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The Knowledge Building Community Program: A Partnership for Progress in Teacher Education

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In 1999 the Faculty of Education at the University of Wollongong trialled an alternative model of teacher education known as the Knowledge Building Community (KBC) Project. This alternative model of teacher education was a joint venture of the Faculty of Education the NSW Department of Education and the NSW Teachers' Federation. As the KBC Project evolved a triadic partnership between preservice teachers, school-based mentor teachers and university facilitators developed. This partnership became known as the "community triad" This paper will examine the history of the formation of the joint venture from the planning to the implementation phases and the role each of the community triad stakeholders plays in this alternative model for teacher education.

Background

The preparation of teachers and current teacher education programs according to Tripp (1994) has not stood up well to public scrutiny. He says that many people, particularly teachers, administrators, and governments, believe that teacher education practices are an inadequate preparation for teaching. Teacher education in many tertiary institutions throughout the world is under pressure (Korthagen & Kessels, 1999) and it has evolved to the point where "the professional school's prevailing conception of professional knowledge may not match well with the actual competencies required of practitioners in the field" (Schön, 1987, p. 10).

This mismatch discussed by Schön (1987) may in reality reflect the ambiguous and complex nature of teaching as it involves the acquisition of a wide range of skills. Teaching requires judgment, appropriate action and the capacity to reflect and revise decisions on the basis of observations and insight. Learning to teach means gaining theoretical and practical knowledge along with the development of interpersonal skills (Furlong & Maynard, 1995). The associated problems of conventional teacher education programs have been identified by Louden (1993) as collisions between university-based theory and school-based practice. He lists hit-and-run supervision by university staff who have no connection with the student's development as a teacher, and sink-or-swim supervision by cooperating teachers who are unwilling (or unable) to help students bridge the gaps in their knowledge between theory and practice.

The development of teaching skills is complicated by the fact that often the knowledge that may be most critical for an individual beginning teacher is identified during

preservice teaching experiences, but is seldom fully developed in subsequent preservice practicums (Barnes, 1989). Fullan (1993a) says that there is a widely held misconception that teaching is not all that difficult. As a result of this misconception, it is a common belief that education faculties attract only the students on the lower end of the academic scale (Sarason, 1993).

The challenge, therefore, for teacher educators, is to create programs that will prepare the beginning teacher for the intricacies of life in the classroom. The transformation of students to teachers is a combination of complex events, which needs to take place in both universities and schools. Hannan (1995) argues that the teaching profession requires highly trained teachers at degree standard who have had such a balanced training.

Like most providers of pre-service teacher education in Australia, the Faculty of Education at the University of Wollongong, has been under constant pressure to ensure that its courses meet the needs of both its students and the teaching profession. Despite this pressure there is both anecdotal and empirical evidence, which, indicates that some Wollongong graduates have not been satisfied with their preparation for teaching (Grant 1994). Other evidence suggests that a significant proportion of them arrive at schools after graduation very much unaware of how school and classroom cultures operate, are unable to see the relationships between what they have studied in the courses they've completed, and how it should be translated into effective classroom practice. (Armour & Booth, 1999).

These trends are not unique to the University of Wollongong. The major employing authority of teachers in NSW the Department of Education and Training (DET), has had a long-standing concern at the number of teacher education graduates in general (not just Wollongong's) who do not know how to solve the kinds of problems which they confront on appointment to schools, and that as the main employing authority, it was looking for ways to reduce the systemic cost, in terms of financial cost of DET sponsored "induction" programs, as well as costs in time and personal stress, of the *'induction period'* that many newly graduated teachers seemed to need (NSW, Department of Education & Training, Training and Development Directorate, 2000).

An increasing number of overseas researchers have found that teacher education courses are at best problematic, at worst counter productive. Fullan (1991) for example claims that many teacher education courses in North America tend to lack an "overall coherence" (Fullan, 1991 p. 291); while others argue that the purposes of many of the courses and subjects that pre-service teachers undertake are complex and hazy (Floden, McDiarmid, & Werners, 1989; Lanier & Little, 1986; Kennedy, 1990).

The teaching profession continues to grapple with a codified body of knowledge to base preservice teacher education programs upon (Waghorn & Stevens, 1996). There are problems with the traditional models of teacher education, fragmentation in content, the practicum and the ongoing failure to address the needs of newly graduated beginning teachers. School-based teachers are being constantly faced with broader and more diverse responsibilities; as such their accountability increases (Williams, 1995; McFadden &

Hastings, 1997). Smith and Weaver (1998) identified the following factors as being responsible for pressure on the education sector and therefore adding further challenges to the conventional teacher education models:

> …changes in the structure and governance of schools, changing expectations of education and schooling by various elements of the middle class, the impact of communication technologies and an ageing teacher and teacher education staff facing monumental cultural shifts. (Smith & Weaver, 1998, p 32)

The common factor defined is that: preservice teacher education would improve if there were more school-based experiences offered to student teachers. However, the trend at present in Australia in all spheres of the public sector sees policies and practices being driven by economic messages to be more "efficient, effective and economic" (Sachs & Groundwater-Smith, 1999). What this means is that any reform to teacher education will derive from the teacher education providers and the profession itself, not necessarily the federal government. Despite the rhetoric and concerns about teacher education there appears to be a reluctance to invest more in the education of preservice teachers. This hesitation could stem from the belief that teaching is not difficult (Fullan, 1993a).

Paradoxically, teacher education is under the glare of government attention and 1998 saw the release of several final reports looking at teacher education practice. The report of the National Standards and Guidelines for Initial Teacher Education Project entitled: “Preparing a Profession”, was published. This report stated that a way to work towards common goals, outcomes and standards for initial teacher education was necessary. The second report released in 1998 was The Report of the Review into Higher Education Financing and Policy (the West Report). This second report titled “Learning for Life” looked into the financing of universities. While not specifically referring to teacher education, Sachs and Groundwater-Smith (1999) believe that the tenor of the report stated the need for universities to be more cost efficient and competitive.

> The challenge is now to learn to do things differently. Universities will need to review continuously the way in which they go about their business. They will need to be attending more closely than ever before the needs of their various clients, and be more willing and able to respond quickly and flexibly to their diverse and changing needs. (West, 1998, p. 67)

The third report of 1998 was the Senate Inquiry into the Status of the Teaching Profession, entitled “A Class Act”. This report was supportive of the teaching profession and recognised the need to raise its status. However, particular attention and criticism was levied at initial teacher education programs. The report commented that there were many programs that were of poor quality, which were inappropriate and inadequate in preparing preservice teachers for the profession. In particular it was stated that, “the most trenchant criticism to teacher training related to its practical component” (A Class Act, p. 183).

The three reports mentioned above all point to the need for change in teacher education. These reports were then superseded by further reports in 1999 and 2000 thus raising to twenty the total of reports and reviews into teacher education since 1980. In the 1999 report of the Ministerial Advisory Council on the Quality of Teaching (MACQT), "Identifying the Challenges: Initial and Continuing Teacher Education for the 21st Century", many of these reports along with their accompanying recommendations appeared. However, another review, "Quality Matters", prepared by Gregor Ramsey (2000) states that the impact of these reports and the 400 recommendations that accompanied them over the last twenty years were minimal.

Ramsey was appointed to address the following four issues:

- the quality of teachers and teaching;
- the implications of technology for pedagogy;
- behaviour management in schools and classrooms; and
- the practicum and the professional experience of teachers.

These issues were selected because they succinctly covered the main areas of concern in teaching and teacher education in NSW in 1999-2000. The first point deals with the desire by teachers to have their work better understood and more highly valued by the community. The second issue relates to all the new technologies that are being introduced into the classroom and whether they are being effectively integrated into the curriculum. The third issue addresses parents' concerns who want to know that teachers are well prepared to manage the distractions and various behaviours that from time-to-time prevent learning from taking place. However, it is point four that has particular relevance for this review of literature. It would appear that once again the dominant issue of concern in teacher education is the practical component currently offered to preservice teachers.

> I am convinced that the quality of professional practice in classrooms, government and non-government schools and other educational settings, will be improved by reconnecting universities and schools in initial and continuing teacher education and by strengthening teacher professionalism. Unless new approaches are developed in a number of important areas, my belief is that like the twenty previous reviews of teacher education over the same number of years, little will happen as a result of this Review and good ideas will languish.
>
> (Ramsey, 2000, p. 3)

Ramsey (2000) stated that if change to teacher education was going to be effective then it must involve a partnership or reconnection between universities and schools. He stated that these reforms could not be achieved in isolation and that cooperation was needed from the entire school community. This community would include Universities, the Department of Education and Training (DET), government and non-government schools.

At present in NSW there are several Faculties of Education at different universities trialing or implementing alternative models for the delivery of teacher education. These

models include internships, on-line delivery, and establishing partnerships between universities and schools. Some of these universities include Charles Sturt University, Australian Catholic University, University of Technology Sydney and the University of Wollongong.

The Evolution of the KBC Program

Inevitably reviews such as those listed above precipitate pressure for programmatic and structural change. Like other pre-service teacher education providers in Australia, over the last decade or so, Wollongong seems to have been engaged in a continual round of such change. For example over the last decade, Wollongong has either experimented with and/or implemented changes to:

- the number of courses in the program,
- the content, timing, and placement of these courses in the program;
- the deployment and mix of academic and non-academic staff across these courses;
- the placement and nature of practicum experiences within the program;
- the size and distribution of the credit point values of different courses; and
- changes in the nature of assessment tasks, (including a number of versions of portfolio assessment).

In the last decade, Wollongong has also experimented with and/or implemented:

- team teaching;
- redesigning the nature and content of tutorials and mass lectures;
- costly investment in I.T. and on-line teaching;
- the establishment of a university-wide department for the improvement of university teaching;
- substantial financial prizes for *"excellence in teaching";*
- competitive seeding funds for *"innovative teaching initiatives";*
- formal annual assessment of academic teaching (which is linked to promotion);
- peer-mentoring of academics; and
- preparation of hortatory *"mission-statements"* at *"planning days"* and *"staff retreats*". (Cambourne, Kiggins & Ferry, 2002. p.2)

These attempts at change have at best been only moderately successful in terms of bringing about any significant positive changes in Wollongong's graduates' overall perceptions of their pre-service preparation. Nor has the major employing authority indicated that the need for its expensive induction programs has been reduced.

Given this state of affairs, Wollongong's Faculty of Education decided to explore, design, trial, and evaluate alternate models of pre-service teacher education. In late 1997, a small group initiated an informal, but searching series of discussions within the Education Faculty at the University of Wollongong. The outcomes of these discussions are summarised thus:

1. The rapidity, at which socio-political change was impacting on all levels of the education system, meant that 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).
3. We were also aware that the system which employed most of our (& other providers’) graduates (The NSW DET), 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. (Armour & Booth, 1999).
4. That our program, after several long, drawn-out “restructurings”, was at best an eclectic mix of key features of what Reid & O’Donoghue refer to as the “traditional dominant models”. (Reid & O’Donoghue, 2001) 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 that 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; and
- greater integration of the practical field-based component of the teacher education program with the theoretical. (Ref to ESDF / Challenge Grant proposals submitted 1997).

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 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; and
- a shift in the traditional roles and responsibilities of the major stake holding groups in teacher development, namely, the professional employing authorities, (e.g. the 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.

It was 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 change in:

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

With the above parameters agreed upon a further two years of formal and informal meetings with the major stake-holding groups were held. These groups included 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, reference groups, met, negotiated, and discussed, it has been estimated that these meetings totaled between 1200 and 1500 hours.

By the beginning of the 1999 academic year a pilot program had been designed. There were two caveats to this design:

1. It was agreed that we would begin with a small sub-group comprising approximately 10% of the new intake, to a maximum of 24 students.
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.

The KBC Design

The agreed upon model 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; and a greater integration of the practical field-based component of the teacher education program with the theoretical. (Cambourne, Ferry & Kiggins, 2002. p. 2)

Based on this premise the Faculty of Education at the UOW, in partnership with the NSW Department of Education and Training and the New South Wales Teachers' Federation developed the KBC Project. Its design was to explore a number of issues that are of critical importance to models of teacher education in NSW (Ramsey, 2000. p. 57). The KBC is significant because its design offers students the chance to work and learn in a context-specific environment. Cambourne (2000) states that:

> …it is possible to reorganise the knowledge bases of undergraduate teacher education subjects so that they are more integrated with school and classroom culture, and therefore more relevant, more meaningful, better appreciated by student teachers, with less duplication across subject areas .
>
> (Cambourne, in Ramsey 2000. p. 57)

This approach as identified by Cambourne is consistent with the directions identified throughout the Ramsey Report (2000) as necessary to improve the quality of initial teacher education. The KBC may produce beginning teachers who are confident and have the ability to tackle problem solving and collaboration. The KBC process relies on group and teamwork skills, qualities that will not go unnoticed in the school environment. With the multiplicity of demands that are being placed on teachers today the ability to be an effective member of a team must surely be seen as an added bonus by an employer.

Although a KBC model had been explored for students in schools it had not yet been explored in teacher education. For the purpose of this project the definition of a KBC proposed by Hewitt, Brett, Scardamalia, Frecker and Webb (1995) was adopted. They proposed:

> A Knowledge Building Community is a group of individuals dedicated to sharing and advancing the knowledge of the collective. What is defining about a Knowledge Building Community is a commitment among its members to invest its resources in the collective pursuit of understanding. (p. 1)

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 KBC's are based on the creation of learning environments that:

i) Support the continuous social construction of knowledge,

THROUGH ,

ii) The constant construction, de-construction, and reconstruction and sharing of meanings,

SO THAT,

iii) 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: These three underlying learning principles of the KBC are Community Learning, School-Based Learning and the vehicle which drives these two sources of learning is the facilitation of Problem-Based Learning.

- Community Learning (CL): This is achieved through the sharing of ideas and experiences with other community members, these being the preservice students themselves, the facilitators (university lecturers), and school-based teachers;
- School-based learning (SBL): is achieved through participating in the school context over a regular period of time. An important principle in the pilot has been to shift the approach in the practicum component from supervision to mentoring and;
- Problem-based learning (PBL): this is the notion of a curriculum created around a version of problem-based learning designed for use at the University of Wollongong. The use of PBL will enable students to engage in group discussions and data collection to address real life problem scenarios found in school settings. The use of PBL in teacher education places professional practice at the center of the student's learning, which encompasses the learning of the student teacher and the mentor.

Figure 1 is a diagrammatic representation of the relationship between these three principles of learning

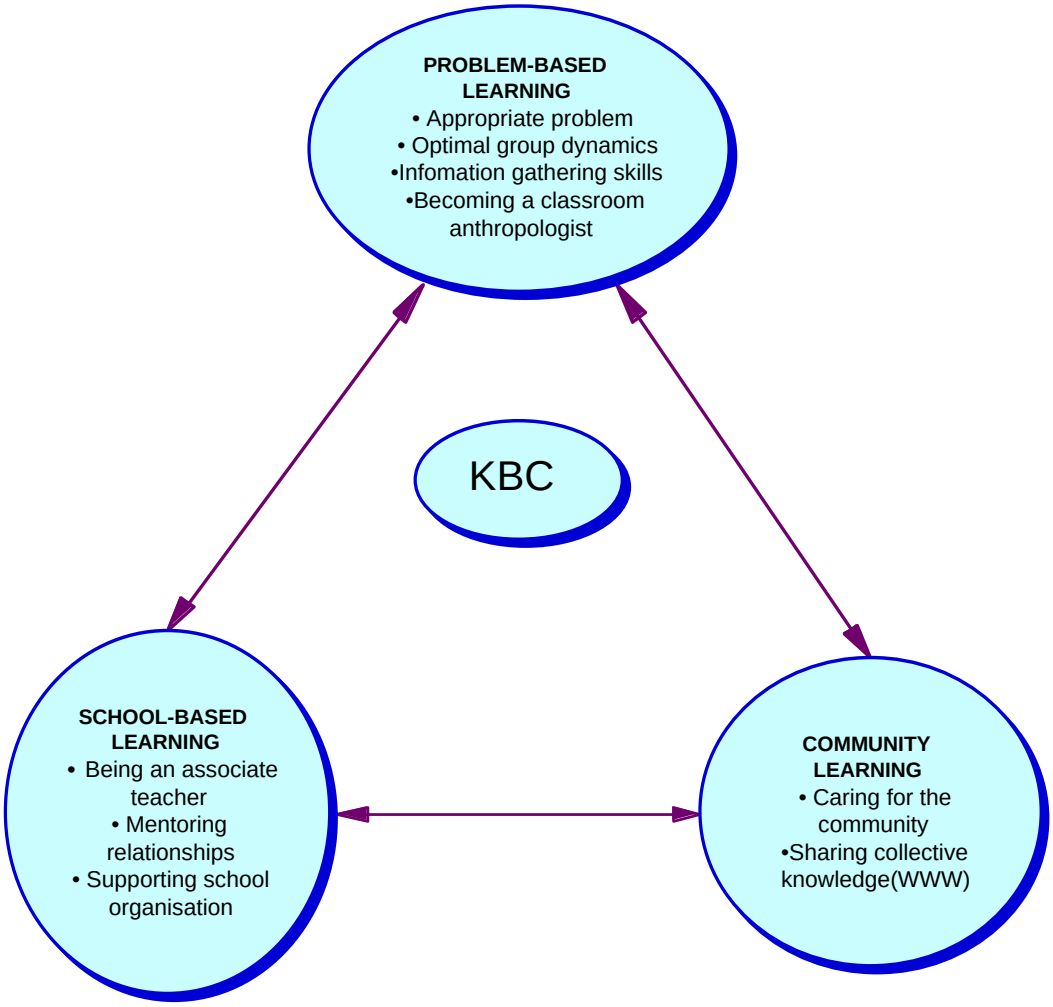

Figure 1: The relationship of the three principles of learning in the KBC.

The KBC program at the UOW has been evolving for almost 4 years now. Although we've had to abandon some of the original organisational 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, 2003 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 UOW's KBC program in 2003. While the program is still delivered along the original 1999 guidelines of the KBC ideals (i.e. CL, SBL, and PBL), a significant addition has been the inclusion of 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 of negotiating their assessment tasks. These assessment tasks must be based on a collaborative analysis of the non-negotiable curriculum i.e. the subject outcomes that mainstream students are expected to acquire. The students then undertake negotiations with the teaching staffs 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.

These four 'pillars' of UOW's KBC are:

1. Taking responsibility for own learning
2. Learning through professional collaboration
3. Identifying and resolving professional problems
4. Becoming a reflective practitioner

When the expectation that all members of the KBC have to acquire skill in using, and demonstrating conceptual understanding 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. For the four pillars to operate effectively the triadic partnership of the KBC is essential.

The Triadic Partnership

The partnership arrangement entered into by the organising bodies i.e. the Faculty of Education at the UOW, the NSW DET and the NSW Teachers' Federation once implemented saw the establishment of a triadic partnership between preservice teachers, school-based mentor teachers and university facilitators. This partnership became known as the 'community triad". It is timely to examine the nature of this triadic partnership and the role each stakeholder played. The KBC Project sees the emergence of relationships between the students themselves, and the students with their school-based teacher mentors and KBC facilitators. This "community triad" results in an emergent collaborative relationship between the schools and the university. The importance of the contribution of all stakeholders can be described by using the metaphor of a tripod. Unless all three relationships are well established the process can become unbalanced and like a tripod with uneven legs it is unstable. Unstable relationships in the KBC process makes knowledge building difficult. Knowledge building requires students to trust that their colleagues are working towards shared goals. Therefore, trust becomes a required element in the knowledge building process if friendship and trust are not present among the student cohort this process is unlikely to occur.

When students are given the opportunity to create *friendship* and *trust* in their *school teams* they can develop *responsibility for their learning* and with the support of the community triad (the KBC facilitators, school-based teachers and each other) they can develop ownership of their learning. Importantly, having the KBC facilitators work with the students at university and in the schools helps to keep the triad functioning.

The KBC Project was intended to provide students with quality learning experiences, what has also emerged, however, is that the social interaction and support of each other and/or the facilitators and/or the school-based teacher mentors as provided by the KBC structure serves as an important influence on any or all of the students' experiences. In schools the KBC students felt supported by their mentors and were encouraged to take risks. Likewise on campus the unrestricted access to the facilitators allows for the process of co-learning between the students and the facilitators to develop. The homeroom atmosphere and developing friendships ensured that *trust* among the students was becoming a stable platform for them to build knowledge.

The development and formation of the community triad is an important component of this alternative model of teacher education. This is especially the case in view of the complexity of the knowledge building process. Because knowledge building takes place in two contexts i.e. the school and the university, the community triad has the common factors that support the students in either setting. Knowledge building in these two contexts is difficult and therefore a social structure is vital to underpin the design of the KBC model.

Figure 2 (see page 11) is a diagrammatic representation demonstrating the social structure necessary to replicate a community triad for any future KBC cohort. It includes the role of the students, university and school staff. This figure not only shows the component of a social structure but also highlights the importance of them linking together and the presence of a homeroom to promote a sense of belonging. The planning for this needs to be done prior to students entering the KBC project or any of the participating schools. The creation of the community between KBC facilitators and school-based staff needs to be viewed as a partnership. When the partnership is operating efficiently it will keep all members informed or 'in the loop' as to the progress of the students in either setting.
Figure 2 also illustrates the social structures that underpin the KBC at the UOW. This figure depicts the partnership that has evolved throughout 1999-2002. The figure outlines the components and relationships that lead to the formation of a KBC.

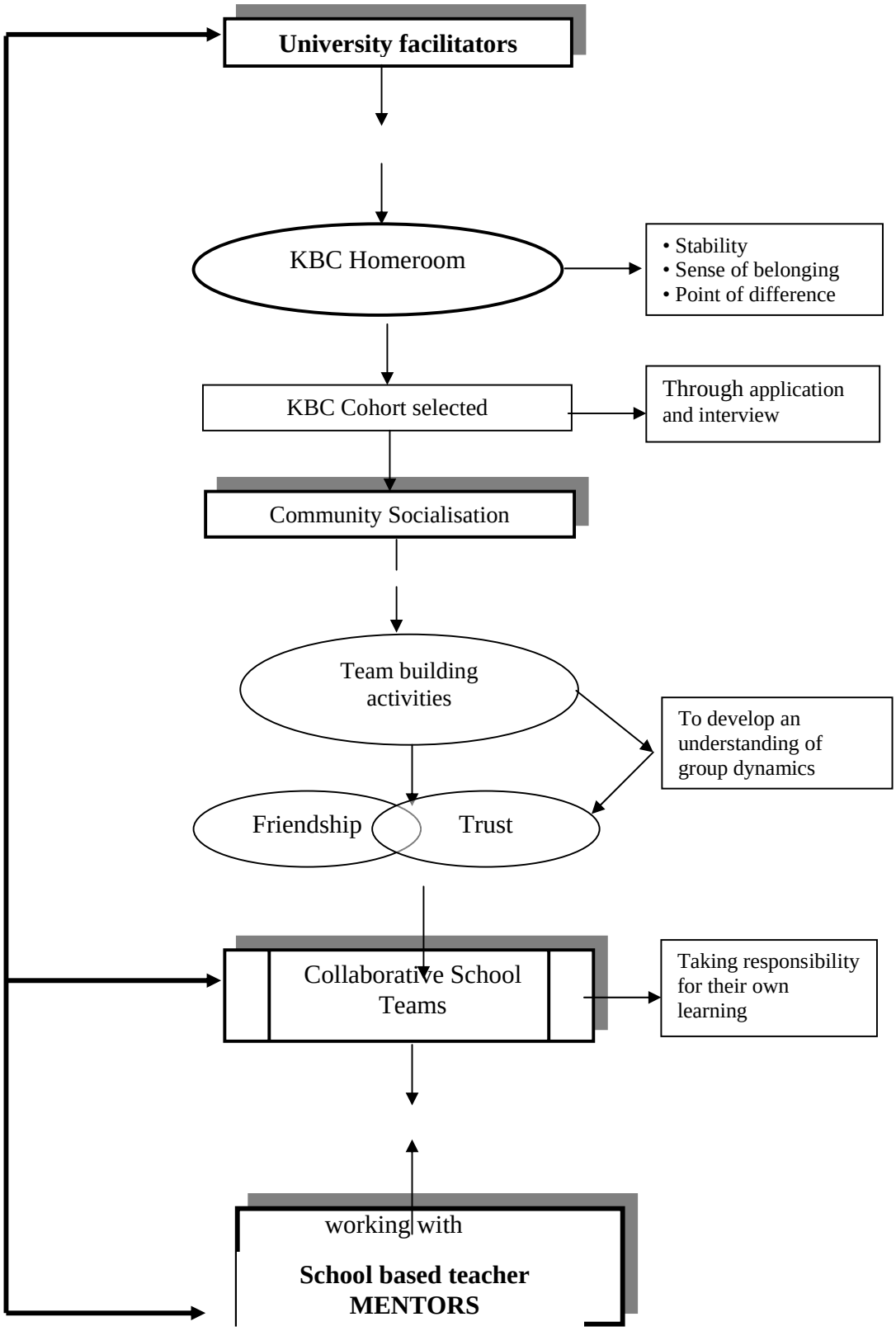

Figure 2 Social structures required to underpin a KBC.

The learning in a KBC model requires a coherent partnership between learning in school and at university. The role of members of the triad is crucial to the success of the program. The role of each of these stakeholders as illustrated in Figure 2 is discussed 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. It is important in a project such as this that unity and teamwork is not regarded as only a student expectation. The role of KBC facilitator is a more personal approach and teaching/facilitation takes place not just in the KBC homeroom but also in the school.

The KBC Homeroom

An important component of the KBC Project is that the KBC facilitation 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.

KBC Cohort Selection Process

Another role that the KBC facilitator plays is that of recruitment of KBC students. This step must be included into any 'formula' that attempts to outline the steps required forming 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 then *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

To maintain the KBC partnership it is important for all members to be aware of the roles and responsibilities of each other, this includes the KBC students. The KBC student is the common link between the university facilitator and the school-based teacher mentor. The KBC student needs to understand how they fit into the community triad and the role that they are expected to play. This understanding will benefit the students when they move between the two learning settings, i.e. the school and the university.

The KBC student needs to be proactive and want to take responsibility for his or her own learning. They should like open and interactive debate and enjoy the prospect of questioning and investigating in the school setting. The KBC Project is best suited to students who like working in groups and collaborating with each other. In the KBC Project students need to accept that they need to collaborate with each other not compete against one another.

The social structure that underpins the KBC Project relies on the roles that the school-based teacher mentor and university facilitator plays and these members need to accept that informed students will be questioning and investigating their practice and viewing themselves as co-learners. Therefore collaborative school teams are needed for the triadic partnership 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 as 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, this is a process that needs facilitation it doesn't happen immediately. Success is reliant on the facilitating team carrying out their role in regards to school liaison and ensuring that all participating schools and mentors know their roles and responsibilities in the KBC Project.

The School-based Teacher Mentors

The third aspect in the community triad is the role that the teacher mentor plays. This is 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. 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 partnership that is created between mentor and mentee will be pivotal for the

SBL phase. The students have 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 teachers. 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.

One unexpected spin-off of this change is the perception of teachers at the KBC schools of their own professional growth as they responded to the many probing questions about the rationale for the many school and classroom practices which KBC students continually asked as they sought data for their research tasks. Marks (2001), reported on this aspect of his school's involvement in UOW's KBC program. He stated that:

> 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. (Marks, 2001. p. 9)

Conclusion

As the learning in a KBC model requires a relationship between learning in school and at university the role of members of the triad is crucial to the success of the program. The type of learning proposed by a KBC model necessitates that the students make their own connections between what they see in schools, read about and discuss at university. In particular, they need regular contact between members of the triad.

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 a 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 problems, who are more effective and productive team members, who are more autonomous learners and more reflective than most mainstream peers; and
- A much stronger partnership between the university, the local schools, the major employing authority, and the teachers' union.

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 partnership that underpins the KBC Project.

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