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Abstract

This paper reports on a journey that began in 1997 when a small group in the Faculty of Education at the University of Wollongong agreed to trial an alternative model of teacher education known as the Knowledge Building Community (KBC) Project. This alternative model of teacher education was based upon three learning principles, community learning, school-based learning and problem-based learning. Since the first students began in 1999 the original model has undergone several revisions and is now best described as a 'negotiated-evaluation-of-a-non-negotiable-curriculum-based-on-a-constructivist-model-of-learning-and-knowledge-building?'. The aim of the KBC Program has been to deal with the perennial problem of contextualising students' professional learning, by linking abstract theory as closely as possible to the contexts and settings to which it applies, that is, the primary school classroom.

Keywords

approach, kbc, community, building, pre, exams, service, lectures, replacing, education, primary, problem, constructivist, knowledge, tutorials, traditional, teacher

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Replacing traditional lectures, tutorials and exams with a Knowledge Building Community (KBC): A constructivist, problem-based approach to pre-service primary teacher education

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ABSTRACT: This paper reports on a journey that begun in 1997 when a small group in the Faculty of Education at the University of Wollongong agreed to trial an alternative model of teacher education known as the Knowledge Building Community (KBC) Project. This alternative model of teacher education was based upon three learning principles, community learning, school-based learning and problem-based learning. Since the first students began in 1999 the original model has undergone several revisions and is now best described as a “negotiated-evaluation-of-a-non-negotiable-curriculum-based-on-a-constructivist-model-of-learning-and-knowledge-building”. The aim of the KBC Program has been to deal with the perennial problem of contextualising students' professional learning, by linking abstract theory as closely as possible to the contexts and settings to which it applies, that is, the primary school classroom.

KEYWORDS: Pre-service teacher education; constructivist learning; contextual based learning; problem-based learning, school-based learning and knowledge building community.

INTRODUCTION

In late 1997, a small group of our Faculty of Education staff initiated an informal, but searching series of discussions which centred on developing an alternative modes of programme delivery. The outcomes of these discussions can be summarised thus:

1. Given that the rapidity with which socio-political change was impacting on all levels of the education system, as teacher educators, we faced a “double whammy”. Not only was it becoming obvious that schools, more than ever, would need increasing numbers of teachers who were both knowledgeable “thinkers” and highly flexible “doers”, but it would be our responsibility to lay the foundations for their life-long professional growth and development.
2. Like most pre-service teacher education providers, we had both anecdotal and empirical evidence which indicated that many of our graduates arrived at schools after graduation very much unaware of how school and classroom cultures operated, were unable to see the relationships between what they had studied in the courses they'd completed, and how it should be translated into effective classroom practice (Grant, 1994, Armour & Booth, 1999).
3. We were also aware that the system which employed most of our (and other providers”) graduates (the NSW Department of Education), had a long-standing concern that teacher education graduates in general did not know how to solve the kinds of problems which would confront them on appointment to schools and that, as the main employing authority, they were looking for ways to reduce the cost, both in terms of time and personal stress, of the “induction period” that many newly graduated teachers seemed to need.

4. That our program, after several long, drawn-out “restructurings”, was at best an eclectic mix of key features of what Reid & O'Donoghue (2001) refer to as the “traditional dominant models”. This means it was based on a strong underpinning of basic “non-negotiable skills and knowledge”, to which we'd added layers of a “teacher-as-skilled-artisan” ethos, and wrapped it all in the mantle of (so-called) “standards of professional competency”
5. Despite this, our graduates didn't seem to change in ways that were commensurate with the constantly changing needs of the profession and/or the systems which employed them.
6. We therefore needed to explore, design, trial and evaluate alternate models of pre-service teacher education

Given this rationale, the faculty supported a proposal to design a research project which would investigate, as a pilot, an alternative approach to initial teacher education through:

- implementation and evaluation of an inquiry and problem-solving approach such as that used in medicine and the health sciences
- greater integration of the practical field-based component of the teacher education program with the theoretical.

This project was informed by a wide-ranging review of relevant literature (Kiggins, 1997). As a consequence of this review we concluded that we needed to begin a process of challenging, and subsequently changing, the traditional paradigm of pre-service teacher education to which we'd been wedded for as long as we cared to remember. We decided that given the complexity of effecting such change, given our particular University/Faculty socio-political context, our best chance for starting and maintaining such a shift would be to design a project which would produce at least the following changes:

- A shift in the mode of program delivery from the traditional “campus-based-lecture-tutorial” mode to a “problem-based-learning-within-a-school-site” mode.
- A shift of from the traditional clinical supervision model of practice teaching to a problem-based-action-research-mentoring model that brought the relationship between the specialised knowledge in Education courses and the nature and culture of schools and how they “do business”, closer together.
- A shift in the traditional roles and responsibilities the major stake-holding groups in teacher development, namely the professional employing authorities, (e.g. NSW DET, local non-government school systems), the university, local schools, and the Teacher's Unions (NSWTF), so that a new form of “School-based Learning” might be developed.

We argued that if we set these three processes in motion, an important by-product would be the opportunity to identify and explore the logistical, cultural, and political barriers to effecting changes in:

- the teaching/learning culture of undergraduate teacher education (in our context)
- the traditional mindset and culture associated with practice-teaching/the practicum (in our context).

In 1997 the faculty agreed to support the proposal “in principle” provided that any structural and/or procedural changes that were set in place were

- resource-neutral;
- maintained academic standards and met professional standards of competency;
- maintained equity of workload, assessment procedures, with respect to students/staff locked into the mainstream program (“*in the pipeline*”).

This “in principle” support was followed by two years of formal and informal meetings with the major stake-holding groups, including senior management within the NSW DET Directorates, local superintendents, principals, whole-school staffs, individual teachers, faculty committees and diverse university power brokers, and teacher unions. In these two years, different formal committees, working parties and reference groups, met, negotiated and discussed for an estimated total of between 1200 and 1500 hours.

By the beginning of the 1999 academic year a pilot program had been designed. We were ready to begin.

WOLLONGONG'S KBC PROGRAM: GETTING STARTED: 1999

We soon realized that the prospect of implementing a new program with a full cohort of more than 240 incoming first year students, while at the same time maintaining the pipe-line of second, third, and fourth-year students who were already enrolled the existing program, was logistically impossible. We therefore decided to impose two caveats.

Caveat #1: We would begin with a small sub-group comprising approximately 10% of the new intake, to a maximum of 24 students.

Caveat #2: The KBC model would operate only in those sessions when practice teaching was scheduled – Session 1 in first and second year; Session 2 in third year. This meant that the 10% of students who were admitted to participate in the KBC version of the program would be engaged in this form of pre-service professional training for approximately half their total program. For the other half they would join their mainstream peers and engage in the traditional “lecture + tutorial + formal examination” form of program delivery. Figure 1 below is a schematic representation of this caveat showing the year-by-year progression for the cohort of 24 students who became part of the KBC project, vis-à-vis the other 90% of their mainstream peers.

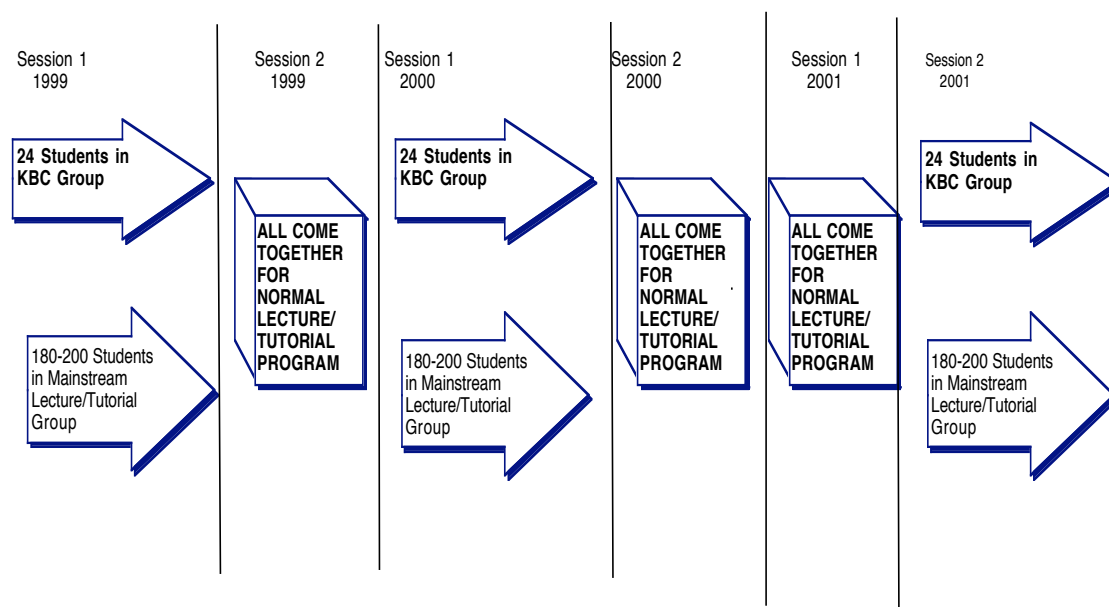


Figure 1. Year-by-year progression

Given these caveats we felt compelled to anchor our mode of delivery to a robust, constructivist theoretical model. We chose a theory based on the concept of a “Knowledge-Building Community” (Hewitt, Brett, Scardamalia, Frecker & Webb, 1995).

WHAT IS A KNOWLEDGE BUILDING COMMUNITY?

Kiggins (2001) defines a Knowledge Building Community thus: “A “community” of individuals who are dedicated to sharing and advancing the knowledge of the collective.” She cites Hewitt et al (1995) to support this definition.

“What is defining about a Knowledge Building Community is a commitment among its members to invest its resources in the collective pursuit of understanding” (Hewitt, Brett, Scardamalia, Frecker & Webb, 1995, cited by Kiggins, 2001).

While the concept of “learning communities” has been around since Dewey's time (Dewey, 1933) generally it has been restricted predominantly to school settings. We decided to see whether we could apply these principles at the pre-service teacher education level.

THE UNIVERSITY OF WOLLONGONG’S VERSION OF A KNOWLEDGE BUILDING COMMUNITY

The Knowledge Building Community is a teaching model specifically designed to deal with the issue of contextualising the delivery of instruction. One of its important tenets is that instruction should be linked as closely as possible to the contexts and settings to

which it applies in the real world. Furthermore KBCs are based on the creation of learning environments that:

1. Support the continuous social construction of knowledge
THROUGH
2. The constant construction, de-construction, and reconstruction and sharing of meanings
SO THAT
3. The community's knowledge needs are advanced and maintained.

In the University of Wollongong's KBC these principles were applied through the creation of a setting that provided opportunities to engage in three modes of learning:

1. Community learning (CL)
2. School-based learning (SBL)
3. Problem-based learning (PBL)

Figure 2 below is a schematic representation of the relationship between these three modes of learning and Wollongong's KBC concept:

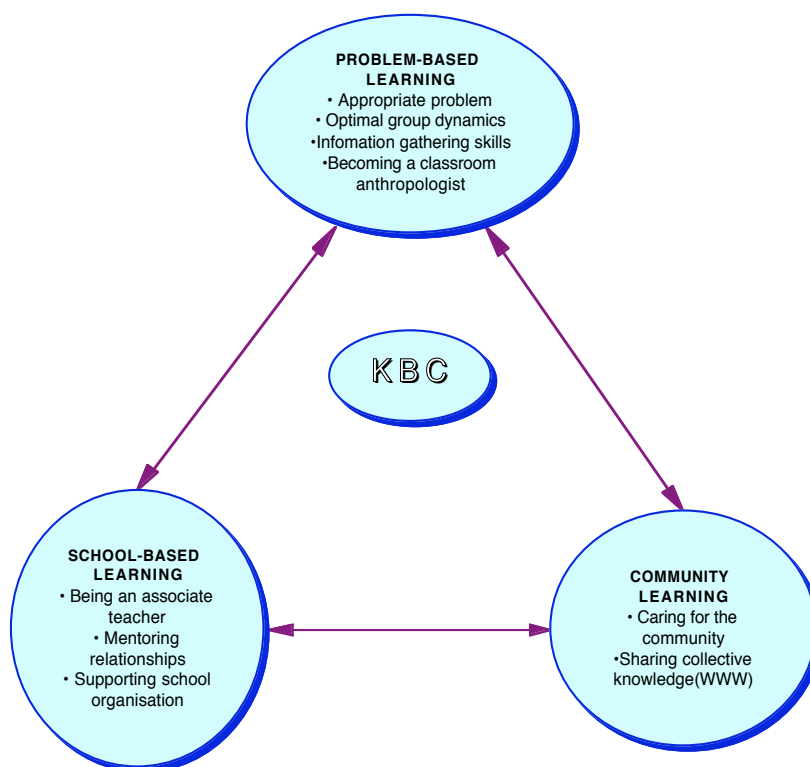


Figure 2. Wollongong's KBC components

Community learning (CL)

This mode of learning constitutes a major shift from traditional teacher education models. It necessitates the development of a “community of learners”. In Wollongong's case this community was made up of three distinct groups:

1. Pre-service teacher-education students
2. School-based teachers
3. Faculty lecturers who acted as facilitators on campus.

It was the expectation that this community would establish a sense of trust and caring for other community members as they studied and learned collaboratively.

School-based learning (SBL)

Part of Wollongong's KBC concept is the strong conviction that schools are more than buildings and people. Rather, they are ecological settings in which individual cultures have evolved in response to the needs and purposes of the individuals who regularly enter them (Barker, 1967). This component of the KBC structure aimed to develop a more than rudimentary understanding of school-based culture. It also aimed to heighten awareness and familiarity of how schools “do business”, to reduce the “*reality shock*” that beginning teachers experience when they begin their careers and finally, to increase pre-service teachers' understandings of teachers’ “real” roles in both classrooms and schools.

Problem-based learning (PBL)

Current theory asserts that PBL encourages and motivates students to learn to learn. Furthermore, this theory argues that PBL challenges students to take charge of their education (Duch, 1995, p.1).

The motivation to become efficient problem-based learners was created by:

- abolishing the traditional lecture, tutorial, exam and the power relationships which typically accompany them
- changing the lecturer's role from “expert-who-transmits-facts-to-novices” to that of “co-learner”, that is, one who actively facilitates *and* participates in the learning and knowledge-building of the community.

CAN THE KBC PROJECT BE CLASSIFIED AS A MODEL FOR TEACHER EDUCATION?

If the aim of teacher education has at its base the production of effective and competent teachers, the process of how teachers learn or have learnt the science and art of teaching needs to be examined. Traditional models of teacher education used throughout the world are very similar and have tended to focus on what teachers need to know and how they can be trained (Carter, 1991; Diamond, 1991). While there is no single base for teacher education on which everyone agrees, the body of knowledge from which teacher educators can draw when formulating an effective curriculum is substantial (Barnes, 1989).

Central to the most common teacher education models are three basic components: academic preparation in the subjects or disciplines that the pre-service teacher will teach when qualified; theoretical foundations of professional education; and the student practicum or teaching in some form of internship (Diamond, 1991). Tripp (1994),

however, sees teaching as comprising more than the above three tenets. He argues that teachers are expected to make learning relevant and interesting to pupils through such means as developing curricula to suit particular needs, individualise teaching, assisting personal development, using affirmative action with disadvantaged minority pupils, involving the community, and in many situations taking responsibility for the provision of basic nutritional and hygiene needs. As a result, pre-service teachers need to learn a great deal more than the traditional, often narrow curriculum that is offered by many universities.

All teacher education is a form of ideology. Each program is related to the educational ideology held by a particular teacher educator or teacher education institution, even though the relationship may not be made explicit. There is no such thing as a value-free teacher education just as there is no such thing as a value-free education for children (Spodek, 1974. pp. 8-9).

Since the introduction of compulsory primary education there have always been major trends identifiable in teacher education. These trends have dominated the way in which prospective teachers were taught their future craft. Teacher preparation began early in the Nineteenth Century, and since then has always been dogged by controversy and debate over the methodology used in it.

Table 1. Five Traditional models of teacher preparation compared to the KBC Project at the University of Wollongong

Facets To Compare	Behaviouristic Teacher Education Model (BTE)	Competency-Based Teacher Education Model (CBTE)	Personalistic Teacher Education (PTE)	Traditional-Craft Teacher Education (TCTE)	Inquiry-Orientated Teacher Education (IOTE)	The KBC Project at University of Wollongong
Theoretical Foundation(s)	<ul style="list-style-type: none"> • Positivistic epistemology • Behaviouristic psychology 	<ul style="list-style-type: none"> • Compartmentalises the act of effective teaching • That learning teaching can be achieved by watching 	<ul style="list-style-type: none"> • Pre-service teachers are taught a set of classroom strategies that they learn and apply 	<ul style="list-style-type: none"> • Teaching is a craft • The pre-service teacher is seen as an apprentice • The pre-service teacher is a passive recipient of knowledge 	<ul style="list-style-type: none"> • The development of inquiry about teaching • Pre-service teacher is an active agent in their teacher training 	<ul style="list-style-type: none"> • A constructivist, problem-based approach to pre-service primary teacher education • Replaces traditional lectures, tutorials and exams by establishing a Knowledge Building Community (KBC)
Emphasis	<ul style="list-style-type: none"> • The observable development of the skills of teaching • Teaching is viewed as a science 	<ul style="list-style-type: none"> • That there are certain goals and tasks to be learned • Teaching is viewed as a science 	<ul style="list-style-type: none"> • PTE emphasises the reorganisation of perceptions and beliefs over mastery of teaching skills. • Emphasises the need to create emphatic and caring relationships with students. 	<ul style="list-style-type: none"> • Pre-service teachers acquire knowledge about teaching by trial and error 	<ul style="list-style-type: none"> • Critical inquiry is a necessary supplement to teaching skills • Aims to prepare teachers who have skills to do and then analyse what they are doing in terms of its effect on children • Focuses on everyday classroom life 	<ul style="list-style-type: none"> • Student-centred • Friendship-based school groups • School mentors • Co-learners with facilitators and mentors • Linking theory to practice • Collaborative practice • Problem solving • Emphasises

						teaching as life-long learning • Prepares students on how schools and classrooms operate and do business (every day school life)
Reflection Encouraged	No	No	Yes - Only since 1991 when PTE has been re-investigated	No	Yes	Yes

The earliest trend in teacher education was a straight apprenticeship model where teachers learned teaching in schools by teaching at reduced rates of pay whilst under the supervision of more experienced teachers. Teachers were given accreditation when they were deemed competent by the school inspectorate (Tripp, 1994). Since the abandonment of this model, there have been at least five models that have dominated the discourse of debate in teacher education. These models of teacher education are: “behaviouristic, competency-based, personalistic, traditional-craft and inquiry-orientated teacher education (Zeichner, 1983). The basic composition of these five traditional models was examined and then compared to the KBC Project at the University of Wollongong for their fundamental foundation, emphasis and provision for reflection. These comparisons are shown in Table 1.

Since the KBC Project's inception, its basic aim has been to deal with the perennial problem of contextualising students’ professional learning by linking abstract theory as closely as possible to the contexts and settings to which it applies, in this case the primary school and the primary school classroom. However, Table 1 also clearly illustrates that the KBC Project, as well as matching the criteria of the selected traditional models of teacher preparation, shows that the KBC model has the unique feature of factoring into its structure the opportunity for social interaction.

THE EVOLUTION OF WOLLONGONG'S KBC PROJECT: 1999-2003

The University of Wollongong's KBC program has been evolving for almost five years now. Although we have had to abandon some of the original organizational and procedural ideals we started with in 1999, the underlying constructivist rationale and philosophy has remained firmly in place. (Those who are interested in the details of some of these organizational and procedural changes should refer to Kiggins, 2001.)

The current, 2002 KBC model is best described as:

negotiated-evaluation-of-a-non-negotiable-curriculum-based-on-a-constructivist-model-of-learning-and-knowledge-building.

This over-nominalised phrase captures the essence of University of Woollongong's KBC program in 2002. While the program is still delivered along the original guidelines of the KBC ideals (that is, CL, SBL and PBL), a significant addition has been what we call, “the four pillars of professional wisdom” which now frame and guide the KBC learning process.

Since 2001, the KBC model has given students the responsibility for negotiating their assessment tasks. These assessment tasks must be based on collaborative analysis of the non-negotiable curriculum, that is, the subject outcomes which mainstream students are expected to acquire in the four compulsory subjects. The students then undertake negotiations with the teaching staff of the school where they are Teacher-Associates to ensure that the tasks they have devised are appropriate and achievable in their particular SBL setting.

The four “pillars” of University of Wollongong's KBC are:

- taking responsibility for own learning.
- learning through professional collaboration
- identifying and resolving professional problems
- becoming a reflective practitioner

When the expectation that all members of the KBC have to acquire skills in using and demonstrating conceptual understandings of these four “pillars” is made explicit, it sets in train a range of complex interactions within any particular knowledge-building community. These interactions in turn serve to drive and guide the community. One important thing these pillars provide is a set of structures, processes and a form of discourse for constructing and completing the assessment tasks.

THE RELATIONSHIPS OF THE KBC PROJECT

As the students work through the above four-stage process with the four pillars of the KBC guiding them, a tripartite relationship is built. This relationship highlights the importance of social interaction between the main participants. When students are given the opportunity and support of the KBC facilitators, school-based teachers and each other they can develop ownership of and responsibility for their own learning. This tripartite relationship is known as the community triad. With the support of this triad, students are able to link theory to practice as well as developing an increased understanding of the culture of schools and the way that they operate.

The KBC students between 1999-2003 emphasised that the support of the community triad was the base from which all else operated. The friendship and trust that were created in the community triad directly influenced the experiences of the students during this period. This was evident in week one of Session One 1999, when Siobhan stated that she “didn't feel lonely and that she always had someone to have lunch with”. She went on to question, “how you could ever learn when you felt lonely at university”. Kerrie confirmed this when she said:

I don't think I am learning and then I go home and all this stuff comes out. I think where did that come from? It's because we talk and trust each other. If we have a problem we talk. We had so much fun with our group poster we weren't afraid to say anything. We talked so much. We hardly ever disagreed at all once someone said something we would go oh yeah that's a great idea... One of my initial concerns about this course was that my friends weren't doing it and I thought that I would be on my own but just the opposite has happened and I have made so many friends (Kerrie, 1999).

Skye, via e-mail, also reiterated the benefit of working in groups

It's been great. I have loved working in groups. I have had the best time. I have found that by working in a friendly environment you learn more. I think that everyone has different aspects that you can utilise (Skye, 1999).

The KBC Project was established as a means of providing students with quality learning experiences. What emerged, however, was that the social interaction and support of each other and/or the KBC facilitators and/or the school-based teacher mentors served as the greatest influence on any or all of the students' experiences. It has been identified that the core element of the triad is trust. In order to achieve the contextually based assignment work, each school-based group needs to rely on the efforts of each member of the triad.

The ability to be able to learn from each other is a powerful tool, for example our debate yesterday got me so passionately involved in the topic, and I know that would never have happened in a tutorial group with a bunch of people that I didn't know or trust. From that experience, I can confidently say that I have knowledge about the topic, and it is making connections inside my brain, more so than sitting in the lecture (Ryan, 2000).

The reverse to this situation was demonstrated in Session One 2002, when students not carrying out their share of the workload were threatening the underpinning value of the group relationship, that is, trust.

We have had several group meetings now where one or two members have arrived with their allotted tasks not completed. To be frank I am losing all sense of trust with them. I am concerned that we will not be able to finish our major assessment unless we have a major turnaround (Michael, 2002).

It is not easy to take a group of individuals at the start of a university session and ask them to trust people that they do not know. It is therefore important that structured processes are put in place in order for this to eventuate. In order to replicate a KBC it is necessary to have structures in place that will support relationship building in the community triad. The community triad includes students, university and school staff. The working relationships between KBC students, facilitators and school-based staff need to be viewed by all parties as a partnership.

The partnership between university facilitators and school-based teachers meets Ramsey's (2000) recommendation that the re-energising of teacher education needed to be supported by reconnecting universities and schools. It also demonstrates to the students that they are part of an established team. This team can only become the community triad with their inclusion.

Just as the students reflected on the relationships that they established through their involvement in the KBC so too did the school-based teachers.

Having KBC students in the school has led to discussions about teaching philosophies and organisational matters better professional conversations not whingeing and whining... (Steve, 2002).

The students were making comments and asking questions that as a teacher I have longed to hear because what it did was reassure me that as graduates they were going to be effective teachers (Jane, 2000).

Comments such as those above from the school-based teachers involved in the KBC Mentoring Program support the existence of the community triad. However, the university facilitators also make up this role and their role cannot be underestimated. The role of KBC facilitator differs from the traditional role of the lecturer. KBC facilitators cannot simply be the disseminators of facts. Facilitators take on multiple roles including counsellors, confidantes, co-learners, mediators, and “buffers” between the community and the University bureaucracy and the school system.

The establishment of the community triad sees a positive change in the relationship between the school and the university. KBC facilitators carry out weekly school liaison visits, where it is not uncommon to sit with KBC students and “unpack” the classroom instruction that is being observed. School-based staff are also involved in the KBC homeroom as guest presenters. One of the most successful components of the community triad is the involvement of school-based staff at the planning and debriefing meetings held at the beginning and end of each university year. The major stakeholders and their responsibilities in the KBC community triad are further detailed below:

University facilitators

The university facilitators are responsible for the coordination of the program, the school liaison and the recruitment of students. In terms of the coordination, it is the facilitators’ duties to ensure that students meet the outcomes of the subjects in which they are enrolled. This aspect requires meetings with mainstream subject coordinators and lecturers, as well as regular KBC facilitator meetings that discuss and debrief the students’ progress. In 1999, when facilitators were not meeting regularly or were indeed not seen to be working as a team, the students quickly noticed it. It is important in a project such as this that unity and teamwork are not regarded as only an expectation of students.

The KBC Homeroom

An important component of the KBC Project is that the KBC facilitator team must arrange a designated homeroom and it must be obtained prior to the students’ arrival on campus. The homeroom must not be a common teaching area; it needs to be for the sole purpose of KBC teaching and learning activities. This physical space plays a vital role in the establishment of the KBC. The homeroom provides stability, a sense of belonging and a place to display work products, and emphasises a point of difference from the traditional mainstream. It is the location where all workshops are held. The impact of not having access to the homeroom was not fully understood until Session One 2000. The situation of having two groups and only one homeroom meant that the KBC 2 students were without a permanent base and although teaching rooms were obtained for workshops, they were common teaching areas and the students could not stay in the rooms longer than the booking allowed. Quite often the rooms were located in buildings other than those that were designated to the Faculty of Education. The overlap of students saw KBC 2 students displaced and disorganised. KBC 2 students were often seen working in the cafeteria. Fran stated that they had lost their sense of identity; Katherine complained that they were no longer special; but Siobhan summed it up by saying that being on the move from room to room made the students feel that they were just another tutorial group. It became obvious that creative timetabling was necessary in order to accommodate two groups in one room.

KBC Cohort Selection Process

Another role that the KBC facilitator plays is that of recruitment of KBC students. In 1999 students were informed of the KBC Project via brochures that were handed out on enrolment day in January and then again on the Faculty of Education's information day in February. This process was repeated in 2000. Students that expressed an interest in joining the project were asked to write a letter of intent and include a curriculum vitae. It was thought that the number of students seeking admission to the program would dictate an interview process. A panel of three senior lecturers was selected to cull the applications and then carry out any subsequent interviews. As previously reported this process was not necessary, as the numbers of students did not warrant it. It is, however, a step that must be included in any "formula" that attempts to outline the steps required to form a KBC Project.

Community Socialisation

When the students have been recruited through an application and interview process the KBC facilitators then undertake the process of community socialisation. Workshops and team-building activities that allow students to meet and work with each other and learn about group dynamics can foster a sense of community. As the students spend time together, friendships emerge. As the students begin to grasp the principles of group work and get to know one another and how one another works, trust will also begin to play a role. When students develop friendships and trust they have the basis of a foundation that should enable them to work collaboratively in school teams with their school-based mentors.

Collaborative school teams

Collaborative school teams are needed for the triadic relationship to form. These collaborative school teams share the roles of educational anthropologists, problem-solvers and mentees.

As educational anthropologists, the students develop structures and processes that help them to understand their mentors' classroom. They also need to be able to identify teacher "informants", these teachers may wish to offer other insights and information about teaching, learning, children and schools. When the school teams are working collaboratively they will begin to share responsibility for their learning, ensuring that they work as an efficient team of learners who collectively find and share knowledge.

Ideally, these teams will be able to work outside of their school team, sharing insights with all members of the KBC. The process of knowledge-building often takes place when the teams return to the homeroom but as seen in 1999 this is a process that needs facilitation. It doesn't happen immediately. Success is reliant on the facilitating team carrying out their role with regard to school liaison and ensuring that all participating schools and mentors know their roles and responsibilities in the KBC Project. For example, in 1999, when one school site offered different learning opportunities and experiences, it was not anticipated that this school's model would have the ramifications that it did on the whole KBC community. The differences at this school site caused angst not only for the students who attended this school but for the other school groups who reported feeling guilty that their school experiences were operating smoothly and productively.

The school-based teacher mentors

The third aspect in the community triad is the role that the teacher mentor plays. This role cannot be underestimated. When the students commence in the schools after approximately five weeks of session one, it will be their teacher mentor that they turn to for advice and support. The relationship that is created between mentor and mentee will be pivotal for the SBL phase. The pioneer students rated their time in schools as beneficial because it was here that they were able to experience the day-to-day operations and come to grips with the multi-faceted role of teacher. Just as the students reported that they were learning from their mentors, the mentor teachers reported that they too were learning from the teacher associates.

In order to maintain the working relationship/partnership between the university and the schools, the university facilitator must maintain a presence in the schools. When the facilitator, the school-based teacher and the KBC students are all in schools at the same time it, cements the triadic relationship that underpins the KBC Project.

A number of major benefits or themes have emerged since the implementation of the KBC Project at the University of Wollongong. Firstly, students have learned the value of their community triad in regards to their learning and they have realised that learning from each other is a powerful tool. The KBC Project allows students to identify and act on professional problems in a collegial manner and then have the ability to reflect upon the course of action taken. Moreover, they have developed a deep sense of understanding about the roles of the members of the community triad, the multiple roles of the classroom teacher and the need to have functional groups for effective productivity. One of the most impressive facets to emerge, however, has been the fusion of a positive working relationship between the KBC facilitators, the students and the cooperating schools.

Some (not all) of the assumptions inherent in KBC are radically different from those that underpin mainstream teacher-education programs. The KBC Project is proving itself as a credible alternative to mainstream teacher education and through a series of revisions has designed a way to link abstract theory to classroom application. At the same time the link for joint responsibility for teacher education between schools and the University has been strengthened.

The adoption of a KBC model may not be viable or desirable for all teacher education programs but the tangible benefits cannot be overlooked. The provision of authentic learning experiences in authentic environments in a supportive community triad provides the catalyst for knowledge building. As one student from the KBC reflected:

I think the benefit of the group work is that we are less focused on the outcome and more focused on the learning. Therefore gaining real knowledge through action and experience rather than just cramming in the theory in order to move onto the next subject which, we may forget (Dianne, 2003).

CONCLUSION

Wollongong's KBC program has been operating for five years now. Our pioneer group graduated in December 2001. This cohort's results were very affirming:

- of the original 24 who began in 1999, 18 graduated.
- of this 18, seventeen (17) graduated with High Distinction.
- of this 18, six (6) re-enrolled as fulltime 4th year B.Ed students. (Therefore they didn't sit for the DET's "targeted graduate" interview.)
- of this 6, four (4) were admitted to the Honours program
- of the 12 who were interviewed, six (6) were targeted by DET

The general consensus from all of the stakeholders who have been involved from the very beginning (students, lecturing staff and schools) is that the program has both tangible and intangible benefits that make it preferable to the traditional mainstream mode of delivery. The tangible benefits include:

- Students who develop the skills, knowledge and understandings of effective teaching to a much higher degree in a much shorter time.
- Students who are perceived by experienced teachers to be more committed, enthusiastic, confident professionals than mainstream students in the same cohort.
- Students who are perceived by other mainstream lecturers to be more skilled at identifying and resolving professional problem, who are more effective and productive team members, who are more autonomous learners and more reflective than most mainstream peers.
- A much stronger partnership between the University, local schools, the major employing authority, and the teachers' union.

A less tangible but equally important benefit includes a subtle but significant change of the culture of the practicum experience for the schools involved. This shift is essentially from a "Clinical-supervision-one-classroom-teacher-to-one-student" model to a "Mentoring-whole-school-participates" model. One unexpected spin-off of this change is the perception by teachers at KBC schools of their *own* professional growth as they responded to the many probing questions about the rationale for school and classroom practices which KBC students continually asked as they sought data for their research tasks. In a recent paper, Marks (2001), reporting on this aspect of his school's involvement in University Of Wollongong's KBC program, writes:

Research strongly supports the conclusion that reflection does enhance teaching and learning. In our school experience since 1999, reflective practices amongst the staff have developed:

1. as a result of taking on mentoring roles for the KBC program, and
2. as a result of collegial management and supervisory styles becoming the philosophical base of our school.

In essence the KBC program operated as the vehicle for the implementation of reflection through the mentoring role (p. 9).

From a personal perspective, after four years of being facilitators, co-learners and participants in each KBC's learning journey, we can honestly state that we much prefer this way of "teaching". To be blunt, we don't ever want to go back to the mainstream mode of delivery.

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