An Inquiry, Case Based Approach to Teacher Education:

Findings and Implications

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Inquiry and case based approaches to professional education have been popular in Australian universities during the last decade. These approaches use cases, issues and/or problems derived from everyday practice as a basis for learning about a profession within a context of the learners taking a major responsibility for decisions about their own learning.

This article uses the experiences of the Master of Teaching (M.Teach) degree at the University of Sydney in Australia to consider the advantages and limitations of inquiry and cases as the foundation for pre service teacher education. It draws on evaluation and case study data to reflect on the use of cases to prepare teachers to work in a post-industrial context.

INTRODUCTION

The last decade has seen the development of a range of professional education courses that have used inquiry and case/problem/issue based approaches to underpin pre-service preparation. Inquiry and case based methodology is one approach to teaching and learning which seeks to place the learner at the centre of their own learning. Teacher education has been no exception. This article seeks to explore the benefits of using an inquiry and case based approach in a pre-service teacher education degree: the Master of Teaching (M.Teach) degree at the University of Sydney, introduced in 1996. It briefly explains case based methodology within the more general umbrella of inquiry based learning before examining a range of data collected from students about the value of using cases when learning to teach.
PRINCIPLES UNDERPINNING A CASE BASED APPROACH

Problem, case or issue approaches centre on the learner. The expectation is that rather than equipping learners with a store of knowledge and skills about their profession, they will be assisted towards mastery of a range of competencies. It is anticipated that these competencies will be important throughout their professional journey and will equip them to continue to learn and cope with accelerating change in all aspects of their professional and personal life.

Some have argued that the use of an inquiry, case based approach is the most important recent innovation in education for the professions (e.g. Boud & Feletti 1991). At the University of Sydney, for example, a range of professional courses including medicine, social work, education, architecture and engineering have begun to use variations of this approach to prepare their students for their professional journeys. Whether problems, cases or issues are used as a starting point, the approaches aim to ground the knowledge and practices of a profession in authentic workplace experiences. Students are confronted with problems or issues from practice. Based on a constructivist approach to learning, the idea is that the learner will analyse the issues drawing on their own lived experiences along with recent theory and current practice to create new meanings and understandings (Bacon & Bloom 1995).

In the area of teacher education, Shulman (1986, 1992) has proposed that four principles are characteristic of all case or problem based approaches. Each principle is explained briefly below:

1. Students are expected to take an active role in their own learning. They are charged with formulating relevant questions to explore. One of the most important tenets of constructivism (Vygotsky 1978) is that learners will learn most effectively when the experiences are connected to their experiences and when they feel passionate and involved in what they are learning.

2. Social interchange and relationships are crucial in the development of knowledge and knowing about something (Heshusius 1989). Cooperative or collaborative practices will enable students to support each other. At the same time this caring, supportive context will enable the challenging of each other’s ideas and beliefs.

3. Reflection about what, how and why students are learning using this approach is mandatory. The learner focuses both inwardly on their own beliefs and practice and externally on the context in which the practice is situated. Sykes and Bird (in Bacon & Bloom 1995, p. 287) claim that:

The case idea ...helps to balance the stance of the actor in the situation with the stance of the observer on the scene, provides means to represent situational complexity, provides a form for grappling with the interaction of possibilities for action....
4. Closely related to the second principle, outlined above, students will be nurtured within a community of learners in their professional field. Learning with the support of others who are on a similar journey will be more productive than undertaking the journey alone. Each learner will contribute to the learning of others. Palmer (1998, p. 103) writes about a communal dynamic which brings focus and discipline to a sharing of observations and interpretations which stretches each learner. Further, he asserts that:

this community can do much to rescue us from ignorance, bias and self deception, if we are willing to submit our assumptions, our observations, our theories – indeed ourselves – to its scrutiny (p.104).

The interactive engagement of all four principles is essential to any effective case based inquiry.

WHY CASES IN TEACHER EDUCATION?

In the past, criticism of teacher education in Australia has claimed that the theoretical study of the processes of teaching and learning at the tertiary institution does not adequately prepare prospective teachers for the reality of classroom and school situations (e.g. Ramsey 2000; NBEET 1995). This is often linked to the suggestion that pre-service education has not confronted prospective teachers with their own, often unarticulated and unchallenged, beliefs about teaching and learning based on their lived experiences in schools and other learning contexts (Morine-Dershimer 1996).

An inquiry case based approach in teacher education has been strongly advocated for a number of reasons. One of the most important is the potential for the development of critical analysis and problem solving in specific contexts (Shulman 1986). Complex, multidimensional situations can allow a range of different perspectives to be considered in formulating a plan of action. Collaborative learning structures support such diversity. Learners must actively investigate their own beliefs about teaching and learning through an exploration of the case or problem. They bring their own prior knowledges, understandings and experiences to this investigation.

CASES WITHIN THE MASTER OF TEACHING, UNIVERSITY OF SYDNEY

The M.Teach program at the University of Sydney attempts to orient student teachers to become education change agents equipped to help young learners prepare for the demands of the 21st century (M.Teach program handbooks 2002). It also focuses on facilitating student teachers’ own learning, and an understanding of learning as a basis for changing classroom practices. The following brief overview focuses primarily on the use of cases in the degree.

The M. Teach degree incorporates the four principles outlined above in its underlying philosophy, course structure and teaching practices. First offered in 1996, the degree currently has about two hundred and fifty primary and secondary preservice
teachers enrolled in both years of the degree with an average age of thirty years. A significant number of students have made a conscious decision to change from their previous career path to become teachers.

The degree uses an interdisciplinary inquiry based approach arising from the presentation of a range of different kinds of cases over two years of study. The use of cases is developmental and moves from initial case analysis to case authoring. Many of the cases employed, have been written by experienced teachers. The cases provide the main framework for the entire course, rather than just one segment as has been the practice in other programs using this kind of approach (e.g Morine-Dershimer 1996).

Course components across teaching subjects are built around two major “studies”. In Study 1 student teachers are grouped with candidates for both primary and secondary schools working together. Staff are also teamed so that student teachers work with two members of staff. The Study 1 themes are Students, Teachers, Knowledge and the Curriculum, and Schools and Communities. Study 2 focuses on the particular curriculum area(s) the student teacher will teach, or in the case of primary candidates, the six Key Learning Areas mandated for children from years K to Year Six in NSW.

A major assumption of the program that is made explicit in its organisation and practices is that even in the two year degree it is not possible to provide everything that a beginning teacher needs to know to begin their journey. This assumption is reflected in the reduction in previous face-to-face teaching time and a concomitant emphasis upon student directed learning, individual, including web-based interactions, and in small groups.

In addition, the use of a case based framework implies that every student teacher’s experience in the course will be unique. In each phase of the program student teachers are encouraged to adopt a socially critical and reflective approach to the profession. Questions of equity and the effects of various pedagogies are examined with respect to the interrelated phenomena of class, gender, race, culture, ethnicity and disability. Student teachers are introduced to a variety of modes of teaching and learning, both within sessions at university (including the use of video) and through the direct observation of school and non-school contexts. They build on these experiences to develop their own teaching styles and rationales for teaching practice within a context of the examination of their own experiences of schooling, using a variety of individual and collective strategies. The use of a wide range of information and instructional technology are also features of the program. Assessment is ungraded and criterion based with peer assessment being an important component. Student teachers are expected to keep a journal of their learning and professional development during the two years. This forms part of their portfolio.

As already mentioned, the use of the cases has been conceptualised in different ways at different stages of the course. In Phase 1 which runs for the first eight weeks of the program, questions are organised around four ‘triggers’: Communicating, Knowing, Curriculum and the Social Context of Education. Student teachers, individually and in each Study 1 group, frame their questions after engagement with a variety of stimuli (e.g.,
staff presentations, videos, collaborative activities and print material). They investigate these questions during their school visits. An Information Technology course also supports students in this initial stage. Assessment is non-graded and centres around a mediated written reflection based on earlier journal entries. The reflection is written within a context of peer feedback.

During Phase 1 there is a strong emphasis upon the use of activities to promote team building and effective group processes. Cooperative learning is an important underlying philosophy of the M Teach and much of the modelling and basis for this occurs during Phase 1. Faculty members have been paired in Study 1 groups as facilitators. Where possible, staff work with someone from a totally different background. An educational psychologist with secondary teaching experience, for example, may work with a former primary teacher who is an English curriculum specialist. More traditional 'expert knower' - 'neophyte teacher' seminar relationships are discouraged. Staff members are encouraged to see themselves as co-learners alongside their student group members. Teacher education staff involved in the M Teach who were more used to traditional pedagogy have been challenged to reflect on their own approach to teaching and learning, and, in a number of cases, have changed their practices. An ongoing professional development program for staff, begun two years prior to the implementation of the M Teach has been an important catalyst for this.

One of the challenges, as the course has expanded, and more staff members have become involved in teaching the course, has been to continue this dialogue and professional learning. Increased enrolment has also been accompanied by resource and staff cuts and pressure to return to mass lectures and less seminars, within a national political ideology of increasing economic rationalism (Smith & Lovat 2003). Seminar groups have grown from eighteen to an average of twenty six. While not ideal for effective inquiry learning, this size is preferable to larger lectures.

In Phase II, student teachers are introduced to more detailed case material written by classroom teachers. These reflect the teachers’ own concerns and issues within their school contexts. Contributors have taught in a range of Sydney and rural schools across the K-12 spectrum. They included executive staff and beginning teachers. Student teachers, both individually and in small groups, spend time analysing these cases, researching relevant policy documents and related articles and resources and formulating a response or plan of action. The results of their research and analysis are shared with other students in their relevant Study 1 group. In Study 2 students work in their curriculum areas and in many of these a case based approach has also been used to explore the pedagogy in a particular discipline area.

After student teachers complete their first practicum in Phase III of the M Teach, they are involved in authoring their own cases to explore their first professional experience and to confront their own personal beliefs and practices and to encourage critical reflection. Again, while each case authoring is individual, there are a variety of group processes to support individual work. These cases are shared in seminar groups. During
Phase 4, at the beginning of the second year of the program, students undertake a small collaborative research project to investigate an area they have identified as important in the relationship between the school and the community. Study 2 continues with subject specific curriculum work.

After the second practicum in May of the second year of the course, successful candidates are deemed to have completed their initial teaching qualification (Bachelor of Teaching). This accredits them to teach in NSW schools. While some 10-20 teachers leave the course at this point, the vast majority undertake a ten week internship in a school of their choice, as Associate Teachers. To date, while the majority of internships occur in Sydney based schools a number of internships have been completed interstate and in countries overseas. During the ten week internship, Associate Teachers teach about two thirds of a full load. In addition, students undertake an action research project or final case study to examine an aspect of their teaching. The project is negotiated with the individual school. Following the internship there is a Post-Internship Conference in which Associate Teachers present their action research in poster form to faculty staff and their colleagues.

The next section examines a range of data collected from M.Teach students concerning the efficacy of the use of cases in teacher education.

RESEARCH ON CASE ANALYSIS

Forster and Horsley (1997) used Morine Dershimer’s (1996) methodology to research two student groups’ responses to a case analysis in the first cohort of M.Teach students. They found that the case did provide inherent motivation for the preservice teachers to think through their own initial perceptions. Tracking individual responses to a case through to small group and large group responses to a series of questions, Forster and Horsley found that much learning occurred through participation in collaborative discussion. In addition, individual, small group and large group discussion were very different. While individual responses to the case tended to be dominated by empathy and prior learning, small group discussion manifested more generative learning. Whole group talk focused on teachers’ professional roles and responsibilities as possible plans of action were explored. Use of cases was successful in achieving the anticipated outcomes of reflection and transformation. In their words:

Through reflection on an unresolved narrative - based case, preservice teachers came to an understanding of their own beliefs and attitudes. Thus they came to make sense of their learning, defining and solving their practical problems (p.63).

Coding of the students’ responses revealed a range of metacognitive comments: students realised what they did not know and this led to their structuring of their own participation forward. This response coincided with Ackerman et al (1993) ’s comments: “At some point, participants begin to think differently - more critically and less self-centredly. They are challenged and inspired to think more deeply about their practice” (p.23).
In addition, from Forster and Horsley's (1997) study it can be seen that the role of the seminar leader is extremely important. Seminar questions need to acknowledge that the role of prior learning and experience. They need to require students to move beyond feelings to consider action plans and resolutions that are professionally possible. As Cranton indicates (1994, p.14):

Transformative learning occurs when through critical self-reflection, an individual revises old or develops new assumptions, beliefs or ways of seeing the world.

Several years later, Col Bishop's (2001) doctoral study on the experience of six M.Teach students' use of cases concluded that the use of an inquiry, case based approach can be a powerfully effective basis for professional learning. At the same time, however, his study provided some important caveats to the analysis of cases in Phase 2 of the program:

(i) The use of cases must be carefully structured, sequenced and scaffolded. Strategies to encourage all students to engage with a range of cases rather than only concentrate on the one chosen for in-depth analysis is essential to maximising student learning. Careful planning, peer review and accountability checks produce better quality case analyses and case stories and more powerful and insightful learning;

(ii) Students must be provided with a clear rationale for this kind of approach;

(iii) Some students expected a 'recipe' for effective teaching and were initially frustrated by the collaborative process;

(iv) Several students displayed a tendency to choose a case for analysis and themes for case authoring that reinforced their own prejudices or existing stereotypes.

(v) Many of the original case stories also focused on extreme incidents, interactions or particularly difficult students rather than the everydayness of teaching and learning.

The findings from Bishop's study were incorporated into the M.Teach Study 1 Framework.

**CASE AUTHORING**

The concerns raised in the case stories written after the first practicum reflect the concerns of many beginning teachers. For example, many of the case stories focus on issues related to classroom management, juggling the many roles of the teacher, coping with individual differences and with the cultures of schools and classrooms. These are common themes that have often been reported in the literature (e.g. Ramsey 2000; Ewing & Smith 2002).

The kind of reflective writing which has developed through this case authoring indicates an understanding of the complexities of the roles of teachers and demands both within and outside the classroom. Anne, for example, talks about her first practicum as
intense, layered learning when there were moments of feeling control or triumph and I
gased quickly then for air, for I would soon be flailing again madly but quietly in the
dreamlike waters, both displaced and consumed by my situation.

Michelle discusses her concern for the student as a whole person thus:

I’m not saying that we should baby the children we have in our care but to
acknowledge the need to create a deeper understanding of their whole selves not just
the bits that sit in a chair for 40 minutes and write essays and answer a few questions.

GRADUATE RESPONSES TO THE MASTER OF TEACHING

In the light of the program’s philosophy and structure, evaluation has been ongoing and
student teachers have been involved in regular discussions and extensive written
summative evaluation about the nature of the course and their reactions to various
aspects. To date graduates who have participated in follow up research record largely
positive experiences especially about the case-based Study 1 as well as practicum and
internship components of the program (Smith 1997, 1998, 1999, 2000; Ewing & Smith
2002). While these early evaluations are encouraging time will be important in
confirming whether we are able to achieve lasting reform in teacher education and have
a continuing impact upon practices in schools and classrooms. Longitudinal evaluations
of a sample of M.Teach graduates are continuing (Ewing & Smith 2002).

Each cohort who has completed their M.Teach degree has been asked to voluntarily
complete an extensive exit evaluation of their course at the post-internship conference. In
addition graduates of the M.Teach from 1997-2002 have been asked to complete a
questionnaire which requested them to think about the effectiveness of their degree in
retrospect along with their experiences as early career teachers (Ewing & Smith 2002). A
number of graduates have been interviewed to follow up the open-ended comments they
had made in the questionnaires. Some have also written narrative accounts of their
beginning teacher experiences.

More than 80% of M.Teach graduates who have responded to the evaluations have
been positive about the case based and inquiry nature of the program and stated that it
was useful in preparing them both for classroom teaching and for the profession (e.g.
Smith 1997, 1998, 1999, 2000). Responses were stronger, however, for Study 1 than Study
2. Student teachers, generally, also commented very positively on the opportunity to be
part of a K-12 Study 1 group that remained together for the two years and the
collaborative manner in which these groups operated. The opportunities to share
experiences and work cooperatively were acknowledged, although a small minority of
respondents expressed a dislike of having to work cooperatively. This latter comment
raises important questions about the need to cater for individual learning styles within
teacher education programs that are based on a particular ideology and approach to
learning.
In 1998, Gavin Little, an M Teach Honours student completed four case studies of
beginning teachers. Two of these teachers had completed their M Teach in 1997 and two
had graduated from another institution. He interviewed them in small groups and
individually and wrote narratives of their experiences both of their first year of teaching
and their preservice preparation. The M Teach graduates’ narratives reflected a very
positive response to the case based approach to learning about teaching, although there
were some concerns about teaching strategies used in their particular curriculum area.
Both graduates were very aware of how their own past experiences had impacted
strongly on their experience of their teacher education program. Their narratives
provided evidence that both were strongly committed to the notion of lifelong learning
within their chosen profession.

CONCLUSION

Effective teaching and learning at all levels must respond to the need to change and
renew learning environments in the light of increasing social, economic and technological
change. The Master of Teaching is an example of an inquiry case or problem based
university program which has attempted to acknowledge student prior learning and
experiences, prepare teachers in a way which recognises the complexities and challenges
of teaching as a profession for the 21st century and encourage deliberate and critical
reflection about teaching and learning issues which demand a new vision given the rapid
change in education and its social contexts. Only continued study and research, both of
inquiry and problem based learning approaches and of our teacher education graduates,
will inform our optimism about the effectiveness of learning about professional practice
in this way.

NOTE

1 This article incorporates excerpts from earlier paper presentations by all three authors on the use
of inquiry and case based approaches to teacher education.

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