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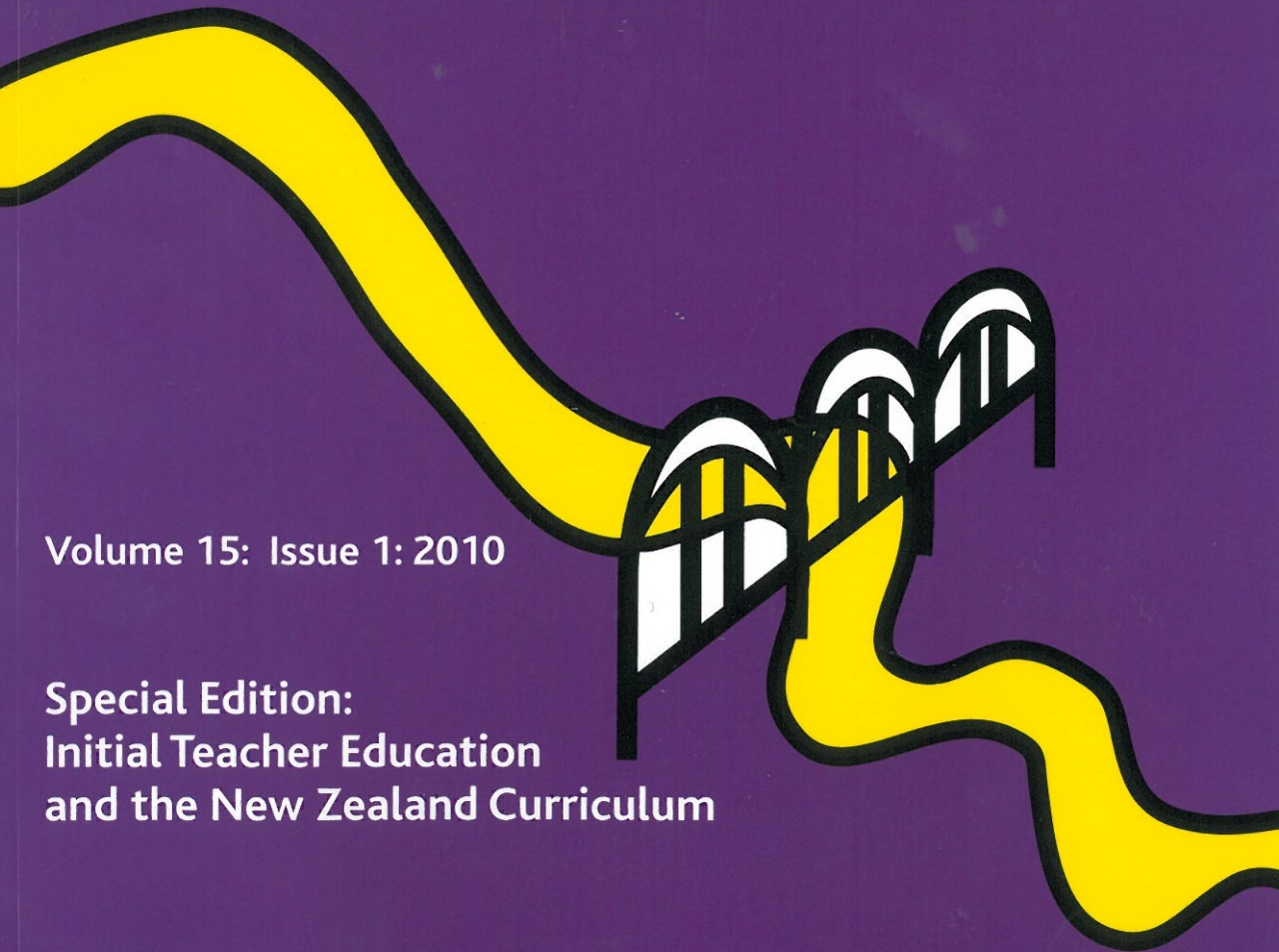
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EFFECTIVE PEDAGOGY: THE INFLUENCE OF TEACHER EDUCATORS' PRACTICE ON STUDENT TEACHERS' PRACTICE AND PHILOSOPHY

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ABSTRACT: *There have been a number of lists of teacher actions that are linked to promoting student learning in schools. In initial teacher education (ITE) teacher educators have been urged to teach student teachers in ways that demonstrate effective practices. This paper reports on our attempts to develop an approach to teaching that is based upon socio-cultural theory and linked to the content on effective teaching in the revised New Zealand national curriculum of 2007. The approach involves supporting student teachers to use techniques modelled by teacher educators and in turn, to use the techniques with their own students during practicum. We explored the reactions of our student teachers to our attempts to model effective practices and found evidence that greater congruence was achieved between our approach to teaching and the intention of the national curriculum statement on pedagogy.*

KEYWORDS:

Socio-cultural theory, modelling teaching approaches

INTRODUCTION

The New Zealand Curriculum (Ministry of Education, 2007) identifies effective pedagogy as teacher actions promoting student learning. These actions are listed as: "creating a supportive learning environment, encouraging reflective thought and action, enhancing the relevance of new learning, facilitating shared learning, making connections to prior learning and experience, providing sufficient opportunities to learn, and teaching as inquiry" (p. 34). Although no supporting evidence is cited, these components are underpinned by socio-cultural theory and affirmed in Alton-Lee (2003) and Bishop, Berryman, Tiakiwai & Richardson (2003). Graduates from teacher education programmes are expected to demonstrate these qualities of effective pedagogy (New Zealand Teachers Council, 2007). If teacher educators incorporate these components into their practice, can this influence the future teaching of graduates with their own learners?

For us as a team of teacher educators at the Southland Campus of the University of Otago College of Education, this question has provided direction for our ongoing professional learning inquiry. Our small qualitative study provides evidence that the way we teach influences the way our graduates teach.

REVIEW OF LITERATURE

The concept of congruent teaching (Swennen, Lunenburg & Korthagen, 2008) provides a framework for the pedagogy employed within our teacher education courses. The congruence is between the espoused theory and the practice that student teachers experience as learners; or to use the cliché, when teacher educators are "walking the talk". The theory and the practice are consistent with the components of effective pedagogy identified in *The New Zealand Curriculum* (Ministry of Education, 2007).

The need for congruence is identified by Korthagen, Loughran and Russell (2006) as Principle 7 of their framework for "responsive teacher education programmes that make a difference," (p. 1020). This principle states: "learning about teaching is enhanced when the teaching and learning approaches advocated in the programme are modelled by the teacher educators in their own practice," (p. 1036). Such congruence has also been identified in other professional disciplines. Within the context of an engineering undergraduate programme, Godfrey (2008) discusses the importance of "a match or a mismatch between the lived experience of staff and students and espoused values," (p. 2). A match, or congruence, facilitates enculturation into a profession and avoids the adoption of an uncritical, technicist approach to practice that can arise from a transmission approach where knowledge alone is the focus, without the accompanying development of the critical thinking integral to being a professional.

Within the teaching profession, including teacher education, enculturation is centred on the culture of effective pedagogy. Tishman, Jay and Perkins (1992) identify three mutually reinforcing components of a pedagogy of enculturation within the context of teaching for a disposition of thinking: "cultural exemplars, cultural interactions and direct instruction in cultural knowledge and activities," (p. 6). Swennen, et al. (2008) also articulate the components of their model of congruent teaching: modelling, explaining the choices made while teaching, and linking those choices to relevant theory. This is particularly relevant to our teaching and research focus, as Swennen et al. have developed this model of pedagogy within the context of teacher education.

In both the model of enculturation and the model of congruent teaching, the teacher educator is engaged in not only modelling appropriate practice, but also in explicitly drawing the learners' attention to key aspects of this practice. This explicit articulation of the pedagogical reasoning behind practice is also emphasised by Korthagen et al. (2006).

The explicit inclusion of an effective pedagogy section in *The New Zealand Curriculum* (Ministry of Education, 2007), and the models of enculturation (Tishman et al., 1992) and congruent teaching (Swennen et al., 2008) have provided an articulation of the tacit understandings that were the foundations for our practice.

OUR PEDAGOGY

We are deliberately focusing on achieving a match between the socio-cultural theory espoused in most of our courses and the pedagogy that our learners experience within these courses. Our teacher actions are underpinned by the

Vygotskian and Deweyan principles as outlined by Beck & Kosnick (2006, pp. 9–14): "knowledge is constructed by learners; knowledge is experience based; learning is social; all aspects of a person are connected; learning communities should be inclusive and equitable". These principles also underpin *The New Zealand Curriculum* (Ministry of Education, 2007) and are the foundations for the teacher actions related to effective pedagogy.

We create "a supportive learning environment" *The New Zealand Curriculum* (Ministry of Education, 2007, p. 34) because we believe that "learning is inseparable from its social and cultural context," (ibid). Our average class size of twenty-five students facilitates the fostering of positive relationships, the development of a community of learners, and enables students to clarify ideas and understandings about the course content. Within classes, small groups of four to six students participate in experiential learning based on cooperative principles that value prior knowledge and opinion. This enables us as teacher educators to "make connections to prior learning", "enhance the relevance of new learning" and "facilitate shared learning" (ibid). While the modelling of these practices has always been part of our teaching methodology, they have more recently been affirmed through the explicit listing of teacher actions that demonstrate effective pedagogy. Through modelling these elements we are actively promoting a professional culture of learning about teaching.

As our own knowledge and understanding of the processes involved in inquiry learning and teaching for thinking increased, we became aware of the need to make this more deliberate and explicit in our teaching. Our own rationale for this inclusion has been affirmed in *The New Zealand Curriculum* (Ministry of Education, 2007), and matches the teacher action "encouraging reflective thought and action" (p. 34). A key component of our teaching became the deliberate inclusion of a common language related to the inquiry process (Murdoch & Wilson, 2004), and concepts of thinking, for example, creativity, metacognition, and analysis. Swennen et al. (2008) emphasise the importance of teacher educators having a common language to make concepts explicit to their learners. Our focus on thinking has been enhanced through the use of a range of learning experiences that actively involve the students in different types of thinking, for example, classifying information, creating metaphorical explanations for concepts, and synthesising group understandings from individual input. Tools such as graphic organisers (Murdoch & Wilson, 2004) enable us to be more focused and confident about this extension to our pedagogy.

Consistent with the views of Alton-Lee (2003) *The New Zealand Curriculum* (Ministry of Education, 2007) states, "students learn most effectively when they develop the ability to stand back from the information or ideas that they have engaged with and think about these objectively," (p. 34). We deliberately incorporate into our class time a range of approaches encouraging reflection into learning through, for example, reflective stems such as I now know more about … I am still wondering about … I need to do more thinking about, (Murdoch & Wilson, 2004). We also focus on explicitly teaching about metacognition and provide opportunities for the use of metacognitive strategies. Thinking is made more visible

for students by our strategic use of the aforementioned thinking tools such as graphic organisers, reflective strategies, and our deliberate use of specific language.

A key focus for our pedagogy is to not only involve the student teachers in these experiences as learners but to also explore with them how they might use the same experiences with their learners in schools. For example after we have used a particular strategy we ask them to analyse what that would look like in practice with their own learners, their reasons for choosing it and what impact it might have. We facilitate this critical thinking about pedagogical choices by articulating our rationale for selecting a strategy and making explicit links to underlying theory. This "thinking aloud" strategy demonstrates and demystifies the process teachers go through when making teaching decisions about which actions to take to promote student learning. Thus, we are demonstrating "teaching as inquiry," (Ministry of Education, 2007, p. 35).

Our professional learning journey has taken us from just modelling effective pedagogy to being more deliberately explicit, utilising pedagogy that reflects both "enculturation" (Tishman et al., 1992) and "congruent teaching" (Swennen et al., 2008).

Our implementation of this study of pedagogy is across programmes for teacher education students in all sectors and courses, providing a consistency for our learners in developing their experience and understanding of teaching and learning. Our rationale resonates with Hammerness (2006) who states "some teacher educators have argued creating structurally and conceptually coherent programmes will result in more powerful learning for prospective teachers," (p. 1). This is also affirmed by Hoban (2006). Making learning and teaching paramount, irrespective of the course or curriculum content, facilitates students' ability to "make their own connections and to develop an understanding of the complex nature of teaching," (ibid). The centrality of effective pedagogy has been articulated for the first time in a New Zealand national curriculum (Ministry of Education, 2007), providing an overarching philosophical framework through which to consider the learning areas. Rather than each course espousing its own disciplinary values and methodology, our practice of congruent teaching foregrounds the effective teacher actions that provide a common pedagogy. Our aim is to produce graduates who understand not only the what (content knowledge), but the how (the delivery), and more importantly the why. The focus, therefore, for our research was to establish whether the way we teach within our teacher education programmes does actually have an influence on the philosophy and practice of our graduates.

RESEARCH PROCEDURE

Our research questions were

- What are student teachers' perceptions of the pedagogy modelled by their ITE lecturers?
- What influence do student teachers think this has had on their own teaching philosophy and practice in the classroom?
- What evidence is there of such influence?
- What other questions do our data raise?

The participants (n = 52) were the 2007 graduating cohort across all teacher education programmes at the Southland Campus of the University of Otago College of Education. This cohort was selected because during their time of study at the Southland Campus, the teaching staff had been engaged in professional learning focused on a social constructivist and congruent pedagogy as outlined above. We implemented a small scale qualitative research design comprising two phases of data collection. All graduates were invited to respond to an on-line survey where they were asked to consider the influence of the social constructivist pedagogy of teacher educators on student teachers' practice and philosophy. We believe a low response rate of 25%, was largely attributable to the timing of distribution of the survey, coinciding with the beginning of the school year when respondents were preoccupied with setting up classrooms. Based on these responses, a smaller sample group (n=4) of primary graduates was selected to participate in a focus group discussion in April 2008. Graduates from the primary programme were targeted because the lead researchers taught mainly within the primary programme. The sample was purposively selected to represent graduates of varying ability, rather than having a narrow focus of highly achieving graduates. It was hoped the data would further inform our practice and enable us to explore the congruence of pedagogy articulated in the draft of revised New Zealand curriculum (Ministry of Education, 2006).

The surveys were analysed to identify perspectives relevant to our research questions and the literature. These provided the initial themes to be explored further with the focus group. Through the process of inductive analysis the resultant transcript was examined to identify categories and further themes which form the basis for the reporting of our findings.

FINDINGS

The response to the overarching question which formed the focus for our study, "Did the way the teacher educators teach in their classes influence the way you teach?" was "Yes". The following is a summary of the findings in relation to each research question.

1. What are student teachers' perceptions of the pedagogy modelled by their college lecturers?

The participants articulated the importance of a learning community and the modelling of a constructivist approach to learning underpinned by sociocultural theory. They further emphasised the explicit discussion around modelling, particularly the articulation of the "why", and the incorporation of critical reflection. A consistency of approach across classes and lecturers was also identified. These quotes from two of the participants illustrate their perceptions:

> … when going out on postings and starting to realise you had the children in groups and doing all these things and thinking it's what we do in College …. It was like, you know the classroom community thing and that's what I was trying to have in my classroom. (Ana, p. 7)

> … I definitely don't think I was always a reflective person. I think I was happy to do something and then just leave it and carry on. But I think it was after every class, we'd have a discussion about reflection or something like that, and it would challenge my thinking again and so I wouldn't leave the class thinking oh, I'm glad that class is over. I'd leave with more questions that I wanted to find out. So … if you do that in the classroom, then the children aren't thinking, okay so we've done maths, let's move on. They're thinking, well, this is what I've learned now, this is what I need to work on and this is what I want to know more about'. (John, p. 8)

These findings closely mirror the "teacher actions promoting student learning" specifically "creating a supportive learning environment; facilitating shared learning; encouraging reflective thought and action" in *The New Zealand Curriculum* (Ministry of Education, 2007, pp. 34–35) which was the explicit purpose of our modelling.

Korthagen et al. (2006) propose that modelling is a key component of effective teacher education, as do Swennen et al. (2008) and Tishman et al. (1992). Our students' clear articulation of our modelling of pedagogy indicated that they were noticing and indeed were critically aware of the specific strategies that we utilised to create their learning environment and to enhance their learning.

The students were able to identify the modelling as well as the specific analysis and commentary about teaching decisions that is an integral part of our pedagogy. This explicit articulation of pedagogical reasoning is identified by Korthagen et al. (2006) and forms central components of congruent teaching (Swennen et al., 2008).

2.   What influence do student teachers think this has had on their own teaching philosophy?

The participants identified social constructivism as their foundation for teaching and learning. They also articulated their developing critical awareness. They believed this strengthened their developing self efficacy and their sense of resilience. Chloe voices this

> Like, when we had tutor visits on our posting and we did something, a strategy or something, usually, well I know Brenda did, would ask me why I did that and that made me think, okay, why am I actually doing this strategy? It's not because I know it's best practice and I have to, you know, it's been modelled at College. I'm doing this because it works, because of this, this and this and I think that's something that you taught us or modelled to us that, you know, you need to pick strategies that are explicitly going to work with your group of learners. Like, some just won't work. Others will. I think you didn't just give us a whole bank of things to go out and just throw on the learners. I think that you taught us to be discerning in what we are using. (p. 15)

This statement from Chloe clearly reflects the essence of "Teaching as Inquiry" outlined in *The New Zealand Curriculum* (Ministry of Education, 2007, p.

35). The graduate teachers' developing philosophies of teaching and learning showed close alignment with that espoused in the current New Zealand curriculum. As exemplified by Chloe, graduates were able to recognise the links between the teacher educator pedagogy they experienced in their programme and the influence of this on their own philosophy and practice. Furthermore, this reinforces the value of having practicum supervision undertaken by the same teacher educators who teach in courses, as this facilitates students being able to make connections.

3. What influence do student teachers think this has had on their own teaching practice?

The participants emphasised that their own classroom practice incorporated the building of a learning community, student voice, collaboration and group work. There was a clear focus on learning that was purposeful, contextual, with thinking, especially reflection, highlighted. They stressed the importance of developing the affective teacher qualities. John and Ana's comments reflect these aspects

> … two big things that I've learned are the engagement and the excitement … so it doesn't matter what it is but if the kids can see that the teacher's enthusiastic and excited about it, then they will get into it. (p. 5)

> The most important thing I have come away with was student voice, making sure I wasn't, putting answers in and not doing all the talking. Like giving them time–wait time. Let them think about it before they respond instead of thinking it feels like it's a long time that you're waiting for an answer. But it's not and they need that time to think and prepare an answer or even get the courage up to say something. (Ana, p. 4)

The elements of their practice identified by the graduate teachers show alignment with the teacher actions specified as effective pedagogy in *The New Zealand Curriculum* (Ministry of Education, 2007, pp. 34-35) and congruence with our practice as teacher educators.

FURTHER QUESTIONS

Consistent with the qualitative nature of the study further questions arose during the analysis of the data.

1. Do the students need to be consciously aware of the links between our practice and theirs for it to have an influence on their practice? If we were being more deliberately explicit would the links be made sooner and stronger?

> It wasn't until … the end of second year I realised you were actually modelling techniques to us. I thought you were all just really good at teaching … But then you realise, that's what you should be doing. There was a purpose for what you were showing us and how you were doing it and I wanted to be like that. So I started taking them on board and realised they were actual strategies … (and) … going out

> on postings, you start to realise you had the children in groups and
> you're doing all these things like we do in College. (Ana, p. 6)

The purpose of our study was to reflect further on our pedagogy. This comment by Ana prompted us to think further about the centrality of language in constructing understandings. To be able to recognise what is being modelled, learners have to understand the specific language of teaching and learning in order to comprehend the underlying concepts. Therefore some explicit teaching may be needed to clarify and construct a shared understanding of these. Exploring the students' prior knowledge of the language and providing examples to illustrate the concept facilitates purposeful interactions, reflections and thus deeper learning. This is consistent with the components of the pedagogy of enculturation outlined by Tishman et al. (1992).

It may be that we have to be even more explicit about how student teachers can implement the strategies they are experiencing as learners with future learners in their classrooms. In discussing their meta-commentary component of congruent teaching, Swennen et al. (2008) note that the approach involves more than just providing commentary. It also needs to have discussion of how the comments relate to the teaching in schools.

2.   How can we further empower graduates to overcome barriers?

The graduates identified that there were barriers to implementing effective pedagogy. For example

> There are barriers out there … for example, curriculum design …
> having so much already formalised and set up for you … not being
> able to follow what you think is best practice just because there's lots
> of pressure coming from other places and it's hard to argue with
> them. Sometimes you have to compromise. … sometimes you see
> that these strategies are important to do but you can't really do them.
> (Guy, pp. 12–13)

It may be necessary for us to specifically address with our graduating teachers, the need for them to be pragmatic in making professional decisions about what is feasible within their context and realm of power. This may be best situated within a course discussion focusing on the section "School Curriculum Design and Review" in *The New Zealand Curriculum* (Ministry of Education, 2007, pp. 37–42). If we equip graduating teachers with a strong philosophy, self-efficacy, sound knowledge of effective pedagogy, and the confidence and sensitivity to "pick the battles that matter", they will be well prepared to contribute to school-based development of curriculum and programmes of learning. The following quotes indicate that the graduates have at least some of this strong foundation to work from

> We weren't just being told this is best practice and then going out to
> see it thrown back in our faces. It worked for us and I think that's
> why it got so ingrained as well. (Chloe, p. 13)

> … because it's being modelled all the time, that when we go into the
> classroom, it's just a natural progression for us to take that into the
> classroom. (John, p. 7)

These findings affirm our belief and practice that effective and congruent pedagogy across courses and programmes, including practicum, enables each of us, as teacher educators, to help student teachers make links between theory and practice.

IMPLICATIONS

Just as the graduating ITE students identified barriers to their implementation of effective pedagogy, there are systemic factors that create tensions for teacher educators in implementing a teacher education programme that is centred on a social-constructivist approach. As stated previously in this article class size is a relevant factor in facilitating this approach. If institutional decisions require courses to be taught in a lecture setting it is more difficult for the teacher educator to implement pedagogy congruent with socio-cultural theory. The physical setting of a lecture theatre lends itself to a transmission approach where the content may become the sole focus rather than the modelling of explicit teaching strategies such as experiential and cooperative learning. This poses a challenge for teacher educators.

A further challenge is to achieve a balance, within courses, between content knowledge, modelling, commenting on the pedagogy and making links to theory. Limited class contact time makes it difficult to put this into practice. When designing courses it is important to consider not just the content, but the nature of pedagogy, so that students' learning can be enhanced and the nature of effective pedagogy specifically addressed.

If effective pedagogy, as advocated in *The New Zealand Curriculum* (Ministry of Education, 2007), is going to be taught successfully in ITE so that student teachers develop a deep understanding of the values that are encapsulated in these teacher actions, then teacher educators need to have a depth of understanding themselves. This requires that teacher educators have a foundation of professional experience and that there is an appreciation of this at an institutional level. Mentoring new teacher educators to adopt a congruent pedagogy can be facilitated by using the framework proposed by Swennen et al. (2008).

If there is incongruence between the pedagogy that student teachers experience and that which they are expected to implement as teachers in the classroom, teacher educators are doing them a disservice. As Korthagen et al. (2006) caution:

> The contradictions persist between theory and practice within teacher education institutions and … little progress has been made through several generations of rhetoric about teacher education reform. Taken even further, the issue is captured in the following assertion; "Universities generally, and university-based teacher educators particularly, have no right to recommend to teachers any teaching practices that they have not themselves used successfully at the university," (Russell, 1999, p. 220). So long as teacher educators advocate innovative practices that they do not model, illustrate, and read as text in their own teacher education classrooms, teacher education reform will continue to elude us. (p. 1036)

CONCLUSION

Our small-scale qualitative study was motivated by our professional responsibility to determine the influence of our pedagogy on student teachers' practice and philosophy. This aligns with the work of Zeichner who states, "such research is useful in part because it enables us to critique and improve our programme," (cited in Beck & Kosnick, 2006, p. 131). He believes this identifies any mismatch between what teacher educators perceive they are doing and what the students are actually experiencing. The rich data obtained from our graduating teachers revealed that they perceived congruence between the pedagogy experienced in their teacher education courses and that advocated within the effective pedagogy section of revised national curriculum (Ministry of Education, 2007). In carrying out this research we were enacting "Teaching as Inquiry":

> Since any teaching strategy works differently in different contexts for different students, effective pedagogy requires that teachers inquire into the impact of their teaching on their students. (Ministry of Education, 2007, p. 35)

As part of our ongoing professional learning we will continue to refine our practice and further examine the influence of our pedagogy on the practice and philosophy of our student teachers.

REFERENCES

Alton-Lee, A. (2003). *Quality teaching for diverse students in schooling: Best evidence synthesis.* Wellington, New Zealand: Ministry of Education.

Beck, C., & Kosnik, C. (2006). *Innovations in teacher education. A social constructivist approach.* Albany, NY: State University of New York Press.

Bishop, R., Berryman, M., Tiakiwai, S., & Richardson, C. (2003). *Te Kotahitanga: The experiences of Year 9 & 10 Māori students in mainstream classrooms.* Wellington, New Zealand: Ministry of Education.

Godfrey, E. (2008). *University education: Enculturation, assimilation or just passengers on the bus?* Paper presented at the 11th Pacific Rim First Year in Higher Education Conference. Hobart, Australia. Retrieved from http://www.fyhe.qut.edu.au

Hammerness, K. (2006). *From coherence in theory to coherence in practice.* Teachers College Record. Retrieved from http://www.tcrecord.org/PrintContent.asp?ContentID=12555

Hoban, G. (2006). The dynamics for quality in teacher education programs. In *Teacher Education Forum of Aotearoa New Zealand (TEFANZ) Conference Proceedings* (pp. 1–9). Dunedin, New Zealand: Dunedin College of Education.

Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education, (22),* 1020–1041.

Ministry of Education. (2006). *The New Zealand curriculum: Draft for consultation.* Wellington, New Zealand: Learning Media.

Ministry of Education. (2007). *The New Zealand curriculum.* Wellington, New Zealand: Learning Media.

Murdoch, K., & Wilson, J. (2004*). Learning links: Strategic teaching for the learner-centred classroom.* Melbourne, VIC, Australia: Curriculum Corporation.

New Zealand Teachers Council. Te Pouherenga Kaiako o Aotearoa. (2007). *Graduating teacher standards: Aotearoa New Zealand.* Wellington, New Zealand: Author.

Swennen, A., Lunenberg, M., & Korthagen, F. (2008). Preach what you teach! Teacher educators and congruent teaching. *Teachers and Teaching: Theory and Practice, 14*(56), pp. 531–54.

Tishman, S., Jay, E., & Perkins, D. N. (1992). *Teaching thinking dispositions: From transmission to enculturation.* Retrieved from http://learnweb.harvard.edu/alps/thinking/docs/article2.html