Project Coordinator's Notes

This document was developed by the project coordinator to provide a levelling ground for practitioners and researchers in relation to the basic concepts, concerns, and processes involved in this research project. This is necessary in a context where the project is bringing together people with varied levels of engagement with the issues, and from different areas, sectors and disciplines. Another factor that makes this document necessary is the fact that this project was designed in April 2008 as the TE21 group and the TBA research started (involving advisors and lecturers). At the time, we had a very loose community of people interested in (broadly) the same area. However, as the year progressed some of us continued the work in this area together, while others concentrated on different priorities (with or without specific links to what others were doing). Therefore it is necessary to 'pull it all together': to see what we committed to last year and what is negotiable now, so that we have a level playing field where everyone feels on the same 'waka'. This is the spirit that drove the writing process of this document.

Section 1 provides an overview of the shared assumptions about the central kaupapa of the project and the NZ context. Section 2 looks at the research questions and project tiers. Section 3 addresses the tensions between the 'researcher' and 'practitioner' identities. Section 4 proposes distinctions between research and evaluation. Section 5 invites participants to declare their biases. Section 6 presents Baxter Magolda's (1992) model of epistemological development that will be used to provide consistency in the analysis. Section 7 addresses the tensions between the 'saying and the doing' in the context of analysing shifts. Section 8 offers an overview of the research process with roles and dates. And, finally, section 9 provides a list of guiding questions that will help participants to design the data collection for their case studies.

Section 1: Project Assumptions

(where we are starting from: 'taken for granteds')

This TLRI project is based on the assumption that for education to be more relevant for the current generation of learners, teachers will need to connect to their students in different ways. Connecting in different ways requires a different conceptualisation of knowledge and learning – an 'epistemological' shift – given that teachers have been brought up and educated in different 'times'. With this shift, it is hoped that they will be able to better understand the worlds and needs of current students, and that they will be better equipped to see them as diverse people and to respond to their needs and the needs of society.

This epistemological shift is often conceptualised in terms of a shift from the '20th' to the '21st century' ways of seeing knowledge and learning[1]. Assumptions of knowledge and learning (rooted in assumption about reality and being) have several implications illustrated in the distinction below which draws on related literatures (see selected bibliography at the end of this document):

'20th century' thinking/knowing/relating/being

If one sees knowledge as a 'noun' and something 'certain', 'objective' that exists 'out there' to be 'discovered' (fixed, collection of facts, etc.), they will tend to see:

- learning as transmission or 'construction' of cumulative and 'already known' knowledge (milk or building blocks metaphor),
- identities as fixed and based on cumulative (innate or learned) attributes,
- society as something to be fixed into one normative order, which creates the desire for certainty, consensus and harmony (one lens),
- difference in terms of deficit or exoticism (hierarchies of cultures/ways of being)
- answers in terms of rights and wrongs and good and bad (binaries)
- disciplines as 'natural' compartmentalisation of knowledge
- learner/individual capacities as fixed (deficit theorising/'some people can't learn')
- consensus (elimination of difference) as the only desirable outcome of conversations/negotiations; and clashes of perspectives (conflict) as something to be 'resolved'

They will also tend to project their own way of knowing as something everyone already knows (what they say is simply universal common sense) or otherwise should learn (if people disagree, they are wrong). They will tend to operate within A and C in the education/knowledge matrix (A: think as I do, do as I say because there is just one right answer; C: think for yourself and choose responsibly what to do, but arrive at my conclusion).

[1] This idea of time is highly problematic, but we will use it strategically

'21st century' thinking/knowing/relating/being

If one sees knowledge as a 'verb', something that is socially and historically 'constructed' in specific communities and that, therefore, is context (and 'knower/community') dependent, partial and provisional (the kete weaving process), they will tend to see:

- learning as 'negotiation' of meaning and the 'creation' of knowledge (weaving different threads together for a specific purpose)
- identities as also 'constructed' and context dependent, and therefore multiple and open to contamination and negotiation (fluid)
- society as complex, multiple and always changing (ideas of what is real and ideal are constructed by different communities: multiple lenses)
- difference as a vital source of learning (innovation) and change
- suitability of answers as dependent on context and implications
- disciplines as artificial boundaries within institutions, but also as 'communities of practice', with specific 'ways of knowing'
- learner/individual capacities as context dependent: the capacity to learn (as negotiation) is always there
- consensus as desirable in certain circumstances, not in others; the capacity to live with and learn from dissensus (difference) as a 'key competency' (which requires seeing conflict as an opportunity for learning)

They will tend to see that what people bring to a 'negotiation' (or learning process) is conditioned (and not determined) by where they are coming from and therefore, although people may use similar words (or look at the same thing), they may 'signify' them (or 'see') in different ways (hence the need for situated listening and dialogue). They will tend to operate within A, B, C and D according to what is best for the context, but they are aware of the justification, limitations and implications of what they are doing (B: there are multiple possibilities but the context requires you to think as I do and do as I say; D: there are multiple possibilities and you should think for yourself and choose responsibly what to do)

The educational literature based on the concepts of the 'knowledge society', '21st century' or 'post-modernity' argues that the '20th century' way of thinking is a product of the Enlightenment or of 'modernity'. The Enlightenment is known as a phase in European history where it was advocated that 'reason' was the primary source of legitimacy and authority. It emerged as a reaction to the power of the church, giving 'man' the power to know the world as it 'really is' through the use of his senses and his rationality. The Enlightenment is based on the assumption of a completely knowable world and human nature (with its most advanced state of evolvement represented in the European man) and therefore projects a dream of the creation of a perfect and harmonious society engineered through reason, science and technology (capitalism, European colonialism and 'normalism' are rooted in these ideas). From this perspective, it follows that mass education – or schools – are a product of this dream and of the needs of the industrial revolution. Since then, they have performed the job of 'shaping' people to know, think, be and relate in certain ways, to aspire to certain things and to conform to their 'natural' place in society: 'reproducing' the system and conditioning people to choose certain ways of thinking and to 'foreclose' others (forget and deny other possibilities) leaving people with the feeling that there is no other alternative.

Most of this literature tends to justify the need for people to shift the way they understand knowledge and learning on the grounds of globalisation. They frame globalisation as a process driven by technological advances and 'advanced' capitalism which changes the nature of the economy (from scale to scope), of work

and, hence, of how education needs to prepare people for work. In economies of scope, where diversification of markets and products are the drivers of sustained growth, the most important skills are creativity (but not one that challenges the system), adaptability (i.e. capacity to negotiate and change quickly according to the context), and the capacity to capitalise on 'difference' and to produce 'innovations'. The argument is that, if countries are to keep their economic advantage (or to gain advantage in competition with others) they need to produce a workforce that can operate under the 'new' circumstances. Therefore, education needs to change to adapt to changes in society. From another perspective (which we won't explore in any detail here) the shifts in conceptualisation of knowledge and learning can have a subversive effect too and equip education to 'shape society' in a way that creates possibilities for different (and more equally negotiated and sustainable) futures.

The OECD, Unesco and other agencies have been pushing for changes in education based on the idea of 'education to adapt to change in society'. The new NZC is a complex document that has been framed (by the former Minister of education, at least) as 'grounded' on these '21st century' premises – although it can be argued that most of the writers were simply reproducing '20th century' assumptions.The front part of the document, more specifically, can be easily *interpreted* as '21st C', *if* readers have '21st C' lenses available to them – otherwise it will be interpreted from the mainstream '20th C' lenses. The back of the document, based on discipline orientations qhich are divided into 'achievement objectives', is more obviously '20th C'. The difference now is that as the curriculum is supposed to be owned by the school community as a whole (including parents) the 'front part' of the document has acquired unprecedented importance.

Therefore, the basic premise that justifies this project is that:
If teachers can shift their understanding of knowledge and learning, they will acquire more lenses to interpret (and relate to): the reality/society, their learners and their communities, their own identities (as learners and teachers), difference, conflict, problems and solutions. And therefore they will be better equipped to respond to complexity, diversity, change and uncertainty.

Vanessa's comments: The kaupapa of this project was based on the shared perspective that for the next three years, as the document is introduced/implemented and the curriculum negotiated, there is a window of possibility for transformative (rather than reformative) interpretations. Therefore, there is a need to pluralise the lenses of all decision makers to open different possibilities for thinking and practice. Our individual focus will depend on what each of us sees the priority to be in terms of how we understand the 'problem' (which will depend on our own contexts) and how we frame 'solutions'. Some of us have been exploring together 'how this shift happens', through the use of pedagogical tools and other means (we will return to this later in this document). Two common themes have been recurrent in this process: that of the need for teachers to connect to the world of their diverse students, and the need for them to see the world through different lenses in order to establish this connection (especially in terms of connecting to 'culturally diverse' learners). So, I estimate that our collective and individual projects will probably reflect that. However, we nee to be aware that, as this is now a larger learning community, people might have other priorities as well.

Section 2: Project Questions and Tiers

This project addresses four related questions:

1. How are the shifts in conceptualisation of knowledge and learning interpreted within the different knowledge domains of the practitioners (teacher educators) in this research?

2. How do these shifts affect the way the NZC is interpreted and implemented?

3. What are the characteristics of effective initiatives for shifting student teachers' and teachers' conceptualisations of knowledge and learning?

4. How do shifts in the conceptualisation of knowledge and learning affect student teachers' and teachers' interpretations of the NZC?

Vanessa's comments: In terms of definitions, I propose that we use the idea of 'learning to look at the world from multiple lenses' as a working metaphor for the notion of 'shifting conceptualisations of knowledge and learning' (towards a postmodern '21st C' notion of knowledge). I also propose that we use the term 'epistemological development' to refer to this shift. 'Epistemology' is a term that refers to the nature of knowledge and knowing (we can problematise the idea of 'development' later).

This project has two tiers of research:

Tier 1: where 'practitioners' collaborate with 'researchers' in investigating their practices and the effects of their practices in order to develop case studies that address the research questions 1, 2 and 4 and other specific questions in relation to themselves and their learners (practitioners will need to decide levels of ownership over their case studies with their mentors based on levels of input).

Tier 2: where 'researchers' document the developing perspectives[2] of 'practitioners' (questions 1 and 2) and analyse the collection of case studies focusing on two things: the characteristics of effective strategies used in the experiments in terms of 'shifting conceptualisations of knowledge and learning of learners' (question 3) and common issues arising when the case studies are examined together from different theoretical lenses (practitioners will have an opportunity to respond to the work of the researchers).

[2] The 'shifting' process is not a process from a static A point to a static B point. There is the idea of a general A where, epistemologically, people are used to operating with one universalist lens. The process of epistemological development – of opening up to new lenses – is definitely a move from A which necessarily requires a B point that is always in flux (open to leaning) and self-consciously context dependent. We are all learners in this and in the course of the conversations in the project we will all learn and change – but not necessarily in the same way or towards the same 'B' point.

Section 3: The relationship between practitioners and researchers

Given the nature and context of this research project and the different value attributed to different knowledges within ‘academic’ and ‘school’ communities, a few ‘constructed’ distinctions can help us identify appropriate avenues (and avoid inappropriate avenues) in our methodological choices.

Researchers and practitioners have been traditionally constructed in different ways based on their immediate priorities. Within this project, not only the priorities of practitioners and of researchers influence what we do, the priorities of funders are also important in the equation as they are one important audience we will have to respond to. The distinctions below adapted from Newburn (2001) ‘stereotype’ the three characterisations and may provide a starting point for dialogue and negotiation around our situated roles in this project.

> ‘Practitioners’ tend to prioritise the following questions: What will this project do that will help my work on Monday? What will alleviate the pressures of my work? They have a tendency to rush to answers, and a need to be valued and to show ‘best practice’.
>
> Funders (govt) tend to prioritise the following questions: Why should I fund this project? Can this project ‘discover’ something that will work quickly and cost-effectively across contexts? They have a tendency to want cost effective and ‘evidence based’ quick fixes.
>
> Researchers tend to prioritise the following questions: What am I interested in? How does this relate to my career? What is happening here? Why? What can be learned from this? They have a tendency to say that the answer to any issue is more research; they tend to troubleshoot and problematise which may have the effect of devaluing the currency of practitioners’ work.

You are encouraged to use these distinctions (or some other tool) to discuss this with your specific mentor. Do they reflect understandings/stereotypes within your relationship?

Vanessa's comments:

I would like to suggest that we understand 'practitioner' and 'researcher' as context dependent and 'constructed' identities. While I am a 'researcher' in the formal proposal, I am also a practitioner, a learner, a friend, a colleague, a mentor and a mentee in different contexts in my relationships with the people involved in this project – and these categories themselves are not static. The recognition of the complexity and fluidity of our identity formation may help us to construct each other in our relationships as 'verbs' in order to value each other's *capacity to learn* and construct together (rather than what we bring as fixed to the table - our knowledge/identity as nouns). This may also help us to re-negotiate traditional power relations in our personal relationships. However, it is important to acknowledge that, while we wish to see this re-negotiation enacted in institutional contexts, institutional constraints won't be as flexible as personal relationships.

I see myself, in the coordination role, the same way that indigenous people in Brazil see their leaders – leadership is always contextual and accountable to the task at hand (and not absolute or hierarchical). This could be better understood with the Maori kete weaving metaphor for knowledge construction, with everyone weaving and being woven in a kete which is constructed for a very specific purpose (the kete is the knowledge itself, rather than its content being knowledge). The leader, in this context is one of the weavers who receives the responsibility to step back for a while (still with her thread in her hand) to observe the patterns being woven in order to verify if the weaving of the group is going to make a kete that will meet the needs of its final purpose. The purpose of the kete is what qualifies the leader – a basket for a different purpose requires a different rangatira – within this model, leadership is contingent and provisional and power relations are never fixed.

We need to find a work interface where we recognise that we cannot complete this project without the commitment and contribution of every single member of the group. In order to be consistent with the idea of knowledge as a verb in the project, what we need to bring to the table is not a 'contribution' (noun), but our capacity to learn and unlearn with each other (verb) and the respect to the right of each individual to their own learning journey and the demands of their contexts. We need to recognise that we also bring to the table our different abilities *and* disabilities and we need to make them complement each other in the context of this project. Sometimes our differences (and priorities) will work as perfect gifts to the group, other times they may be turned into weapons and clash with other's differences (and priorities), which may cause pain. We need to be able to identify these moments and see them as gifts as well, as they provide invaluable learning opportunities in our collective journeys IF we decide to face them with humility and openness. Our ability to respect and listen to ourselves and to each other, to identify and own our learning journeys, and to be open to work through these conflicts and to see them as learning opportunities will determine the cohesion and success of the group. Seeing all knowledge as socially constructed, partial and provisional and our kaupapa as one of learning and unlearning together (about ourselves, our relationships and the topic itself) may make the journey much more exciting!

Section 4: Research versus Evaluation

Given the pressures placed on our identities as practitioners, including accountability processes that constantly ask us to 'produce results', it is understandable that, using this identity, we will tend to want to evaluate positively what we think we do 'right'. It is understandable also to see the research process as a way to tick other boxes and provide evidence of success that will leave us off the hook in other areas. However, it may be useful to construct a distinction between evaluation and research in this project (see table below):

	Research	Evaluation
Purpose	To produce (generalised or specific) knowledge based on (critical) analysis of data	To judge the worth or merit of something
Questions	• What's happening? • Is there a systematic (causal) effect? • What is the causal mechanism or how does it work? • What are the implications? • How can this be interpreted from different theoretical lenses?	• Does it work? • Does it do what it is meant to do? • How well does it work? • Does it work for the reasons we think it does? • How can it be improved?
Conclusions	tend to be tentative and/or situated	tend to reflect local, programmatic, or the evaluators' values

You are encouraged to discuss these distinctions with your specific mentor.

Vanessa's comments: I propose that we see this project as a experimental learning journey – not to prove the worth of something (of our practices or identities) - but to develop understandings that can be useful to help other people in their own learning journeys. 'What's happening, why and what implications' is our collective focus. In this sense, our practice 'failures' may prove much more productive in understanding processes than our success stories. We are learning and researching at the cusp of the debate – it will be years before we can say there are 'evidence based' highly successful techniques for this kind of change (if that is desirable). This project may provide an important contribution to this initial stage, but the magnitude of this contribution will be dependent on our capacity to understand our own processes and to turn failures into learning experiences. The most important thing that is necessary for this to happen is TRUST: in ourselves as partner travellers and in the process itself. Some teachers in Brazil used the following saying to describe this journey (I don't know the exact author): the future (or outcome) is not a place we are going to, but one we are creating; the pathways towards it are not found, but made; the making of those pathways change both the makers and the destination. However, although our personal learning journeys are open started and ended, this research process is constrained by the research proposal, so we will need to meet both needs: those of our individual journeys (or kete weaving processes) and those of the project itself. It may be useful to draw a diagram of where this project fits into your own 'big learning picture' so that priorities do not get mixed up.

Section 5: Declaring our biases

Our research won't be uninterested and therefore our interests (have already) and will play a major part in our research choices. Declaring our interests at this point can be a very useful exercise to clarify our thoughts before we move on with selecting extra questions, data collection instruments and analytical tools. I invite you to answer the following questions: what is the problem you are trying to address that has brought you to this project (e.g. resistance on the parts of people you work with; your perception of a lack of engagement between parents and schools; your perception that teachers do not listen to students, etc…); What is the nature of the problem (how come the problem is there?)? What is the larger scale solution? What is the part that you play in it? How can this project contribute to that? As an exercise, once you have your answers, look at the table again and check which focus you would need to choose to make the project do what you want it to do. Next, we need to reflect on whether or not this fits the overall kaupapa of the project and how this can be renegotiated as a personal or collective journey project within a context where we are open to learning together. You may decide that the questions of the project in themselves do not address directly what you are interested in. In this case, you need to negotiate with your mentor the possibility of including a special topic question in your project (please consult with research coordinator as well).

The framework below can be a useful exercise for discussion with your mentor that will clarify 'biases' on both sides (biases are just a natural reflection of the context dependent construction of knowledge).

What do you understand the 'problem' (in your area of work or society in general) to be?	
What is the nature of this problem (why does it exist)?	
What is the 'bigger picture' solution (what should other people do)?	
How are you part of the solution (and/or of the problem)?	
How does this relate to this project? How can this project help?	
Do you need to include a special topic question in your case study to reflect your priorities?	

Section 6: Epistemological development

In the research proposal I stated that we were going to use a seven stage draft model developed in one of NZCER's project to analyse epistemological shifts. However, since then I have found a simpler and already established model that can be more useful for our research (please refer to the HEA document for more information). We are going to use the model of Baxter Magolda (1992) to provide consistency in the coding of the 'shifts' (as epistemological development). Magolda (1992) identified four domains of epistemological development.

Stage 1 (dualist or absolute knowing)	Knowledge is certain and absolute. Learning is about absorbing the knowledge of 'experts'. Knowledge/answers can only be right or wrong.	I like it when the lecturers are clear and straight forward. I don't like it when they give me a lot to think about. I feel like saying: just tell me what I have to say in the exam and I will do it, stop messing about!
Stage 2 (transitional)	There are doubts about the certainty of knowledge – there is both partial certainty and partial uncertainty as well as absolute knowledge.	I have been a bit confused by the way that the lecturers present different theories. They force me to think very hard. But I don't know what I am I supposed to say in the exam – is there a right answer that they expect me to arrive to?
Stage 3 (independent)	Knowledge is uncertain and what each individual knows is a result of a different learning journey. People interpret things in very different ways and they have a right to their own beliefs. There are many possible 'right answers', many possible knowledges.	I used to think that there was a right answer for everything. Now I see that it is more complex than that: people with different belief systems may see things differently and that does not mean they are wrong. In order to understand their views, I have to listen.
Stage 4 (contextual)	Knowledge is constructed, provisional and context based.	I realize that when I am listening to others, I ask myself: what does she mean and why does she think like that? I try to relate it to my own thinking and my thinking changes when I do that.

Model of Baxter Magolda (1992); table slightly adapted from Moon (2005)

When designing your case study data collection tools you will need to think about how you can design a project that will provide data that can be analysed through these stages.

Section 7: Saying and doing

As we are going to analyse 'shifts', it is important to make a distinction between what people say and what people do. For us, as practitioners, this can be translated into our perceptions of what we intend to teach, what we teach, and what people learn (that can be completely different things). For the people we work with, if we ask: have things shifted? They might say they have (but nothing has really changed); they might say they have not (when in fact they did); they might say they do not know. So, the different 'states' below could be important when we are focusing on gathering data about shifts (as epistemological development):

Being unconsciously not competent (in terms of Magolda's stages)	'I already do that' (but the evidence indicates otherwise)	Possibly resisting the process
Being consciously not competent	'I don't know what to do'	Starting to engage with the process (or being overwhelmed)
Being unconsciously competent	'I'm not sure if I am doing it or not'	Not yet having the language to describe it
Being consciously competent	'I can identify when I am doing it and when I am not'	Having the language to describe it, the skills to demonstrate it and the means to find out contradictions in own practice

Vanessa's comments: even for those working with shifts for years, it is *very* common to catch ourselves in the state of 'being unconsciously not competent'. Five hundred years of violent conditioning in one way of thinking does not go away in a decade or two or three… maybe 10? That is why 'living' this 'postmodern' understanding puts us in a condition of constant vigilance – in the understanding that there is huge work to do in deconstructing our tendencies to control and to fix the world in our own image. That is why I propose we recognise that we are all going to catch ourselves in the state of 'unconscious incompetence' and that that is ok. I propose we allow ourselves to get it all wrong and that, in fact we see it as a great thing that binds us together: that makes us feel supported and excited about learning together with each other. This openness to being a learner and to being excited by the realisation of 'not knowing' – and hence being open to learning from and with others - is the transformative capacity of this work. The quotations below summarise this process for me:

> Those of us who attempt to act and do things for others or for the world without deepening our own self-understanding, freedom, integrity and capacity to love, will not have anything to give others. We will communicate to them nothing but the contagion of our own obsessions, our aggressivity, our ego-centered ambitions and our delusions about ends and means. Thomas Merton

Section 8: So, what's the process?

The step by step script below is offered as a guide to the process and as a way of seeing the big picture:

	In relation to Tier 1 (practitioners)	In relation to Tier 2
February	You will work with the researcher in clarifying your own understanding of knowledge/learning at the start of this process in relation to your discipline	'researchers' will collect the baseline data in relation to questions 1 and 2 and will monitor changes throughout the project
February-March	You will choose a group that you want to work with You will design a methodology for data collection towards questions 1, 2 and 4 with the group with the support of your mentor You will decide whether or not you will address extra questions related to your priorities	Researchers will mentor the design of your project which should answer question 1 and 4 in relation to the group you are working with
March-July	You will design/use a learning process with the aim to shift the conceptualisation of knowledge and learning within the group You will collect baseline data before starting the learning process with the group You will mediate the learning process and collect data while you do it (with the support of your mentor): both data about the process of the students and data about your own learning process in creating learning contexts. These are all part of your case study. You will collect data at the end of your learning process with attention to two dimensions: what participants 'say' and what participants 'do' (see section 7)	researchers will work as critical friends in observing your practice, debriefing with you and helping you manage your data (this data is collectively owned)
July – October	You will analyse the data with the support of your mentor. Part of this analysis will need to be based on the model of 'epistemological development' presented in section 6	researchers will support you in the analysis of your data
October - January	You will write up your case study (around 4000 words)	researchers will support you in the writing up of your case study
January - July	From February to July you will refine your case study	*researchers will analyse the collection of case studies and the overall data and will answer question 2
January – December 2010	Researchers and practitioners will disseminate the final outcomes together	

Remember that the information collected in tier 1 and tier 2 will be part of your case study (with the exception of the cell marked with *)

Section 9: Guiding Questions for your case study

Questions for the first semester (by Vanessa and Jane):

1. How do I understand questions 1,2 and 4?
2. How do they connect to my interests and priorities? Will I need an extra question to address my interests and priorities?
3. Who will I be working with, in what capacity and for how long?
4. How can this project's kaupapa (of shifting conceptualisations of knowledge and learning) be justified in this context?
5. How do I understand these shifts?
6. What kinds of strategies do I envisage using to shift conceptualisations of knowledge and learning?
7. What kind of data do I need to be able to perform an analysis using Magolda's model?
8. How can questions 1, 2 and 4 be 'broken down' in my context?
9. How will I collect baseline data that will show where learners are at the start of the process?
10. What instruments will I use for the collection of data while I am mediating the learning process (questionnaire, interviews, classroom observations, focus group discussion, audio/video taped conversations)? How will I collect data about my students? About my own learning process?
11. How will I collect data at the end of the process?
12. How will I collect data that address the gap between the saying and the doing?
13. How will I make data collection manageable (e.g. scale/scope, time frame, number of participants) in one semester and an exciting process for me?
14. How will I avoid the 'evaluation' route described in section 4?

In the second semester we will address questions related to data analysis and writing up – watch this space.

References

[works cited in this document]

Magolda, B. (1992) *Knowing and Reasoning in College*. San Francisco: Jossey-Bass.

Moon, J. (2005) *We seek it here: a new perspective on the elusive activity of critical thinking: a theoretical and practical approach*. London: Higher Education Academy.

Newburn, T. (2001) What do we mean by evaluation? *Children & Society*,15:5-13

Selected Bibliography

[on postmodernist conceptualisations of knowledge and learning]

Andreotti, V. & Souza, L. (2008). Global Learning in the Knowledge Society: four tools for discussion. *Journal of International Educational Research and Development Education, 31,* 7-12.

Cope, B. & Kalantzis, M. (2000). *Multiliteracies: Literacy and Learning and the Design of Social Futures*. London: Routledge.

Davies, B. (1996) *Power, Knowledge, Desire: changing school organisation and management practices*. Canberra: Department of Employment, Education, Training and Youth Affairs.

Gee, P. (2003). *What Video Games have to Teach us about Learning and Literacy?* New York: Palgrave Macmillan.

Gilbert, J. (2005). *Catching the Knowledge Wave?:The Knowledge Society and the future of education*. NZCER.

Hargreaves, A. (2003). *Teaching in the Knowledge Society*. New York: Teachers College Press.

Lankshear, C. & Knobel, M. (2003). *New Literacies: Changing Knowledge and Classroom Learning*. Buckingham: Open University Press.

Kvale, S. (1996). *InterViews. An introduction to qualitative research interviewing*. Thousand Oaks: Sage

NZ Ministry of Education (2007). *The New Zealand Curriculum* Wellington: Ministry of Education.

OECD (2000). *Knowledge Management in Information Societies: Education and Skills*. Paris: OECD.

Stake, R. (1995). *The art of case study research*. Thousand Oaks: Sage

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher Professional Learning and Development: BES* Wellington: Ministry of Education.

UNESCO (2005). *UNESCO World Report: Towards Knowledge Societies*. Paris: UNESCO.