

Making context more than “mere description”: Strategies for preservice teachers to develop “context aware” unit plans

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Abstract

Preservice teachers are often prompted to “include a rationale” when planning curriculum units, and typically list aspects such as a school’s size, location and gender balance of a class; or aspects such as students’ language, school policy, parental concerns or student abilities. However, often these factors are merely listed, and not analysed for the specific impacts they have when planning a unit of work. This paper reports on those aspects of context which pre-service teachers at a Queensland regional university included in curriculum plans. It also categorises these plans into three types, which show a continuum of growth from merely listing contextual aspects, to specifying how they impact on their planning, and finally building a unit that is highly integrated with, and responsive to, the context of school, students, community and teachers’ personal beliefs and views. This orientation supports students to respond productively to an outcomes-based education approach which requires skill in the development of unit plans to reflect local conditions, limitations and opportunities. Strategies that teacher-educators can use to develop pre-service teachers’ skills so they are capable of redesigning a curriculum to cater to the effects of context are provided.

1 Introduction

The development of pre-service teachers’ understanding of curriculum is a core goal of teacher education program designers. These understandings relate to the concepts and skills of a range of learning areas, skills in pedagogy and the ability to plan learning activities that will guide school students’ learning. Many Australian teacher education programs include an awareness of outcomes-based education (Queensland School Curriculum Council (QSCC), 1999a, 1999b, 1999c; Curriculum Corporation, 1993; Curriculum Council of WA, 1998; State of Victoria, 2000). The “principles that underpin the outcomes approach” (QSCC, 1999d, p. 10) promote a student-centred curriculum that focuses on conceptual change and progressive development of skills and values. This is in contrast to alternative approaches where the emphasis is on transmission of content through a teacher-centred curriculum.

One of the guiding principles of outcomes-based education is for teachers to respond to students’ needs by modifying a planned curriculum to suit these needs (Willis & Kissane, 1995). This accommodation requires a high level of professional judgement,

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flexibility and responsiveness from teachers (Darling-Hammond, 1994). For example, Roberts, Tonkin and Hancock (1994) described a South Australian teacher's decision to use flexible group work as strategy to accommodate her observations of the diverse ability in writing in the class. Deleuil and Malcolm (1994) prompted teachers to build their outcome-based science curriculum around students' backgrounds, ethnicity, locations, experiences, skills, disabilities and interests. Students' own views and prior knowledge can also influence curriculum decisions (Curriculum Corporation, 1993).

This change in emphasis from delivery of a curriculum expressed as a list of teacher-controlled objectives to one when a curriculum must be developed around acknowledgment of the individual needs of students was the stimulus for this paper.

Final year, pre-service teachers at James Cook University's Cairns campus, complete a 10-week, core subject called *Integrated Curriculum Development and Teaching*. Lectures and tutorials (4 hours per week) gave the pre-service teachers the opportunity to develop reflective skills within the plan-teach-assess cycle of curriculum development, review class and behaviour management strategies, and compare curriculum models such as New Basics (Education Queensland 2000), outcomes-based education (QSCC, 1999a, 1999b, 1999c), mastery and programmed learning, inquiry learning, transmission and whole language. As part of this subject, pre-service teachers develop a curriculum plan for implementation in their final professional experience. Pre-service teachers are attached to primary schools from the beginning of the year to allow them to develop an understanding of context, such as the special needs and interests students in the class, prior curriculum exposure and level of ability, school policies and priorities, the level of support of parents and local community resources.

Pre-service teachers are asked to consider integration in three ways when planning curriculum. Firstly, by linking subjects such as maths and science. Secondly, by integration through the plan-teach-assess cycle of reflective practice, and lastly through deliberate consideration of how an awareness of context can be integrated into planning.

One of the goals of the subject was for pre-service teachers to plan a curriculum. The approach taken in the subject encouraged pre-service teachers to plan their curriculum with their class, school and its local community in mind, rather than in isolation from the

intended audiences. As one of the pre-service teachers appropriately explained: “You’re asking us to teach the children, rather than just teach the curriculum.”

How did the subject support this goal? During the semester, pre-service teachers looked at situational or context analysis to encourage them to “examine the learning situation, which comprise factors such as student background and experience, teacher attitudes and expertise, the school climate, resources and external constraints” (Brady, 1995, p. 43). The text (Murdoch & Hornsby, 1997) provided a curriculum planning model that integrated process subjects (such as maths and language) with content areas (including science, health and studies of society). Supplied readings promoted consideration of student and school contexts, such as the choice of literature to involve marginalised students (Tyson, 1999), inclusion of students and parents in assessment (Wilson & Wing Jan, 1993; Davies, Cameron, Politano & Gregory, 1994) and cultural issues (Cope & Kalantzis, 1990). Personal anecdotes from the lecturer illustrated these aspects (e.g., how a curriculum was planned with the needs of one student as the key consideration, how students’ interests can modify a planned curriculum, how to adjust curriculum to accommodate diverse student ability levels, and how a curriculum can be built around limited resources).

2 Method

Two questions guided the research. The first question “How did the pre-service teachers undertaking this subject integrate context into their planning?” focused on a description of the aspects included in their plans. The second question of “To what extent did these plans demonstrate responsiveness to contexts?” looked for differences in the way that plans were modified to integrate with pre-service teachers’ perception of these contexts.

The 43 pre-service teachers in the sample were aged from 20 to 45 years, enrolled in Graduate (2 years) or Primary (4 years) Bachelor of Education, with the majority living in the Cairns region. Participants had completed university-based methods subjects relating to managing teaching and learning, school experience and discipline studies. Pre-service teachers were approached to participate in the research after the end of semester. Informed consent forms were obtained.

The written plans provided the data. Plans included a rationale, reference to curriculum models, a topic as the integrating device for three or more learning areas (e.g., science, mathematics and technology), a detailed lesson sequence over 3-4 weeks, use of resources and assessment strategies. Plans were analysed to identify the aspects of context that pre-service teachers considered, such as modifying learning activities to suit students' learning styles, or using the expertise of colleagues, or looking at the impact of students' socio-economic status. The identified 27 aspects (see Table 2.1) were grouped into four contexts: (a) student context where the focus was on the needs of individual students in the class; (b) school and system context where the focus was on aspects of the school and broader educational system beyond the classroom level; (c) personal beliefs or views of the pre-service teacher; and (d) community context encompassing parents, local resources and cultural and sociological aspects.

Table 2.1 Contextual considerations included by pre-service teachers in curriculum plans

Student	School and System
1. Learning styles	1. Colleagues' expertise
2. Entry level understanding	2. Supervising teachers' requirements
3. Ability	3. Team planning
4. Interests	4. Special classes
5. Prior knowledge	5. Curriculum reform & policies
6. Special needs	6. Timetable requirements
7. Behaviour management	7. Available resources
8. Values	8. Administration influence
9. Attitudes	9. System-level testing requirements
	10. System-level syllabus
Personal beliefs	Community
1. Preferences in teaching style	1. Community resources
2. Selection from curriculum models	2. Parent access, interest, availability
3. Reference to education theory	3. Cultural background/diversity
4. Personal beliefs & values	4. Socio-economic status

Next, the curriculum plans were re-examined and separated by continuous comparison into those that displayed less integration from those which extensively or explicitly integrated contextual considerations.

Various selection criteria were trialed to develop a consistent basis for distinguishing between the plans. The first was simply based on gauging integration by the number of

contextual factors listed. However this did not adequately represent the way some explained their reasoning. A more informative approach distinguished between awareness of different contexts. Concept maps were used to graphically display the interconnections and help the researcher visualise pre-service teachers' thinking. Descriptions of types of responsiveness to contexts were refined into exemplars. The researcher and an independent coder trialed the descriptions and exemplars (Table 2.1). These instruments were modified, based on feedback from the trial coding. This confirmed the value of the concept maps to assist categorisation. To reveal inconsistencies when assigning a type and to confirm coding, each curriculum plan was analysed twice. Finally, both the exemplars and concept maps were used to characterise the types of integration of contextual awareness into curriculum planning.

3 Results

Three types of contextual integration adequately described the range of integration observed in the curriculum plans (Table 3.1). In Type 1, contextual aspects were merely listed. In Type 2, pre-service teachers described how aspects had a specific influence on planning, and in Type 3 the curriculum design consistently integrated aspects from multiple contexts into a multi-faceted and holistic plan. Extracts from pre-service teachers' work illustrate each type. Pseudonyms are used.

3.1 Type 1 Integration

Pre-service teachers who demonstrated this type of contextual awareness described contextual aspects but did not explore the potential for these factors to influence their planning. While they may have stated these aspects were salient or important, they did not explicitly demonstrate the links between these aspects and their plan. There was little development of how these aspects had influenced their decision-making. The details did provide a sense of the class composition but relied on assumptions about the reader's knowledge of the significance of these factors.

Table 3.1 Types of integration of contextual considerations into curriculum plans

Description	Exemplar
Lists aspects from one or more contexts without explicit integration into the choices made about the topic, content or pedagogy.	<p>Type 1</p> <p>The class of 25 is from a low socio-economic area and consists of 14 boys and 11 girls. The school is outcomes-based education. Four students have learning difficulties.</p>
Integrates aspects from one or more contexts into the choices made about topic, content or pedagogy. Gives a statement of intent.	<p>Type 2</p> <p>One child in the class is non-numerate, but skilled in literacy. The choice of topic must allow for this limitation.</p>
Integrates a variety of aspects from more than one context into the choices made about the topic, content or pedagogy. There is explicit justification and/or explanation of how the intention will be realised in practice.	<p>Type 3</p> <p>The Year 7 students are full of their own egos and view school as a social situation. There is a focus on highly teacher-directed, fact-based curriculum. Students need to develop inquiry skills and critical thinking. An integrated curriculum topic dealing with the influence of the media on their decisions will support these challenges.</p>

For example, Sue provided a description of the school context, but did not clearly demonstrate links between her description and her topic, content or pedagogy. She saw the school as “modern, with a push towards technology and a focus on outcomes education. All rooms are supplied with 2 computers and other technologies are available throughout the school if requested.” Her chosen topic aimed to develop children’s awareness and ability to critique “advertising techniques that persuade them to buy certain products.” Whether access to computers or the school’s use of outcomes-based education influenced her decision is not specified. Certainly, it could be implied, but she relied on the reader making the link. Turning to the student context, she stated:

the class is Year 5, with a total of [29] students. Overall, the students are approximately a year behind their current age level ... in maths and literacy ... There are 5 students who are ESL (English as a Second Language) and/or ATSI (Aboriginal and Torres Strait Islander). The majority of students are slow writers and take a long time to complete set tasks.

However, she did not discuss the impact of these aspects on her advertising unit, and she made no mention of differential expectations for lesson activities or assessment based on these student characteristics.

Helen's plan was based on the topic of "The Right to Survive" and looked at concepts of ecology, ecosystems and survival of native animals. She stated "a large percentage of the class are Torres Strait Islanders and their cultural perspectives need to be taken into account." While Helen acknowledged the importance of this community-context consideration, she did not explicitly state what these cultural perspectives were, and did not show how she adapted her curriculum plan to suit these cultural contexts. All her lessons and activities were for the whole class and no specific resources, questions, assessment or activities were described for this special group.

Gary's work also provided background colour about his school, outlining its socio-economic status: "[This] state school is physically situated between the relatively affluent region of [A] and the predominantly lower socio-economic suburb of [B]. Consequently, the students come from a broad range of socio-economic backgrounds, and no particular economic or cultural group predominates." He characterised the students by "the general attitude of the class towards academic achievement is positive, and the fast finishers are socially popular with their peers and are quite willing to assist the slower finishers." While his chosen unit on biodiversity and ecosystems may be related to the socio-economic status of the school, the class attitude and the school location, and while such descriptions serve to add depth to his understanding of the community and student contexts, he did not develop these factors into the next type of integration (Type 2) by specifying how he intended to respond to these considerations.

3.2 Type 2 Integration

Type 2 curriculum plans demonstrated an explicit integration of contextual factors into the plan. In these plans, pre-service teachers explained how these potential influences, for example group work, awareness of behavioural or disability needs of individuals, or language concerns, affected their planning. Typically, they stated a broad intention or orientation, but did not support this with the specifics of practice.

Rebecca described the pervasive effect of an aspect of the school context on her planning of the topic 'Fairytale', because her supervising teacher required this topic to be developed from a narrative perspective. Rebecca felt this was a limitation, so broadened the topic's base by integrating it into an aspect of the student context through a focus on "good and bad relationships." This was in response to the many students in the class who, in her opinion, would benefit from this approach:

I have planned the unit around the richer concepts of beliefs and values, rights and responsibilities and relationships. In this way I hope to develop the children's individual attitudes, values and social awareness whilst using the 'Fairytale' topic as the integrating device. If this were my classroom, I would use conceptual development throughout the year to provide the children with opportunities to experience the application of these concepts in real life situations.

She listed the particular requirements of four students. Two students had Asperger's syndrome, one who has a part-time aide required "gentle but firm treatment with a predictable routine", and the other was "quiet and easily distressed". Another student was "shy and scared" with a visual range of "30cm", while another was gifted and reading novels independently but was "highly strung and needs a good social skills program." Overall, in this plan the pre-service teacher blended the teacher's requirement, the limitations of the topic, the high-profile management requirements of children with special needs (e.g., a "balance of mat and desk work") and their support services (the necessity to "inform the teacher aide") and the values engendered in a socially-constructed curriculum.

Suzanne also used the potential problem of a reported "wide range of levels of ability between and within year levels" in a composite Year 2/3 class as the basis for many of her curriculum decisions. In her topic of "Making Graphs" she catered for this by including a high proportion of negotiation (e.g., allowing children to determine their own project of measuring and graphing growth changes in seedlings, and numbers and types of trees in each child's backyard). She saw this strategy as allowing flexibility in the activity commensurate with each child's ability. She also presented a valid case for

assessment of individuals “not in comparison to their peers” using anecdotal records of teachers’ observations and checklists of children’s understanding of key concepts. She set the curriculum plan firmly into children’s own context (literally in their own backyards) and neatly linked this to outcomes-based education principles to allow them to “construct their personal knowledge by exposure to real world applications for statistical data.”

3.3 Type 3 Integration

Curriculum plans described as Type 3 went beyond Type 2 integration because they provided pervasive, detailed references to multiple factors beyond the school and student contexts. These justifications were consistently developed and related more often to aspects such as the pre-service teachers’ personal beliefs, a preference for one or more curriculum models, and the local community, than were Type 2 plans. Plans demonstrated overt and explicit links between these contextual factors and the decisions pre-service teachers took. Typically, they provided a holistic view that seamlessly integrated many factors across the various contexts. They developed their intentions into specifics of pedagogy, content or assessment, and not only explained *why* these aspects were relevant but *how* they were integrated into their planning.

For example, Heather developed a multi-faceted case to argue for the relevance of the chosen topic by linking it to aspects from all four contexts. She started her justification by reviewing work the class has done in Term 2 in Life and Living (QSCC, 1999c) about human impact on the local rainforest (QSCC, 1999b) situated on the Tablelands near Cairns. She decided to reaffirm these concepts in the topic “All for One and One for All” in a study of sustainable living. This was a personally relevant topic. She argued that it is inappropriate to alert children to the negativity of human impact without providing them with the means to take socially aware “local action.” Thus, she planned to invite local speakers to talk about their community action initiatives. She was aware of limited time, so discarded a potentially relevant topic of setting up a paper recycling initiative in favour of another “culminating activity” (a school policy requirement for upper primary) which still fitted within the policy of apportioning the Key Learning Areas to each term (Term 1 for Health and Physical Education, Term 2 for Science, Term 3 for Studies of Society and Environment, and Term 4 for Technology). She tackled another concern, of

fragmentation of the curriculum as well as a fragmented timetable, by planning “concurrent and overlapping activities” to allow for children who leave for other lessons or arrive mid-way through her lesson. She continued to consider student factors, such as the English as a Second Dialect students, one with low literacy levels, and described special lesson adaptations or alternative activities throughout her lesson sequence. This pre-service teacher managed to develop a topic that was relevant to the personal, school and system, student and community contexts. She grappled with and balanced multiple contextual factors, to devise a curriculum plan that operated within the constraints of school policy and student skills yet responded to the opportunities within the local community.

Sophia, placed in a Islander school, in an (overly-simplified) reference to system-level curriculum documentation stated “students demonstrating Level 3 outcome are at the end of Year 5 [QSCC, 1999d, p. 13] ... Assessment is determined by whether the outcome is achieved or not.” This deterministic-sounding stance was contextualised when she responded constructively to the influence of the Indigenous community by planning to set up a portfolio culture (Masters & Forster, 1996) supplemented by frequently involving parents in “oral conferencing” during and at the end of the unit. She planned to include teachers, students and parents (Davies, Cameron, Politano & Gregory, 1994) as her agenda was to include “discussion about the outcomes achieved by the students, what topics they would like to learn about next, and areas for improvement.” She has integrated school and community factors (e.g., outcomes as set curriculum, a wish to increase parental involvement in children’s education, curriculum models of portfolio assessment and oral conferences) with student factors (the need for children to pursue their own interests, the need to demonstrate their learning by talking about it).

Louise’s curriculum plan was categorised as Type 3 because of the complex links she used to justify her decisions. Some of her decisions were reactions to her perceptions of the student context. She described the Year 7 class as “full of their own egos.” She was concerned about school issues: a “fact driven” and “highly teacher directed” curriculum due to the class teacher’s style. Considering factors of her personal beliefs, she decided to give the students the opportunity to experience a more creative pedagogy, to develop openness and “critical thinking.” On this basis, she selected the topic of “Media” to integrate the key learning areas, develop children’s critical thinking and be inquiry based.

3.3 Multiple types

While the majority of curriculum plans could be categorised within one type, the work of some pre-service teachers showed attempts at more pervasive integration. For example, the majority of Kathy's plan was best characterised as Type 1, but she did develop one isolated aspect of student context—that of one child who was “non-numerate” but with average literacy skills for whom the topic of “media genres” was suitable in particular—to Type 2. However, this paragraph was the only part that demonstrated this type. Gary's outline of the school's socio-economic diversity was undeveloped (Type 1) but he did provide one example of a more sophisticated integrative ability when he adjusted his pedagogy to be commensurate with observations about the class. He described “a range of literacy ability” and as a consequence, had the intention to include “manipulative wherever possible in activity design” so that children can “perform satisfactorily and confidently when given concrete manipulatives, and having a problem/task modelled for them.”

4 Conclusion

Pre-service teachers' written curriculum plans demonstrated a range of abilities to acknowledge contextual pressures when designing a curriculum. They demonstrated awareness of four contexts: student, school and system, community and personal beliefs. They integrated these contexts into their plans in three progressively more complex ways. For some, the listing of these aspects was sufficient, and their reflection on how to adjust their plan in response to these factors was not made explicit. Other pre-service teachers made use of these aspects, integrating them into their decision making, for example, responding to children's problems such as poor group skills or special needs, or trying to accommodate community issues such as cultural diversity. At the most sophisticated type, pre-service teachers demonstrated a complex interweaving of multiple aspects from student, school, community and personal contexts, to justify, develop and rationalise their curriculum choices. They embedded their decisions into multiple contexts, interpreting the state-provided curriculum in order to respond to contextual pressures.

Pre-service teachers need to develop facility in planning curricula that are highly responsive to multiple contexts. The reduced specificity of outcomes-based education curriculum, as expressed in system-wide curricula which provide generic, long-term outcomes rather than highly specified, short-term objectives, demands that pre-service teachers are skilled in recognising the opportunity to make the curriculum more responsive to students' needs, skills, abilities and interests. In a flexible, frequently changing system, pre-service teachers need skills in making changes to a planned curriculum to cope with new initiatives in curriculum reform, changes in system-level assessment, demands for higher standards and the diversity of student and community cultures. Teacher education courses can support this direction by highlighting the value of contextual considerations and ensuring graduates are skilled in the practicalities of achieving a high degree of integration.

Limitations to this research are acknowledged. Pre-service teachers in the sample are writing "for the lecturer" and their submitted curriculum plan may not reflect their own views on the role of contextual pressure on decision making. Further study is indicated to describe the curriculum planning strategies of graduates when the time constraints of full-time teaching affect the amount of detail teachers choose to include in their curriculum plans. As well, pre-service teachers who demonstrated Type 1 or Type 2 integration may have been limited by the literacy demands of a written curriculum plan. These pre-service teachers may demonstrate more extensive integration in an interview situation. Follow-up interviews are indicated to research this aspect.

Further constraining pre-service teachers' explicit justification is the notion of political correctness (leaving things unsaid because to put them to paper may offend). In the same way teachers rely on indirect and inoffensive terminology when writing reports to avoid causing offence (e.g., "works well with close supervision") pre-service teachers may resort to implying links rather than specifying them. For example, Joelene's unit was designed to develop children's understandings that fast food is inadequate for healthy growth. When she described the student context (high enrolment of ATSI students) who experience "low success" she used the term "different to me" to identify their ideas of nutrition, but she did not describe their ideas as unhealthy or negatively influenced by their particular culture.

This research was after the intervention (Kumar, 1996) of the semester-long subject, as the data source was the written curriculum plans pre-service teachers submitted for assessment. Methodology was constrained by ethical considerations (e.g., potential for effect on grades allocated by the researcher who is using university assessment pieces for research) which meant that a comparison of changes in the extent of pre-intervention and post-intervention contextual consideration was not included.

However, the results do suggest strategies for teacher-educators to consider to promote growth in pre-service teachers' skills at integrating contextual considerations in their planning. What are some of these strategies? Three strategies are currently being trialed. Firstly, making the three types of integration explicit to pre-service teachers would assist them to conceptualise the importance of asking themselves "so what does this context mean for my plan?" to move beyond merely listing a description of the aspect to integrating contextual considerations into their planning. Also, to help pre-service teachers visualise the interconnections between planning and context, ribbon was used to link cards labelled with contextual aspects directly to impacts on planning. For example, cards showing "gender balance", "ESL speakers", "school near a river" and "school testing policy" could be attached to explicit, planned responses, such as "select books with gender-inclusive themes", "work in small groups for intensive teaching of lexicon", "use the local river" and "tailor assessment criteria around what the school is testing". A further strategy to enhance pre-service teachers' skills in planning was to ask them to devise and compare plans to suit the markedly different contexts that characterise the diversity of schools in far-north Queensland. This may involve asking students to devise a learning activity within a specified topic, for highly-literate, Year 7 students in a well-resourced city school with high socio-economic status, and then consider how this would need to be changed to reflect the contextual considerations of a Year 2, in a rural, under-resourced school, with the majority of students with irregular attendance and with low levels of English oracy.

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