An Ecological Approach to Practicum Assessment

Linda Keesing-Styles
Programme Co-ordinator, Early Childhood Education, UNITEC

School of Education
UNITEC
Private Bag 92025
Auckland
New Zealand
Ph: +64 9 815 4321 Extn 8058
Fax: +64 9 815 4181
Abstract
This paper takes a critical view of the practicum in (early childhood) teacher education with particular reference to the issue of theory and practice. It begins by reviewing historical and contemporary approaches to the theory/practice dichotomy, and continues to deconstruct the practicum in relation to the role of experience and reflection. The paper contends that it is highly relevant to critique the practicum against an ecological postmodern perspective. With particular reference to assessment practices, an alternative approach to the practicum is proposed. The paper makes reference to initial findings in a small pilot study and suggests a new approach to practicum assessment.
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Introduction
The practicum in teacher education is no stranger to research and debate. There are multitudinous studies diagnosing the pathologies of the practicum. This paper attempts to identify some of the key issues related to one aspect of the practicum – the theory/practice dichotomy – to investigate some recent initiatives and to proffer one potential alternative approach. This alternative is informed by postmodern critiques of curriculum and focuses specifically on ecological principles as an alternative influence on assessment in the practicum. While early childhood teacher education is the specific interest of this paper, much of the literature refers generally to teacher education for reasons discussed later in the paper.

Deconstructing the Practicum

Ideally conceived, the practicum is a purposeful series of supervised professional experiences in which student teachers apply, refine and reconstruct theoretical learnings, and through which they develop their teaching competencies (Turney et al, 1982, p.1).

This commonly quoted description represents an historical approach to the situated learning experience that is the practicum. It has adopted many guises over the years but, regardless of its incarnation, the practicum is commonly regarded as the most critical feature of teacher education. Despite the centrality of its position, it ‘continues to present serious problems for program planners and remains for students a threatening, confusing, frustrating, disappointing experience’ (Hoghen & Simpson, 1986, p.76). With reference to more recent research, (Campbell-Evans & Maloney, 1997; Kiggins & Ferry, 1999) similar themes still exist. The practicum, while it has undergone many transformations, remains problematic. In fact, Grenfell (1992, p.171) comments that there are ‘depressing findings
from an extensive body of research into the supervision of student teachers during the traditional practicum'.

Theory/Practice

At the core of the discussion regarding the practicum is the theory/practice dichotomy. This has arisen from a juxtaposition of the two aspects of professional education rather than a universally successful integration. Eraut (1994, p.59) acknowledges the extent of the debate and suggests that 'more heat than light is created by perpetually contrasting theory with practice'. Many educators have responded to the complaints by students that their courses are too theoretical and bear little relationship to the realities of practice. And yet, many academics continue to regard theory as dominant and needing to be put into practice (Grenfell, 1992).

One assumption that could be applied to this issue is that the continued existence of the separation of theory and practice is a remnant from the technical-rational approach, which dominated educational thought in recent years. While alternative approaches have been developing, there is still residual evidence that teacher education has not completely evolved and encompassed postmodern thinking.

Despite the divide still appearing, the majority of writers now seek an integration of the two equally significant components of teacher education. Calderhead (1988) suggests that the distinction between the two is a false dichotomy and proposes that theory is implicit in practice and the relationship is a continuously interactive one. Russell (1988, p.33) endorses this proposition and contends that the two components of theory and practice can become alternate phases of a single activity rather than 'two independent domains linked by a tenuous act of faith'.

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Reflection

In examining school-based teacher education, Grenfell (1992) explores the contention that theory can arise from practice. In doing so he addresses the issue of reflection which has been an integral part of the debate for more than twenty years. Revolving around the seminal work of Argyris and Schön (1974) and later Schön (1983, 1990), reflection in its various forms has become an object of desire in many innovations in the practicum, appearing as reflection in action, critical reflection and reflective practice to name but a few of its interpretations.

In the earlier work, the necessity for human reflection as a tool for competent action is identified. Argyris and Schön, however, differentiate between the notion of espoused theory and 'theory in use', the latter being most responsible for governing actions. Furthermore, they comment that many individuals are not aware of the incongruence between the two theories. In Schön's (1983) work, he develops this theory and identifies the 'knowing in action' which is an integral part of a professional's life. He suggests that know-how is in the action and that much knowing does not stem from a prior intellectual operation. By 1990 his description of 'reflection-in-action' as the means through which 'practitioners make sense of uncertain, unique or conflicted situations of practice' (p.39) promoted a lack of universality of professional knowledge to every situation. Practicum innovators have sought to encompass this concept and create learning situations in which students create and test theories of action.

The literature around interpretations of Schön's theory quickly developed to dominate the field. In 1989, Zeichner reviewed innovations in relation to the practicum in teacher education and 'looked to the 1990's' to identify possible directions. He paraphrased Schön's work and commented that both reflection-in and reflection-on action were integral
parts of the practicum curriculum. Teaching, he said, is to be viewed as a form of research and experimentation and teachers’ ‘practical theories’ are accorded a legitimacy which they are denied in the dominant applied science view. Here was a strong critique of the technical-rational approach and the historical subordination of teachers’ understandings in favour of academic superiority. Thus there now exists a significant body of knowledge that investigates aspects of theory arising from the practice of both beginning and experienced teachers.

The relationship between experienced and novice or beginning teachers is often discussed in relation to school-based teacher education (SBTE), with experienced teachers being seen as mentors for beginning teachers or students learning the discipline. Teachers’ practical knowledge is acknowledged as being qualitatively different from systematic academic knowledge but should be regarded as valid in terms of guiding action rather than necessarily understanding events (Calderhead, 1988).

Craft Knowledge

Grimmett and McKinnon (1992) argue that the knowledge base for teacher education should come from the teachers and the experiences they have encountered in the classroom. This, they contend, will enhance independent thought and analysis. This teacher knowledge is often referred to as ‘craft knowledge’ and Rigano and Ritchie (1999, p.128) define this as ‘the personal practical knowledge developed by teachers as they carry out the demands of their jobs’. Their notion is that teachers, through their practice, develop knowledge that is distinct from formal research knowledge and they note that the issue of incorporating craft knowledge into teacher education programmes has not featured prominently in the research to date.
Grenfell (1992, p.172) explores a number of approaches to theory and acknowledges the sophistication and complexity of the teacher’s knowledge base. He suggests that many teachers do not engage with formal theories and prefer to rely upon practical theories which they have developed from their craft knowledge and which are ‘designed to meet the unforeseen exigencies of teaching’. This theme is also explored by Leinhardt (1990, p.18) in her description of craft knowledge in relation to assessment for certification. She articulates the natural tension that exists between general, subject-based knowledge in a particular discipline, and the specific, eclectic and particular knowledge that arises from the practice of the craft. She calls this particular knowledge the ‘wisdom of practice’ and goes further to suggest that it is the language of the craft and the language of the particular which provides the basis for communication between teachers.

Schön (1983) too makes reference to craft knowledge and acknowledges that ‘knowing-in-action’ goes beyond the customary interpretation of craft knowledge and is legitimate knowledge in its own right. He makes the distinction between knowledge about practice and the actual practical knowledge which is inherent in and generated from practice. He goes further to contend that one should not have privilege over the other, as often happens in the technical-rational model (Usher, Bryant & Johnston, 1997).

It is not only experienced teachers who are credited with craft knowledge. There is an increasing tendency to acknowledge that beginning teachers and students have well developed and, at times, highly appropriate theories about effective teaching. These theories can be developed from a multitude of sources, including their own experiences as students, and student teachers enter programmes with a considerable amount of theory already established (Eraut, 1994). Not only do they hold existing theories, but as they embark upon the programme, beginning teachers construct their own knowledge about
teaching (Wideen & Grimmett, 1996). Calderhead (1988) affirms the two aspects of theory and practice as interconnected and believes that, with assistance, students can begin to identify theories that are implicit in their own actions and compare this with other theory. This gives rise to the ability to evaluate practice and determine alternative directions where necessary. However, the students can only become ‘critical, reflective practitioners if their training encourages the development of these those skills’ (Hilty, 1995 p.105).

There are warnings, however, about the ‘navel gazing’ which can occur through reflective practice as a component of the practicum (Zeichner, 1989). Care must be taken to ensure that there is sufficient rigour, credibility and justification for the theories that arise through practice or from students’ experiences. With sufficient safeguards, however, there is no reason to exclude attempts to utilise student experience as a valid catalyst for generating theory. Indeed, there should be room in the future to interrogate disciplinary knowledge from the perspective of teachers’ professional knowledge and vice versa (Young, 1998).

The discussion above highlights a number of the issues related to what constitutes theory and how it interacts with practice. The traditional approaches are challenged and the gauntlet is thrown down to teacher educators to abandon practices that reinforce the theory/practice divide.

Although the literature regarding the practicum in teacher education is indeed comprehensive, information relevant to this debate can also be elicited from other sectors in the education field.
Professional, Adult and Higher Education Pedagogy

Turning to the field of adult education, there are some excellent approaches to the concept of experience in relation to learning that can be readily applied to teacher education. Boud, Cohen & Walker (1993) have documented some of the most comprehensive information in this area. They describe five propositions about learning from experience which provide the basis for their endorsement of experience as a legitimate learning tool. The first proposition sets the scene for the others which follow - learning builds on and flows from experience. The other propositions suggest that learners are seen to actively construct their experiences and it is proposed that learners ultimately define their own experiences and learn from them, but only if they are predisposed to being influenced. There is comment also on the premise that learning is an holistic process and cannot be successfully decontextualised. This clearly supports the earlier discussion about student teachers learning from the experience of their regular practice, and also reinforces the fourth principle which suggests that learning is socially and culturally constructed, and learners do not exist independently of their environment.

More recently, these ideas have been developed and applied to professional education. Students entering into professional education, including the teaching professions, are often mature and their life experiences are inclined to influence the nature and quality of their learning (Taylor, 1997). Often personal experience can be viewed as irrelevant or an impediment to the 'realities' expounded through professional practice or propositional knowledge. This attitude devalues the potential of personal knowledge as a stimulus and resource for learning.

In exploring adult education from a postmodern perspective, experiential learning is seen to have even greater benefits than those already described. The use of student experience
as a legitimate context for learning can lead to challenges to the reliance on knowledge generated through educational institutions, specifically higher education (Usher, Bryant and Johnston, 1997). This creates the potential for the use of experience as a transformative methodology and contests the established beliefs of what counts as knowledge in higher education.

**The Postmodern Influence**

Let us turn our attention to the second central theme of this paper. Postmodernism offers a critique to the earlier technical-rational approach inherent in modern thinking and allows for an alternative way of viewing and interacting with the world and the knowledge through which that world is constructed. The essence of postmodernism lies in an acceptance, indeed an embracing, of change, difference, chaos, discontinuity and fragmentation. Postmodernism eschews definitive universalities and ‘swims, even wallows, in the fragmentary and the chaotic currents of change as if that is all there is’ (Harvey, 1999, p.307).

Postmodernism presents itself in many guises and the particular emphasis of this paper is on ecological postmodernism. In this branch of thought, there is an emphasis on an ecological understanding of the world and a rejection of the former mechanistic practices of modernism. Such an approach throws up serious challenges to some of the traditional practices of curriculum. Now, not only the classroom, but the whole milieu of the student’s life, becomes an integral component of the learning experience. In this environment, the emphasis shifts from an exploration of facts and truths to an active construction of knowledge by all those involved in the process of learning (Parker, 1997). Ownership of knowledge is also subject to critique in this paradigm, and leads to an exploration of what constitutes knowledge and who defines it.
Doll (1993, p.156) explores the notion of postmodernism with particular reference to the curriculum. In his interpretation of postmodernism, curriculum becomes process, learning and understanding come through dialogue and reflection. Learning and understanding are made (not transmitted) as we dialogue with others and reflect on what we and they have said – as we “negotiate passages” between ourselves and others, between ourselves and our texts. Curriculum’s role, as process, is to help us negotiate these passages.

In this view, there is a much more dialogical approach to curriculum and knowledge. The teacher is no longer charged with posing problems for the student to solve, but there is a process of exploration, co-construction and problem-detecting which leads to an holistic approach and creative acts of learning on the part of the students (Kincheloe & Steinberg, 1993).

Another central proposition in this approach is that the experience of the student is vital in the learning process and the construction of knowledge. This results in a change of role for the teacher. Gough (1989) describes this as a process of liberation for teachers from the role of tour guides through established knowledge, and allows them rather to guide learners in ways of exploring their own environments to extract information and knowledge. This suggests a change in dynamics of the classroom and the approach to learning where the central focus becomes the interrelationship between learners and their environment, including the classroom environment. It rejects a situation where the relationship between teacher and learner imposes on the construction of knowledge in real environments.

In describing a project undertaken at Deakin University, Zeegers (1999, p.8) provides a commentary on traditional discourses in education and challenges some of these. She
affirms the social construction of knowledge and explains a ‘new twist’ to the concept of expertise. Interpreting the outcomes of her study, she proposes that expertise ceases to be the ultimate preserve of the academic experts but is generated also from the ‘equally valid and valuable experiences and knowledge systems of the practitioners within the total education and schools area’. This validates the notion that experiential knowledge, which reflects the nature of reality, can test conceptual knowledge and challenge its tendency to present knowledge as linear (Spretnak, 1991). These experiences, when shared in a collaborative classroom context, allow for ideas and practices to be critiqued, deconstructed and reconstructed as appropriate. In this setting, Doll (1989, p.250) suggests that the ends (or perhaps the beginnings) as well as the students, the teacher and the course material all undergo transformation as the ‘locus of power and direction shifts from the external to the internality of the course experience’.

In relation to the issue of theory and practice, postmodern approaches have some wisdom to offer. No longer is there seen to be a separation or dichotomy between the two but there is an accepted inter-relationship which accepts the validity of both. Theory becomes the ‘rhetoric for defence and attack, not a neutral framework within which to describe truth’ (Parker, 1997, p.149). Usher, Bryant and Johnston (1997) include a chapter called ‘reconceptualising theory and practice’ in their book *Adult Education and the Postmodern Challenge*. This involves a process of reconfiguring theory so that it becomes interwoven with and inseparable from rather than applied to practice. It is agreed that theory is *already* in the practice. They warn against promoting practice to a privileged position as this creates yet another separation or tension between the two.

This issue of the separation of theory and practice is described also by Doll (1993) in his reconstruction of curriculum from an ecological perspective. He tracks the relationship
between the two from the writings of Dewey through to the descriptions of the process of reflection offered by Schön and suggests that
theory no longer precedes practice and practice is no longer the handmaiden to theory. This does not negate theory or drive an inseparable wedge between the two. Nor does it practicalize theory. Rather, it grounds theory in and develops it from practice (p.162).

In order for this to happen, Doll makes a plea for students and teachers to be able to develop their own curriculum through a negotiated process.

The preceding descriptions look at some of the conceptual principles that underlie a postmodern approach to curriculum. Of equal importance is an examination of the practicalities of delivery and context and an exploration of the variables which interact to create positive learning environments. Frielick (1998) constructs a model which depicts a number of components of the teaching/learning process and suggests that, in an ecological model, the underlined approaches are desirable to achieve high quality outcomes and deep learning.

<table>
<thead>
<tr>
<th>Learner's engagement</th>
<th>= active - passive</th>
</tr>
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<tbody>
<tr>
<td>Perception of context</td>
<td>= supportive - alienating</td>
</tr>
<tr>
<td>Assessment</td>
<td>= understanding - recall</td>
</tr>
<tr>
<td>Orientation of reflection</td>
<td>= process - product</td>
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<tr>
<td>Conception of teaching</td>
<td>= facilitation - transmission</td>
</tr>
<tr>
<td>Curriculum design</td>
<td>= connected - fragmented</td>
</tr>
<tr>
<td>Content</td>
<td>= problem solving - factual</td>
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<tr>
<td>Teaching mode</td>
<td>= dialogical – monological</td>
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This model provides a challenge to the postmodern teacher to construct not only a classroom but also a curriculum that offers such a positive environment for learning. One
tool the teacher can utilise to critique practice involves the investigation of existing relationships within the classroom. This can be done by creating a metaphorical image for those relationships that is consistent with the ecological approaches described above. The classroom becomes an ecology of relationships (Bowers & Flinders, 1990) and the teacher examines the use of language and its role in negotiating social relationships. Through such an investigation, it is possible to determine whether the language used in the classroom promotes autonomy, negotiation and collective construction of knowledge, or if the teacher still retains a monological approach to a fragmented curriculum.

An Ecological Approach to the Practicum?

A synthesis of the two themes of the deconstructed practicum and ecological postmodernism suggests that there are ways the two can interact to create something meaningful for students – something which restricts the confusion, frustration, threat and disappointment identified by Hoghen and Simpson at the beginning of this paper. This involves a new orientation, one which embraces the principles of dialogical interactions; which fosters an integrated approach to theory and practice; which values and validates the experience students bring to the classroom and the practicum; which reinterprets the complex ecology of relationships to avoid oppressive power relations; and which creates a negotiated curriculum equally owned by teachers and students. Such an approach no doubt creates challenges and discomfort but opens up creative possibilities for the reinvention of the practicum.

The literature identifies some recent initiatives in teacher education which have begun to address some of these factors (Dugan et al, 1997; Campbell-Evans and Maloney, 1997; Drever and Cope, 1999; Beattie, 1996). Although these studies indicate some positive momentum in addressing the issues raised in this paper, there is much left to do. Ashton
(1991) suggests a radical change is required, not just in the practicum but in the whole pedagogy of teacher education. She describes a democratic pedagogy which embraces knowledge as socially constructed and liberates students from ‘the mystique of the expert’ (p.89). In this way, teacher education programmes should seek to empower their graduates to improve education by utilising a developmental model that respects the increasing capability of the students in the programme. At the centre of these new programmes, are effective tools of reflection.

**The Early Childhood Education Connection**

The focus of this paper has been on the practicum in teacher education, with no distinction made between different disciplines. Early childhood teacher education does not feature strongly in this review. There are two reasons for this. Firstly, in many instances, early childhood teacher education has been subsumed within the wider primary programmes with varying degrees of success. When this occurs, there appears to be little allusion in the literature to the specifics and intricacies of early childhood education. The second explanation for there being little reference to early childhood teacher education causes more concern, for there is clearly a lack of attention to this area in the research.

Much more attention needs to be paid to this specific sector which contains its own traditions, priorities and idiosyncrasies. In future studies, early childhood specialists must ensure that these are accommodated. In a report on Australian early childhood teacher education in 1992, Holmes urged early childhood specialists to ensure that their own distinct philosophies, curriculum and pedagogies are maintained in the face of marginalisation from primary colleagues and university academics. He identified the approach which fits most comfortably with early childhood education – holistic, integrated and ecologically-based.
The New Zealand early childhood curriculum, Te Whariki (1996), specifies these same principles in its desirable outcomes for children. It defines a curriculum for young children based on four principles that provide the framework for engaging in learning experiences. These principles promote a curriculum which empowers the child to learn and grow, which reflects the holistic way in which children learn, which sees the wider world of family and community as integral to the curriculum, and which acknowledges the centrality of reciprocal and responsive relationships with people, places and things in the learning process. These principles can be applied not only to the learning environment for children, but also to the education of early childhood teachers, thus creating that holistic integrated curriculum identified by Holmes.

In relation to the concepts identified in this paper, the issues of validation of experience, the use of experience as a basis for theorising, and the creation of a cohesive and integrated approach to curriculum becomes even more critical when applied to early childhood teacher education. Kendall (1992) proposes a 'new' early childhood teacher education based on empowerment, relationships, valuing of diversity and trusting of the students' potential. Early childhood, more than other teacher education, she urges, must find ways to help students identify what they already know and categorise it into meaningful opportunities for learning.

A Proposal for Contextualising the ECE Practicum

Located in this context, the practicum, and specifically assessment in the practicum, must be viewed ecologically, incorporating Frielick’s desirable pedagogical approaches. At UNITEC, the staff on the early childhood teacher education programme have undertaken a pilot study to reframe practicum assessment. The process embodies the principles described in this paper and, in addition, calls on the literature in relation to self-assessment,
an area which shares many common philosophies with ecological postmodernism. While
the study is in its infancy, it is showing positive outcomes for both staff and students.

In this field-based programme, students participate in on-going work experience parallel
with their on-campus study. Students are perceived as competent, their experiences are
validated and contribute to the creation of curriculum. Theory is viewed as arising from
practice and contributing to the development and understanding of practice. Theory is also
analysed for its relevance to practice. Critical reflection is the core component as
knowledge is co-constructed based on the experiences of both staff and students. In this
context, the learning process is regarded as holistic.

In relation to practicum assessment, students are individually and collectively involved in
the generation of practicum goals and professional competencies. In this way, they are
empowered to take greater ownership of the practicum, to view it as an integral part of
their learning and not an additive process. An additional goal is more effective
internalisation of the professional competencies (deep learning) and ongoing integration of
the competencies into regular practice. Again, reflection is at the heart of the process, with
students reflecting initially on what makes a professional practitioner and subsequently
reflecting on their own performance in relation to these practices. Within agreed
standards, practicum assessments are personalised to reflect the existing skills and learning
edges of each student. Students are also involved in self-assessment against their own
established goals.

Conclusion
Clearly, the practicum requires further development and critique. The literature continues
to identify the problems and, in some cases, begins to propose some solutions. There is
obviously a desire to make stronger connections between the theory and practice components of (early childhood) teacher education programmes. In some instances, practical suggestions are proposed and investigated with some studies reporting successful initiatives. Few if any report programmes consistent with the ecological approaches described in this paper. Perhaps the constraints of traditional pedagogies with their reliance on prescribed assessment processes and the primacy of the ‘expert’ inhibit the development of creative alternatives.

To capitalise on the experience of students, to validate their knowledge, to create a negotiated practicum curriculum and to ensure meaningful integration of theory and practice requires innovation. The first step is an acceptance by academics and teacher education institutions of the student as an active learner. There is ample evidence to support this premise in the adult and higher education literature. There is less evidence in the field of teacher education and minimal reference in relation to the practicum.

In summarising the potential connection between the practicum and ecological postmodernism, the last word belongs to Doll (1989, p.250) in his prescription for a postmodern curriculum. It will, he says, ‘accept the student’s ability to organize, construct and structure, and will emphasize this ability as a focal point in the curriculum’. In this specific area, there seems ample scope for implementation of alternative approaches and further research into the outcomes.
References


