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ABSTRACT

This paper suggests criteria for effective student teacher experiences and supervisory roles. A system of student teaching supervision with a heavy emphasis on imitative and reproductive learning is an unlikely means of equipping teachers with the confidence to apply process skills of inquiry and problem solving to the numerous dilemmas of teaching. The aim is to prepare beginning teachers who are able to reflect on the origins, purposes, and consequences of their actions, as well as on the material and ideological constraints and encouragements embedded in their classroom, school, and societal contexts. Such an aim is in harmony with schema theories and a constructivist view of learning. A proposed system of collaborative supervision would include: organic collaborative partnerships, student teacher professional learning that is largely determined by the nature of student teachers' personal and professional qualities and through their own actions and experiences, a university supervisor who provides support for the student teacher in developing skills of reflectivity and who assists professional development of cooperating teachers, and individualized assistance for student teachers based on their developmental level. Establishing collaborative supervision is difficult, as it requires supervising teachers to relinquish their traditional positions of power and perceived expertise and requires a greater investment of time and emotion. (Contains 32 references.) (JDD)

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INTENSIFYING THE PROFESSIONAL LEARNING OF STUDENT TEACHERS: A COLLABORATIVE PROCESS

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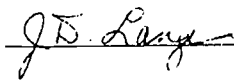
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1.0 INTRODUCTION

What is authentic activity in the teacher preparation program? In the international context of calls for a higher ratio of school-based time (e.g., U.K. White Paper, Education Act, 1994) in university courses, this paper suggests criteria for effective student teacher experiences and supervisory roles.

The terms 'supervision', 'supervisors' and the 'supervisory process' are still widely used in association with the important school experience field studies component of the teacher education program. Such terms were used quite appropriately in the pupil-teacher system of teacher preparation and with later systems of teacher training which encouraged a significant amount of imitative learning by student teachers when placed in the classrooms of very experienced teachers. Student teachers in these approaches to teacher preparation, spent a considerable time in careful observation, for they were encouraged to adopt a similar style and teaching techniques to those displayed by the expert. Teaching was regarded as a craft, the skills of which could be mastered through an apprenticeship type approach to teacher preparation.

Such approaches were quite suitable for an education system in which teachers were faced with a curriculum that consisted of relatively fixed bodies of knowledge and had, as their major responsibility, the task of transmitting these to a passive audience in the form of a group of the younger generation. However, the contexts of teaching have changed dramatically and continue to do so. In fact, the only "constant" in the whole education system appears to be change - significant changes in the aims of education; more open-ended curricula; changes in teaching strategies and resources for teaching and learning; new theories about how children learn best; changes in organisational structures; and so on.

The overarching aim of teacher education, as distinct from teacher training, is to prepare beginning teachers who have knowledge, process skills and attitudes to accept and deal with the challenges of teaching in today's more complex of classrooms, schools

and their wider communities. It is beyond the scope of the present paper to go into great detail about the precise nature of these complexities. Suffice it is to say that beginning teachers must take up their first appointments equipped with the confidence to apply their process skills of inquiry and problem solving to the numerous dilemmas of teaching and learning which they encounter.

It is not nor has ever been expected that beginning teachers have all the answers. However, they will need to know how to identify what it is they do not know and how to find some appropriate answers. They will need to be autonomous learners with a deep commitment to continued professional growth and development. Essentially, they will need to have mastery of the skills of teacher as researcher, to have the ability to gather relevant data on the issues of teaching and learning which they face, analyse this feedback and plan reasoned options for future action. At the same time, they will be members of a school community of professional educators and so they must have developed the techniques of co-operation, communication and collaboration with their professional colleagues. They become part of a group of scholars solving problems and finding answers to the common challenges of teaching and learning within their schools. The growing community involvement in schools has also given teachers a whole new set of challenges and responsibilities. Beginning teacher must enter the profession equipped with the knowledge and skills necessary to play their part in ensuring this involvement is productive in educational terms.

School experience, including practice teaching, plays a critical part in preparing student teachers for such first year teacher responsibilities. A system of supervision, with a heavy emphasis on imitative and reproductive learning, obviously is an unlikely means of achieving such complex, multiple ends. It is not argued that such a mode of learning has no place. It may be an appropriate means of learning some lower-order forms of knowledge and skills. It is simply that it should no longer be used as the dominant form

of knowledge acquisition and cognitive functioning expected of student teachers in teacher education.

It was an appreciation of changes such as the above which led Edith Cope to express a wish that there were acceptable terms other than "supervision" and "supervisory", both of which have unfortunate connotations for her. She went on to state

Perhaps I should make it clear that by supervision I mean the process of intensifying student learning. Now this is an exciting process and one in which students could be expected to have a passionate desire to collaborate . . .

Yet such have been the techniques employed, and the contexts in which they have been used, that supervision carries strong negative connotations.

Indeed, the dictionary defines 'supervision' as 'inspection and control'.

(Cope: 1974:14)

Here, Cope is not only making a plea for some new and more appropriate words to use. She makes a number of other important points. The first is that the major purpose of practice teaching must be advancement of professional learning for student teachers (Lange & Burroughs-Lange, 1992). Secondly, the most important role of co-operating teachers, visiting lecturers and school co-ordinators in practice teaching is to be an "intensifier of student teacher learning". Thirdly, students themselves can be expected to be highly motivated to collaborate in such an enterprise. Working collaboratively, as intensifiers of student teacher learning and reflecting on how best to discharge this responsibility requires an understanding of current theory on the processes of professional learning.

2.0 OPTIMAL STUDENT TEACHER LEARNING

Conventional, pre-service teacher education programs follow an apprenticeship model (Zeichner & Liston, 1987) and, in so doing, aspire to provide student teachers with pedagogical skills and techniques derived from a pre-existing body of knowledge. This model inhibits the self-directed growth of student teachers and thereby fails to promote their full professional development. Teacher education programs must be oriented towards the goals of reflective teaching, greater autonomy and increased democratic

participation by student teachers in decisions that affect their own professional learning (Zeichner & Liston, 1987). The aim is to prepare beginning teachers who are willing and able to reflect on the origins, purposes, and consequences of their actions, as well as on the material and ideological constraints and encouragements embedded in the classroom, school and societal contexts in which they work. Such an aim is in harmony with schema theories and a constructivist view of learning.

2.1 Schema Theories and a Constructivist View of Learning - Implications for Student Teacher learning during Practice Teaching

Schema theory, outlined by Glaser (1984), explains how acquired knowledge is organised and represented and how a learner's cognitive structure facilitates knowledge use in various ways, including thinking and reasoning. Hence, the theory encompasses knowledge acquisition, storage, retrieval and use. Learners typically try to integrate new information with prior knowledge which is represented in cognitive structure in the form of schema. In this continuous process of trying to relate new experience to what they already know, a learner's schema are constantly being modified and further developed. The knowledge represented in cognitive structure in the form of schema is then drawn upon in subsequent thinking, problem solving and learning.

Thus knowledge acquisition processes are not ones in which the learner is a passive recipient of knowledge. Resnick & Klopfer (1989: 3) note:

Cognitive scientists today share with Piagetians a constructivist view of learning, asserting that people are not recorders of information but builders of knowledge structures. To know something is not just to have received information but also to have interpreted it and related it to other knowledge.

This view is shared by Bodner (1986) who presents a constructivist theory of learning. The traditional, realist view of knowledge assumes that learners enter the world as discoverers who build replicas of reality in their minds. Knowledge is true when it

consists of statements that accurately correspond to the real world. Unfortunately, it is impossible to judge how well our mental images correspond to reality, because the only way we can perceive reality is through these same images. However, if we move away from a strictly realist point of view that knowledge must match reality, to one where it is allowable for knowledge to fit reality, the result is a process of knowledge acquisition where each learner builds a personal view of the world as she or he perceives it.

When student teacher, co-operating teacher, visiting lecturer and school co-ordinator meet for the first time, they all have experienced of the learning process and, through their different experiences in education and in their own life histories, each has built implicit theories (Clark, 1988) about children and how they learn, about school curricula, about their roles and responsibilities, and about how they should act. These implicit theories, or perceptions of reality, are robust, idiosyncratic, sensitive to the particular experiences of the holder and incomplete, but are sufficiently pragmatic to have served the individual in getting to where she or he is today (Lange & Burroughs-Lange, 1994). They play an important part in the individual's perception, interpretation, judgment, thinking and action every day. This most important task for all field experience participants, but for student teachers in particular, is to map current conception and perceptions and shape schema so that they are in line with the findings of the best in current research and reflective practice.

2.2 Nature and Sources of Student Teacher Professional Learning in the Practicum

Traditional, didactic teaching assumes that knowledge is an integral, self-sufficient substance easily transmitted to learners and theoretically independent of the situations in which it is learned. However, most learning is much more complex than this and the nature of knowledge, together with the sources from which it is derived, are

important considerations for those interested in the enhancement of the professional learning of student teachers.

Shulman (1986) distinguishes among three categories of content knowledge that it is important for student teachers to acquire and use. First, there is subject matter **content knowledge** which can be further classified into substantive knowledge structures, or ways in which basic concepts and principles of a discipline are organised to incorporate its facts, and syntactic knowledge, or the set of ways in which truth or falsehood, validity or invalidity, are established. Second, there is **pedagogical content knowledge** that facilitates the teaching of any subject. It includes knowledge of ways of formulating and representing the subject that make it comprehensive to others. It also includes knowledge of the range of conceptions and likely misconceptions that children of different ages and backgrounds are likely to bring with them and of the strategies most likely to be effective in the identification and modification of inaccurate preconceptions held by children. Third, there is curriculum knowledge associated with awareness of the range of available programs and resources to support learning in a particular discipline area, as well as an appreciation of their strengths and weaknesses. Shulman (1987) further expanded his profile of the professional knowledge base to be learned by student teachers to include knowledge of learners and their characteristics; knowledge of educational contexts; and knowledge of educational ends, purposes and values.

At the same time, Shulman (1987) identified four major sources from which the professional knowledge base of student teachers is derived. These are scholarship in the subject disciplines; educational materials and settings; formal educational scholarship; and the wisdom of practice or the maxims which are rarely spontaneously articulated by even effective teachers, but guide their practice. This fourth source identified by Shulman highlights the significance of the contexts of student teacher learning, namely the schools and other educational settings of field experiences.

2.3 The Contexts of the Professional Learning of Student Teachers

Recent investigations of learning (Palinscar, 1989; Brown, Collins & Duguid, 1989; Vanderbilt Cognition and Technology Group, 1990) have promoted a theory of situated cognition which argues that the more useable, generative and valuable knowledge is acquired in approaches that take account of the physical and social contexts in which it is learned. The theory supports a belief in the importance of the school and classroom culture in determining the professional learning of student teachers. It values a mode of learning which enculturates student teachers into authentic practice involving intuitive reasoning, resolving issues and negotiating meaning through activities and social interaction.

Hence, situated cognition theory supports the proposition that student teachers be involved in authentic activities as a means of gaining access to the knowledge that enables effective practitioners to act meaningfully and purposefully. Enabling student teachers to engage in authentic activity within their practicum classroom, school and wider community contexts builds a personal knowledge base that is more truly generative. This occurs because concepts will continually be modified and evolve with each new occasion of use, as every encounter, activity and negotiation will inevitably recast them in a more densely textured and meaningful form (Lange & Burroughs-Lange, 1994).

These views also owe much to the work of Schon (1983, 1987) who argues that there is a special form of knowledge that professionals have and use, and this knowledge resides in practice. It is contextually dependent, arising out of particular issues and uncertainties that professionals are required to manage. Problems need to be resolved through authentic activity in the environment and context in which they arise. The contexts of field experiences provide excellent vehicles for problem identification and resolution. However, if the full potential of the setting and its opportunities to promote

the professional learning of student teachers is to be realised, attention needs to be given to several elements of the model.

One of the most important of these elements is the social dimension. Resnick & Klopfer (1989:8) identify the role of "social communities" as one of the common themes recurring in the cognitive learning theory. They note that, in recent reviews of programs designed to teach higher-order, cognitive abilities, the most successful of these advocated co-operative problem solving and meaning-construction activities (Resnick, 1987) . Similarly, the theory of situated cognition, discussed earlier, highlights the importance of the social environment and collaborative learning, for it is only within groups that social interactions and meaningful interchange of ideas take place (Mead, 1934). Essential constituents in improving learning through collective problem solving include: displaying multiple roles; confronting ineffective strategies and knowledge misconceptions; and providing collaborative work skills. In practicums in Australia, the collaborative group consists of the student teacher, co-operating classroom teacher, the visiting university lecturer and school co-ordinator.

3.0 COLLABORATIVE LEARNING AND COLLABORATIVE SUPERVISION

It has been suggested above that significant change must be made to the traditional ways that beginning teachers are prepared with their strong emphasis on imitative and reproductive learning. Beginning teachers today face a complexity of expanded responsibilities that encompass the classroom, school system and wider community arenas.

Teachers face numerous problems and challenges that arise in these contexts and, to deal with them expeditiously and effectively, beginners need an ample store of professional learning which can be drawn upon appropriately in making sound decisions about options for action. The practicum settings provide ideal opportunities for student

teachers to develop the requisite knowledge base of professional learnings, enabling students to engage in authentic activity. In doing so, they access the relevant content knowledge needed, including a growing body of personal, practical knowledge and their implicit theories about teaching and learning. At the same time, by working collaboratively as a team member with their co-operating teacher, visiting lecturer and school co-ordinator in collecting data from the best that research and reflective practice have to offer about the problems and challenges faced, analysing these and arriving at decisions based on sound educational criteria, student teachers are engaged in a learning process that itself becomes part of their professional knowledge base.

Schema theory explains how these content and process dimensions of professional knowledge are acquired, stored, retrieved and used by student teachers (Lange & Burroughs-Lange, 1992). The constructivist view of learning demands that student teachers be active agents in their own professional learning processes if the knowledge is to be meaningful and generative. However, ample provision must also be made for students to make the most of the distinctive advantages of professional learning as part of a social community of scholars (Mead, 1934). The expertise of the other educators in the team provides student teachers with a rich source of professional knowledge, and the reflection and negotiation which are necessary to access this provide students with further valuable experiences that enhance their own capacity for higher-level, cognitive functioning.

It is only immersion in such processes of professional learning that will ensure student teachers emerge as beginners who are able to function as true professionals in their own classrooms. A system of collaborative supervision, which takes cognisance of the ideas implicit in the discussion thus far, is more likely to prepare neophytes whose conceptions of teaching and learning are aligned with espoused theory and research findings and who are aware of the nuances of the social, political, cultural and economic forces that impinge on their decisions about the 'commonplaces of teaching' (Schwab,

1969) in the various contextual dimensions of the classroom, school, system and community (Bowden, 1988). However, there are further necessary conditions if collaborative supervision of student teachers engaged in practice teaching is to achieve its major goal, stated at the outset, of intensifying the professional learning of students.

4.0 A MODEL OF COLLABORATIVE SUPERVISION

Much of the literature on collaboration is of an administrative nature and often used as examples, collaboration between institutions, such as schools and universities. However, valuable insights can be gained that are equally relevant to collaboration among practicum participants within a single school or classroom context (Friend & Cook, 1992).

4.1 Collaborative Partnerships

Lasley, Matczynski & Williams (1992) believe that, in collaborative partnerships, vested interests are sublimated to the broader purposes of the partnership, that is, in the case of teaching practicum, the enhancement of student teacher professional learning. Collaborative partnerships require an investment of time, energy and emotion by all constituents to transcend special interests and traditional, vested power bases held by some of the team members, in favour of equalitarian decisions and equitable participation. Special attention needs to be given to the compatibility of group members and to clear communication.

Whitford, Schlechty & Shelor (1987) describe three types of collaboration: co-operative, symbiotic and organic. In co-operative collaboration, one party gives and the other receives, whereas, symbiotic collaborations are characterised by reciprocity where one party gives something in return for help received from the other party. Organic collaboration is defined as working on ideas or issues that belong to all members. Dixon & Ishler (1992) believe that sustained, organic collaboration is difficult because group members face the fears of change and the challenge to traditional roles and values. They

believe that anxiety and conflict are common to all collaborative endeavours and that these cannot, and should not, be eliminated in all their forms. They note:

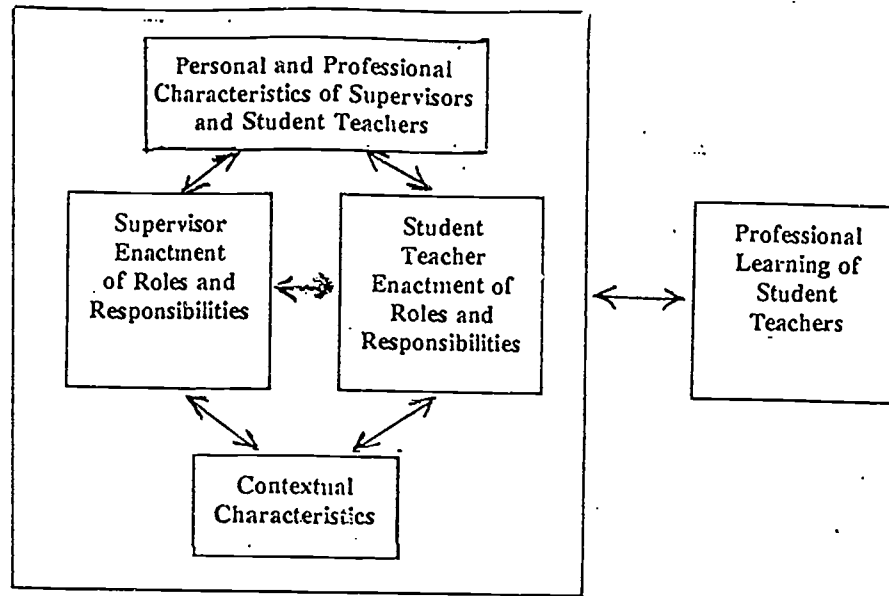
Some anxiety will motivate growth by creating an optimal level of arousal. Some conflict will stimulate production of unique solutions. Debilitating levels of either can be avoided . . . if we understand the characteristics of organic collaboration, learn to live with the frustrations of this interpersonal and institutional venture, and continue to examine our successes and failures (Dixon & Ishler, 1992:33).

The identification of different types and levels of collaboration is important. The earlier discussion makes it clear that practice teaching must develop organic collaborations. This is the type most difficult to achieve. The personal and professional characteristics of the personalities involved, the climate of the placement setting and the ways in which the role responsibilities of the different group members are enacted will all impinge on the professional learning outcomes that result for student teachers. The following model represents only a small part of the complex concept of collaborative supervision.

4. 2 A Model of Student Teacher Professional Learning in the Context of Collaborative Supervision

The model proposes that student teacher professional learning is largely determined by the nature of their personal and professional qualities and through their own actions and experiences. This professional learning occurs within an interactive framework and a static model cannot effectively show the interactive complexity at any given moment of the relationships among the constituent elements of a particular practicum placement. Namely, forms of supervision, expectations and supervisor characteristics; the features of the setting in which the placement occurs; and the characteristics and actions of student teachers themselves.

FIGURE 1: A Model of Student Teacher Professional Learning in the Context of Collaborative Supervision



There is a considerable body of literature which deals with the characteristics, roles, responsibilities, tasks and activities of different participants in the practice teaching process. Some is descriptive of what appears to happen in reality; some is more critical in nature and argues for needed changes to the present roles and activities of different participant groups; and some is idealistic in outlining what it is believed ideal supervisors or student teachers ought to do during practicum assignments. Taggart (1988) believed co-operating teachers are increasingly called on to act as teacher educators during practice teaching and that it is vital for appropriate supervisor training programs to be readily available for them to learn the new skills required.

It would seem therefore that the need for change in the practicum and the associated roles and responsibilities of its participants is well documented. Tinning (1984) presented a reconceptualised view of the way the practicum could be organised in order to create an experience for the student teacher which has a better chance of living up to the ideals held for the practicum. He suggested that the role of the university lecturer, instead of having a diagnostic-evaluative focus, should be reconceived, so that it

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becomes concerned chiefly with the development of critical self-reflectivity by student teachers of their own practice. He argued the result would be more reflective, professional students than in current student teaching which encourages them to adopt a utilitarian teaching perspective.

This paper proposes that the university supervisor as well as providing support for the student teacher in developing skills of reflectivity should also be involved in the professional development of co-operating teachers as they came to understand and reflect on the supervisory process.

Turney (1988) also argued the need to change, for he saw the current practicum as disjointed, narrow, haphazard, counter-productive, task-inadequate, vulnerable. He believed each program must develop its own practicum curriculum encompassing the three domains of classroom, school and community. Achievement of the goals of this curriculum will be effected by supervisor enactment of a range of roles including instructor, manager, counsellor, observer, provider of feedback and evaluator. These roles, in turn, are composed of a number of tasks which, when carefully organised into sets of specific experiences, form the scope and sequence of the curriculum for student teaching. Turney (1988) believed that the goals of this curriculum must ensure that student teachers develop a sound knowledge base to help them resist the strong socialising influence of the school, to examine existing practices critically, and to enhance their capacity for self-analysis.

The necessary characteristics of student teachers themselves, and the ways in which they enact their roles and responsibilities, also impinge on the learning experience. Glickman & Gordon (1987) provide a timely reminder that all practicum participants need to be treated on an individual basis. Cognitive functioning, in the form of level of abstraction, was found to vary, not only from one individual or group to another, but also within the same individual or group depending upon the particular instructional concern. Thus, students will need assistance from supervisors or co-operating teachers on an

individual basis, with those at lower developmental levels of abstract thinking needing more structure and direction, and those at higher levels requiring less structure and more active role in decision-making. The long-range goal of supervision must be to increase a student teacher's ability to grow towards higher cognitive levels as more reflective, self-directed, professional teachers.

Grundy (1986) believed that any transition from craftsmanship to professionalism on the part of student teachers takes place as a consequence of a transformation of consciousness rather than development as time passes. Schema theory has shown that incorrect perceptions about teaching and learning are remarkably resilient to attempts to change them. In an analysis of post-lesson conferences between supervisors and their student teachers, Grundy (1986) found that the particular conceptions of teaching held by different supervisors did influence their supervisory practice and impacted on student teacher responses in particular ways.

Thus, it may not be sufficient to know that a supervisor "provides feedback" or that a student teacher "reflects". It is more important to know the nature of the feedback or reflection and the sources in the individual from which such action springs. Hence it is the interactions between student teachers and their supervisors, and other variables that often are the most important in determining the professional learning outcomes that follow.

5.0 CONCLUSION

Much remains to be done to establish a truly collaborative system of student teacher supervision. Through the establishment of Professional Development Schools in the United States, university faculty, teachers and administrators are beginning to develop new ways of working together that are based on the belief that clinical supervision needs to be a shared responsibility among equal partners. However, Knight, Wiseman & Smith (1992) point to the potential for conflict in school-university collaboration because of the

markedly different reflective orientation of university faculty from the action orientation of school personnel. Teacher education faculty find themselves in the middle of the conflict. The respect and the rewards of their profession often depend on the scholarship and research values of the university culture, whereas professional credibility and educational impact in the school setting depend on the ability to provide soundly-based action plans and workable advice that will solve practical problems arising within the school and classroom contexts.

In the process of understanding and improving their own teaching, student teachers must start from reflection on their own experiences, for wisdom derived entirely from the experience of others, even other expert teachers, is at best impoverished and at worst illusory (Zeichner, 1992:297). Learning to teach is a process that continues throughout a teacher's professional career and we can only prepare students to begin their teaching. Consequently, the aim in student teaching is to help prospective teachers internalise the dispositions and skills to study their teaching and to improve their understanding of teaching and learning over time. This can best be done by fostering organic, collaborative relationships within the classroom between student teachers and their supervising teachers.

The difficulties of establishing collaborative supervision on even such a restricted basis should not be underestimated. Inclusion of student professional learning as one of the primary goals of their daily activities will necessitate a re-ordering of priorities that most co-operating teachers, who naturally feel their major commitment must be to the children, will find it difficult to make.

Moreover, it requires supervising teachers to relinquish their traditional positions of power, authority and perceived expertise in interactions with student teachers in favour of forming a partnership of equals, studying teaching and learning together. It requires a greater investment of time, energy and emotion on the part of supervising teachers. They must also take greater risks, for more autonomy and decision-making is

handed over to the student teacher in a climate of greater personal responsibility and accountability for the supervising teachers themselves. In addition, while there has been some increased emphasis given by university education facilities to supervisor training opportunities and the development of resources to aid understanding of the supervisory process, these do not alter the structural context in which the supervision takes place. In most programs, the practicum is not a priority issue for either schools or the university. Co-operating teacher's school roles are rarely adjusted to accommodate the added responsibilities of teacher education. As already noted, university supervisors have few institutional incentives to offer high quality supervision and, if they do, they often become marginalised within their own institution. As Goodlad pointed out, "The closer one gets to working with future teachers in the field and school classroom, the less prestige and security one has within the institution of higher education." (1990: 245)

Yet, there really are no alternatives to collaborative supervision as the most effective means of intensifying student teacher professional learning of the type envisaged in current development in teacher preparation programs. Student teachers must be active participants in the construction of their own professional knowledge base, as they engage in authentic practice in schools, studying teaching and learning as an equal member of a collaborative team with their supervisors. Together, they must study the dilemmas of teaching and learning as they emerge in their natural settings, obtain data about these issues from the best that research and reflective practice can offer, and then examine them from multiple perspectives and wider contextual views. Analysis and reflection will lead to reasoned judgments about priorities for appropriate action and evaluation of their consequences and outcomes.

Such a process of professional development demands the acquisition of complex sets of knowledge, skills and dispositions by student teachers which, in their turn, will require significant systemic, institutional and individual change if their supervisors are to have any chance of supplying the support needed. At the moment, the rhetoric of policy

makers and teacher education program designers is fullsome; some changes, such as provision of supervisor training workshops, have been introduced; but there is still a chasm between the rhetoric and its translation into reality which will have to be filled before the real promise of collaborative supervision can be realised on a wider front in all practicum schools.

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