinking and actions. This present paper draws on data gathered from a sample of urban secondary teachers and students across schools and year levels in Auckland and Wellington. Initial interviews were conducted with senior teachers with the overall curriculum responsibility in each of three Wellington region secondary schools (coeducational; single sex; single sex). The main focus of these interviews was on the place of enterprise within the curriculum. Interviews were taperecorded and subsequently transcribed. Based on this information, a questionnaire was developed which was completed by 26 teachers in a large Auckland secondary school. A further questionnaire on enterprise, piloted in the same Wellington schools, was completed by students in the same Auckland secondary school whose teachers had completed the teacher questionnaire. While these student data are not reported here, the questionnaire attracted 141 usable responses. These data include teachers' and students' knowledge about, orientations towards, and selfefficacy in being enterprising. Analysis of the teachers' data revealed nine main themes. These are discussed in turn.

#### VALUING ENTERPRISE

In spite of the intent of the curriculum document, the participating teachers remain ambivalent about the place of teaching enterprise in the curriculum. This is illustrated by a Deputy Principal of a girls' secondary school who explained that teachers' perceptions about enterprise as an emphasis in the curriculum are strongly influenced by the values held by students' parents, and that schools were expected to reflect these. She said:

a lot of students—personally-based or whether it is coming from their parents-- have a strong academic focus. The girls when they leave here all want to be rich... the difference is, they would expect the way to get rich is to go to university and get a good degree. In other words, they would expect to get a good education, and by virtue of the fact that they are lawyers or doctors, they'll then get rich. Students in previous schools I've been in, would expect to get rich by coming up with a wonderful idea... [in] the previous school I

was in [a tourist location] all the kids basically felt that the way to success was from bright ideas. They were far more enterprising, but they came from a culture of enterprise. The whole town was based on the self-made person coming up with the right idea, putting in the hard work.

The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa (1993) makes the point that "no schooling is value-free" (p. 21). Yet, the view that money derived from qualifications was contrasted with that derived from enterprise highlights an important value position. Enterprise, she said, is viewed as "dirty money because they've proved that [clean money] is got through intellectual effort, whereas non-intellectual effort by some is not so highly valued". And, in the context of her school, it was her view that enterprise "skills haven't been highly valued".

## ACADEMIC EXCELLENCE AND TEACHING FOR ENTERPRISE

The data indicated that teachers seem to struggle with what they see as a tension between teaching for academic excellence and teaching for enterprise. As a Deputy Principal of a boys' secondary school said:

our teaching approach is relatively structured as we focus on the academic side of things and the passing and doing well in national exams - unashamedly one of our priorities. I guess that always is opposite to developing enterprise or thinking outside the square type of thing.

And, in a similar vein, a Deputy Principal of a large secondary school for girls said that:

I personally think there is heaps of scope provided you are prepared to sacrifice the academic and I mean for me, it is a trade-off because when you are developing skills, it's a time-based thing. To develop a skill effectively or a series of skills, you can't cover the content, or the knowledge. Some people would see that enterprise removes energy from [the] academic. I mean, there's that idea that if you're producing academic excellence, then it's your prime focus and then all your energy then goes into ensuring that the students get the knowledge and the skills that allow them to perform well academically.

A further tension arises from needing to satisfy compliance reporting on the one hand, while on the other hand needing to teach students to live as effective citizens. A Deputy Principal of a co-educational school expressed this frustration:

First, we've got to meet the curricula requirements which, nowadays, are the NZQA requirements. And the other one is, how do we turn this lovely bunch of people into better human beings with better ideas about what society is about.

#### **EQUIVOCATION IN TEACHING ENTERPRISE**

The participating teachers expressed some equivocation about teaching enterprise. One reason relates to the unpredictability of outcomes on students' learning and lives. As a Deputy Principal of a co-educational school said:

I think you can teach people anything, but you may not actually end up with what you intended. So, yes, I think [enterprise] can be [taught], but I don't think it's an easy thing, or predictable.

Another Deputy Principal (of a Secondary Boys School) saw some difficulties in teaching enterprise:

You can see the idea of everyone coming out and being competitive in an international sense - how do you teach that? I'm not sure. It's a matter of having students thinking for themselves independently and that sort of thing

#### THE UTILITY OF TEACHING ENTERPRISE

A Deputy Principal from a co-educational school with a significant number of Decile 2 students expressed a dilemma he perceived in teaching enterprise. On the one hand, he made the point that most students entering his school would not be up to competing on academic league tables. On the other hand, being able to compete in an international marketplace:

means nothing to us... I think the Decile 2 group that comes here, comes hungry, so all we try to do is teach them about survival techniques, and do enough work with the agencies so that they may be able to survive. The idea of our kids competing in the global economy - great words! Fantasy stuff!

He also questioned the relevance of teaching enterprise when he considered that many students are destined to end up as employees, such as in the catering and hospitality trades, rather than as employers. He pointed out that:

a lot of our kids are second and third generation of employees [rather than employers]... so there is quite a lot of work to do in that area; overcoming family expectations and so on. [Therefore] it's a different sort of enterprise than the way most teachers would see it.

#### SECONDARY TEACHERS TEACH SUBJECTS, NOT ENTERPRISE

The Deputy Principal of a boys' secondary school also saw a problem in teaching enterprise in that secondary teachers typically were considered to be teachers of subjects:

I think a lot of teachers are experts in a particular teaching field - we teach the subject without necessarily being enterprising, or encouraging enterprise.

So too, did the Deputy Principal of a co-educational secondary school, who commented that:

the only thing that often separates the teacher out from the non-teacher is that the teacher has knowledge of a content area to the extent that other people in the community might not. A maths teacher is someone who [teaches out of their knowledge in] maths studies.... So I think most teachers go out to teach content.

#### **SCEPTICISM ABOUT TEACHING ENTERPRISE**

One common view that emerged was that by emphasising enterprise, students would develop other less congenial attributes. As a Deputy Principal of a large coeducational secondary school said:

there's always a danger that becoming too entrepreneurial can be obsessively individualistic. That's the fear of teachers I think.

Whether such fears are justified does not alter the fact that they exist in some teachers' thinking, as does the confusion between enterprise and entrepreneurship.

Ultimately, whether qualities of enterprise are either highly regarded or frowned upon depends to a large extent on teachers' beliefs, and the socio-cultural environment in which those judgements are being made. Suffice to say that in nearly all developed and numerous developing countries, the personal and group characteristics associated with enterprise are highly regarded and little is spared to teach for both enterprise and entrepreneurship.

#### STUDENTS AND UNBRIDLED ENTERPRISE: AN UNHEALTHY REALITY

Human nature being what it is, some students will engage in activities which demonstrate enterprise and are entrepreneurial, albeit undesirable. Such instances are presented by some teachers as case example for why enterprise and entrepreneurship ought not be emphasised in the curriculum. To illustrate, a Deputy Principal of a co-educational secondary school related a cautionary commentary about an aspect of enterprise among a number of his students:

Drug-dealing... quite a lot of drug dealing goes on round here... a lot of our kids are involved in that. In terms of crime there's a lot of entrepreneurial behaviour. There are specific groups of kids who come to this school who specialise in car radios, and another group that specialises in shops in the evenings and there are the drug dealers and those who have connections in different places. Probably a core of about 40 of our kids are involved in these activities in some way or another, and probably about 60 hangers-on who act at a lower level—sort of employees of the others. There were probably about five or six who last year heavily represented the crime scene in [this city].

#### **BARRIERS TO TEACHING ENTERPRISE**

Academic school leaders in this study reported that they were aware of enterprising teachers in their schools. A Deputy Principal of a secondary school for girls said that:

I think there are members of the staff that are by their natures, also enterprising individuals. So they're feeling empowered to also take more risks—and to be more innovative and to be more enterprising.

Likewise, a co-educational Deputy Principal said that:

there are individuals on the staff who do entrepreneurial things, but they're not answerable to the syllabus they work under. The vast majority of staff do their job as they see it.

He saw the barriers to teaching enterprise as being "time, expertise, desire, and resources". Indeed, some teachers resisted change.

If you've worked in the "manual" department for over twenty years, there's been no real incentive for you to do anything but teach the course to the students.

But this Deputy Principal also pointed out that the political and group collectivism of teachers impacted on how and whether teachers would teach enterprise. As he said, "teachers are traditionally a holistic group who don't believe in competition in a big way".

The stress of teaching inevitably influences teachers' self-beliefs to be enterprising, and to teach students to be enterprising. For example, a secondary female teacher with 8 years teaching experience specialising in art reported that she used to believe that she could get what she wanted from life through hard work, but she no longer believed this. As a consequence, she felt that her self-efficacy to teach enterprise had eroded and she was now less confident that she was able to make a difference in the thinking of students about enterprise. This scenario parallels those reported by Cohen-Evron (2002) about the difficulties in retaining art teachers in the public school system. Another female teacher with fourteen years language teaching experience said that she managed to resist this tendency for complacency by deliberately interacting with teachers who she considered to be innovative.

Certainly, many secondary teachers in the study believe they are prepared to be entrepreneurial, if given the chance. When asked if they had a good idea for making money they would be willing to borrow to help it happen, thirteen out of twenty-five (52%) secondary teachers agreed, whereas seven (28%) were equivocal, and five (20%) disagreed. Likewise with regard to enterprise, secondary teachers (n=17; 68%) reported that they believe they prefer to try out new ways rather than rely on doing things in the usual way. Indeed, twenty (80%) believed they were

capable of thinking up new enterprising ideas, fifteen (60%) believed that they were sure they were capable of making their new ideas work, and twelve (48%) were sure that they would be prepared to take risks with their new ideas.

#### A DILEMMA

To achieve the ideological motives of The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa (1993, there continues to be political and societal pressure on teachers to change. At the same time, the voices of teachers highlight that educational change inevitably succeeds or fails at the chalk-face. As Deputy Principal from a girls' secondary school said, teaching enterprise confronts teachers in that "it creates a tension, because [some teachers] then feel threatened and they can see a cultural change occurring and they're being challenged by it". The first step towards change is to identify the barriers to change that exist. These include time, energy, expertise, unanimity of purpose, beliefs, and resources. Teachers are traditionally portrayed as a holistic group who do not commit to unnecessary competition. As such, the ideological and group collectivism of teachers is a potent force that significantly influences how and whether teachers embrace the task of teaching enterprise as an integral part of the curriculum. As the debate rolls on, the following reflections from a Deputy Principal of girl's secondary school may serve more than mere soliloguy. They may reflect the wider view held amongst the vast majority of teachers - a view that must be heeded:

> Do I want to change? What's in it for me? If I'm very successful in my classroom doing what I am doing, why should I have to introduce enterprise? If [teachers] don't value it, then it's never going to happen - they'll resist it. It could be opposed in legislation. I mean, that's partly what the Government's done in terms of the current curricula -- they have imposed curricula change. My personal viewpoint again is that it doesn't really work in the classroom - people don't ultimately change their practice; they throw a little bit in. They can tick off their achievement objectives, but in reality it doesn't change what is going on in the classroom.

Teachers, as the repository of political and public aspirations and hope, clearly remain equivocal about the place of enterprise within the curriculum they teach. For as much as this remains the case, the political intent regarding enterprise in *The New* 

Zealand Curriculum Framework Te Anga Marautanga o Aotearoa will fail to be realised.

#### **FINAL COMMENT**

The New Zealand Curriculum aims to prepare citizens who are able to demonstrate enterprise in an international marketplace. The Essential Learning Areas in *The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa* (1993) outline indicators that target these skills and attitudes associated with developing enterprise in students. But conversations with academic leaders in secondary schools participating in this study suggest that teachers hold considerable ambivalence about the place of enterprise within the curriculum.

First, teachers express some equivocation regarding the definition of enterprise. Teachers do not seem to view enterprise as a preparedness of students to create opportunities, or to generate alternative ways of maximizing given opportunities or overcoming problems. When viewed from this perspective, the concept of enterprise may well be then considered as a valued outcome. Rather, it seems that teachers presently have a negativity and resistance towards enterprise education because of the notions they hold about entrepreneurship. As explained earlier, these two concepts are different.

Secondly, if an intent of the New Zealand Curriculum Framework is to create citizens who demonstrate enterprise, then what teachers believe and value about enterprise education will influence how and if the desired kind of teaching transcends the curriculum document and is translated into the practice of teaching. Teachers are the critical agents in educational change. Yet, these conversations with teachers suggest there is, at best, a lack of clear understanding of enterprise and in some instances strong suspicion about it as there is also about entrepreneurship. This is important, for research tells us that teachers' beliefs about the subject matter they are expected to teach influences how and whether they are willing to teach it (Connelley & Clandinin, 1999; Kagan, 1992). Indeed, there is a sense of an unspoken collective resistance among these teachers to teaching curriculum that may bear any affinity to the political ideals associated with business exploitation and marketisation. This hidden collectivism act in a powerful and exclusive way, and serves to filter the curriculum that teachers deliver to secondary students.

Thirdly, teachers struggle to integrate enterprise as potential creative and cognitive dimensions within the teaching of their subjects. Rather, they consider that to teach enterprise means potentially to sacrifice the ideals of achieving such things as academic excellence. Even those teachers who are recognised as teaching enterprise are often also seen as those who are prepared to risk "putting-aside" the syllabus of their subject.

Fourthly, for educational change to happen and be sustained, it requires the commitment of teachers. Teachers must not only subscribe to the change but believe in its utility and their role in it. Mandating change by implementing compliance requirements is, at best, insufficient and superficial. At worse, it is dangerously misguided in that it draws teachers away from their central task of teaching and into the realms of placating accountability requirements. Teachers report the conflict between needing to satisfy curriculum and assessment compliance requirements, while also wanting to teach for social objectives and humanistic ideals (Harker, Gibbs, Ryan, Weir, & Adams, 2003). As a result, it seems that the general effect has been for teachers to remain resolved to the traditional transmission of subject content knowledge, while the kind of creative and critical thinking required in enterprise is relegated secondary to this endeavour. In short, the admirable intention of The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa (1993) to prepare students as citizens who are expected to be part of a workforce that is "highly skilled and adaptable, and which has an international and multicultural perspective" (p. 1), has been circumvented by a need for teachers to devote their energies to tasks such as curriculum and assessment compliance.

Finally, an increasing body of literature suggests that teacher effectiveness is strongly replicated on teachers' self-beliefs, and especially self-efficacy (Gibbs, 2002; Trenthan, Silvern, & Brogdon, 1985). In themselves, knowledge about, and skills in, enterprise are simply insufficient to ensure that teachers will actually demonstrate efficaciousness in teaching students to be enterprising. To effect change, therefore, means that simply knowing about enterprise will not suffice. Fishbien and Ajzen (1975) suggest that beliefs are instrumental in explaining attitudes which, in turn, lead to intentions, which are followed by behaviour. Thus, programmes of in-service professional development need to effect change at the level of teachers' beliefs in the first instance. Ultimately, it is these beliefs that will mediate between what teachers know and can do, and what they will actually do in teaching enterprise in the curriculum.

Conversations with teachers such as those in the present study begin to toss up the rhetoric and the realities concerning the objectives of *The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa* (1993) and the actual practice of teachers. Quite clearly, if the aspirations of *The New Zealand Curriculum Framework Te Anga Marautanga o Aotearoa* (1993) are to be achieved, then the voices of teachers must be heard, their beliefs understood, and their teaching circumstances shaped in ways that allow them to do what they are best at - to teach students. But change in actions often necessitates change in beliefs. And such is the case for the teaching of enterprise in our schools. As Churchill put it, "we are shaping the world faster than we can change ourselves, and we are applying to the present the habits of the past" (Walsh, 1993, p. 21).

#### REFERENCES

- Bandura, A. (1977a). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191-215.
- Bandura, A. (1977b). *Social learning theory.* Englewoods Cliffs, New Jersey: Prentice Hall
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *The American Psychologist*, 37(2), 122-147.
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W.H. Freeman & Co.
- Bird, B. J. (1988). Implementing entrepreneurial ideas: The case for intention. *The Academy of Management Review, 13*(3), 442-453.
- Brockhaus, R. H. (1980). Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3), 509-520.
- Brockhaus, R. H. (1982). The psychology of the entrepreneur. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.). *Encyclopedia of entrepreneurship*. (pp. 39-56). Englewoods Cliffs, New Jersey: Prentice Hall.
- Caird, S. (1992). Problems with the identification of enterprise competencies and

- the implications for assessment and development. *Management Education and Development*, 23(1), 6-17.
- Cohen-Evran, N. (2002). Why do good art teachers find it hard to stay in the public school system? *Studies in Art Education, 44*(1), 79-94.
- Connelley, F. M., & Clandinin, D. J. (Eds.) (1999). Shaping a professional identity; Stories of educational practice. New York: Teachers College Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research*. New York: Addison-Wesley.
- Gibbs, C. J. (2002, December). Cultural Efficacy: Implications for Teachers and Teacher Education. Proceedings of the New Zealand Association for Research in Education Conference, Palmerston North.
- Harker, R., Gibbs, C. J., Ryan, H., Weir, K., & Adams, D. (2003). The impact of change on teacher satisfaction, motivation and health. *Delta*, *55*(1&2), pp 149-171
- Kagan, D. M. (1992). Implications of research on teacher beliefs. *Educational Psychologist*, 27(1), 65-90.
- Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139-161.
- Ministry of Education (1993). New Zealand Curriculum Framework: Te Anga Marautanga o Aotearoa. Wellington: Learning Media.
- Schere, J. (1982). Tolerance of ambiguity as a discriminating variable between entrepreneurs and managers. Proceedings, pp. 404-408. New York: Academy of Management.
- Scherer, R. F., Brodzinski, J. D., & Wiebe, F. A. (1990). Entrepreneur career selection and gender: A socialization approach. *Journal of Small Business Management*, 28(2), 37-44.
- Trentham, L., Silvern, S., & Brogdon, R. (185). Teacher efficacy and teacher competency ratings. *Psychology in the Schools*, *22*(3), 343–352.
- Walsh, J. (1993). Where have all the leaders gone? Time, July 12, pp. 17-21.