Australian Journal of Teacher Education

Volume 37 | Issue 5 Article 5

5-2012

Balancing Detailed Comprehensiveness with a Big Vision: A Suggested Conceptual Framework for Teacher Education Courses

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Abstract: Current Australian teacher accreditation processes are impacting significantly on the expectations of teacher education courses, particularly in relation to graduate resilience, flexibility and capability. This paper uses a logical conceptual format to explain how writers at a Western Australian university prepared a new Secondary Degree course, one that offers students an optimum selection of diverse learning contexts for building a deeper understanding of the teaching profession. Four "stages" of conceptual planning are described. The first three conceptual stages established the thematic structure of the developmental course model across the four years of the degree, reviewed unit content and timing, and framed the National Graduate Teacher Standards in terms of meaningful learning contexts. The last stage moved to thinking about exactly "how" the mechanics of the teaching and learning in the course work might best achieve attainment of the Graduate Standards. An overall conceptual synthesis of these ideas is also offered.

Introduction

At a time when new national professional accreditation processes have great significance for teacher education courses around Australia, and when ever higher standards of expertise and flexibility are demanded of our graduate teachers, teacher educators may feel that they need stronger direction in preparing appropriate and effective programs for their students.

A recent course review and re-structure in a School of Education at a Western Australian university relied upon some new thinking concerning how the "quality" of current teacher education is defined, and how education programs may establish the "best fit" of diverse learning contexts with a deeper understanding of the teaching profession (Ure, 2009b, 2010). Ure claims that "more needs to be done to improve the professional readiness and resilience of newly graduating teachers", and that "an improved understanding about initial teacher development is needed to better inform the design of teacher education programs". Upon state accreditation being awarded to the Secondary program prepared in this course re-structuring, and at a time when many Education schools are managing increased budgetary constraints, the author felt that it might be useful to other teacher educators to examine – and perhaps utilise – some detailed reflection about this process.

It should be noted that this paper is presented to the reader as a kind of "organised reflection" upon a complex and lengthy process, one coordinated by the author but carried out collaboratively, and sometimes with difficulties, by a group of academic staff preparing to teach in a new course. The paper does not attempt also to describe the many creative conversations, inevitable differences of opinion, pedagogical stances and trial-and-error strategies that necessarily informed this work. Neither, as important as such issues are in

university commentary, does the paper critique in any depth the newly mandated national standards, nor compare their likely efficacy with other systems internationally.

While acknowledging the vital roles played in such a review by these debates and themes, and by the "give-and-take" trialling of various organisational mappings in order to achieve eventual consensus, the author focuses very much here on a retrospective analysis of the *conceptual model* that actually emerged. Offered here therefore is a personally rendered and intentionally "representative" description of a group's response to a course review.

Seeing Teacher Education as More than Training

Many contemporary teacher educators (Ure, 2010; Mason, 2009; Lunenberg & Korthagen, 2009; Grossman, Hammerness & McDonald, 2009; Loughran, 2006 and 2008; ETCPV, 2005; Carr, Andrews, & Kim, 2004) have conveyed unease about what they see as an overemphasis upon the technicalities of theoretical teaching skills outlined in most sets of national teacher education "standards", and the converse under-emphasis upon ways that pre-service teachers may develop such characteristics as professional flexibility, resilience, confidence and vision.

Teacher education courses that are more genuinely informed and guided by educational research and that encourage students to explore their professional philosophies and beliefs, are advocated by other commentators (Heilbronn, 2009; Kosnick & Beck, 2009; Niemi & Jakku-Sihoven, 2005). "Reflective practice" also needs to be more than superficial recordings of events or feelings: truly meaningful reflection by students needs to be carefully orchestrated by comprehensive course planning, rather than merely encouraged in a haphazard or fragmented way (Ure, 2010; Haggar & McIntyre, 2006; Hobson, Tracey, Giannakaki, Bell, Kerr, Chambers, Tomlinson & Roper, 2006; Furlong, Barton, Miles, Whiting & Whitty, 2001).

Ure (2009b) claims that international teacher "standards" generally

> … reflect a competency-based account of teaching and form a set of common expectations for teachers and graduating teachers. As such they do not provide information about how complex teaching behaviours requiring judgements and adaptations to the many demands of a busy classroom are executed, and the context in which these occur. Without this information it is difficult to design targeted learning experiences for student teachers to guide the development of these characteristics. Griffin (2007) suggests that the essential missing components of the standards are *the criteria that allow each indicator to be demonstrated at different levels of expertise and effectiveness.* Until these are developed, the standards can only be used as a general summary of the presence (or absence) of the desirable qualities of graduating teachers rather than as a device that defines how teaching and learning should be developed in teacher education programs. (p. 5)

An exploration of the notion of desirable "targeted learning experiences" that may best "guide the development of these characteristics" of flexibility, resilience, confidence and vision, is offered here. To do so, the author offers some organisational tools for enabling those experiences to occur for students in an integrated and coherent way, tools based soundly on some recent work by Ure that "suggests a pedagogical approach to teacher development". She presents a "multidimensional model … of teacher development, with links between the knowledge framework for teaching and learning and the active processes of teaching and learning", and this model is discussed more fully in later sections of the paper.

As an extension of Ure's ideas, it is suggested here that effective course preparation may be assisted by the use of a detailed and highly comprehensive "scope and sequence" of learning inputs, contexts, and outcomes, based on a range of complementary conceptual "perspectives". It may also help students to achieve, logically and practically, those "different

levels of expertise and effectiveness" in the Standards to which we, as teacher educators, expect them to aspire.

Over-arching Principles as a Starting Point

As an actual course review and re-modelling is featured here, initial mention should be made of the early cross-School planning that informed the individual development of the Secondary Course. In response to a School Review (Garnett, 2010), degree courses in Early Childhood Studies, Primary Education, and Secondary Education were all re-visited and re-structured, with many common goals and themes. The taskforce of working party chairs who provided the central driving momentum of the enterprise met regularly in order to establish a shared vision for the School, and its first challenge was the establishment of clear, guiding principles for all of the course development work. Later, individual courses elaborated upon these to create more idiosyncratic and detailed sets of principles appropriate for their own teaching students.

The foundational principles that underlie all of three new course re-structurings are these:

- *flexibility*: flexibility and access for students wherever they are located;
- *sustainability*: sustainable work and study practices for staff and students;
- *Dimensional coverage*: comprehensive coverage of the five knowledge Dimensions of teaching (Ure, 2010);
- *industry partnering*: programs that are deeply embedded in industry-related partnerships;
- *learning-centredness*: pedagogical processes that embrace learner-centred constructs; and
- *building of Pedagogical Content Knowledge (PCK):* Pedagogical processes that build PCK for teaching and learning.

Of particular relevance to these arguments is the third principle of "Dimensional coverage", and this is more fully explored in later sections. However, the "over-arching" principles above are not further discussed here, except to remark upon the importance in all course design of setting clear overall goals and guidelines at the outset of the experience.

Creating a "Multi-perspective" Synthesis of Conceptual Frameworks

Planning a successful teacher education course is necessarily a highly complex task, but this task may be made easier by "breaking down" the conceptual work involved into linked stages, of varying degrees of detail. In doing so, a fine-grained "scope and sequence" of useful teaching inputs and student experiences can be created, one which may be used to inform the structure of the course as a whole, as well as the specific content needed in individual units. The completed "synthesis" is offered here in Appendix 1, and its creation is explained throughout the paper.

It is contended here that it is very important for teacher education curriculum writers to maintain at all times a cohesive or "big picture" sense of their courses. Then, when the time comes for close analysis and detail, this sense of cohesion needs to move into the background, but not be forgotten. An overall conceptual framework that is both *holistic* and *comprehensive* is needed, one that pays equal attention to course principles, developing themes, content inputs, learning outcomes, practical experiences, the connections between theory and school-based practice, and ultimately, achievement of the National Graduate Teacher Standards. The set of learning experience "Dimensions" (Ure, 2010), just mentioned, can provide a rich and integrated organisational tool for allowing teaching students a thorough preparation for the classroom.

The chief difficulty in writing a new teacher education course lies in just where one should begin. Another challenge is the necessary amalgamation of appropriate models and

mandated standards, all of which must first be mapped and explored. The paper offers some suggestions about beginning this process – and about creating an integrated pedagogical experience for students that logically connects some current teacher education models, the individual needs and characteristics of a particular School, and an underlying sense of vision or direction.

The term *perspectives* – which here temporarily takes on a special "technical" meaning – is chosen by the author to describe the conceptual models or considerations that need complex mapping of their interrelationships with each other. It is explained that these four perspectives are, in turn, the *Key Understandings*, the "developmental" *Year Themes*, the AITSL *National Professional Teacher Standards*, and the knowledge *Dimensions*. Because this task involves the simultaneous balancing of these many related perspectives, it is hoped that the tabular layouts that are presented may provide greater clarity in the attempt to display several of these simultaneously. Further, four distinctive colours are used for the purpose of highlighting a particularly important perspective, that of the central learning outcomes (Key Understandings) of this particular course. This perspective is considered by the author to be a kind of beacon that illuminates the other three, and the colour coding is intended to allow more easily transferable links to be made between all four.

As explained, the discussion here is based on an actual course review, and on the resultant re-structuring of a Secondary Education program. The four *perspectives* are thus referred to in *stages*, using four "conceptual frameworks" that grow logically and incrementally out of each other and that each involve some or all of these perspectives. Each stage is examined individually and in order of its appearance within the timeframe of the actual course preparation; and then, in the paper's third section, the four stages are linked together to form an overall *conceptual synthesis*. In doing this, the author is attempting to formalise, through reflection and hindsight, the creative and less formal processes that occurred as the course development work progressed over time. In the final section of the paper, an example is offered as to how this planning informed the preparation of a particular new fourth-year curriculum offering in the Secondary Education course. Its inclusion in the new course was a direct result of the "auditing" process inherent in planning such as this, and this is briefly described in the hope that it may be helpful to others.

The four conceptual frameworks and their "stages" are best understood by the use of two different but supportive approaches: the first of these sees a series of questions related in each case to the relevant part of Figure 1 (which has been systematically re-formed as Figures 1A, 1B, 1C, and 1D). Figure 1 summarises the structural thinking behind the conceptual frameworks and illustrates exactly how and where the four perspectives are featured. The second approach provides a corresponding set of visual, tabular representations, in which the true detail lies (Figures 2, 5, 7, and 9). In each of part of this section these details are teased out and explained.

The four perspectives are, again, the *Key Understandings*, the *Year Themes*, the *Professional Teacher Standards*, and the *Dimensions*; and these are perhaps first most simply represented with the words, "WHAT", "WHEN" and "HOW". The "developmental" *Year Themes* can be seen to be the province of "when": in other words, this perspective considers *timing* in creating a course that develops logically and appropriately for students over four years. The seven *Professional Teacher Standards* signpost the "what", in terms of "what" must be worked towards by the teaching students (and, of course, teachers), in order to reach an acceptable, nationally mandated level of proficiency. The perspective of *Key Understandings* is another "what" factor, one which is, as are the Year Themes, more personally tailored to this particular course and School of Education, and one which attempts to summarise succinctly for our School just "what" areas our graduate teachers should master in the science of teaching. The *core elements* of the Key Understandings considered in each

of the four years, and used to map consistency and comprehensiveness of course units (see Figures 5 and 6), consider both "what" and "when".

The "how" factor is the chief concern of the perspective of Ure's knowledge *Dimensions*. Many commentators (Ure, 2010; Mason, 2009; Lunenberg & Korthagen, 2009, Loughran, 2006 and 2008; Feiman-Nemser, 2001) have expressed disquiet about what they see as a general international overemphasis in teacher education upon the "WHAT" – the more technical teaching competencies outlined in most sets of national "standards" – at the expense of "the developmental processes needed to create connections between knowing *about* and *doing* teaching and learning" which are "not simple linear processes that are able to be improved with time and practice" (Ure, 2010, p. 7). The perspective of the Dimensions pays careful attention both to "how" and "when": how and when appropriate, rich, and *connected* learning experiences should be embedded in a teacher education course. This is discussed in more detail in later parts of the second and third sections.

One more explanation is required concerning the conceptual frameworks described here. It was asserted earlier that teacher educators need to be vigilant both about their integrated, overall sense of their course offerings, and about the important interrelationships of theoretical and practical teaching inputs and learning outcomes. With this in mind, Conceptual Frameworks 1 and 3 aim to provide the "big picture" thinking that is needed for a cohesive overall view, while Conceptual Frameworks 2 and 4 deliberately "burrow into" the detail that supports these. In this way the thinking can be seen to "zoom in" and "zoom out", with the intention of achieving a good balance between holistic, and more finely grained, planning. The goal in all of this is to arrive logically at a "synthesised" conceptual model that may be adapted for use by others. This is discussed more fully in the third section of the paper.

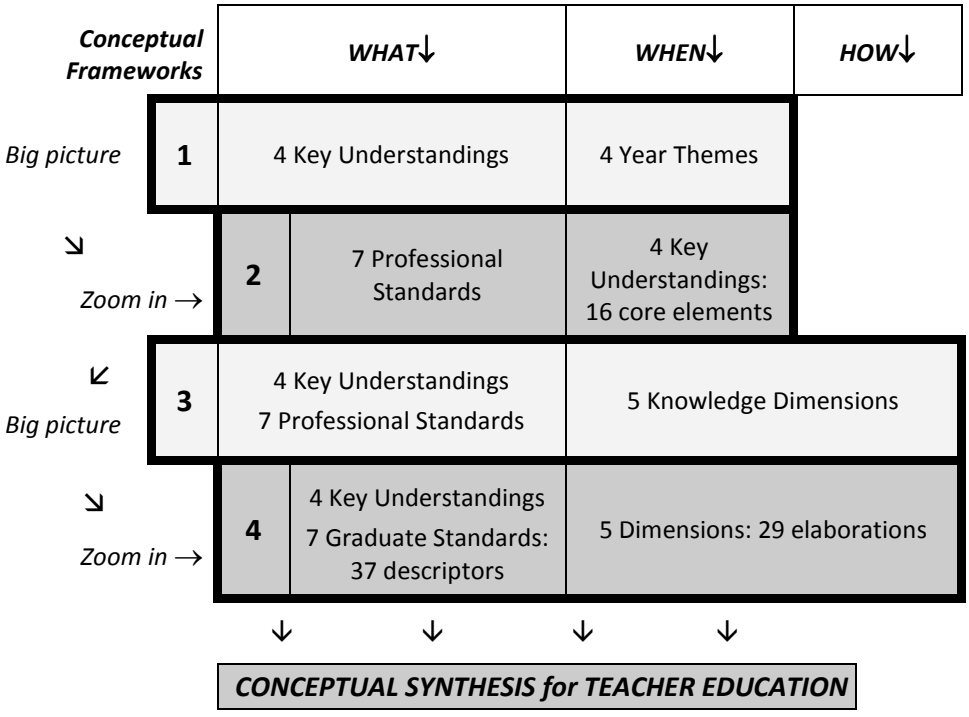

Figure 1: Leading to the "synthesis": the four stages of thinking in the Conceptual Frameworks: "zooming in" and "zooming out" to create clarity concerning the "WHAT", WHEN" and "HOW" factors

Conceptual Framework Stage 1:
Developmental Year Themes and Key Learning Outcomes

Conceptual Framework	*WHAT↓*	*WHEN↓*
Big picture	1	4 Key Understandings	4 Year Themes

Figure 1A: Conceptual Framework 1

Ure (2009b) remarks that "pre-service teachers … have a right to know that their teacher education program is developed from evidence about their needs". The Conceptual Framework Stage 1 demonstrates the first step in trying to achieve this aspiration. In Figure 2, the two perspectives for initial planning are illustrated: the developmental *Year Themes*, and a set of desirable learning outcomes called *Key Understandings*. (The Themes can be seen more clearly in Figure 4.) This first stage in the conceptualising of the new degree thus involved thinking about two questions:

- *What is the optimum developmental process for Secondary teacher education over four years?*
- *What general Key Understandings and capacities should teaching students build over this time?*

Stage 1 demanded a more generalised mapping over time of the developmental nature of teaching students' evolving understanding, so that, in Stage 2, the current unit offerings and their themes and content could be "audited" and checked for strength and appropriateness. The working party felt that themes in the original degree soundly supported the creation of the diagram in Figure 4; with more emphasis in the new degree, however, being placed upon the consolidating and "rounding" emphasis of the fourth year. Meanwhile, within these Year Themes, the four Key Understandings were conceived as the optimum overall learning outcomes, for each and every year, outcomes that were also expected to evolve and deepen though the learning experiences of the course. Thus, the developmental Year Themes perspective provides a chronological, thematic foundation for the course, and the Key Understandings perspective summarises the fundamental areas in which teaching students must become proficient in order to meet the Graduate Teacher Standards and to be successful as beginning teachers.

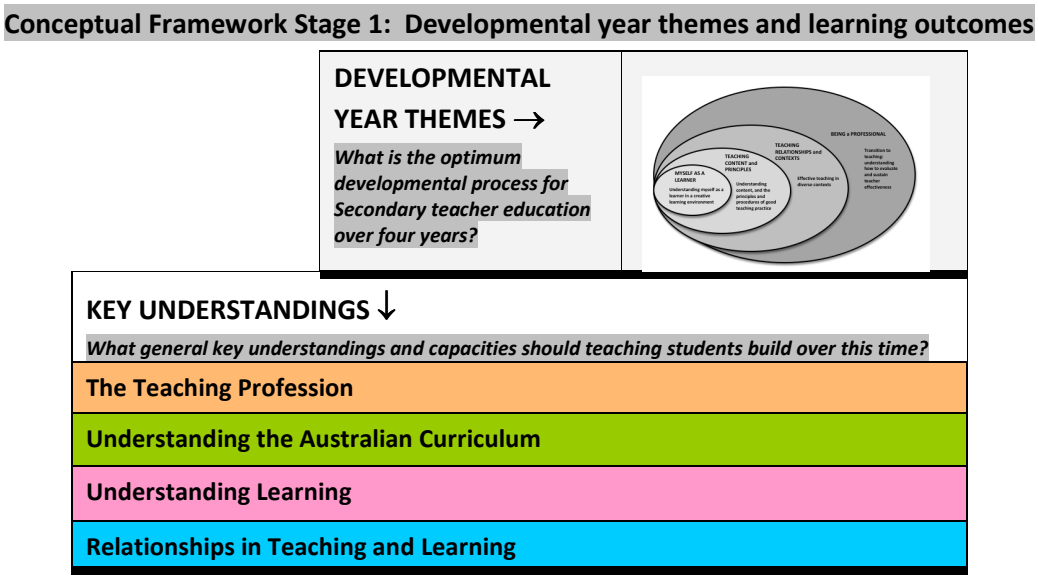

Figure 2: Conceptual Framework Stage 1: Key Understandings (WHAT), and the themes over four years (WHEN).

Figure 3 elaborates these four Key Understandings, which were informed by the National Professional Teacher Standards, and, more especially, by the broad Standard domains of *knowledge*, *practice*, and *engagement*. The recent national inquiry report on teacher education was also consulted (SCEVT, 2007). All four Key Understandings were consistently linked in the planning with all seven Standards. This said, more detailed mapping across to the specific mandates of the Standards was preserved for the Stage 2, 3 and 4 conceptualisations, described in detail in the next parts of this section. (Figure 7 provides a simple figural explanation of the connection between the Key Understandings and the Standards, to be elaborated upon later.)

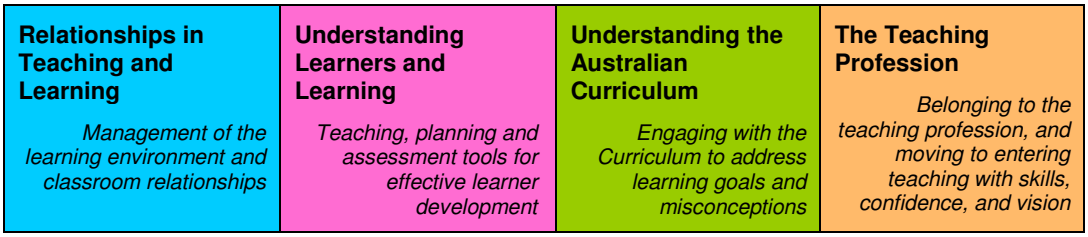

Figure 3: Key Understandings – WHAT the teaching students should understand by the end of their course

Figure 4 shows a clearer version of the diagram seen in the top right-hand corner of Figure 2, and illustrates the perspective that was the starting point for planning in the Secondary course. (This was also the first point at which the other courses of Primary and Early Childhood education moved into their individual framing of their own values and themes, and these both also used very similar "four-year themes" diagrams). The diagram attempts to portray teaching student "development" in its most likely successful "sequence" – but a sequence that is not seen as evolving in a purely "linear" way.

This thematic model has in common with the 2007 iteration of the British national standards a renewed emphasis upon "personalised learning", as Ure (2010) names it. Based on the notion that all effective teachers must first gain a thorough understanding of how they *themselves* learn, the "learn*ing*-centredness" and "learn*er*-centredness" of the first year experience – composite if slightly different intentions – make a solid foundation for the course's increasing emphasis upon content study and acquisition of pedagogical content knowledge in the second year. In turn, the introduction to classroom relationships and practice that is provided in the first and second years offers a base for the more intensive practicum experience of the third year, a time in which teaching behaviours and practices are tested and interrogated by the pre-service teachers both in schools and back on campus. The all-important final year is then founded on an amalgamation of real skills and experiences – including a whole-term professional practicum – with renewed emphases on professionalism, on ethical practice, and on belonging to a community of teachers, who, while teaching, also maintain a willingness to learn.

It has been stated that the model seen in Figure 4 was intended to be non-linear. It was envisioned here that all students would attain something or all of these general Key Understandings and capacities in *each* year, "at different levels of expertise and effectiveness" (Griffin, 2007) – in other words, doing so with a deepening appreciation over the four years of the degree course. For example, "understanding themselves as learners" remains a central theme in all four years and is more than a starting point for the first year, and the diagram in Figure 4 attempts to capture this "cumulative" development. (The diagram is also included as an offering for students in the introductory website materials concerning the course.) The perspective of Key Understandings is thus seen in the Stage 1 diagram in

Figure 2 as a representation of the conceptual "weaving" of the degree, acquired in a developmental manner across the four years. In other words, as students mature over time the perspective seen in the development of inter-connected Year Themes assumes the "weft" of the framework's design, and the Key Understandings perspective assumes the "warp".

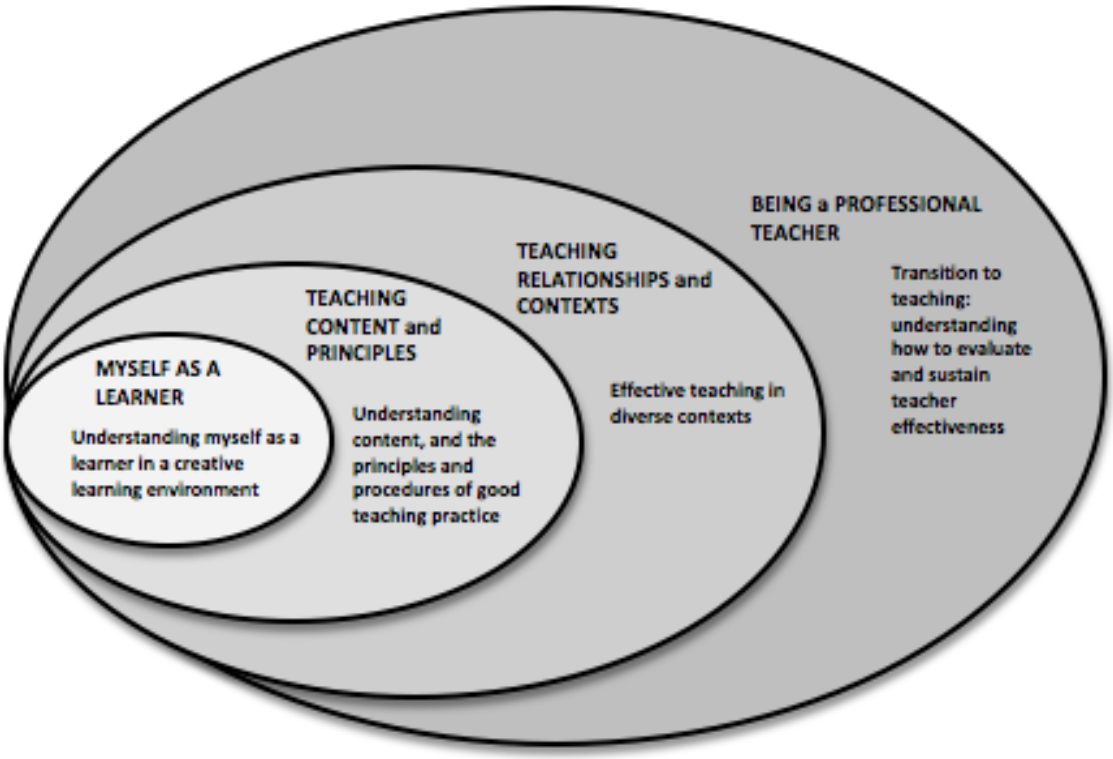

Figure 4: A developmental, non-linear model for Secondary teacher education: evolving and "cumulative" themes over the four years, considering the WHEN factor.

Conceptual Framework Stage 2:
Auditing the Teaching Inputs and their Learning Outcomes

Conceptual Frameworks		*WHAT↓*	*WHEN↓*
Big picture	1	4 Key Understandings	4 Year Themes
↘ *Zoom in →*	2	7 Professional Standards	4 Key Understandings: 16 core elements

Figure 1B: Conceptual Framework 2

The next stage in the working party's early developmental work in the new degree involved thinking about one central and very complex question:

- *What are the essential course elements of each year, and in each unit, that will build these evolving Key Understandings and capacities?*

The curriculum working group reflected upon their own experiences and observations of past and present students, concerning their levels over the four years of "knowledge readiness", and their capacities in learning style. This led naturally to the mapping of sets of developmental "core elements" for each Key Understanding, for each year, as seen in Figure 5. These core elements were informed by the suite of unit offerings in the original degree, as well as by their time placement and their relationship to the Year Themes. Several such "auditing" processes were carried out by academic staff within and outside the working party, in order to examine the "fit" of units with Year Themes, core elements, and the knowledge Dimensions. Figure 6 illustrates a section of this work, where a selection of units are mapped against two of the four Key Understandings, units that often appear more than once.

Conceptual Framework Stage 2: Auditing the inputs of <u>what</u> is taught, and their learning outcomes

DEVELOPMENTAL YEAR THEMES (depth)→ ***What is the optimum developmental process for Secondary teacher education over four years?***			
Year 1 ***Understanding myself as a learner in a creative learning environment***	**Year 2** ***Understanding content, and the principles and procedures of good teaching practice***	**Year 3** ***Effective teaching in diverse contexts***	**Year 4** ***Transition to teaching: understanding how to evaluate and sustain teacher effectiveness***

KEY UNDERSTANDINGS (colours) ***What are the essential elements of each year, and in each unit, that will build these Key Understandings and capacities?***				
<u>The Teaching Profession</u>: *Belonging to the teaching profession → Entering teaching with skills, confidence, and vision*	COMMUNICATING in an EDUCATIONAL CONTEXT	BECOMING a CONTEMPORARY TEACHER	ETHICS & VALUES in EDUCATION (resilience, philosophy/spirituality & sustainability)	ENTERING TEACHING
<u>Understanding the Australian Curriculum</u>: *Engaging with the Curriculum to address learning goals and misconceptions*	PERSONAL LITERACY PERSONAL NUMERACY	SPECIFIC PEDAGOGIES for TEACHING of a LEARNING AREA	LITERACY INTERVENTION NUMERACY INTERVENTION	TRANSITION PEDAGOGIES SENIOR SCHOOLING
<u>Understanding Learning</u>: *Teaching, planning and assessment tools for effective learner development*	HOW HAVE I DEVELOPED as a LEARNER?	UNDERSTANDING LEARNERS and LEARNING	ASSESSMENT EFFECTIVE TEACHING of ESC/TESOL STUDENTS	NEW TECHNOLOGIES for LEARNING, TEACHING and ASSESSMENT
<u>Relationships in Teaching and Learning</u>: *Management of the learning environment and classroom relationships*	EXPLORING LEARNING ENVIRONMENTS	CREATING POSITIVE LEARNING ENVIRONMENTS	DIVERSITY in the CLASSROOM WORKING POS'LY with CHALLENGING BEHAVIOURS	INDIGENEITY ETHICS and VALUES in EDUCATION (relationships)

Figure 5: Conceptual Framework Stage 2: Core elements (WHAT) in each of the four years (WHEN), linked developmentally to the Key Understandings

Secondary course year themes →	YEAR 1: Understanding myself as a learner in a creative learning environment	YEAR 2: Understanding content, and the principles and procedures of good teaching practice	YEAR 3: Effective teaching in diverse contexts	YEAR 4: Transition to teaching: understanding how to evaluate and sustain teacher effectiveness
School of Education overall KEY UNDERSTANDINGS ↓	Level 1	Level 2	Level 3	Level 4
Core elements →				
Understanding Learning: *Teaching, planning and assessment tools for effective learner development*	HOW HAVE I DEVELOPED AS A LEARNER? EDU1009 EDU1010	UNDERSTANDING LEARNERS & LEARNING EDU2110 EDU2231 Level 1/2 Content units Major Curriculum units PPA2211 CUR2210 Minor Curriculum units CUR3211 PPA3211	ASSESSMENT EDU2110 Major Curriculum units Minor Curriculum units Level 2/3 Content units CUR3211 EFFECTIVE TEACHING of ESC/TESOL STUDENTS EDU3104 PPA3211	NEW TECHNOLOGIES for LEARNING, TEACHING & ASSESSMENT EDU4110 CUR4212 CUR4210 PPA4211
Relationships in Teaching and Learning: *Management of the learning environment and classroom relationships*	EXPLORING LEARNING ENVIRONMENTS EDU1009 EDU1010 PPA2111	CREATING POSITIVE LEARNING ENVIRONMENTS EDU2231 PPA2211 EDU2110 Major Curriculum units CUR3211 PPA3211	DIVERSITY IN THE CLASSROOM EDU3104 PPA3211 WORKING POS'LY WITH CHALLENGING BEHAV'S EDU2231 PPA3211	INDIGENEITY EDF3101 PPA4211 ETHICS and VALUES in EDUCATION (relationships) EDU3104 EDF3101 CUR4210 BPTN PPA4211

Figure 6: An example of some of the unit "auditing" work carried out in Conceptual Framework Stage 2, for two of the Key Understandings and the corresponding core elements across four years

It should be noted that this "auditing" process was as much concerned with checking the quality and consistency of the existing units of the original degree, as it was with any possible deficits, and the working party's intention was to applaud and maintain past successful pedagogical choices. Indeed, most units were found to correspond to at least two or three of the "core elements". Figure 6 therefore elaborates both formerly established units, and some new units. For example, a unit in the original degree, *EDU3104: Diversity in the Secondary Classroom*, was judged to sit appropriately in the course time frame, and also to correspond well to the core elements of Ethics and values in education (relationships), Effective teaching of ESC and TESOL students, and Diversity in the classroom (and also Ethics and values in education (resilience etc.), although not seen in Figure 6). The coordinator of this unit was happy to include it once more in the new course, after some minor review.

However, while for the most part the original degree was felt by academic staff to respond well to most teacher education course requirements, certain gaps or deficiencies also became evident. This then afforded an opportunity for the curriculum working party to propose some new units to the whole Secondary group. For example, more emphasis was obviously required in the first year student experience concerning the fostering of successful

aptitudes for tertiary study, and a sense of belonging to a community of educators. The new unit *EDU1009: Communication Skills for Teaching and Learning* was prepared in order to meet the criteria of Communicating in an educational context, Personal literacy, How have I developed as a learner? and Exploring learning environments. Another example was seen when auditing revealed that the areas of professional engagement and improvement, and strategies for successful transitioning to teaching as a new graduate, were somewhat lacking in depth. A new fourth-year learning module called *Building Professional Teaching Networks* was thus created, fitting with the core elements of Entering teaching, Ethics and values in education (relationships), and Ethics and values in education (resilience etc.). The development of this module of work is described in more detail in the last section.

A last word concerning the Conceptual Framework Stage 2 thinking again refers to the National Professional Teacher Standards. In their role as both the "signposts" and the final destination of successful teacher education, the Standards needed, of course, to be considered at every stage of the conceptualisation. The thinking seen in Figure 7 was thus maintained as a consistent background to all considerations about the Key Understandings and their core elements across the four years.

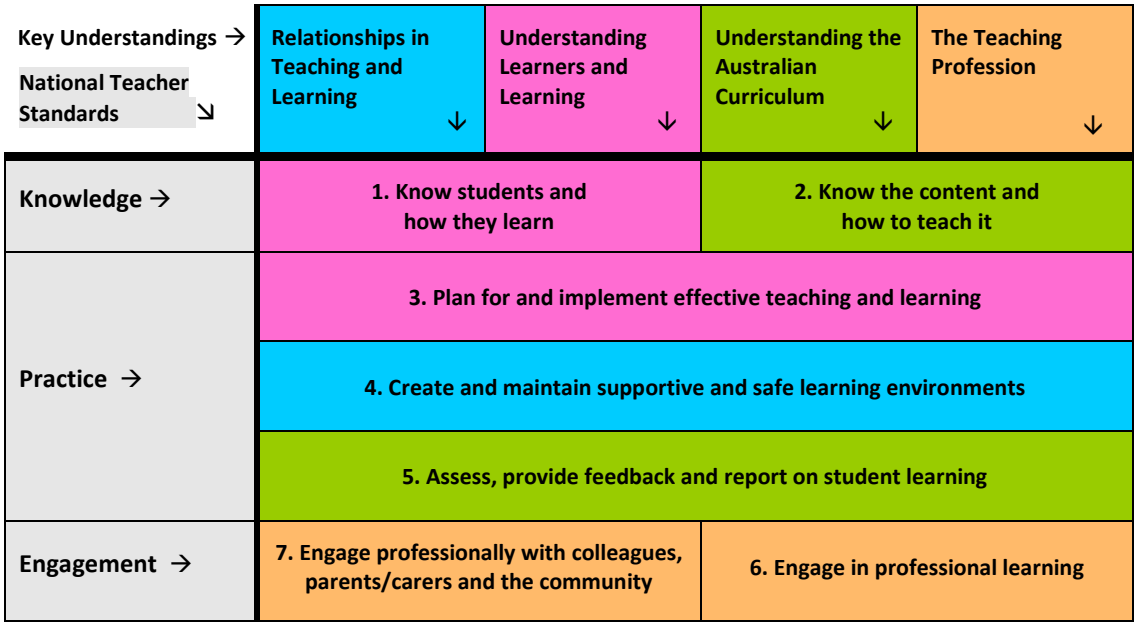

Figure 7: The link between the Key Understandings and the Standards

As can be seen in the next section, the next crucial perspective in the framing of these ideas is the Ure model of the five knowledge Dimensions, as these allow the richness of the Standards' domains of *knowledge*, *practice*, and *engagement* to clearly emerge. The Dimensions concern *contexts* for learning: the teaching and learning scenarios and experiences that enable the developmental nature of a truly comprehensive teacher education course. As tools that are at the same time both developmental and diagnostic, they provide the final important link to the Standards.

Conceptual Framework Stage 3:
Building Capacities and Exemplifying the Professional Standards

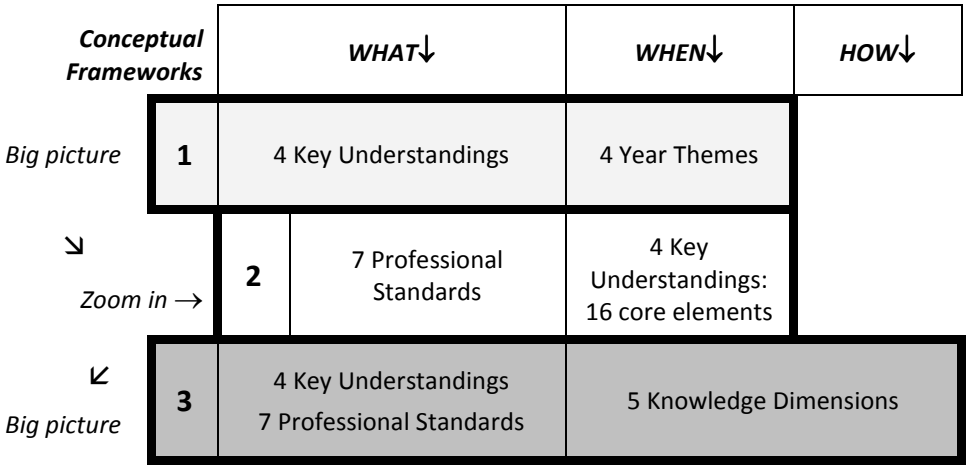

Figure 1C: Conceptual Framework 3

In the next stage of the thinking, the Standards and the knowledge Dimensions were brought into play in a general "big picture" sense, in preparation for the closer attention to detail demanded by the next more "zoomed-in" conceptual stage. The units in the original degree were now counter-poised with the Dimensions. The "questions" that supported the thinking in this third conceptual stage were:

- *What are the five knowledge Dimensions?*
- *How will the National Professional Teacher Standards and Key Understandings be exemplified through the Dimensions (the learning contexts and experiences)?*

Ure's five Dimensions (2010) are predicated upon the notion that a vital and consistent theory/practice interface is absolutely critical to the successful development of pre-service teachers. This is supported by other commentators who have called for a more coherent interconnection of academic and practical work in teacher education programs, and a lessening of "fragmentation" in course delivery offerings (Ure, 2009; Darling-Hammond & Haselkorn, 2009; Hammerness, 2006; Niemi et al., 2005; Darling-Hammond & Bransford, 2005; Korthargen, Kessels, Koster, Langerwarf, & Wubbels, 2001; da Ponte & Brunheira, 2001). They ask for a more carefully constructed, less *linear* sequence of learning experiences for pre-service teachers (Lunenberg & Korthargen, 2009; Loughran, 2008; Darling-Hammond et al., 2009, Carr et al., 2004). In Ure's model, pre-service teachers ideally develop these knowledges and skills in an almost osmotic way, moving logically between the Dimensions to gain or improve skills that are mutually supportive of and complementary to each other.

Pre-service teachers' attention both to current education research, and practical school-based experiences and "evidence-gathering", are central to Ure's model; and these can be seen in the goal descriptors of each of the Dimensions "Practical Study" and "Research Study" (see Figure 8). Yet for this to be meaningful, teaching students must also (and often *firstly*, according to the TRLP (2007)) develop important knowledges *for* and *about* and *of doing* teaching and learning, and these are represented in the Dimensions of "Discipline Knowledge", "Academic Study", and "Practical Study", which cover such diverse areas as learning area content knowledge and the skills needed to engage with and handle a classroom of students. A later Dimension (later in the sense that it enters more briefly into the first two years of study than into the second two) focuses on the attainment of professional teaching

skills, attitudes, competencies, and overall *vision*, and these fall under the banner of "Professional Study".

It is important to Ure's model that "evidence" of effective student learning be gathered and shared, and she is critical of calls for "student reflection" that are often actually just superficial "lay thinking". Ure (2009b) says that "teacher learning needs to focus on the use of cognitive processes to analyse how a (student) teacher's work impacts on student learning". She claims that

> … the developmental processes needed to create connections between knowing *about* and *doing* teaching and learning … are acquired through active and iterative processes that depend on being able to use information about teaching and learning, with feedback from the activity of teaching, to make adjustments and to see what effect these have. (p. 7)

Ure therefore advocates a more "clinical" approach in teacher education:

> The use of regular, professionally framed observations and discussions that focus on the impact of teaching on student learning may be the underlying pedagogical link for a more clinically applied approach to teaching practice. (p. 8)

A useful adjunct to this gathering of knowledge, to be used in the described new course, is the teaching student's creation of an "e-portfolio". This electronic repository of evidence of effective teaching and learning experiences, of gathered data about student learning in schools, of reflections upon theoretical learning, and of the tracking of personal growth as a new member of the profession, may offer an important contribution to the pre-service teacher's awareness of what it means to be a teacher, something Ure refers to as "a sense of professional esteem". With the conjoining of such capacities in the fourth year, a stronger professional self-efficacy and sense of direction is the ultimate aim.

Conceptual Framework Stage 3: How to build capacities and exemplify the Standards

	DEVELOPMENTAL YEAR THEMES → *What is the optimum developmental process for teacher education over four years?*				
NATIONAL STANDARDS ↓ *How will the National Professional Teacher Standards be exemplified through the Dimensions (learning contexts and experiences)?*	**DIMENSIONS →** *What are the five knowledge Dimensions?*				
	Discipline Knowledge	**Academic Study**	**Practical Study**	**Research Study**	**Professional Study**
1. Know students and how they learn **2. Know the content and how to teach it** **3. Plan for and implement effective teaching and learning** **4. Create and maintain supportive and safe learning environments**	***KNOWLEDGE for teaching and learning***	***KNOWLEDGE about teaching and learning***	***KNOWLEDGE of (doing) teaching and learning***	***KNOWLEDGE of the use of evidence in teaching and learning***	***KNOWLEDGE of the professional guidelines in teaching and learning***
5. Assess, provide feedback, and report on student learning **6. Engage in professional learning** **7. Engage professionally with colleagues, parents/carers and the community**	***Goal: To develop knowledge for teaching and learning***	***Goal: To develop knowledge about teaching and learning***	***Goal: To develop knowledge of (doing) teaching and learning***	***Goal: To develop knowledge of use of evidence in teaching and learning***	***Goal: To develop knowledge of the professional guidelines in teaching and learning***

Figure 8: Conceptual Framework 3: the seven National Professional Standards and the five knowledge Dimensions

In Figure 8 can be seen the five Dimensions and their goals. More detailed *elaborations* of these are looked at in the next section. The fourth perspective now to be closely considered was, of course, that of the Professional Standards themselves, seen on the left-hand-side of Figure 8. In this third conceptual framework the "what" of effective teacher education is again considered in the light of the Standards – towards which ideals the students move as they test their knowledge and capacities in different learning contexts. And as the Professional Standards are modelled, demonstrated and practised in various scenarios, the *Graduate* Standards – the first step on the road to the teaching proficiency and capabilities needed for the first year of teaching – now gain very specific consequence.

In the final part of this section, Conceptual Framework Stage 4 illustrates how all four perspectives may best relate to each other, and this paves the way for the *Conceptual Synthesis* that pulls all of these ideas together.

Conceptual Framework Stage 4:
Building Capacities and Achieving the Graduate Standards

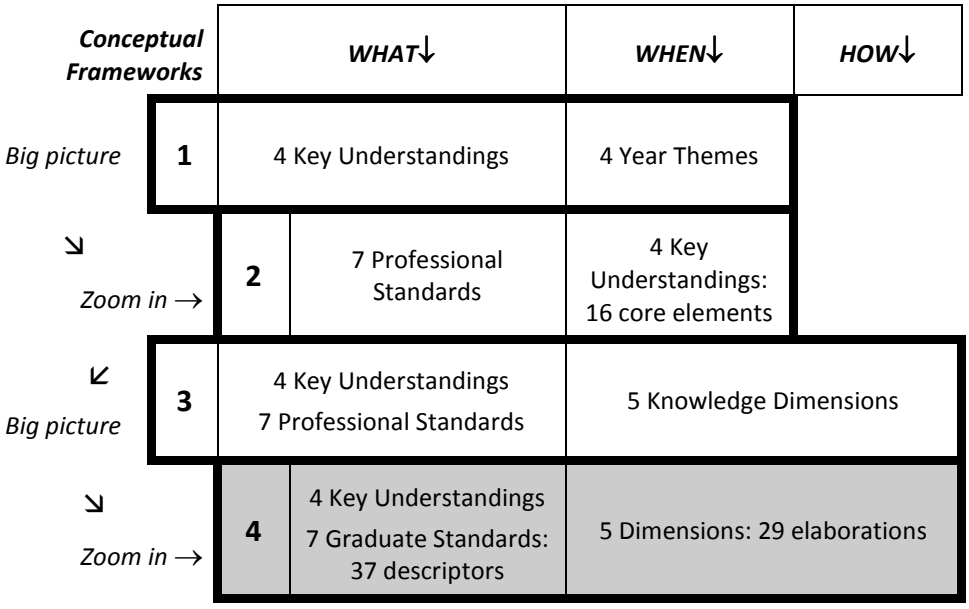

Figure 1D: Conceptual Framework 4

The "questions" in this fourth stage of the course curriculum planning are these:

- *How will the "knowledge Dimensions" be used to comprehensively develop the Understandings and capacities in a practical way?*
- *How will the National Graduate Teacher Standards and Key Understandings be achieved in this course?*

The Conceptual Frameworks Stages 1, 2 and 3 established the overall thematic structure of the developmental course model across the four years, reviewed unit content and timing in relation to this, and framed the Standards in terms of five meaningful learning contexts. Conceptual Framework Stage 4 now moves to the important next step of thinking about exactly "how" the *mechanics* of the teaching and learning in the course work could best achieve attainment of the Graduate Standards. Once again, the focus shifts to more detailed thinking and mapping, using the framework of the Stage before.

The "elaborations" of Ure's five Dimensions may be used to frame and to organise the pedagogical inputs of teacher education courses: they can be used in two important ways, namely

- as *descriptors* of suitable teacher education curriculum inputs, and
- as general *organisers* for ensuring that the Standards (both Graduate and Professional) are properly and comprehensively addressed.

The four "Conceptual Frameworks" presented so far are now, at this point in the discussion, able to be *synthesised* into one whole. Figure 9 can finally be seen to pull together the various parts of the earlier conceptual frameworks into a single picture that summarises the overall reasoning thus far.

Yet for this process to be at all useful for practical planning, it was also necessary to *prioritise* parts of the different perspectives. There are 37 descriptors for the seven Professional Standards, and therefore 37 elements for each of the seven Graduate Standards. Ure's five Dimensions suggest a total of 29 learning contexts. Further, some Key Understandings naturally appeared to stand out more than others for certain Standards (see Figure 7). Was there a way of organising the links or connections to help with writing curricula? It seemed possible that a "scope and sequence" for each Standard, which also linked together all of the other perspectives, could be a useful tool in planning curriculum inputs.

The fourth Conceptual Framework seen in Figure 9 again displays all four of the perspectives that have been described, but now also includes reference to the *dominant* Key Understandings – those that appear to be the leading themes and concerns – using "ticks" in colour-coded boxes for each of the seven Standards. (The asterisk denotes a third and less dominant Key Understanding in each case, and its inclusion is a testament to just how very *intermeshed* are the Key Understandings, Dimensions, and teacher accreditation Standards that weave through this synthesised conceptual model.) Grey-highlighted Dimensions are, once more, the suggested "dominant" learning inputs, scenarios or experiences for developing and achieving each Standard in an optimum way. Some Standards are seen to depend upon the inclusion of four out of the five Dimensions – and all are covered fairly comprehensively by a minimum of three. The four conceptual perspectives, quite simply, do not have *linear* relationships with each other, but are far more intricately related.

It will perhaps be no surprise that this final fusion of the four conceptual frameworks, seen in Figure 9, is in reality a "summary" only, in that it must rely on careful and quite detailed background analyses of the perspectives – analyses only briefly described here. The elaborations of Dimensional activities, tasks and experiences as they relate to the much more detailed descriptors of the Standards, cannot be included in the body of this already lengthy paper. Appendix 1 reveals the closer mapping analysis that led to the version of Figure 9, and it is in fact the final "conceptual synthesis" described in the paper's title. More is said about Appendix 1 in the last two sections of the article. (A legible document form of the *Conceptual Synthesis* document is available from the author upon request.)

Conceptual Framework Stage 4: Building capacities and achieving the Graduate Standards

NATIONAL STANDARDS ↓ *How will the National Professional Teacher Standards and Key Understandings be achieved in this course?*	DEVELOPMENTAL YEAR THEMES → *What is the optimum developmental process for teacher education over four years?*				
	DIMENSIONS → *How will the "knowledge Dimensions be used to comprehensively develop the understandings and capacities?*				
	Discipline Knowledge	**Academic Study**	**Practical Study**	**Research Study**	**Professional Study**
1. Know students and how they learn	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
✓ * ✓ ✓					
2. Know the content and how to teach it	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
✓ ✓ *					
3. Plan for and implement effective teaching and learning	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
✓ ✓ *					
4. Create and maintain supportive and safe learning environments	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
* ✓ ✓					
5. Assess, provide feedback, and report on student learning	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
* ✓ ✓					
6. Engage in professional learning	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
✓ ✓ *					
7. Engage professionally with colleagues, parents/carers and the community	*Knowledge for teaching and learning*	*Knowledge about teaching and learning*	*Knowledge of (doing) teaching and learning*	*Knowledge of the use of evidence in teaching and learning*	*Knowledge of the professional guidelines in teaching and learning*
✓ * ✓					

KEY UNDERSTANDINGS (*What understandings and capacities should beginning teachers have developed by the end of their course?)*

The Teaching Profession | Understanding the Australian Curriculum | Understanding Learners and Learning | Relationships in Teaching and Learning

Figure 9: Conceptual Framework Stage 4: The five knowledge Dimensions, linked both to the *dominant* Key Understandings and the National Standards (adapted and developed from Ure (2009b), *Table 2: A multidimensional model of teacher development*). This is also a "summary" of the *Conceptual Framework Synthesis* in Appendix 1.

A *Conceptual Synthesis* for Planning Teacher Education

As explained in the last section, Appendix 1 details the closer mapping analysis that led to the more compact, summarising table of Figure 9. Appendix 1 is thus from now on referred to as the *Conceptual Synthesis*, or, more simply, the *CS*.

This master mapping document may be used for several purposes: firstly, to carry out integrated and comprehensive planning of a whole teacher education course – one that pays equal attention to Key Understandings, Standards, and the learning contexts (Dimensions) for best achieving these; and secondly, to prepare particular curriculum offerings that focus appropriately upon particular, relevant Standards. The fourth and final section of the paper provides a "worked example" of how the latter could be done, briefly describing the early preparation of a new module in the course featured here.

Yet firstly, some brief further explanation as to the *CS* is probably required for the reader's understanding. A "snapshot" of one section of the document is shown in Figure 10. This is an excerpt of the *CS* relating specifically to the second Standard, "Know the content and how to teach it". The analysis that resulted in the *CS* in its entirety involved reflection upon the most relevant descriptive *elaborations* of each Dimension (seen highlighted in colour in the right-hand columns of the table below), in direct relation to the Key Understandings. "Dominant" Dimensions for a Standard (those linking the Key Understandings with a significant number of elaborations) are grey-highlighted in the document. The Dimension of Discipline Knowledge is also included here simply because the input elaboration of "specific discipline-based knowledge" – demanding as it does about 40% to 50% of the content time in a Secondary teaching degree – is so very significant. In other words, the second Standard is seen as best supported with specific attention to certain elaborations of Discipline Knowledge, Academic Study, Practical Study and Research Study, *within* the Key Understandings of The Teaching Profession and Understanding the Australian Curriculum. This is the kind of close analysis that resulted in the fourth Conceptual Framework summary of Figure 9.

It has been claimed by the author that *comprehensiveness* of approach in curriculum preparation is the key to success in a strong teacher education course. The following immediate discussion emphasises this, and also attempts to justify further the extra use of "colour-coding" in most of these conceptualisation frameworks.

Figure 10 could, supposedly, be summarised reasonably well in a less complex black-and-white table. Yet in doing so it is argued that it would probably provide most, but not *all*, of the information that teacher educators actually need to prepare sound curriculum experiences for the thorough achievement of Standard 2. Figure 10 (that is, the *CS* by implication) provides such essential information in a more comprehensive way. For example, it can be seen that the two most dominant Key Understandings, The Teaching Profession and Understanding the Australian Curriculum, could both be well supported by the curriculum input of "Use and apply research on teaching and learning to inform pedagogical decision-making" (Research Study Dimension). But how does this particular elaboration relate to each of these two Key Understandings? It could be argued that they do so in quite different, but equally important ways. Under the banner of The Teaching Profession this input implies an emphasis upon networking with colleagues about current effective pedagogies, upon reading current teacher education literature, and upon using the support of a professional learning area body. On consideration of Understanding the Australian Curriculum, the emphasis shifts to an appreciation and application of the scoping and sequencing in the national curriculum documents, and upon a familiarity with strategies for adapting these successfully for one's own classroom teaching. Each "emphasis" is vital to the achievement of the Standard **2. Know the content and how to teach it** – but it is vital in quite different ways.

Standard **2. Know the content and how to teach it**

	DOMINANT DIMENSIONS and their ELABORATIONS →			
	1. Discipline Knowledge *Goal: To develop knowledge for teaching and learning*	**2. Academic Study** *Goal: To develop knowledge about teaching and learning*	**3. Practical Study** *Goal: To develop knowledge of (doing) teaching and learning*	**4. Research Study** *Goal: To develop knowledge of use of evidence in teaching and learning*
DOMINANT KEY UNDERSTANDINGS ↓	***KNOWLEDGE for teaching and learning***	***KNOWLEDGE about teaching and learning***	***KNOWLEDGE of (doing) teaching and learning***	***KNOWLEDGE of the use of evidence in teaching and learning***
The Teaching Profession: *Belonging to the teaching profession → Entering teaching with skills, confidence, and vision*	**1.2** Specific discipline based knowledge. **1.3** Problem solving capacity	**2.4** Classroom organisation and dynamics to support effective teaching and learning **2.6** Availability and use of teaching resources.	**3.1** Use of knowledge to develop learning goals for individuals and groups. **3.2** Leading learning with groups and classes of students **3.3** Application and adaptation of teaching strategies to suit instructional goals.	**4.1** Understand and use strategies to assess student capacity and progress. **4.3** Develop and assess learning outcomes. **4.4** Use and apply research on teaching and learning to inform pedagogical decision making. **4.5** Evaluate teaching and learning.
Understanding the Australian Curriculum: *Engaging with the Curriculum to address learning goals and misconceptions*	**1.2** Specific discipline based knowledge.	**2.3** Pedagogical strategies for teaching discipline related content. **2.5** Curricular goals and program planning. **2.6** Availability and use of teaching resources.	**3.1** Use of knowledge to develop learning goals for individuals and groups. **3.2** Leading learning with groups and classes of students **3.3** Application and adaptation of teaching strategies to suit instructional goals	**4.1** Understand and use strategies to assess student capacity and progress. **4.2** Develop an understanding about the teaching and learning needs of groups and individuals. **4.3** Develop and assess learning outcomes. **4.4** Use and apply research on teaching and learning to inform pedagogical decision making. **4.5** Evaluate teaching and learning.

Figure 10: A "snapshot" from Appendix 1, the *Conceptual Synthesis*: using colour-coding and selection to relate dominant Key Understandings with Dimensional elaborations, so as to address Standard 2 of the Professional Standards.

The author contends that each of these subtle emphases and approaches needs to be comprehensively provided for teaching students, and that the *CS* document, of which Figure 10 is only a small representative part, offers curriculum writers the opportunity to think more selectively or discerningly about teaching and learning experiences that are usually much more *practically* complex than they first appear. This is essentially what is meant by the heightened *comprehensiveness* available in this synthesis of conceptual frameworks. It was claimed earlier that the Key Understandings are like "beacons" in the general conceptualisation – they shine a clear light on four simple ideas, throughout the model.

In this way, it can be seen how the *Conceptual Synthesis* can be used to hone in on the important details needed to judge

- *what* Key Understandings are at the heart of a particular Standard; and
- *how*, within each of the settings of these Key Understandings, the corresponding Dimensional elaborations could be most useful in developing curriculum inputs for a course.

Finally, the last section of the paper offers a brief description as to how the *CS* might be used in the more specific writing of new curriculum. It is argued, in fact, that the *CS* may be used to burrow right in to the essential and desirable learning outcomes of a proposed unit or module of work, and then to frame the kind of content and activities that may best produce these outcomes. It should be noted also that a final semester module in Year 4, and the National Standard domain of *Engagement,* were selected here because such a curriculum offering is more likely to be generally applicable to other school stages than are other Secondary Education units: the domains of *Knowledge* and *Practice* were felt to be more learning-age-specific, and therefore less "generalisable". (Indeed, it is generally true that less overall attention is given in this paper to the Key Understanding Understanding Learning, and the reasoning for this is the same. Obviously, however, this is a vitally important learning outcome in any teacher education course, at any school stage.)

Using the *Conceptual Synthesis* to Prepare a New Module

It was noted earlier that in the second stage of conceptualisation of the new Secondary course, the working party came across a noticeable "gap" in the original degree. It was realised that much more emphasis needed to be placed upon "bridging" the Semester 8 teaching students into their new careers, in a curriculum offering that provided information about and support from the profession. A new 12-hour module called *Building Professional Teaching Networks* was proposed. It was felt that ideally this new module should also help students to become more self-reliant and capable in seeking out professional development opportunities, and in creating their own collegial support networks. Recent research in the School into best practice for the mentoring of early career teachers (Ormond, 2011; Ormond & Sherriff, 2011; Sherriff & Ormond, 2010) was also used to substantiate the writers' curriculum choices, and the *CS* was carefully employed to develop the details and to validate the appropriateness of the offering. A description of the module follows:

> *This module creates a bridge between pre-service teacher training and early career teaching, and provides some important strategies and suggestions for a successful transition into teaching. The unit also stresses the importance of the new teacher's commitment to ethical teaching practice and to an understanding of important policies relating to education. It explores the importance of a new teacher's ongoing growth, both in terms of developing effective professional networks that best meet varying early career needs and expectations, and of engaging in further professional development in his or her learning area. It also examines ways to use ICT to build a useful support foundation for teaching through a variety of tools and strategies, including professional social networking and joining/building communities of practice.*

The *CS* was used as a specific mapping tool for the preparation of this module, one that linked its content and intended learning outcomes to the four perspectives discussed throughout the paper. Once more, both the National Standards (Professional and Graduate) and the Key Understandings were used in this exercise. The *CS* can also be seen to include the *Graduate* Standards "descriptors" beneath the corresponding Professional Standards. The Graduate Standards underpin the specific unit content and learning outcomes, while at the same time providing a background of the *overall* Standards (AISTL, 2011).

The theme for Year 4 has been seen to be "Transition to teaching: understanding how to evaluate and sustain teacher effectiveness". It was felt that the three Key Understandings most fundamental to the curriculum offering, and appropriate to this theme, were:

The Teaching Profession: *Belonging to the teaching profession → Entering teaching with skills, confidence, and vision*

Understanding the Australian Curriculum: *Engaging with the Curriculum to address learning goals and misconceptions* and

Relationships in Teaching and Learning: *Management of the learning environment and classroom relationships*

This covered the first two "perspectives" in the *CS*, those of the Key Understandings and the Themes. It was then decided that the Standards (the third perspective) that would best inform and shape this module were those of the Engagement domain, and the *CS* provided a visible link between these and the Key Understandings, elaborated again here in Figure 11. (To a lesser extent, the complementary Standard 3: Plan for and implement effective teaching and learning is also involved, as a natural by-product of attention to the other two in this curriculum setting; but it is not featured specifically here.)

The fourth perspective, that of the Dimensions, was then employed as a counter-check of suitable and varied "knowledge-gathering" experiences and contexts (discipline-related, academic, practical, research-based, and professionally informed), with which best to establish these Understandings and Standards. This resulted in the draft curriculum outline seen in Figure 12.

With all four of the perspectives thus *comprehensively* addressed in this way, it was felt that the module's content and learning outcomes could be confidently justified in terms of the desirable Graduate Standards. Furthermore, from here it was a relatively small step to the planning of tasks, again through using reference to the relevant Dimensions. The module tasks could now be prepared with considerable assurance as to comprehensive coverage of each of the important teaching inputs for such an offering.

6. Engage in professional learning

PROFESSIONAL TEACHER STANDARD DESCRIPTORS	*GRADUATE TEACHER STANDARD DESCRIPTORS*
6.1 Identify and plan professional learning needs 6.2 Engage in professional learning and improve practice 6.3 Engage with colleagues and improve practice 6.4 Apply professional learning and improve student learning	*6.1 Demonstrate an understanding of the role of the National Professional Standards for Teachers in identifying professional learning needs* *6.2 Understand the relevant and appropriate sources of professional learning for teachers* *6.3 Seek and apply constructive feedback from supervisors and teachers to improve teaching practices* *6.4 Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning*

7. Engage professionally with colleagues, parents/carers and the community

7.1 Meet professional ethics and responsibilities 7.2 Comply with legislative, administrative and organisational requirements 7.3 Engage with the parents/carers 7.4 Engage with professional teaching networks and broader communities	*7.1 Understand and apply the key principles described in codes of ethics and conduct for the teaching profession* *7.2 Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage* *7.3 Understand strategies for working effectively, sensitively, and confidently with parents/carers* *7.4 Understand the role of external professionals and community representatives in broadening teachers' professional knowledge and practice*

Figure 11: Descriptors for two Professional and Graduate Teacher Standards, linked to the Key Understandings. These Standards underpin the content and learning outcomes of the new module.

A more specific example of the kind of diagnostic planning that may be supported by the *CS* is seen in Figure 13 (see the following page), where the focus is upon National Graduate Teacher Standard (NGTS) descriptor 6.1. This illustrates how the module's teaching and learning inputs and tasks were derived from the mapping of the Dimensional elaborations provided in the *CS*, for this particular descriptor. (Again, also see Figure 12.)

CONTENT PLANNER: ***Building Professional Teaching Networks***

LEARNING OUTCOMES

On completion of this unit, students should be able to:

1. Demonstrate an understanding of where and how to seek support in the early years of teaching. (National Graduate Teacher Standard descriptor (NGTS) 6.1, 6.3, 6.4, 7.1)
2. Demonstrate a beginning understanding of school and education system policies. (7.1, 7.2, 7.3, 7.4)
3. Begin to understand how to develop a professional network. (6.3, 7.4)
4. Understand the opportunities available for further professional development. (6.1, 6.2, 6.4, 7.1, 7.4)
5. Have a vision for teaching and a sense of professional esteem. (6.1, 6.2, 7.1, 7.2, 7.3, 7.4)
6. Demonstrate an understanding of the NGTS, (6.3, 6.4, 7.1, 7.2, 7.4, (3.1, 3.4, 3.6, 3.7)) in particular:
   - Engage in professional learning (Standard 6).
   - Engage professionally with colleagues, parents/carers and the community (Standard 7).
   - Plan for and implement effective teaching and learning (Standard 3).

UNIT CONTENT

1. The structure and function of support for educational organisations and individuals (schools, systems, mentoring support, building professional networks) (NGTS 6.4, 7.2, 7.4)
2. Education and other related policies that concern schools and their communities (NGTS 7.1, 7.2, 7.3, 7.4)
3. Ethical teaching practice (NGTS 6.3, 6.4, 7.1, 7.4)
4. Attitudes and practices that support engagement in continuous professional growth (NGTS 6.1, 6.2, 6.3, 7.1, 7.4)
5. Information about agencies that guide and support the teaching profession generally (NGTS 6.2, 6.5, 7.1, 7.2, 7.4)
6. Strategies for making and nurturing a range of professional and personal networks that will act as a valuable resource in their lives as teachers (NGTS 6.1, 6.3, 7.4)

Figure 12: Excerpt from the module planner: the NGTS that underpin its content and learning outcomes

Conclusion

At a time when AITSL has been commissioned to audit and assess the quality of teacher education courses around Australia, and as graduate teachers will be expected to provide more and better evidence of high standards of expertise, teacher educators face increasing challenges. Ure (2010) has claimed that "more needs to be done to improve the professional readiness and resilience of newly graduating teachers", and that "an improved understanding about initial teacher development is needed to better inform the design of teacher education programs".

The author has attempted to share and to utilise the lessons and experiences in the recent preparation of a new teacher education course, by formalising these into an integrated and logical *scoping and sequencing* of contextualised inputs and learning outcomes. The writers of the new Secondary course so described did not meet around a table with these charts and tables and meticulously plan each step: the process was far more natural, spontaneous, and iterative than that. Rather, the four conceptual frameworks and the final *Conceptual Synthesis* provided here are the result of much reflective *later* thought about just how the new course was framed within newly mandated expectations, over various periods of time in the process, and in response to various external and internal constraints. It is believed that the frameworks faithfully represent the order in which the thinking occurred, and generally characterise the fundamental principle seen in the paper's title, namely that a mixture of "big picture" and "fine detail" approaches provides the best balance for successful course design.

6. Engage in professional learning

The Teaching Profession: *Belonging to the teaching profession →Entering teaching with skills, confidence, and vision*

NATIONAL STANDARD	GRADUATE STANDARD	CONTENT	LEARNNG OUTCOMES	TASKS	DIMENSION 1. DISCIPLINE 2. ACADEMIC 3. PRACTICE 4. RESEARCH 5. PROFESSIONAL
6.1 Identify and plan professional learning needs	*6.1 Demonstrate an understanding of the role of the National Professional Standards for Teachers in identifying professional learning needs*	4. Attitudes and practices that support engagement in continuous professional growth 6. Strategies for making and nurturing a range of professional and personal networks that will act as a valuable resource in their lives as teachers	1. Demonstrate an understanding of where and how to seek support in the early years of teaching. 4. Understand the opportunities available for further professional development 5. Have a vision for teaching and a sense of professional esteem	? ?	**1.3** Problem solving capacity **2.7** Education and related policies concerning schools and their communities **5.4** Attitudes and practices that support engagement in continuous professional growth **5.5** Professional responsibility for continuing improvement in teaching and learning

6.1 Demonstrate an understanding of the role of the National Professional Standards for Teachers in identifying professional learning needs ↓

DIMENSION		ELABORATION	TASKS/INPUTS
Discipline Study	***Knowledge for teaching and learning, such as***	Problem solving capacity	*Workshop discussion and assigned tasks: Professional Development* • Find out what you know and don't know. • The power of planning your professional growth. • Decide what your priorities are and where you want to focus your efforts in professional development.
Academic Study	***Knowledge about teaching and learning, such as***	Education and related policies concerning schools and their communities	*Lecture/Workshop: Expectations and Reality* • National Teacher Standards – emphasising ethical teaching practice and an ongoing attitude for ongoing learning and improving as a teacher. *Lecture and mini-presentations – Subject-specific Policies* • Subject specific policies and procedures: the national, and state policies and procedures of which all new teachers need to have an understanding.
Professional Study	***Knowledge of the professional guidelines in teaching and learning, by developing professional attributes such as***	Attitudes and practices that support engagement in continuous professional growth	*Invited guest speakers from the field* • Department of Education, WACOT, Catholic Education, AISWA to speak generally about what supports they have available to students when they become beginning teachers. Pre-service teachers to come prepared with questions to ask the panel members.
		Professional responsibility for continuing improvement in teaching and learning	*Lecture/Workshop: Personal and Professional Network Model* • The advantages of having a Personal and Professional Network. Supports and resources available to new teachers (e.g. informal and formal mentors, coaches and advocates) • Looking at a professional network model as a suggestion of how to develop your own network. *Assignment activity: Personal and Professional Network Model* • Investigate the types of mentor supports available, their roles, responsibilities, boundaries and advantages.

Figure 13: Focusing on a particular Graduate Teacher Standard in *Building Professional Teacher Networks*: how the Dimensions were used to develop actual unit content

APPENDIX 1

The *CONCEPTUAL SYNTHESIS for PLANNING a COMPREHENSIVE TEACHER EDUCATION COURSE*

Linking the Key Understandings with the National Standards

The seven National Professional Teacher Standards are the signposts of the course.
The four Key Understandings of the courses are linked with Standards in the following way.

Key Understandings → / National Teacher Standards ↘	Relationships in Teaching and Learning ↓	Understanding Learners and Learning ↓	Understanding the Australian Curriculum ↓	The Teaching Profession ↓
Knowledge →	1. Know students and how they learn		2. Know the content and how to teach it	
Practice →	3. Plan for and implement effective teaching and learning			
	4. Create and maintain supportive and safe learning environments			
	5. Assess, provide feedback and report on student learning			
Engagement →	7. Engage professionally with colleagues, parents/carers and the community		6. Engage in professional learning	

Linking the Key Understandings with the Standards: an extra note

The first table (also Figure 7) in Appendix 1 (just also, through the use of a colour-coded matrix, the way in which the key understandings have been mapped against the National Professional Teacher Standards (NTPS). Each of these also supports a National Graduate Teacher Standard. The National Standards for the domain of **Professional Practice** (Standards 3, 4, and 5) are seen as essential for the development of all of these Key Understandings, and are thus represented across all four columns of the matrix. The colours are used to illustrate the dominant Key Understanding for each. (For example, the dominant (but not sole) Key Understanding to be developed in attending to the Standard 4: Creating and maintaining supportive and safe learning environments is that concerning relationships in teaching and learning.) The National Standards for the domains of **Professional Knowledge** (Standards 1 and 2) and **Professional Engagement** (Standards 6 and 7) are each represented across the two most relevant columns of the matrix. However, it should be noted that the curriculum developers believed that each of the four Key Understandings are in fact strengthened by attention to each of the seven Standards. Again, the colours are used to illustrate the dominant Key Understanding for each.

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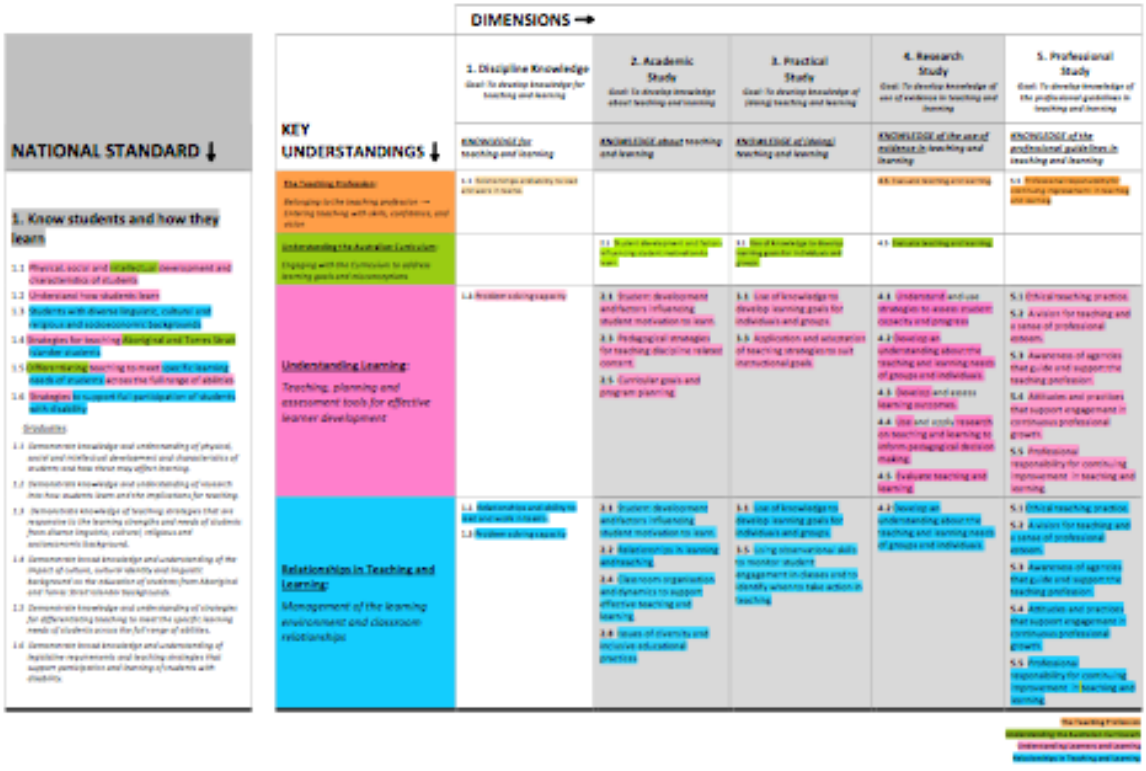
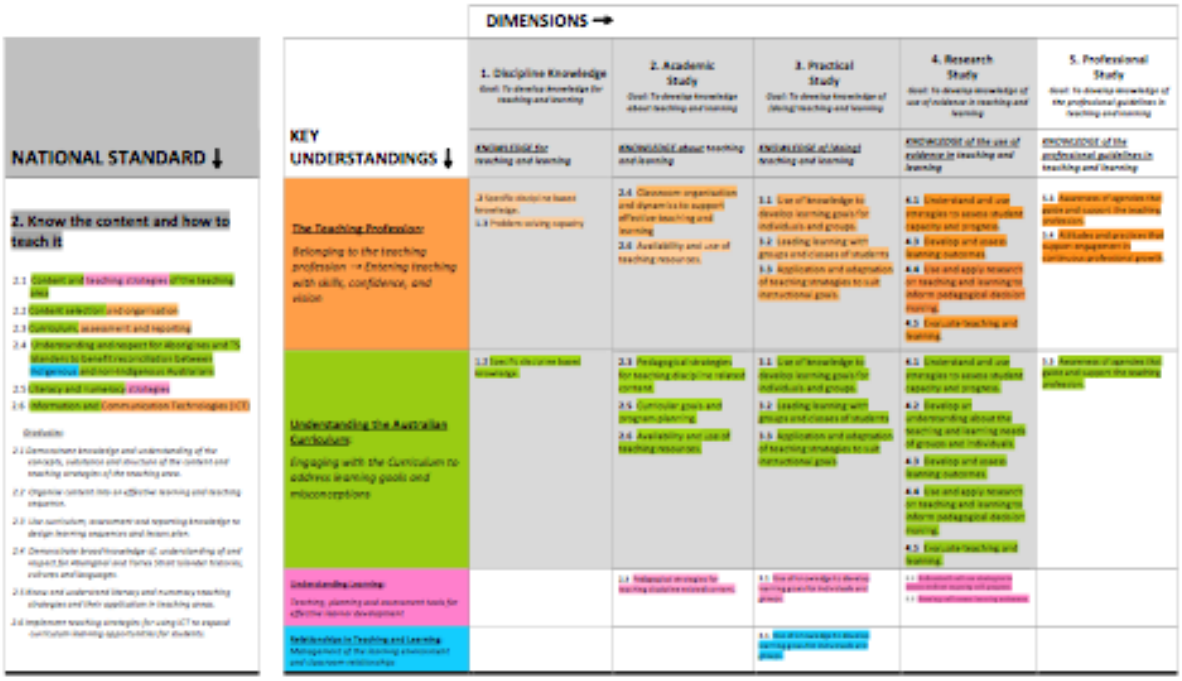
1. The KNOWLEDGE DOMAIN of the AUSTRALIAN GRADUATE TEACHER STANDARDS

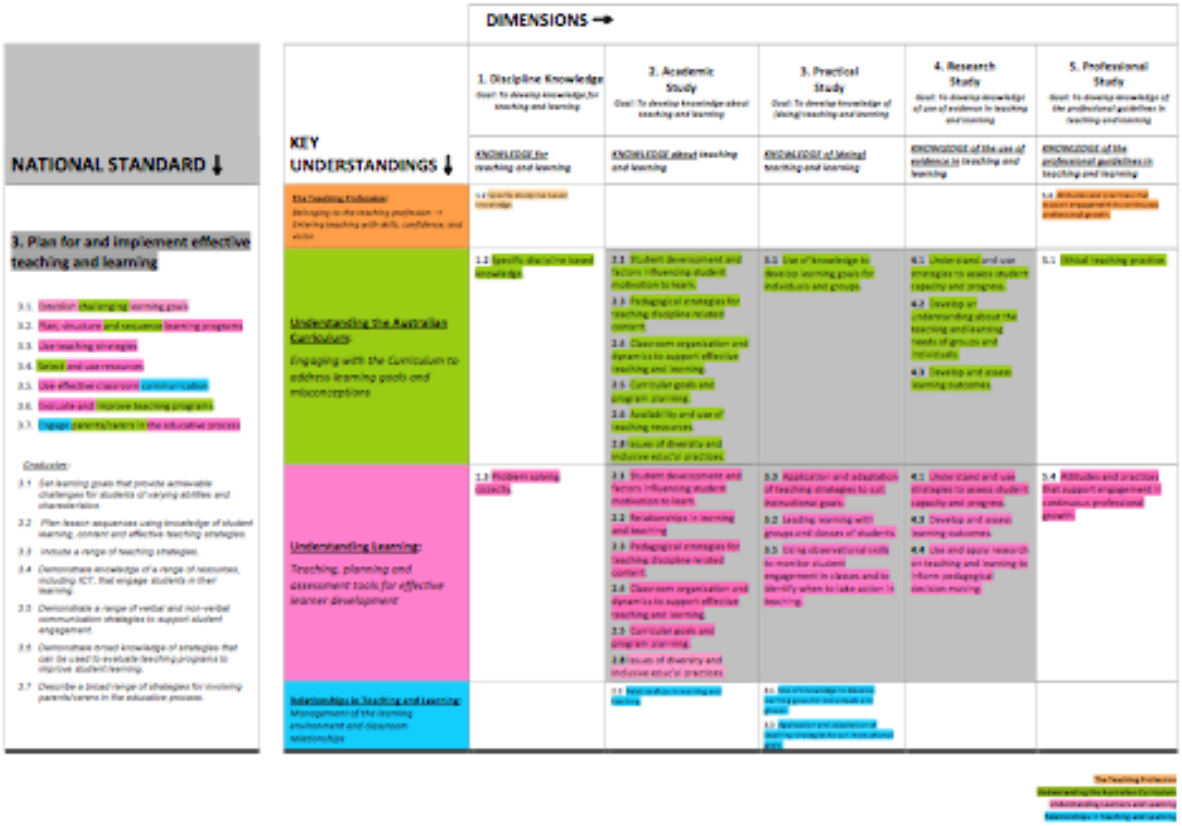


(Please note that a legible and reproducible document version of Appendix 1 is available from the author upon request.)

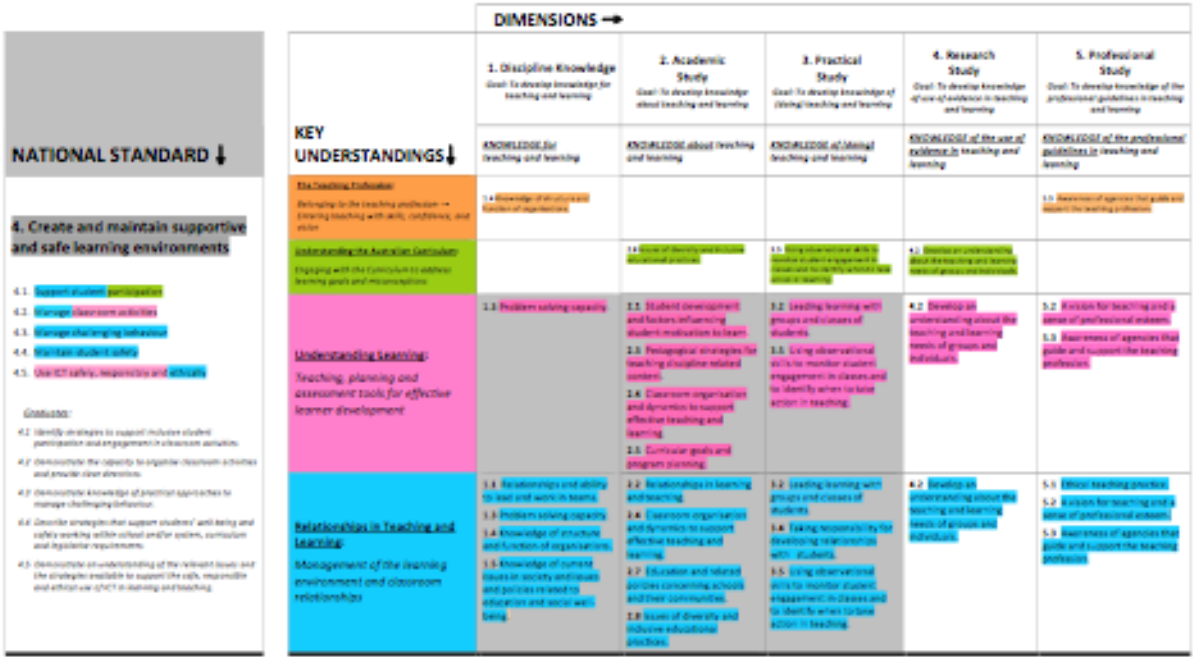
1. The KNOWLEDGE DOMAIN of the AUSTRALIAN GRADUATE TEACHER STANDARDS

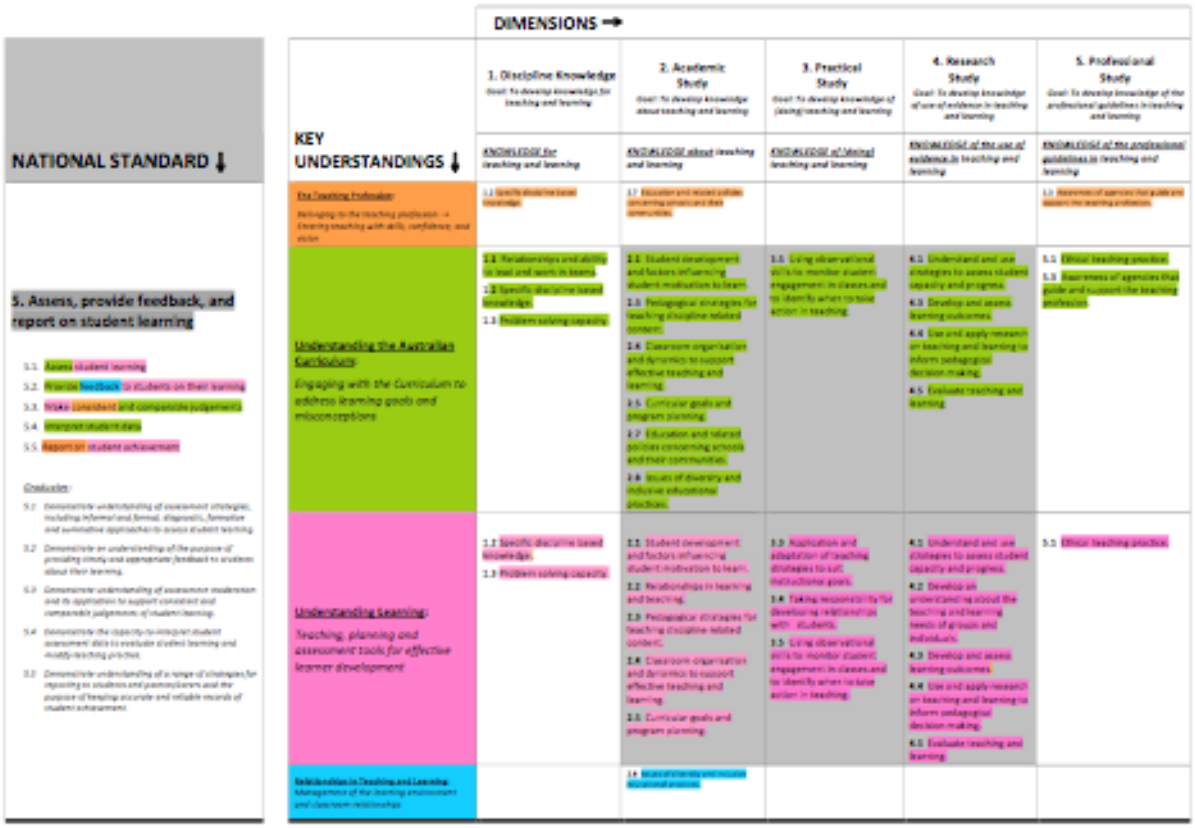


2. The PRACTICE DOMAIN of the AUSTRALIAN GRADUATE TEACHER STANDARDS

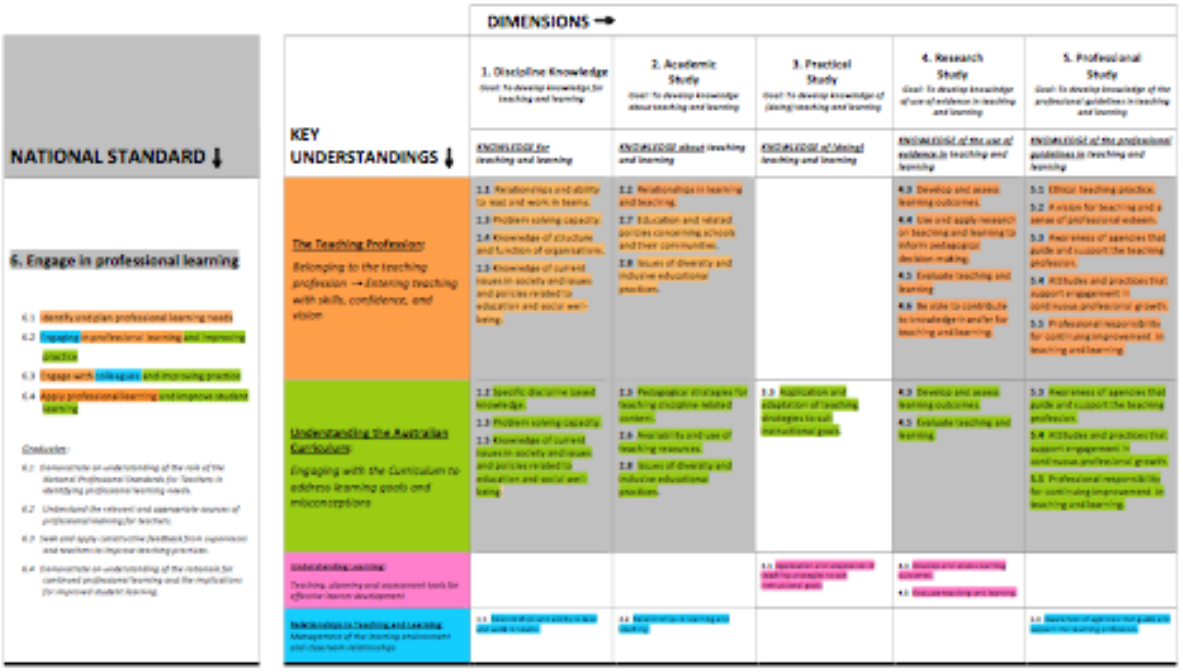


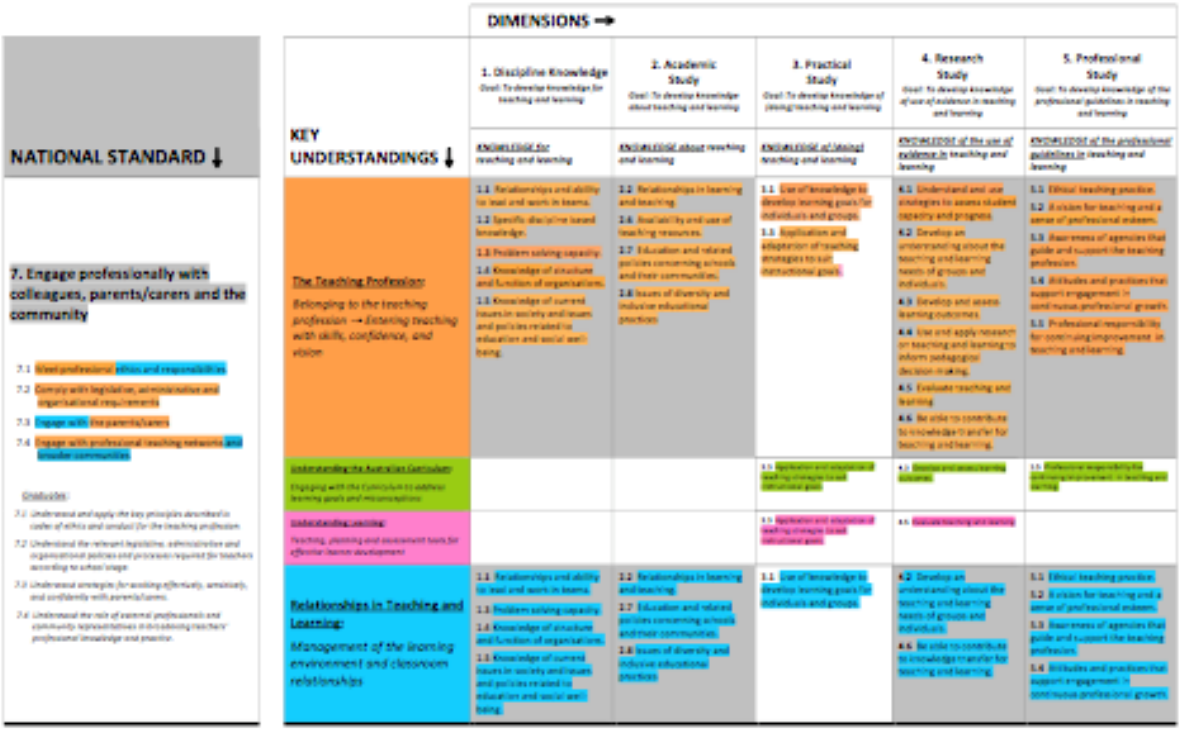
2. The PRACTICE DOMAIN of the AUSTRALIAN GRADUATE TEACHER STANDARDS





3. The ENGAGEMENT DOMAIN of the AUSTRALIAN GRADUATE TEACHER STANDARDS





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