



NEW ZEALAND COUNCIL FOR EDUCATIONAL RESEARCH

TE RŪNANGA O AOTEAROA MŌ TE RANGAHAU I TE MĀTAURANGA

Thinking together to become 21st century teachers

Teachers' work: Working paper #1

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This working paper is a snapshot of my thinking on a small exploratory project called Thinking Together to Become 21st Century Teachers. This project is part of a much larger programme of work at the New Zealand Council for Educational Research (NZCER) that is investigating the nature and demands of teaching in the 21st century, looking in particular at how people educated to work in 20th century schools can change to meet the needs of 21st century learners. This paper outlines the purpose of Thinking Together to Become 21st Century Teachers. It looks at what we did, what the teachers involved said and suggests some areas that I think are worth following up further in the wider programme of work.

What is the purpose of this research?

Thinking Together to Become 21st Century Teachers is based on the following premises:

1. According to some commentators in the field,¹ traditional teaching is no longer sufficient to educate students for the 21st century. Teachers need to think about knowledge and education in new ways. Twenty-first century teachers need to be able to think about knowledge as a tool to do things with, rather than an object to be mastered. The focus is on helping students create knowledge, not just accumulate knowledge. It is no longer enough to “fill up” learners with the knowledge they will need for life: rather, learners need to learn how to learn. Acknowledging and dealing with complexity, uncertainty and diversity is also central to 21st century education, as is the ability to think at a “systems level”.
2. Although *The New Zealand Curriculum* (Ministry of Education, 2007) provides an opportunity for teachers to work in new ways, the document will not be enough in itself to ensure change. The new curriculum describes itself as a “framework designed to ensure that all young New Zealanders are equipped with the knowledge, competencies, and values they will need to be successful in the twenty-first century” (p. 4). Its principal function is to set the direction for learning and provide guidance to schools to design their own curriculum. This openness is the document’s strength, but it is also a weakness in that it can equally be interpreted as reinforcing the status quo or giving permission to do something transformatively different.
3. If teachers do not have the opportunity to interact with the “big ideas” about what might need to be different in an education system for the 21st century, and why this is important, it is unlikely that there will be real change. Instead, new ways of thinking about education and learning are likely to be squeezed to fit the current system. New innovations will simply be adapted to fit what already happens. To be able to interpret the curriculum in a way that values “knowledge society” rather than “industrial age” ways of thinking about education requires major changes, not only in *what* teachers know, but *how* they know. Central to this

¹ Gilbert (2005), for example.

sort of change is the need to become more critically aware of assumptions, and aware of their context (Mezirow & Associates, 2000). The assumptions that underpin our current education system are deeply ingrained in teachers. They have been socialised in them as part of the process of growing up in society (including going to school) and as part of the process of becoming a teacher. These assumptions are so much part of who teachers are that they are often not even conscious of them—they are simply “just how things are”. A major change in context such as the shift to 21st century learning requires a change in people’s view of “how things are”.

4. Most current professional development for teachers focuses on adding to the store of *what* teachers know, not addressing the question of *how* they know. The Thinking Together to Become 21st Century Teachers project aimed to provide a small group of teachers with a professional learning experience that encouraged them to become more conscious of their existing tacit beliefs and to explore the limits of their knowledge. Although the focus of this project was on teacher *thinking* rather than *practice*, we wanted to encourage the sort of reflection that would be likely ultimately to lead to changes in practice. This sort of reflection is described by some in the field of adult education as transformational. For example:

Reflection that just lets a person see what already is—without new lenses through which to view new possibilities, question old assumptions, and so on—is unlikely to lead to new actions. Reflection that does not simply notice what is but begins to unpack what is (to question assumptions, use new lenses, new perspectives etc.) is by definition transformational. This transformational reflection has a much better chance of leading to changes in action. (Garvey Berger, 2004)

The Thinking Together to Become 21st Century Teachers project, then, attempted to provide opportunities for transformational reflection, in the belief that this was likely ultimately to lead to teachers interpreting *The New Zealand Curriculum* (Ministry of Education, 2007) in ways that would better support 21st century learners.

What we did

This project had two components:

- a professional development component
- a research component.

Recruiting participants

Late in 2007 I approached a principal who had worked with NZCER before and invited his school to participate in this project. The school is a decile 1 full primary. According to the 2009 Education Review Office (ERO) report, the ethnic make-up of the school roll is approximately 44 percent Samoan, 25 percent other Pacific groups, 23 percent Māori and 8 percent other ethnic groups. The

school agreed to participate and all interested teachers were invited to participate. Seven teachers volunteered.

The professional development component

The professional development part of the project consisted of three half-day workshops run between May and October 2008. These workshops were jointly planned by Vanessa Andreotti (University of Canterbury) and Ally Bull (NZCER).² Vanessa facilitated the workshops using a set of pedagogical tools³ to prompt discussions around issues related to education in the 21st century and *The New Zealand Curriculum* (Ministry of Education, 2007). These tools were developed by Vanessa Andreotti and Lynn Mario de Souza (University of São Paulo) from work they have done in a variety of international educational initiatives. The resources aim to:

- enable educators to engage with a level of complexity in the debate around the “postpositivist turn” in education, where different perspectives can be contemplated
- address the interface between mainstream and emergent thinking in education, making connections with pedagogical practices
- affirm their partial and limited nature (i.e., the fact that the tools themselves are also presenting a “perspective”) and to invite critical dialogue—encouraging educators to engage critically with the tool itself vis à vis their personal and professional contexts
- encourage educators to “think otherwise” (to find their own voices and positions within the debates).

(Andreotti & de Souza, 2008)

² Data gathered in each workshop, and through focus groups, were used to inform the planning of the following workshop.

³ Some of the pedagogical tools used can be found at www.osdemethodology.org.uk More information about the tools used is also included in the appendix to this paper.

Workshop 1 involved a brief presentation and discussion about 21st century education, and an introduction to some of the pedagogical tools. Workshop 2 consisted of discussions about nested systems (i.e., interactions between the education system, the economic system, society and culture, and the natural world) and different views of education. The final workshop looked at global power relationships and some different views of intelligence/ability.⁴

The research component

The research component of the project collected data on teachers' educational beliefs before and after the professional development, looking for any shifts in their thinking. Specifically, we were interested in these questions:

1. How do teachers in this project think about knowledge and education?
2. Do teachers think differently about knowledge and education if they are provided with opportunities to engage in educational debate where different perspectives are contemplated?
3. What sense did teachers make of this professional development experience?
4. How does teachers' sense making about this experience relate to patterns of change in their lives?
5. How does this experience affect their sense of identity as teachers and their sense of practice?

Each of the professional development workshops was attended by two researchers from NZCER. Each workshop was also followed up with individual interviews with each of the teachers or a focus group discussion. In the individual interviews (after Workshop 1), teachers were asked for any thoughts they had arising from the workshop, for their ideas about the purposes of state-funded education and about how they made decisions about what was important to teach and what students had learnt. The intent of these questions was to understand each teacher's thinking about knowledge and education.

In the first focus group (after Workshop 2) there was a discussion around the relative importance of the different learning areas in the *Curriculum*, again as a way of finding out more about teachers' underlying beliefs about knowledge and education. In a second focus group (after Workshop 3) the discussion was around change in people's lives and their personal orientation to change. The purpose

⁴ The discussion about different views of intelligence/ability was based on ideas from Guy Claxton's book *What's the Point of School? Rediscovering the Heart of Education* (2008). This was included in an attempt to finish the series of workshops with some practical ideas that the teachers might be able to use within their programmes. We did this because we did not want to leave teachers challenging everything about their current practice with no sense of a way forward.

of this discussion was to try to get some insight (both for the researchers and the teachers themselves) into how individuals respond to change and whether there were links between how comfortable they felt with change and uncertainty in this professional development and in the rest of their life. There was also a final round of individual interviews in late November 2008. In these, teachers were asked for their views on the impact of this professional development.

All workshops, focus groups and individual interviews were audio recorded. Individual surveys about *The New Zealand Curriculum* (Ministry of Education, 2007) and any written work completed as part of the workshops were also collected as data. Teachers were invited to keep journals during the project; however, only one teacher did this after one of the workshops.

As this was a very small, exploratory project run in a short time frame it would be unrealistic to expect major shifts in teacher thinking, let alone any sense of whether or not these shifts were sustained, or what the implications were for teacher practice. However, teachers' responses during and after the professional development sessions raised some interesting areas to probe further. In the next section I discuss the responses of the four participants who attended all three workshops and all data-gathering sessions. This group of four included Scale A teachers and members of the senior management team. They had varying levels of experience and taught at different levels of the school. All four teachers in the study are Pākehā.

What the teachers said

How do the teachers in this project think about knowledge and education?

Two teachers talked about the purpose of education in terms of individuals. For them the purpose of education was to produce lifelong learners. The other two talked about the purpose of education at more of a societal level. Diane⁵ saw the purpose of education as being to “produce citizens who can make the world a better place”. Specifically, she thought the education system should be aiming to produce “confident, caring, code-breakers”.⁶ Anne thought the purpose of education was to “enable children to participate successfully in society”. Both these teachers felt very strongly that our current education system is not equitable. For them, “middle class values” dominate and “Not everyone gets a fair suck of the sav!”

There was a high level of agreement among the four teachers as to the importance of developing particular skills, attitudes and dispositions in their students. Confidence, curiosity, self-motivation, flexibility, empathy and the ability to think, question, make connections and consider alternatives

⁵ All names are pseudonyms.

⁶ Diane said this term was not original (she had heard someone else use it) but she felt it captured her own beliefs well.

were considered important. These teachers all believed that relationships were critical for effective learning.

However, there was a range of opinions on the importance of subject content knowledge. Diane thought, for example, that “No learning area is essential—everything should be integrated into meaningful contexts.” Beth did not consider subject knowledge important either. She felt that teachers should teach what they are passionate about. She felt the important skills and dispositions could be developed through any subject area. She gave an example of teaching art to develop resilience. Cindy also saw the different learning areas as vehicles for developing skills, although she felt different subject areas developed different skills. For example, for her the purpose of teaching English was to develop communication skills, and the purpose of science was to develop questioning skills. Anne, on the other hand, although agreeing that the acquisition of skills, dispositions and attitudes was important, thought subject content knowledge was important too. In her words, “You have to do the apprenticeship to understand the experts.”⁷

All the teachers seemed to see learning as a socially constructed activity; in other words, taking place with others. Cindy talked about the importance of students talking together, “pushing up against difference as a way of clarifying their own beliefs”. Beth also talked about the importance of encouraging students to talk so that they could build on each other’s ideas. She recognised the varied expertise the different children in her class brought with them. She said she saw her role as supporting her students to become increasingly independent of her. Beth wondered about how learning could be assessed in ways that allowed students to show what they could do with others, rather than just individually.

All four teachers expressed concerns about how learning was measured. Cindy talked about learning requiring repeated experiences, and that you couldn’t ever be really sure whether or not something had been learnt. Anne agreed with this too, saying, “Just because you can’t see it, it doesn’t mean it hasn’t been learnt.” She wondered how quickly after a learning experience it was appropriate to try to assess the learning and suggested “If you really want to know what someone knows, not just what they remember, assessment should be delayed—maybe for six months.” For Diane, learning “comes and goes—it is about making connections”. One of these teachers thought many current assessment practices had more to do with teacher accountability than student learning.

⁷ Another teacher in the study, who did not attend all sessions, also felt strongly about the role of subject content knowledge. For her, specialist content knowledge was important for effective integration. She said “I still believe in specialisation—this is necessary if you want to be an expert.” She worried that this was being lost.

Do teachers think differently if provided with opportunities to engage in educational debate where different perspectives are contemplated?

At the beginning of the project we asked the teachers for their views about the purpose of education. All the teachers gave answers that seemed consistent with the curriculum document, but many said they had never really questioned the purpose of education before. During the project, though, all four teachers commented that they were now constantly thinking and talking (both inside and outside school) about what might need to be different in a 21st century education system. Cindy in particular talked about the idea of knowledge being a process rather than a thing. All four teachers talked about the gap they saw between how they wanted to teach, and what they knew how to do.

Throughout the project, all the teachers said that they were becoming increasingly aware of their own assumptions and how embedded they were in the current system. Diane said, “The current system doesn’t work but I can’t imagine an alternative. I can’t think outside the system. It is self-perpetuating.” Beth commented several times during the project on her growing awareness of the beliefs underpinning her practice: “I have realised that I have thoughts etc. that I didn’t know I had! I am more like my grandparents than I thought.” She talked frequently about a growing awareness about a gap between what she wanted to do and what she knew how to do. She pondered: “How easy is it to change from one way of viewing the world to another and what stops us from doing this even when we really want to?” In relation to the current education system she said: “We have picked ideas from everywhere and then we wonder why it doesn’t work.” Anne also showed the ability to step outside the current education system long enough to reflect on how it tried to “reconcile the irreconcilable”. Anne realised that the education system still served a “sorting function” and this was, in her mind, in conflict with equal opportunities for all. She wondered who should decide what should be in the curriculum.

The depth of thinking illustrated in these comments was illustrative of many of the discussions that took place during the project. In particular, as the project continued, more nuanced understandings of diversity emerged. Teachers began to grapple with how to value difference while still maintaining some sense of coherence in society. They talked about individual good versus common good; whose knowledge and ways of doing things should be valued; who should decide what is good for society; who holds power; and so on. They discussed whether or not schools should be teaching middle-class values (if that is what is valued in society) so that all students had a chance to “play the game”. Diane articulated some of these tensions saying:

Some kids start school with a head start but we need to think about where we want kids to go. Is the head start in the right direction? Should we be trying to catch kids up? How do we value other skills and experiences?

What sense did teachers make of this professional development?

According to Diane, professional development such as this that challenged teachers to *think* was unusual. She said, “I have never been challenged before like we are at this table.” When reflecting on

the first workshop session, the teachers unanimously agreed it was useful talking with others about these “big ideas”. Responses included:

It’s hard to think at a deep level like that—you need time to mull things over and people to trigger other thinking.

Everyone came from similar philosophies about education so we could build on each other’s ideas. There was not *too* much agreement. It was very thought provoking.

It would’ve been harder if you didn’t have this safe environment. It allowed us to think hard.

My head’s exploding—so many different thoughts.

I wonder what would have happened if there was real disagreement. Would I have listened or tried to convert people?

During the project all the teachers experienced times of confusion. Responses varied as to how teachers dealt with this sense of confusion. Anne, for instance, seemed keen to explore hard ideas in depth even though this led her to question everything she was doing as a teacher, and to wonder whether she wanted to continue teaching. She said she was “horrified by her own assumptions”. Diane was also keen to engage deeply with these ideas but seemed more comfortable in living with the uncertainty and tensions the discussions uncovered. She was happy to think and talk but then to choose “to leave what’s too hard to deal with now”. For Beth, the main benefit of these discussions seemed to be what she learnt about herself. She said she liked the ideas she was being exposed to but had “no idea what to do”. This did not seem to worry her. Cindy seemed to maintain a strong sense of how she wanted to be as a teacher throughout the project, even though at various times she commented that she was becoming more and more confused and that the ideas were hard. She was a quiet group member, but said she loved being challenged. She attempted to link what was being talked about to the particular students in her class.

In what ways does their sense making about this experience relate to patterns of change in their lives?

When reflecting on change in their own lives, all four teachers mentioned a “sense of belonging”, or at least the support of others, as being important factors influencing how easily they coped with change. Beth specifically attributed her perceived ability to “let things go if they weren’t working” to the support she gained from secure relationships with family and friends. Diane identified many people in her life who had been influential in helping her see “otherwise”. Whilst acknowledging the importance of the support of other people, she also identified that a sense of freedom was becoming increasingly important to her. Beth and Diane were two of the teachers in this study who seemed perhaps most comfortable with ambiguity and uncertainty in the workshop sessions. Anne identified change as an opportunity for growth. She said that change she made from choice rather than change that was imposed was more likely to lead to her being able to see herself and things differently. Unlike Beth and Diane, she said she often felt she lacked a sense of belonging.

How did their experience in this project affect their sense of identity as teachers and their sense of their own practice?

All the teachers at the end of the project said that the implications for their practice from these discussions were that they felt they needed to “step back”, “relinquish some power” and “not have all the answers”. They talked about the importance of promoting “open dialogue” in classrooms and the importance of *really* listening to diverse perspectives. All teachers also said they would find this difficult to do. They felt there was a need to look at both internal and external barriers to achieving this. External barriers they cited included expectations of planning and reporting, external agencies, such as ERO, and parental expectations. Diane felt the reforms of the 1990s had led to a deprofessionalisation of teaching and a climate that inhibited teachers’ willingness to question. She also said that she felt there were particularly high external demands on low-decile schools to show that they were making a difference to student learning, and that this could inhibit teachers from trying out new ways of doing things. Beth talked about how she had to overcome feelings of guilt that she was being lazy when she let the students in her class talk to each other, rather than to her, to gain new understandings.

What does this mean?

All⁸ of the teachers who participated in this study talked about shifts in their thinking. They said they were now more aware of their tacit beliefs about learning and education. They also said they felt motivated by the professional development—they felt they learnt from talking to others, and they had plenty of opportunities to do this. Nearly all of the teachers showed an interest and willingness to engage deeply with “big ideas” about education and alternative viewpoints throughout the sessions. They all said, at the end of the study, that they felt they had developed a vision of how education could be different in the 21st century. Most⁹ of the teachers also said they felt a mismatch between their vision of how education should be and their practice. All the teachers said that they wanted to relinquish more power to their students than they felt they currently did. They also said they thought this would be difficult for them.

The enthusiasm of this group of teachers for this approach to professional development suggests that there are some ideas here that are worth exploring further. However, it is important to remember how small this study was, and that this particular school already has in place many conditions that seem likely to support this type of learning. The teachers in this school already have a reason to want to try to do things differently. They know that the current education system is not working for many of their pupils, and that more of the same is not likely to make it better. In fact, when teachers in the project

⁸ This includes the four teachers who attended all sessions as well as the three who each missed one session.

⁹ Five out of seven.

talked about their early teaching experiences at this school, regardless of how much prior teaching experience they had, they all talked about how they had to re-learn how to teach when they came to the school. All the teachers in this study seemed very aware of the difference between their own backgrounds and those of the majority of their students, and for many this perceived difference seemed to encourage them to question some of their assumptions and underlying beliefs. There was also just enough difference *within* this particular group of teachers for them to be able to bump up against new ideas and in this way clarify their own ideas. Finally, this school already seemed to have in place a strongly collaborative culture where teachers' individual strengths are valued and where professional discussion and innovation is encouraged. In that way, the teachers seemed already willing and able to participate in and benefit from the opportunities for transformational reflection provided by this project.

Where to now?

It seems to me that there are at least four possible areas to explore further:

- the role of teachers' life experiences in influencing how they respond to change
- the benefits of working with a framework of adult development
- the conditions that support transformational learning
- how best to provide opportunities for teachers to engage with "big picture" ideas about education.

Responding to change and uncertainty

Despite the similarities between what the different participants said about this professional development experience, as researchers we noticed a range of ways that participants seemed to deal with uncertainty and ambiguity throughout the project. This made me wonder how teachers' previous experiences with change affected how they responded to new changes, and whether knowing more about this would help individual teachers cope better with uncertainty, rather than shy away from it, back to the known. For example, Fink and Stoll (2005) and Geijsel and Meijers (2005) identify the importance of the interplay of cognition and emotion in effective professional learning. What are the personal and biographical influences that affect how teachers respond to change, and how might we be able to mediate these influences? In particular, I became increasingly interested during the project in the role of a sense of "otherness" in transformational learning.¹⁰

¹⁰ According to many writers about transformational learning (e.g., Daloz, Keen, Keen, & Parks, 1996; Tang, 1997), a sense of "otherness" (i.e., engaging with difference) is key to this sort of learning.

Frameworks of adult development

It also seemed to me that although the different participants might be saying quite similar things, there was a sense they meant different things: that is, that they were making meaning of the experiences in quite different ways, although it was hard to pin this down. This left me wondering whether it might be useful to look at some of the “maps of development” constructed by adult developmentalists¹¹ who seek to identify and chart the way the meaning-making systems of adults change over time. There are three ways that this might potentially be helpful. Firstly, sharing some of these “maps” or developmental frameworks might help focus participants on the *process* of making meaning; in other words, on *how* they know, rather than *what* they know. It might also help participants understand (and perhaps tolerate more readily) the importance of ambiguity and uncertainty in developing a new perspective.

Secondly, insight into participants’ “levels of consciousness” (Kegan, 1994) might help those facilitating professional learning in schools to structure discussions and activities in ways that are appropriate to individual needs, and therefore more likely to support participants in moving toward more complex ways of making meaning. If, as Kegan suggests, it is important for adults to make meaning in increasingly complex ways to be able to function adequately in today’s world, it would seem particularly important that teachers are able to do this if they are to be able to prepare students adequately for their future. If change in meaning-making systems was better understood, perhaps then teachers would be better prepared to put in place strategies and structures to lay the foundations for the development of increasingly complex meaning-making systems in their students. (Teachers’ understanding of how students make meaning seems particularly relevant if they are serious about developing, for example, the key competencies in *The New Zealand Curriculum* (Ministry of Education, 2007) in more than at a superficial level.) The third way these “maps” might be helpful, then, is as a way of supporting teachers to *do* something different with their students.

Conditions that support transformational learning

If we are really serious about investigating how to better support teachers to work more effectively with 21st century learners, perhaps we also need to explore the conditions that encourage transformational learning—the type of learning that happens when we shift not just what we know but how we know. Perhaps it is time to think about how schools can provide conditions that might facilitate this sort of growth and development. According to Parks Daloz (2000), opportunity for engagement with “otherness”, reflective discourse, a mentoring community and opportunities for committed action are important for transformation that leads to social responsibility. It seems likely these conditions could be relevant to teachers too. What might these conditions look like in a school setting, and what other conditions might also be important?

¹¹ See, for example, Baxter Magolda (1992), Belenky, Clinchy, Goldberger and Tarule (1996), Kegan (1994) or Perry (1967).

Input of ideas

Finally, it seems critical to me that teachers are provided with opportunities to engage with “big picture” ideas about education and society. The challenge here, of course, is that teachers are busy people who are already juggling the endless day-to-day demands of teaching. Just finding the space to stand back long enough to reflect on the big picture is difficult. However, if real change is to happen then it is important for teachers to take the time to consider why they do what they do now, whether or not this is still important and what really drives their practice. In order for this to achieve its transformational potential, teachers also need to be exposed to ideas and experiences that problematise their current practice in some way. The question then is which ideas and experiences will really help teachers make meaning in new ways?

Thus, although *The New Zealand Curriculum* (Ministry of Education, 2007) provides an opportunity for teachers to do things very differently, little is likely to change unless teachers themselves see a need for change. At the very least this involves teachers having the opportunity to engage with the “big ideas” about 21st century learning. However, again, this on its own is unlikely to create real change. Unless teachers also have the opportunity to become more aware of the tacit beliefs and assumptions that underpin their current practice, the implementation of *The New Zealand Curriculum* (Ministry of Education, 2007) will mean little more than attaching new labels to old practices. To be able to interpret the *Curriculum* in a way that values “knowledge society” rather than “industrial age” ways of thinking about education requires changes not only in *what* teachers know but also *how* they know. If we are really serious about supporting teachers to work in new ways, and deal more readily with the complexity, uncertainty and ambiguity inherent in today’s world, we need to further explore ways of providing professional learning that do more than just add to *what* teachers already know.

In this paper I have identified four possible directions for exploration. However, there may well be others. What do you think? Join in the discussions about 21st century learning on www.shiftingthinking.org/

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Appendix

Notes about the pedagogical tools

Vanessa Andreotti

The theoretical framework which informed the design of the pedagogical tools and the learning process they encouraged was based on poststructuralist and postcolonial theories (especially the work of Homi Bhabha and Gayatri Spivak) and responded to issues emerging from interdisciplinary discussions around globalisation, power, identity and alterity. The pedagogical framework of this learning process was conceptualised around shifts related to notions of knowledge, learning, identity and culture which are similar to the shifts promoted in recent educational literature around the knowledge society and education in the 21st century within a postmodern framework (see Claxton, 2008; Gee, 2003; Gilbert, 2005; Richard & Usher, 1994). However, as poststructuralist and postcolonial theories take epistemic violence and justice as starting points instead of prioritising cognitive adaptation to a new social and economic order within education, the pedagogical process of these tools focuses on issues of alterity, relationality and response-ability (see Derrida, 2001; Falzon, 1998; Levinas, 1998; Said, 1993), the pluralisation of epistemologies (see Bhabha, 1994; Nandy, 2000; Santos, 2007; Ziarek, 2001) and critical/self-reflexive and affective capacity building (see Benhabib, 2002; Britzman, 2006; Spivak, 1999).

Using a deconstructive approach to learning, the set of pedagogical tools was greatly influenced by Spivak's (2004) conceptualisation of education "to come" in the humanities as an "uncoersive rearrangement of desires" (p. 526) prompted by a process of unlearning, learning to learn from below and learning to work without guarantees. In her preface to Derrida's (1967/1976) *Of Grammatology*, Spivak conceptualises deconstruction as a mode of critique that points out that in any construction of an argument certain (ontological and epistemological) choices are made and "forgotten", becoming part of implied premises that sustain the argument. Deconstruction is a strategy that enables the remembrance of these forgotten choices, the interrogation of their validity and the opening up to other possibilities of understanding and negotiations as it unsettles dominant discourses from "within", creating constructive questions and corrective doubts towards better practice and ongoing (never-ending) dialogue (Spivak, 1994), which seem central to lifelong learning. The deconstructive approach in these tools was also a point of alignment in relation to Gilbert's (2005) work.

Deconstructive approaches can be used in different ways with different purposes. Where to stop the deconstructive process in educational processes is an issue of contention. The pedagogical tools were developed to prompt a deconstruction of universalising notions of reality and knowledge, which can also be related to "20th century thinking" in education. They aim to create opportunities for learners to

experience learning to live with complexity, uncertainty, contingency and difference. The pedagogical tools provided a safe space and stimulus for learners to engage in controlled situations where they were invited and encouraged to compare the construction and implications of different epistemologies (including their own epistemic choices), to find blind spots and contradictions and to learn to listen and to “re-signify” with others in noncoercive ways (not aiming towards consensus).

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