Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

SHA04558

What counts as knowledge in teaching and learning processes? The curriculum as stated and the curriculum as enacted

Susan Krieg & Sue Sharp
School of Education, Edith Cowan University

Susan Krieg
Course Coordinator Bachelor of Education: Kindergarten through Primary
Edith Cowan University
100 Joondalup Drive, Joondalup
Western Australia 6067
Ph: 6304 5008
Fax: 6304 5850
Email: s.krieg@ecu.edu.au

Sue Sharp
Lecturer
Edith Cowan University
100 Joondalup Drive, Joondalup
Western Australia 6067
Ph: 6304 5484
Fax: 6304 5850

Email: s.sharp@ecu.edu.au

Key words; pre-service teacher education programs, curriculum, new pedagogies

Abstract: The connections between 'what counts' as knowledge (as defined in the documented curriculum), and teaching and learning processes enacted within pre-service teacher education programs are often difficult to find. This paper investigates connections between the curriculum (as stated) and the curriculum (as enacted) within a particular unit within the Kindergarten through Primary teacher education program offered at Edith Cowan University. The curriculum analysis presented in the paper makes explicit the role that the documented curriculum plays in institutional settings, in naming and organising the knowledge that is considered essential and valuable within particular contexts and explores the relationship between this and teaching and learning processes.

Maher and Tetrault (1999) describe a division between knowledge and pedagogy that exists in many higher education institutions. These researchers argue that this split is related to the epistemological position that sees knowledge as a disinterested search for universal truth, and that within this frame, knowledge is disconnected from the processes under which it is produced. This division denies any concept of knowledge as an evolving process, and in this denial, reduces the roles of teachers and students as active constructors of new knowledge. The paper describes pedagogy enacting a curriculum that connects epistemological positions with teaching and learning processes.

INTRODUCTION: Curriculum as a construction site

This research explores the relationship between the 'official' university curriculum and the planning of day-to-day teaching and learning events (the lectures and tutorials) for a particular unit within a teacher education course. The metaphor introduced in the title of this paper is selected carefully as a way of scaffolding (an important concept in construction terminology) the discussion of the research. The notion of curriculum as a process of 'construction' in some ways both connects and contrasts with the metaphor used by Grumet (1978) in her seminal paper entitled 'Curriculum as Theatre'. While both metaphors present curriculum as 'unfinished' and as offering multiple future possibilities, the construction perspective also signals that there are limits and constraints in the process of development. Examining what some of these multiple possibilities and constraints might be, is conducted through a detailed analysis of the planning documents. The research involves an exploration of the planned teaching and learning processes (as developed by the unit co-ordinator), and whether these contribute to the development of particular ways of

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

'knowing' and 'being' for the people involved in the educative process. The questions that drive the research, focus on the relationship between participation in particular education communities and identity. Could the proposed teaching and learning processes be contributing to the construction of a particular sense of professional 'teacher' identity, for both students and academic staff? This research explores *whether* there is a relationship between the planned educational learning event, and the development of identity. If there is a relationship, *what* might that relationship be?

Discourse Analysis offers useful conceptual tools for examining the questions that have been raised**.** The analysis consists of an examination of some of the written text used to plan the teaching and learning processes for the unit. Because text operates in ways that mediate social relations, an important aspect of this research involves examining how the unit texts "work to assemble relations between people" (Freebody & Baker, 1996, p.152). How do the statements/ questions made public in the unit documents, position the university lecturer/ student? Alongside this question, because the unit content is concerned with teaching and learning processes in schools, it is important to ask what work the unit texts do in positioning children and their teachers? Does the text of the lecture slides, tutorial plans and assessments, indicate and present opportunities for student teachers to take up different identity positions in relation to learning/children, than those previously offered in teacher education courses?

Course design: A process of change?

In his introduction to a themed edition of an international journal on teacher education, Eraut (2000) raises a question concerning the extent that teacher education courses are designed at all! He makes the point that given how powerfully the market demands influence the decision making processes, with governments often determining the length and funding of programs, and that the institution responsible for the program, may be highly restricted by approval processes managed by those who have little understanding of teacher education, it is possible to perceive that the process may "resembles the negotiation of an international treaty more than the design of a simple course by those preparing to teach it" (p. 454). This recognition that any teacher education program is derived from a wider range of policy decisions is important as a reminder of how these decisions "*constrain and interact* during implementation" (Eraut, 2000). It is an important backdrop to the analysis of any particular program, in this case the Kindergarten through Primary Bachelor of Education degree at the Edith Cowan University Joondalup Campus in Western Australia which was developed in 2001.

The course proposal (2001) claims that the course is unique in the way it prepares teachers to develop the broad philosophical and pedagogical base necessary for educating children across the early and middle childhood years. An important aspect of the course design was the intent of specifically addressing traditional dis-junctures between the pre-compulsory and compulsory years of school. The proposal states "all units of the course are framed from this base to include knowledge of children's learning and development in varied educational settings." This claim is significant to the current research, as it signals that this unit is part of a process of change. The analysis investigates the claims made regarding the course bringing together the traditionally separated early childhood and primary ideologies and exploring the tensions associated with curriculum as a process of change.

One of the recurring questions in this research relates to the effects of blurring the distinction between teaching in 'early childhood' and primary years. What are the implications of this blurring and how is this reflected in the student\ teacher 's sense of identity? The Course Principles are a useful starting point for the exploration of these questions.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Architectural design: The course principles

The Course Proposal states that there are articulated principles that are intended to drive the coherence and connectedness between the varied components of the course. What do these course principles mean in terms of the development of professional identity? Where did these principles originate? How were they developed? As the newly appointed 'Project Manager' of the course, I was given the task of drafting the principles. Notes and papers from the group who had developed the course thus far were an important source of ideas. Discussions with interested and involved academic staff, and my own research, reading and previous experience as a classroom teacher, school principal, curriculum writer and researcher informed the development of this important component of the proposal. When the first draft of the principles was complete, this was sent to all academic staff working in the School of Education for comment and feedback. The comments were taken into account, and the principles were then incorporated into the Course Proposal.
The principles are as follows:

1. The course models engaged pedagogy of the form that we would wish to see enacted in future centres/classrooms. This includes active, independent and reflective learning involving ongoing dialogue about important ideas, connected with prior knowledge and experience that sustains dispositions for learning.
2. The program delivers higher order thinking and understanding of the central ideas of the disciplines /learning areas in order to achieve high intellectual quality.
3. The interrelationship of content, curriculum, pedagogy, cultural and child development knowledge forms the foundation for the development of practice that is knowledge based.
4. The relationship and connections between research, practice and theory is modelled and made explicit. As a result graduates will be capable of making professional judgements and acting on those judgements in the interest of the children in their care.
5. Diverse cultural knowledge of race, gender, ethnicity, socio economic position, community and disability, are valued to ensure that learning is connected to experience. Processes that develop an understanding of identity, a sense of belonging, collective responsibility and collaboration are modelled.
6. The development of relationships based on trust, integrity and respect, and equity are fundamental to the program. The course models and practices collaboration among teaching staff on campus and in partnership with cooperating schools and centres.
7. Reflective processes are modelled and practised. Students are supported to understand how teachers operate in the evolving education system, in a socially dynamic world, they are encouraged to consider how things could be different, and the possibilities for change.
8. The potential of Information Communication Technologies is recognised and used to enhance learning in all aspects of the program. The selection and application of appropriate technology supports the development of confidence, knowledge and skills in using it more effectively as a tool for learning.

Does the enactment of these principles in the planned curriculum, in this unit, offer student teachers opportunities to take up different identity positions in relation to children, teaching and learning than those on offer in previous teacher education programs and courses?

Developing plans: A multi- phase project

The teaching and learning processes planned for the unit are part of the university curriculum development process. When discussing curriculum development, curriculum theorists often refer to different aspects of the process as the 'planned', 'enacted' and

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

'experienced' phases. Jackson (1992) points out that these ideas have been introduced in curriculum studies, as attempts to clarify the slippery concept of 'curriculum' and provide a 'language' for helping us to think and talk about curricular issues that might have otherwise been over-looked. These terms help clarify exactly which aspects of the curriculum development process are being investigated. Zumwalt (1988) refers to these terms in the following way, "The set of announcements is sometimes referred to as the 'official' curriculum, whereas the actual offerings have been called the 'enacted curriculum" (in Jackson, 1992, p.9). Curriculum is rarely delivered as planned. There are differences between what appears in the teacher's guide or textbook, the latter being a part of the 'enacted' curriculum, and what is actually 'taught' (the actual words and messages that are communicated in the lectures and tutorials). There is further distinction between what the teacher teaches, and what the learner learns, often referred to as the 'experienced' or 'received' curriculum.

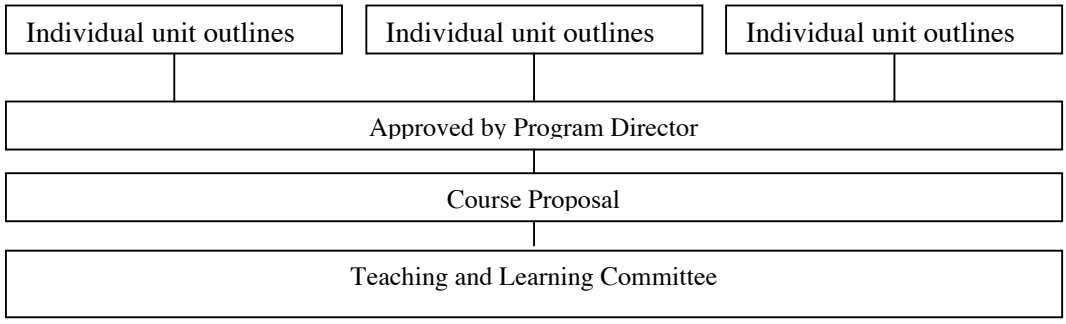
The phase being examined in this research, is the 'enacted' curriculum, concerned with the decisions that are made about "*how* the curriculum can be implemented" (Marsh & Willis, 2003). Before examining the relationship between the planning for this unit and how the processes within this unit relate to the other phases of the university curriculum development, it is important to consider what constitutes the 'official' university curriculum?

Submitting the plan: The unit situated within the 'official' university curriculum

One of the processes by which universities establish 'what counts' as knowledge, is through rigorous review of the 'planned' curriculum. At each stage of the planning, the 'approval' process ensures that the knowledge that is considered valuable (within the particular university context) is the knowledge that is documented. The unit under analysis provides a good example of this 'approval' process in action. The unit is one of 32 units, designed and developed in 2001 as part of an innovative, new teacher education degree. The development and writing of each new individual unit outline, was undertaken by Edith Cowan University academic staff members. As a newly appointed member of staff, I was responsible for developing 3 units. Each unit outline was examined closely by the Program Director. Modifications were often recommended and made during this phase of the course development. Final approval, by the Program Director, meant that the unit outline was incorporated into the course, as part of the official course proposal.

Alongside the unit development and approval process, the Course Proposal was also being written. This document included information regarding the 'market demand' for the course, the course structure and intended outcomes. I was largely responsible for writing this document and needed to incorporate the planning and thinking that had taken place prior to my taking up my position at Edith Cowan University. The 32 unit outlines formed a major component of the Course Proposal. Once completed, the Course Proposal was submitted to the Faculty Teaching and learning Committee for approval. Following this approval, details of the course could be published in the 2002 University Handbook.

The curriculum approval process can be represented as follows:



Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

The next phase of the curriculum process involved Unit Co-ordinators, taking the unit outline, and then proceeding to plan 'how' what was recorded there, as the unit content and outcomes (the official plan), would be implemented. This is the phase that is analysed in the current research. An important aspect of this 'interpreting' and decision making by the unit co-ordinator involved using the principles outlined in the Course Proposal to guide decisions about teaching and learning processes.

The unit outline: A building block of the 'official' curriculum

As stated in the introduction, the phase of curriculum being examined in this research, is the 'enacted' curriculum, concerned with the decisions that are made about "*how* the curriculum can be implemented" (Marsh & Willis, 2003). The analysis focuses on how the 'official university curriculum' is interpreted in the planning of the teaching and learning within a particular unit. What constitutes the 'official' university curriculum? The unit outline is the document used by the unit coordinator (the person responsible for developing the unit), as the basis for planning. The 'Guide for Teaching at Edith Cowan University' (2003) makes the status of the document clear in the following statement, "The *unit outline,* is a document that is approved by the university, providing a clear statement to both students and staff of the essential details of the unit and how it is taught" (p.14). These documents provide some indication of the type of outcomes, content, teaching and learning processes and assessments expected for the unit. What messages does the text of the unit outline communicate regarding teaching and learning? An overview of the broad structure of this document provides a useful framework for the subsequent detailed analysis of the teaching and learning processes of the unit.

Each unit outline has a title and a unit code. The title of the unit being analysed is 'Learning and Development 2' and the unit code is EDL1201. This unit is a first year Education Studies unit, one of 2 units focused on Learning and Development. Both units are designed to develop students' foundation knowledge and understandings in relation to teaching and learning, with a focus on the learning process. The unit title places 'learning' first. Analysing the *ordering* of the message contained in a statement is a useful way of interrogating the importance of the ideas that are introduced. Halliday (1985) states that "...every clause is a structured message… and the English message structure is expressed by word order: the theme comes first" (p. 73). Although the unit title may not be considered a 'clause' in linguistic terms, the principle of considering the first idea introduced in such as a statement is useful in clarifying the relative significance of the ideas in the message. The rest of the title adds another 'big idea', that of 'development' to the message. The unit title is not only prioritising these important concepts, but is also signifying difference. What is the relationship between this title to the discursive landscape in which it is located? Within educational contexts, the difference between the concepts of 'learning' and 'development' is often unclear, and they are often used in confused and confusing ways. Kroll (in Rainer, 2002) makes the point that while they both refer to processes of change in knowledge, they are "different, but mutually dependent processes… learning can be thought of as particular changes in knowledge and skills while development can be thought of as broader systemic change" (p.35). She further elaborates on this difference with the statement that "There is general agreement, both in formal theory and in everyday discourse, that learning refers to a kind of change that comes with *experience*, while development refers to a kind of change that comes with the passage of t*ime*" (p.194 italics added).

This brief look at the unit title reveals that the content of the unit includes a complex web of ideas that are highly contested. How do the other sections of the outline relate to the ideas introduced in the title? The standard ECU format for unit outlines is strictly regulated, and the first section of each outline consists of a brief description of the unit. For EDL 1201, the

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

unit 'description' is presented below. The words identified (underlined), provide evidence of direct links back to the wording in the Course Principles.

> This unit will use reflective processes to engage and extend students' thinking about children's learning and development. The focus will be on how children's learning is constructed, and how it changes over time. The unit will analyse the physical, cognitive, emotional and social development of children between four and twelve years and the associated implications for teaching. This unit aims to provide students with a sound knowledge base from which they will be able to plan, deliver and evaluate high quality programs for children during early and middle childhood.

It is important to note how the language used in this section positions the student. The first sentence states that '*this unit* will use reflective processes to engage and extend student's thinking….' It is as if the unit has become the subject and the students are positioned as 'being done to' or 'objects'. This linguistic pattern is repeated 4 times in this section with clauses such as 'the unit will analyse…', 'the unit aims to provide students with…' and 'the focus will be…'. The description is then followed by a list of 'Outcomes'. These state that students will:

> 1 use reflective processes individually, and in group situations, including dialogue, recording, interactive technology, reading and viewing to make connections between autobiographical experience, research and theory, to attitudes and understandings about learning over time;

> 2. begin to use a theoretical knowledge base to analyse the ways decisions are made about teaching are made and implemented in relation to learning and development;

> 3. describe the relationship between cognitive, physical, social and emotional development:

> 4. demonstrate an understanding of the factors involved in planning learning programs that meet the social, emotional, physical, cognitive and developmental needs of children between three and a half and twelve years.

Again, words and phrases of the text indicate the key concepts that refer to the Course Principles. Each of these outcomes begins with a verb (use, describe, demonstrate), signalling the importance of active learning.

The 'content' of the unit is described as:

> 1 the social and emotional dimensions of learning

> 2 reflection as a learning process;

> 3 the process of learning and development: implications for practice; cultural, personal and political influences;

> 4 the role of the teacher in designing managing and evaluating learning opportunities and contexts to extend children's learning and development;

> 5 children as active, co-constructors of meaning;

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

6 considering different approaches to understanding learning: a critical analysis of learning theories enacted in teacher's decision making.

A brief analysis of this unit content is useful in determining some of the 'big ideas' that are considered to be important in this unit. The analysis of the unit content, draws its intent from Foucault's (1972) 'archeological' approach to discourse analysis. He stresses that rather than trying to uncover the 'true' meaning of linguistic statements (and their origins), each statement needs to be analysed not in terms of what the things that are 'said' are 'hiding' but considered in terms of its 'relationships and interdependence' with others. My analysis does not attempt to determine how what is written is a 'sign' of something else. In Foucault's words, the analysis "…is nothing more than a rewriting…it is the systematic description of a discourse-object"(p.140). The content indicators are an important component of the unit outline. They specify the knowledge that is considered valuable in the unit. Using a modified linguistic tool, the ideas that are presented in each indicator are 're-written', to use Foucault's words, using an approach that separates the 'theme'(the most important part of the message) from the 'rheme' (the rest of the message) in order to explore the relationship between the knowledge that is being presented here:

Table 1: The unit content organised using theme/rheme

Theme	**Rheme**
1. The social	and emotional dimensions of learning
2. Reflection	as a learning process
3. The process	of learning and development: implications for practice; cultural, personal and political influences;
4. The role of the teacher	in designing, managing and evaluating learning opportunities and contexts to extend children's learning and development
5. Children	as active, co-constructors of meaning
6. Considering	different approaches to understanding learning: a critical analysis of learning theories enacted in teacher's decision making.

Deconstructing big ideas

The unit content indicators communicate the 'big ideas' of the unit. The theme of the first content indicator uses a 'content' word (in contrast to an 'action' or 'interpersonal' word) to highlight the importance of the 'social' aspect of the learning process. The rheme adds 'emotional' to the idea introduced in the theme, and qualifies that these two dimensions are significant in the learning process.

The second content indicator has a 'process' word as its theme. 'Reflection' is introduced as significant and the rheme adds to this concept by qualifying that 'reflection' is a learning process. This indicator is directly linked to the course principle (7) stating that 'Reflective processes are modelled and practised'.

The third content indicator signals in the theme the importance of a 'process' and the rheme qualifies that the theme is referring to learning and development as a process. The remainder of the indicator introduces the idea that there are implications of this process for practice, and indicates that some of the influences on the process are cultural, personal and political.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

The role of the teacher is fore-grounded in the fourth content indicator. The rheme adds to the theme by stating that this role involves 'extending children's learning and development' and to do this the teacher needs to 'design, manage and evaluate learning opportunities and contexts'.

In the fifth content indicator, children are positioned as the most important aspect of the message, and the rheme qualifies that they are 'co-constructors of meaning'.

The theme of the last content indicator introduces another process or action word. 'Considering' is the theme of the message. It is stated in the rheme that 'different approaches to understanding learning' are what is to be considered, and adds that a critical analysis of learning theories enacted in teacher's decision making is important.

In summary, of the six 'big ideas' introduced in the indicators, two identify *processes* as significant aspects of the unit. Two indicators identify *content* as important, one indicator introduces the importance of the *teacher*, and one focuses on the *child*. Are the ideas being introduced in this unit significantly different from those signalled as important in traditionally separated early childhood and primary courses? Analysis of the teaching and learning processes within the unit offers the opportunity to explore this question in more depth.

The 'official' teaching and learning processes

The next section of the unit outline is titled 'Teaching and Learning Processes' and clarifies the 'processes' that are to be used in order to achieve the outcomes that have been stated. It reads as follows:

> The unit will be covered through the combination of lectures, tutorials, workshops and reading. Students will experience a wide range of strategies including individualised study (1), active participation (2) in group situations (3), working with other professionals (4), and working as part of a team (5). These processes will model the use of technology (6) to facilitate learning. Key ideas are introduced in the lectures, and students are guided through relevant literature (7) and reflection (8). In tutorials, students engage in dialogue (9), conversation and debate as they present (10) their responses to key ideas and readings. Assignments and presentations require students to develop the key ideas of the unit through research (11) and critical analysis(12).

How are students and teachers positioned in this text? The 5 references to students include the statements that 'students *will* experience…', 'students are *guided*…', 'students *engage*…', '…they (students) present their *responses* to key ideas and readings…', '…are required to *develop* the key ideas…'. These statements provide examples of Bernstein's (1990)'strong framing', with little evidence of control or choice for the student in terms of the learning process. The picture of the student that emerges here is one of 'reacting' or 'responding' to ideas and information, rather than as an active initiator, involved in constructing and deconstructing knowledge. For example, the last sentence indicates that the purpose of the 'research and critical analysis', necessary for the assignments, is for students to 'develop' the ideas presented in the unit, rather than challenge and critique these ideas, and possibly open new understandings and perspectives.

There are key words in this paragraph that indicate important aspects of the teaching and learning processes that are to be planned. The first group of words (underlined, numbers 1-5) signal that learning events are to include individual, group and team situations. The second category of ideas (underlined, numbers 6-12) indicates the types of teaching strategies that the unit coordinator needs to plan. These include the use of technology,

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

guided engagement with literature, dialogue, presentations, reflection, and assessments requiring research and critical analysis.

What messages are being communicated about teaching and learning, teachers and learners in this section of the unit outline? Presenting the main messages in table form is a useful way to examine some of the identity positions that are being signalled as important at this stage of the curriculum development.

Table 2: Positioning teachers and learners

Interactive modes	Identity positions	Content
1. Individualised study	1. Technologist	Key ideas
2. Active participation	2. Reader	Readings/literature
3. Group member	3. Reflector	
4. Professional	4. Talker	
5. Team member	5. Presenter	
	6. Researcher	
	7. Critical analyst	

ANALYSIS: Taking the 'specifications' and making them work

How does this 'official' plan then translate to the more detailed teaching and learning plan? An overview of all the teaching and learning processes used in the tutorials is provided in Appendix 1. This broad overview indicates the processes to be used, alongside content or key concepts to be explored, and the intended outcomes of each tutorial. The tutorial content and processes provide a valuable source of data from which to explore the messages that are being communicated, both explicitly and implicitly about teaching and learning. As Theilheimer & Cahill (2004) state, these 'class experiences' demonstrate 'how' student teachers will acquire knowledge about teaching and learning, about themselves, and about the staff working with them in the tutorials. The tutorials are where theory (about teaching and learning) and practice, 'collide'. Within this unit, the tutorials are held once per week, and are 90 mins duration. There are between 25-30 students in each tutorial group.

From the preliminary broad overview, the planning for particular tutorial activities has been selected and expanded more fully. The expanded outline is detailed in Table 3. As the unit coordinator, I am able to select and design the teaching and learning processes for the unit tutorials. Theilheimer & Cahill (2004) maintain that 'when instructors plan what students will learn in a course, they choose what to teach and how to teach it, necessarily privileging certain sets of ideas and ways of learning over others. The variables that influence planning for learning come from a range of sources that include personal experience, research, reading, understandings of curriculum and learning. Perspectives on questions such as 'what counts as knowledge', 'how do people learn' and 'what is expedient and manageable', all inform the planning process.

Why were these particular activities selected? Primarily, because they best illustrate the teaching and learning principles espoused in the course proposal (as outlined in the introduction to this paper) being modelled and used. These principles identify "engaged pedagogy, higher order thinking, 'interrelated' knowledge, connection between research, practice and theory, relationships (based on trust, equity and respect), reflective processes and the use of ICT to support learning", as important. Within the scope of the current research, the analysis focuses on four of these principles and explores how engaged pedagogy, higher order thinking, relationships, and interrelated theory and practice are enacted within the tutorial processes.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Table 3: Detailed Tutorial Processes

Process	**Student identity positions**
Breaking the rules ***Key concept:*** *questioning things we take for granted in social situations* ***Process:*** *practice of interpersonal competency* Establish partners-Person A and Person B B's leave room and prepare a conversation (b) about the most embarrassing social situation they have experienced While B's are outside the room, brief A's about some non verbals that break interaction rules eg fossicking in bag while person is talking, looking out the window, stand up and move chair etc B's return and begin their conversation, A's enact (c) some of the rule breaking behaviours discussed Partners reflect (d) on what happens Some sharing (e) back to whole group.	(a) Partner/ Participant (b) Speaker (c) Actor (d) Reflector (e) Collaborator
Values Walk ***Key concept:*** *early experiences and social relationships* ***Process:*** *Use Value walk to explore thinking /position in relation to development of social relationships* *Statements: The quality of social relationships in the first 5 years of a child's life, determines the quality of social relationships in later life* Read (a) the alternative positions on O/H, one at a time Students position (b) themselves in a corner, according to their beliefs Talk (c) with the people in your corner about why you chose (d) this position One person records (e) 6 dot points that reflect the group position Do you have evidence to support (f) that position People can change position (g) after hearing the evidence	(a) Reader/ comprehender (b) Knower/Participant (c) Advocate (d) Decision maker/rational (e) Synthesiser (f) Researcher (g) Critical thinker/evaluator
Y Chart ***Key concept***: *Disagreeing in an Agreeable way* ***Process***: *Using Y chart (sounds like, feels like, looks like) to develop ideas (a) on ways to facilitate group discussion that is supportive of all group members.* In groups of four (b) the students use the Y chart to record (c) how disagreeing in an agreeable way (supportive) can: Feel Sound Look	(a) Co-constructor of knowledge (b) Collaborator/ Partner (c) Recorder

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Structured Controversy ***Key concept****: social perspective taking: the dangers of shortcuts* *Statement for debate: 'Stereotypes decrease as children move through their school years* ***Process****: Using structured controversy to develop critical thinking / position in relation to stereotypes:* Structured controversy process Students in groups of 4, 2xA's, 2xB's Prepare positions(a) with partner (b) Present (c) positions to the group of 4 and listen (d) to their position Advocate (e) and refute (f) / critically listen (g) / ask for elaboration (h) and support for ideas Reverse perspectives(i) /argue (j) your opposing pair's position, trying to think of new facts (k) Reach an agreed (l) position (m)	(a) Analyst (b) Collaborator/ Partner (c) Presenter (d) Listener/ Supporter (e) Advocate (f) Refuter (g) Critical Listener/ clarifier (h) Questioner (i) Lateral thinker (j) Debater (k) Co-constructor of knowledge (l) Evaluator (m) Negotiator

Constructing 'particular' identities: the 'engaged' student

There are multiple identity positions on offer in the tutorial processes, as indicated in the second column of Table 2. Many of these assume a high level of student (and tutor) engagement. The first course principle refers to 'engaged pedagogy' that sustains the dispositions for learning. What does 'engaged pedagogy' mean? Student dispositions provide valuable indicators of 'engaged pedagogy'. Dispositions for learning, such as creativity, curiosity and persistence are directly related to whether students (at any age!) regard the learning as relevant to their own goals and aspirations.

Part of planning for engaged learning is the need to match the content and processes to student experience and aspirations. Kumashiro (2002) points out that a mismatch often occurs between attempts to design teaching processes that align with students' knowledge and needs. Ellsworth (cited (in Kumashiro, 2002) maintains that there is always a 'space' between the 'teacher teaching and learner/ learning' and in part this is because there is a difference between who the teacher 'thinks' the students are, and who they actually are. (p.6) Somehow, the teacher needs to design learning experiences that are not based on pre-conceived ideas of the students. Ellsworth (1997) suggests that the space that we have identified between what the teacher 'teaches' and what the students 'learn' is liberating. She maintains that "when educators refuse to foretell who students are supposed to be and become, students are invited to explore many possible ways of learning and being" (in Kumashiro, 2002, p.6). In order for this to happen, rather than presenting ideas as unproblematic statements of 'truth', alternate positions and perspectives are introduced, and students are often asked to 'take a position' in relation to these ideas and substantiate their positions by drawing on their reading, research and/ or personal experience to explain and elaborate the position they have taken. Students are supported and expected to change positions often.

The tutorial processes are selected and designed to elicit a 'personal investment' from the students. The 'Values walk' and 'Structured Controversy' are examples of processes in which students are supported to 'invest' something of themselves in the learning process as they articulate their own beliefs, experiences and understandings of concepts and ideas. These processes demand many different cognitive skills.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Higher order thinking

Of the 27 identity positions indicated in the tutorial notes, 15 relate to cognitive processes. This is to be expected, at tertiary level, but do these tutorial processes develop and use the '*higher* order thinking' identified in the course principles? If the achievement of high intellectual quality is important, what does this involve? What might 'high intellectual quality' look like?

Many researchers and writers have attempted to answer these questions. Bloom's (1956) taxonomy has formed the basis of much of the research and pedagogy associated with thinking skills over the past 45 years. Bloom identifies six major sub-categories of cognitive processes and these are summarised and listed in order of complexity by Guillemette (in Mukheerjee, 2004) as *knowledge* (the recall of information), *comprehension* (the lowest level of understanding where the reader knows what is being communicated), *application* (of ideas, principles, generalized methods, and theories to particular concrete situations), *analysis* (breaking down a communication into its organization, constituent elements and their interrelationships), *synthesis* (developing an innovative pattern or structure from the elements) and *evaluation* (the qualitative or quantitative judgements about the value of ideas, methods and solutions). (p. 2) This taxonomy is a useful starting point for analysing the cognitive processes required in the tutorial learning tasks. If we consider the 'Values walk' task, the cognitive processes required include analysis, critical listening/ clarifying, lateral thinking, evaluating and negotiating. These are indicative of the 'higher order' thinking processes identified in Guillemette's summary. However it seems that further exploration of what these 'higher order' thinking skills at tertiary level might involve, is necessary.

In McAlpine's (2004) discussion regarding effective instruction in higher education, she lists Gagne's (1985) six cognitive learning tasks (multiple discrimination, classification, rule using, problem-solving) and states that these form the basis of many learning tasks. Translating Gagne's tasks to the teaching and learning in the tutorial, 'knowledge building with words' as a process of 'multiple discrimination' appears to be part of the repertoire of 'thinking skills' students would need to use, in order to participate effectively. McAlpine (2004) describes the processes involved, "the learner is required to make links to prior knowledge, relate new meanings to examples, define characteristics that describe and contrast new words and meanings, compare new words with similar words and meanings, and actively apply new words in other contexts"(p.122). According to McAlpine, classification is a more complex cognitive task. Here the learner is required to 'analyse essential categories or principles that define the concept', use the concept in different contexts, and incorporate new concepts into existing knowledge systems. Within McAlpine's framework, trying to apply 'rules' (or chains of actions), developing inner representations, and evaluating the effects of these new 'linked operations' is a higher order cognitive process. The last 'learning task' McAlpine identifies as 'problem solving' and this involves critical thinking, memory ability, and creativity. This type of task requires the learner to 'perceive and understand the problem, reformulate the problem, develop and test hypotheses (gather data, search for direct and indirect solutions), evaluate and apply solutions. The tutorial processes require students to use many of the thinking skills identified by McAlpine. One of the cognitive processes identified in McAlpine's framework is 'critical thinking'. Stables (2003) maintains that although critical thinking (criticality) is often identified as an important higher order thinking skill, (particularly in the social sciences), it has not been defined clearly.

The analysis of the tutorial processes and assessments within the unit reveals that 'criticality' is important within this unit. The 'Structured Controversy', 'Values walk', 'Jig-

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Saw' and 'Fishbowl' processes are designed to support students to critically analyse experience, readings and ideas. Identity positions such as 'critical thinker' and 'critical listener' indicate that a 'critical' perspective is required. Stable's (2003) discussion of the different traditions of criticality is useful in clarifying the types of cognitive processes that are being modelled and used in the tutorial processes. Stables argues that there are 4 different traditions which he refers to as "the 'but what if…', the discriminatory, the socially critical and the deconstruction traditions". He presents the first 3 of these, as perspectives that "…view human life and culture in broadly positivistic, scientific terms, valuing the desire to falsify, and the use of evidence to prove or disprove hypotheses. In all these three traditions there tend to be right and wrong answers, good and bad arguments" (p. 670). The deconstructive tradition however, according to Stables, explores cultural life through a less 'judgemental' lens. While all forms of criticality require the ability to 'question, refine and reflect' this is often done with the purpose of 'clarifying' and making a judgement. Deconstruction 'invites uncertainty and hesitation', the *suspension* of judgement leaves open a 'multiplicity of ways of seeing and reworking'. What this means for teaching and learning in the tutorial processes is a shift away from the need to produce a coherent argument, *before* engaging in a mutual exploration of the multiple ideas that could be brought to that argument. This requires processes that support students to explore the multiple perspectives on an issue in ways that are constructive. What students develop in this type of learning is an awareness of 'how many ways of arguing a point there can be'. The 'Values Walk' and 'Structured Controversy' are examples of processes designed to support students to explore as many different perspectives as possible, and suspend judgement by being expected to argue from different points of view.

From this perspective, where the aim is to suspend judgement, more time is devoted to the process of 'concept elucidation', where students are using words to clarify, expand, elaborate and question many of the concepts being used in the arguments they develop, and respond to. The skills needed to do this intellectual work in interactive ways, are taught and practiced within the unit. Examples of these skills are elaborated in the relationship section of the paper.

Interrelated knowledge: Connecting research, theory and practice

The tutorial processes within this unit are specifically designed to reduce distance between knowledge and pedagogy, and to model the interrelated knowledge that is essential for effective teaching. Does this 'interrelating' principle open up different and new identity positions for the students (and teachers) in the unit, than on offer in previous teacher education courses? From a perspective where knowledge is not perceived as separate from the processes that produce it, students are considered to be actively involved in the construction of 'new knowledge'. As they bring their own experiences to the activities and discussions, they are contributing valuable insights into the questions that are raised. The second tutorial in the expanded outline in Table 3 is a good example of modelling and using 'interrelated' knowledge. The Y chart process, is a useful teaching strategy for any age group. By using it as a tutorial process, students experience the strategy as they explore an important interpersonal skill of ' what disagreeing in and agreeable way' involves. Thus, the content of the unit (social and emotional development) is being addressed through a process which also develops student understanding of effective teaching (the Y chart process) while also expanding awareness of, and practicing, an interpersonal skill. The contributions students made in this process, of questions and comments that signal disagreement but keep the dialogue open are attached as Appendix 2.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Relationships: Connecting to experience

The development of effective relationships is at the heart of this unit. The content and outcomes of this unit are concerned with how to develop and sustain relationships that contribute to, and sustain learning. Light & Cox (2001) suggest that designing teaching and learning experiences involves considering whether the teaching and learning situation is seen as a 'void, across which content and knowledge is transmitted' or as part of an 'interactive process with the student is a participant in a 'shared situation'. (p31) In order for the student identity as 'participant' to be developed and sustained, the teaching and learning events need to clarify, model and use processes that build relationships between tutors and students, between students and their peers alongside developing an understanding of what this looks like in a school setting. Building teaching and learning processes around the course principle regarding 'relationships that are based on trust, integrity and respect, and equity' is a challenging task in the university setting. Many of the structures work against developing and sustaining relationships. The student/ staff ratios are high, transient and 'ad hoc'. For example, the timetabling process requires that students register preferences using 'event' numbers, which give no indication of who the tutors in those events are, so any selection of group or teacher is limited. These 'events' are re-scheduled each semester, which means that the longest time any group of students will work together, with the same tutor is 12 weeks.

Given these constraints, how is this principle enacted in the context of the tutorials? Processes within this unit are specifically designed to develop interpersonal skills and relationships. For example, the Fishbowl process introduces the idea that 'disagreeing' is an important dimension within the learning process and introduces the idea that there are different 'ways' of disagreeing, some that are more conducive to sustaining relationships than others. The observation schedule, used by the students to give feedback to their peers regarding communication style is attached as Appendix 3.

Of the 27 identity positions indicated in the data, 15 relate to the student working *in collaboration* with other students and the tutor. For example, negotiator, partner, listener, all imply that other people are involved in the learning process. A comparison of the identity positions reveals that of the 27 identified, there is a fairly even distribution of roles that could be described as 'interactive' alongside roles that can be carried out alone.

Table 5: Social roles and identities

Interactive	Individual
Presenter	Reader/ Comprehender
Listener/	Knower
Supporter	Reflector
Advocate	Analyst
Refuter	Clarifier
Critical Listener	Questioner
Debater	Lateral thinker
Partner/ Participant	Evaluator
Speaker	Decisionmaker/rational
Advocate	Synthesiser
Collaborator	Researcher
Negotiator	Critical thinker

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

This analysis of the tutorial processes indicates that a significant aspect of the teacher and student identity relates to social and interpersonal skill. The messages regarding teaching and learning that are being modelled in the tutorials, summarised by Light & Cox (2001) as processes that communicate the idea that constructing meaning and deep understanding is not a process of 'transmitting' information and knowledge 'across' social situations in a *monologic* dialogue, but a shared, interactive process where meaning is constructed and negotiated *within* the social situation. (p.30)

CONCLUSION

The curriculum analysis makes explicit the role that the documented curriculum plays in naming and organising the knowledge that is considered essential and valuable within the context of a particular unit. This role is subject to the constraints of the rigorous university approval processes at the initial course design and development stage. The analysis of the unit content highlighted a significant relationship between this knowledge and the planned teaching and learning processes. For example, the Kindergarten through Primary course proposal claims that an important principle underpinning the design of teaching and learning processes involves the 'interrelating' of content, curriculum, pedagogy, cultural and child development knowledge. The analysis of the planned tutorial processes indicates that this principle is used in designing the learning events.

The discrepancies between the official and enacted curriculum relate to the multiple possible interpretations of the curriculum as stated in the unit outline. One of the significant influences on this difference are the particular epistemological beliefs of the unit co-ordinator and how these beliefs position teachers and learners in the educative process.

Previous teacher education course structures have often separated knowledge about teaching (pedagogy) from knowledge about curriculum, learning and learners. Maher and Tetrault (1999) argue that this split is related to the epistemological position that sees knowledge as a disinterested search for universal truth, and that within this frame, knowledge is disconnected from the processes under which it is produced. Light and Cox (2001) argue that this position views knowledge as 'ready formed' or 'pre-packaged' acquired by direct perception. This division, between knowledge and the 'knower' denies any concept of knowledge as an evolving, constructed process, and therefore reduces the roles of teachers and students as active constructors of new knowledge. This separation has often constructed particular student (as acquirer) and teacher (as transmitter) identities.

Analysing the 'enacted' curriculum has enabled a closer examination of how the unit co-ordinator's beliefs determine the planning teaching and learning processes. These beliefs both construct 'particular' ways of being for both teacher and student, and are reflective of the discursive 'landscape' in which the construction takes place. The study highlights the differences between student-centered approaches, and educational programs based on specific, teacher-designated skills and knowledge, organised into a linear progression.

In the process of analyzing the text of the 'official' university curriculum (the unit outline), both congruence and discrepancy emerged between the language used in the unit outline, the espoused Course Principles, and the planned learning events. The research has emphasized the importance of understanding language as a 'situated' and 'social' process. The analysis has highlighted the discursive context for practice in higher education. Light and Cox (2001) state that "The academic situation-immersed in its disciplinary and institutional histories, discourses and procedures, its ways of thinking and working, of congregating and communicating, of distributing power, authority and status-characterises the student/ teacher encounter before a word is even exchanged. When they are 'exchanged' they carry with them both the wealth and weight of that situation" (p.28).

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

In summary, the connections between 'what counts' as knowledge (as defined in the documented curriculum), and teaching and learning processes enacted within pre-service teacher education programs are both influenced and constrained by university protocols, but ultimately determined by the unit coordinator's beliefs about knowledge, teaching and learning. The implications of these beliefs are profound in the way teachers and learners are positioned in the educative process, either opening up, or limiting professional identities. The paper describes pedagogy that connects epistemological positions with teaching and learning processes, while at the same time recognises the role that the stated official documented curriculum plays in influencing the enacted curriculum.

REFERENCES

Bernstein, B. (1990). *The structuring of pedagogic discourse: Class, codes and control*. London: Routledge.

Bloom, B. (1956). *Taxonomy of educational objectives: The classification of education goals, Handbook 1: Cognitive domain*. New York: McKay.

Eraut, M. (2000). Editor's Introduction: Design of initial teacher education. *International Journal of Educational Research, 33*, 453-456.

Foucault, M. (1972). *The archeology of knowledge* (A. Sheridan Smith, Trans.). London: Tavistock Publications.

Grumet, M. (1978). Curriculum as theater: Merely players. *Curriculum Inquiry, 8*(1), 36-63.

Halliday, M. (1985). *Spoken and written language*. Burwood, Australia: Deakin University Press.

Jackson, P. (Ed.). (1992). *Handbook of research on curriculum*. New York: Macmillan, Inc.

Kumashiro, K. (2002). Against repetition: Addressing resistance to anti-oppressive change in the practices of learning, teaching, supervising, and researching. *Harvard Educational Review., 72*(1), 67-93.

Light, G., & Cox, R. (2001). *Learning and teaching in higher education*. London: Paul Chapman Publishing.

Maher, F., & Tetrault, M. (1999). Knowledge versus pedagogy: The marginalization of teacher education. *Academe, 85*(1), 40-43.

Marsh, C., & Willis, G. (2003). *Curriculum: Alternative approaches, ongoing issues* (3rd ed.). Upper Saddle River, New Jersey: Pearson.

McAlpine, L. (2004). Designing learning as well as teaching: a research-bassed model for instruction that emphasizes learner practice. *Active learning in higher education, 5*(2), 119-135.

Mukheerjee, A. (2004). Promoting higher order thinking in MIS/ CIS students using class exercises. *Journal of information systems education, 15*(2), 171-178.

Rainer, J. (Ed.). (2002). *Reframing teacher education: Dimensions of a constructivist approach*. Iowa: Kendall/ Hunt.

Stables, A. (2003). From discrimination to deconstruction: Four modulations of criticality in the humanities and social sciences. *Assessment and Evaluation in Higher Education, 28*(6), 665-672.

Theilheimer, R., & Cahill, B. (2004). 'This is your class': Theorizing what syllabi say about relationships between instructors and students in early childhood teacher education classrooms. *Contemporary Issues in Early Childhood, 5*(1), 4-18.

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

APPENDIX 1

Table 2:Tutorial processes

Week	Processes	Intended Outcomes
Week 1	**1.Breaking the rules**: Aspect of interaction that is often overlooked, taken for granted is non-verbal communication: practice breaking some interactional rules in a one on one 'listening' situation **2.Jig- saw**: Observation as a subjective experience: 'Do you see what I see?' article: Reid et al Discussion centres around questions such as What is the situation described in your reading? What do you think the writers are saying? 3.Reflection: **Using the reflection sheet and the mapping the outcomes page in the unit outline, students discuss with partner and then spend at least 5 mins writing. Suggest these reflections are stored in portfolios in section under Teacher professional knowledge.** Reflective process is used at the conclusion of each tutorial	Develop a sense of group cohesion through a process of exploring the importance of non-verbal communication in interactive processes Develop awareness of the subjective nature of observation Use reflective processes to make connections between social and cognitive development
Week 2	**1.Values walk:** Statement regarding 'attachment', select a position and develop evidence to support the position **2.Video analysis:** What can we observe about the non-verbal interaction in this classroom scene? How would you describe the teacher's responses to the children? What would you say were the effects of these responses?	Develop an awareness of different perspectives/ dimensions of attachment Develop awareness of the effects of responding effectively in classroom situations Use reflective processes to make connections between personal experience and theoretical perspectives on the quality of relationships
Week 3	**1.Y chart**: Disagreeing in an agreeable way. In groups of 6. **2.Structured controversy:** Exploring my thinking/position in relation to stereotypes? Statement: "Stereotypes and prejudice decrease as children move through the school years." **3.Video analysis**: Can you see evidence of the teacher supporting children to consider a position that is different from their own Disagreeing in an appropriate way? How does he do this?	Develop understanding of questioning as an interpersonal skill Practice questioning skills Articulate the value of peer relationships in supporting learning
Week 4	**1.'Fishbowl' process;** Getting feedback on your communication style. Discuss the statement "Peer assessment is a valid form of assessment'. **2.Video analysis**: As you watch the video, record the questions the teacher asks, groups of 4, classify into open/closed	Develop understanding of questioning as an interpersonal skill Practice questioning skills Articulate the value of peer relationships in supporting learning
Week 5	**1.Role-play;** Interpreting emotions: Developing emotional literacy **2.Round Robin process:** Developing indicators for the assignment criteria **3.Video analysis:** Watch 2 teaching episodes: how would you rank the children's engagement and teacher's liveliness? What is the evidence for your judgement?	Identify the relationship between emotions and learning Describe the emotional aspects of learning Practice conveying an emotion or feeling

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

Week 6	**1.Tutorial Paper Assessment:** Students working in small groups maximum 3 or 4: structure groups Each student read 1 paper, use criteria sheet to make individual assessment Discuss each paper within the group, compare assessment moderate within the group	Identify the social/ emotional dimensions of learning Demonstrate ability to apply assessment skills
Week 7	**1.Concept map:** A learning event analysis Working in small groups, using a concept map technique to develop an analysis of a video clip 'learning event'	Analyse a teaching/ learning event Use a concept map process to construct the analysis Develop an awareness of the importance of planning effectively
Week 8	**1.Labelling and expectations:** Self-fulfilling prophecies Each student is given a 'label', unaware of what their own label is e.g. lazy, teacher's pet, clever Group is given several tasks to carry out, eg choose 5 people to work with on your assignment Reflection on what happened, how it felt **2.Analysis:** Analysing success/ failure attributions, Locus of Control beliefs, students work in groups of 3, record responses to the statements	Identify processes involved in development of self concept, self esteem and self efficacy Articulate relevance of self-fulfilling prophecies and teacher expectations
Week 9	**1.Presentations**: Peer Assessments Student work in groups to develop feedback, using rubric, and give feedback to the groups as they present their analysis of the learning event	Identify the similarities and differences between self-concept, self esteem and self efficacy Articulate important aspects of the learning process in an oral presentation to small group Use an assessment rubrik to generate feedback for presenters
Week 10	1.Presentations: Assessments; As for week 9	Articulate important aspects of the learning process in an oral presentation to small group Use an assessment rubrik to generate feedback for presenters
Week 11	**1.Analysis: Reflection:** Messages about yourself from the practicum experience Using either of your reports, or your own personal reflections, consider any aspects of your teaching (identified by yourself or your mentor teacher) needing to be improved or changed Record these on the A3 Sheet provided With which of the domains presented in the lecture do these aspects connect most strongly?	Articulate and record individual priorities for professional growth Identify processes involved in development of self concept
Week 12	Unit Review: Using mapping grid to record reflections	

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

APPENDIX 2

Learning and Development 2

Ideas generated from tutorial groups regarding:

'Disagreeing in an agreeable way':

Yes, that is a good idea *and* what about….

*Anothe*r way of looking at this is…

It could *also* be that…

I must have misunderstood because I thought….

What *could* we add?

What would happen *if* …?

When you said…did you mean?

An alternative *migh*t be…

That's a good point, *howeve*r…

Could we think about it this way?

I understand where you are coming from, *but* I think…

I think I know what you are saying, *but* could you think about it like this…?

Have you considered…?

I think your point is valid, let's look at a different aspect.

On the other hand…

Have you thought what might happen if…?

What evidence do you have to support that idea?

I agree with what you are saying, *and* have you considered…?

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education

APPENDIX 3

THE FISHBOWL: GETTING FEEDBACK ON YOUR COMMUNICATION STYLE

Step 1: Establishing rapport
Conversation in pairs. Ask each other these questions.
What strong opinions do you hold (as an individual) on this topic?
What observable data (facts, not opinions) can you bring to the group's skilful discussion?
Are you willing to be influenced?
What is your vision for a satisfactory outcome of this issue?

Step 2 Team A in the centre (20 mins)
Two concentric circles. The first talkers (members of team A) sit in the centre and begin conversation

Members of team B, in the outer circle, take the role of observer/coaches. They sit opposite their partners

Step 3: The first critique (5 mins)
The observer/coaches review their feedback notes with the talker.

Step 4: Refinement and new critique (20mins)
Team A in centre to continue conversation in light of feedback given.
Second critique in pairs

Step 5: Repeat with team B in centre

Step 6: Full team observation and resolution

Two teams combine to reflect on team's competency in generating a broader understanding of its own behaviour.
Then continue conversation on the topic
Then last critique with partner

GUIDELINES FOR OBSERVERS

When advocating, how often did your partner:
State his or her opinion and ideas so clearly that those listening could picture them in their own minds?
Offer assumptions on which his/her opinions and ideas are built?
Provide observable data (facts, not opinion or anecdotes) to support and illuminate a line of reasoning?
Invite others in the group to add to his/her ideas?
Refrain from defensiveness when questioned?

When inquiring how often did your partner:
Ask questions about others assumptions and data withour evoking defensiveness
Ask questions which increased the team's understanding of someone's opinions?
Listen without judgement (attentively and without interruptions) as others spoke?

Adapted from: Senge et al *The fifth discipline fieldbook*, 1994

Paper Presented at the AARE Annual Conference, Melbourne, 2004
Australian Association for Research in Education