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Key themes and issues in educational development: A critical perspective on the IED model

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CHAPTER 16

Key Themes and Issues in Educational Development: a critical perspective on the IED model

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Introduction

The chapters of this book have traced a story of educational development involving changes in professional practice, and in schools and systems, through the work of one institution, The Institute for Educational Development at the Aga Khan University (AKU-IED) in Karachi, Pakistan. Chapters so far have dealt with a variety of focuses and locations of IED work, and together highlight the considerable complexity of what has been involved. In this final chapter we emphasize what we consider to be key elements in this complexity.

In the first section of this chapter, we remind readers, briefly, of 10 years of history in IED development, introducing key terminology relating to people, processes and practices in the IED model and its operation, ending with a framework within which we can address issues. We follow this with what we believe to be two key areas of issues central to development in and beyond the IED: partnerships in educational development, and theory and practice in learning and teaching. Finally, we address impact in IED and its related systems, and raise questions for future development and research.

Ten Years of Development at and through the IED

The IED is both a Professional Development Centre (PDC) and an Institute in a University (the AKU). It has duties therefore related both to developments in learning and teaching, students and teachers, schools and systems, and to academic achievement within a university setting. It was built

alongside a complex of schools in order to emphasize its role as a PDC, although it was also expected that high academic standards would be achieved consistent with a university of international standing. It is important therefore to consider two areas of development within the IED model; those related to development of schools and school systems associated with IED (many regarded as 'collaborating' schools); and development of programmes related to furthering knowledge of learning and teaching. The IED 'model' is first and foremost about the former, but in attending to the latter, the IED found itself drawn towards academic structures and away from the professional areas that are at the roots of development. Here we see a tension that manifests itself in a range of issues on which this chapter will focus. At the time of writing, two further PDCs are in operation, one in Northern Pakistan and one in East Africa, and a new IED is planned in East Africa. Experience and research will show how the tension between the academic and the professional plays out in this expanded and expanding institution.

Work at IED builds on models of school/university partnership developing from experience in other parts of the world. The basic model (we refer to it as The IED Model) involves the idea of the Professional Development Teacher (PDT) acting within both school and university to enable the development of other teachers and promote more effective teaching in the school context. PDT education is through a two-year Master's Degree Programme (M.Ed.) delivered at IED and grounded in practice through local partnership schools. Chapters 3 and 4 have discussed the principal features of this programme and issues that it raises for the IED and its partners. The M.Ed. programme insisted on a high level of academic achievement, but this was not necessarily consistent with achieving a high level of practical awareness in relating theoretical learning to issues in the field. The programme had to grapple with tensions between theory and practice.

Any partnership school has one or more PDTs. These are teachers of the school, educated in the M.Ed. programme, who have returned to the school to take up new roles. For example, they might be expected to develop their own teaching as exemplars or models *for* other teaching and teachers, and to work *with* other teachers to enable them to develop their teaching practices. These returning graduates are also expected to conduct courses at IED for teachers from their own and other schools. It is expected that course participants will develop an understanding of subject and pedagogy to support their development in school. Although the M.Ed. programme provided the academic background for this work, exemplified in school practice, it became clear that PDTs needed to develop practical expertise related to such new roles. Various chapters have elaborated these needs along with ways in which involvements in other programmes (for example, teaching in the Visiting Teacher Programme - see Chapter 5), or participation in the WSIP (Chapter 12) have gone some way to providing further education for PDTs.

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In the model, development of other teachers in partnership schools arises through joint work between teachers and PDTs. Some of these teachers attend Certificate in Education (formerly Visiting Teacher) programmes taught mainly by PDTs at IED, and more recently at Professional Development Centres in the field. Programmes vary from an eight-week, university-based model, located at the IED (Chapter 5), to more recently developed field-based models which combine theory-based sessions (seminars and workshops) with ongoing teaching in teachers' own classrooms. These later models originated in the field (for example in Nairobi, East Africa; see Chapter 7) and one version has been introduced at the time of writing at the IED itself. Certificate programmes are taught or supported directly by PDTs, and indirectly by IED faculty who provide support to the PDTs. Thus we see teacher learning taking place alongside PDT learning, and the two are inextricably related (as Chapter 5 shows).

For teachers who have achieved their Certificate in Education and wish to undertake further study, IED offers an Advanced Diploma Programme, a one-year field-based study in one of five subject areas (English, mathematics, science, social studies or primary education). In the Advanced Diploma, teachers continue to teach in their schools, and are supported by PDTs and IED faculty to engage in special school-based activities and to attend short intensive periods at the IED. They produce a portfolio of work throughout the year and report on a small-scale inquiry into aspects of their own teaching and students' learning.

The IED model of school-university partnership can thus be seen to have developed from university origins, through M.Ed., Certificate and Diploma programmes to school classrooms in which teachers and PDTs learn side by side. The success of the IED model in terms of teaching development depends crucially on relationships between teachers, PDTs, and IED faculty and the support they receive from schools. Very early in these programmes, experience and research showed that the cultures of school, educational system and wider society influenced crucially what was possible outside the university seminar or workshop. The PDTs, fresh from their M.Ed. programme, returned to their schools eager to activate their M.Ed. learning. However, despite the power of new knowledge and theoretical motivation, most of them had little power within these educational systems. Other teachers, returning from the Certificate Programme, had even less power. The new knowledge also acted as a barrier to development when those in managerial positions within schools, lacking understanding of PDTs' roles and perceiving PDTs as a threat to their authority, resisted PDTs' attempts to fulfil their new roles in the school context. Even those principals who supported IED's work, and were genuinely motivated to improve teaching, were often at a loss to know how best to use their returning PDTs. IED's early recognition of these problems led from short, ad hoc meetings, seminars or workshops to the fully fledged Advanced Diploma course for principals and head teachers that is now in operation. As Chapter 9 indicates,

the IED model has developed to include school leaders who need to understand the educational principles of the model and ways in which teachers, with their support, can enable the model's success. However, again, and unsurprisingly, there are many issues influencing the outcomes of teacher–principal relationships. Principals have both power and responsibilities that affect what teachers are able to achieve, and often the factors influencing the exercise of power are at odds with the principles of the model. Chapter 9 shows that such issues are central to head teacher development and hence to school development.

Further in the developmental story, we find that larger education systems often constrain the schools in taking initiatives for change. We refer here to curriculum and examination systems, expectations of stakeholders (for example, head teachers, parents, politicians, and so forth); to societal values related to education, and to cultural norms related to social practices. We see that attempts to bring changes related to students, teachers, and classroom processes are ineffective unless they pay attention to the wider sociocultural setting in which classrooms are located and to the people with power who could legitimately change (see, for example, Mohammad, 2002). The IED model, most recently, has reached out to some of the people with such power, including education officers and administrators at local, provincial and national level, often, encouragingly, at their request. Meetings and workshops led by IED faculty have introduced new ideas and principles for management and leadership practice and followed this up with support to develop and enact new leadership roles in the field. These levels of application of the model, as yet, have fledgling status, so it is hard to address whether they are proving effective. However, one encouraging factor is that regional government agencies in Pakistan are seeking IED assistance to support development in their regions based on what they see already in operation.

From its beginnings, IED had worked closely with faculty members from two partner universities (PUs), Oxford and Toronto. Resulting from recommendations of the first task force (see Chapter 1), partner universities were chosen to exemplify aspects of the model on which IED was based and were intended to support IED in its growth. Partner university faculty joined faculty at IED in planning and delivering programmes and conceptualizing development. Although much that is positive has resulted from the collaboration (this book is one example), there have also been many issues to address in this partnership, some of them discussed in Chapter 2.

The IED model has developed layers of learning and human relationships that include teachers, principals and educational managers. The school can be seen as a central unit and the PDT as a central actor working for teaching development supported by principals and managers. Of course none of this school development can take place without development at the IED itself and learning by the partner university faculty who collaborated with IED. IED faculty members have had to learn the practicalities of

implementing the IED model, through experience, personal reflection and research into the developmental issues these programmes have revealed. Many have needed further education in the theoretical principles which underpin the model and in international research that explains or elaborates questions relating to experiences at the IED. Partner university colleagues had to develop knowledge and awareness of sociocultural factors in order to perceive how theoretical ideas and principles to which they were committed could be used in the educational settings in which the IED operates. Doctoral programmes at partner universities have provided opportunities for IED faculty to conduct research into the IED's developing systems alongside their own academic enhancement. Through supervision of such research, as well as their own involvements in the field, PU faculty have themselves grown in understanding of developmental issues. Increasingly, stronger and closer relationships between members of all these groups have come to be seen as central to the development of educational knowledge and practice.

In reviewing the IED story, we see four main stages of IED development over the years, Conceptualization, Implementation, Outcomes and Evolution, as follows:

- *Conceptualization*: From its first task force onwards, IED has engaged at a conceptual level with ideas and issues about its aims to achieve and how they should be translated into practice. That practice is not only within the IED itself but also in activity in schools and classrooms and the wider educational context. There have been two further task forces in IED's 11-year history, each of which has reviewed achievements and suggested directions for further development.

- *Implementation*: Implementation has gone hand in hand with conceptualization in a complex reflexivity in which reflection, a key theoretical element in IED operation at all levels had led to review of concepts and deepening of understandings about the educative processes in which IED is engaged. Thus programmes have been designed, tested in the field, redesigned, and so on. Evaluation has been incorporated in all programmes, leading to clearer knowledge about processes and practices which inform future progress and suggesting ways of addressing or circumventing problems.

- *Outcomes*: Outcomes can be seen most obviously in terms of people whose professional lives have changed in profound ways as a result of new knowledge, know-how, and ways of thinking. Less tangible is the IED *identity* and characteristic modes of educational engagement that have emerged from conceptualization and implementation. Since this book has focused, necessarily, on conceptualization and implementation in the early phase of IED's evolution, we do not attempt to discuss impact in any great detail. However, we believe that a critical review of outcome and impact must be the topic of future work.

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- *Evolution*: Reflexive cycles between conceptualization and implementation over time form an evolutionary pattern in the IED's progress. By this, we mean that as all the people concerned in IED practices and their development address issues and deal with challenges resulting from implementation of initial concepts, then change gradually takes place. The first task force focused on school improvement, through the development of a critical mass of teachers, and school-based teacher development. The broad approach included notions of clinical teachers acting as mentors; reflective practice in learning, teaching and development; and university–school partnerships for promoting development of teachers and teaching. The implementation of these notions challenged IED to realize and resolve tensions between university and school, between school-based and school-focused models; between development of critical mass and development of the whole school, between individual capacity and system capacity or lack of it, and between teaching of subject content and teaching pedagogy. An evolutionary process involving implementation, review, reflection, and response to emerging needs and challenges was set forth and resulted in more stable relationships between theory and practice. We focus below on some of the key issues and challenges in this evolutionary process: one purpose of this chapter is to try to make sense of these issues and look critically at ways in which the IED and its partners are addressing them. We do this with reference to some of the associated theory, research and experience that inform the debate, and end with some reflection on issues fundamental to future progress.

University–School Partnerships and Teacher Development

The first task force recommended that

> AKU [the Aga Khan University] should found an Institute for Educational Development (the IED) dedicated to the improvement of teaching and teacher training and to the development of educational research focused upon those tasks and upon the needs of Pakistan ... [The Institute] should articulate its work in and through real setting in real schools (hence the insistence upon the concept of the professional Development School or Centre, drawing explicitly upon the metaphors of medical education and the teaching hospital. (AKU-IED, 1991, p. 7)

This recommendation was inspired by new approaches and initiatives in initial and in-service teacher development in the USA and the United Kingdom where disappointments with the outcomes of educational reform efforts, dissatisfaction with initial teacher education, and new understanding

and research knowledge about teacher expertise led various individuals and groups to advocate a closer link between teacher education and schools.

Partnerships between schools and universities (where teacher education had traditionally been located) were proposed to enable renewal of school capacity and redesign of initial teacher education (Holmes Group, 1986; Goodlad & Sirotnik, 1988; Goodlad, 1990). Such partnerships were established in the USA in and through the idea of Professional Development Schools (PDS) which were to provide clinical preparation and practice (much like the role of hospitals in medical education) to student teachers under the supervision and mentoring of clinical teachers (designated as such because of their teaching experience and expertise). Participation in PDS activities would provide the opportunity for clinical teachers to develop as teacher educators skilled in sharing expertise and guiding student teachers' understanding of effective teaching. Clinical teachers would collaborate with university based teacher educators to develop and teach university courses. An important goal for such collaboration was to professionalize teaching through the creation and application of new knowledge in the classroom (Holmes Group, 1986).

Similar ideas were tried out in in-service education through such initiatives as the Schenley High School Teachers Centre established in the Pittsburgh school district. This centre was located within a comprehensive high school and was staffed by outstanding and professionally committed teachers who served as Clinical Resident Teachers (CRT) and who both taught in the Schenley School and participated in Teacher Centre activities. These included the conduct of eight-week- long programmes for teachers from across the school district. These visiting teachers were replaced in their classrooms by replacement staff from the Teacher Centre. Describing the Schenley programme and its impact, Bickel and colleagues state that

> The CRT experience underscores the value of involving teachers
> in reform efforts, particularly when influencing the performance of
> teachers is the major goal. This experience demonstrates the levels
> of professional skill and commitment that can be tapped within
> the teaching force, without having to lose the power of good
> teaching in the process. (Bickel et al, 1987, p. 13)

At about the same time as these initiatives were taking place in the USA, school–university partnerships in initial teacher education were also starting to develop in the United Kingdom. One example was the Oxford Internship Scheme, based at the University of Oxford, Department of Educational Studies (OUDES). The term 'internship' was borrowed from medical education in which trainee doctors undertake hospital internships to gain relevant professional experience. At Oxford, the interns were participants in a one- year professional course for secondary schoolteachers. From the first days of their course interns were associated with a school in which they spent initially two days per week, increasing to five days for a substantial part of

their year. Here they supported the work of experienced teachers and taught pupils, first in small groups and then building up towards teaching whole classes. Thus a large part of their course was school-based. Teachers in the school, designated as 'mentors' worked daily with the interns. They were visited periodically by tutors from the university to enable a three- way evaluation (intern, mentor and tutor) of the intern's progress. Seminars took place both in school and in university led by mentors or tutors as appropriate. Internship was organized as a partnership between the university and the schools. A partnership committee steered the programme. Groups of tutors and mentors met periodically to design, review and evaluate the course. Through such meetings, teachers were drawn into the educative community and learned processes and skills of mentoring (Hagger & McIntyre, 2002).

Teacher Expertise, Teacher Learning and Teacher Education

The idea that schools and experienced teachers should play a significant role in teacher education has been supported by research on the nature of teacher expertise and the process of teacher learning. Research on teachers' classroom thinking has suggested that teachers' classroom actions are based on personal judgements made in particular circumstances (for example, Calderhead, 1987). Studies of 'expert teachers' showed that teacher expertise is shaped by conditions of classrooms and schools. In reviewing the research on teacher expertise, Hagger & McIntyre conclude,

> Teaching expertise ... is so complex, so individual and so much concerned with making decisions about what to do in specific situations that it can only be adequately understood in terms of particular teachers acting in particular circumstances. (2002, p. 487).

Other research has shown that teachers learn about teaching from personal experiences with parents and teachers, on the job from their own practice, and from the practice of their colleagues in school. Thus the content and context of teachers' experiences and the presence of professional support and a collegial culture in school are critical factors in learning to teach (Feiman-Nemser, 1983).

These research findings support the view that both pre-service and in-service programmes need to incorporate the realities of the school, include time for classroom practice and school experience, provide professional support to learn from practice, and the opportunity to learn from expert teachers who can guide the development of individual teacher learners in a mentoring process.

Studies investigating the impact of Professional Development School programmes showed that the trainee teachers were satisfied with their learning with the clinical teachers, were perceived by others to be better prepared, and were more effective with students (Bickel et al, 1987; Goodlad

& Sirotnik, 1988; Darling-Hammond, 2000; Teitel, 2001). These studies also identify several challenges to university–school partnerships for teacher education. These include a strong cultural and structural difference between the two institutions, difficulties in establishing and maintaining collaboration, and the low value placed on teacher education in both universities and schools. They suggest that organizational changes at both the university and the school were essential to sustain teachers' learning and to enable the use of the new knowledge in practice.

Implementation and Outcomes

The initial vision of the IED was inspired by the experiences and research findings described above. Thus IED was deliberately built within the campus of the Sultan Mohammed Shah Aga Khan Schools complex (including primary, secondary and higher secondary schools), and these were expected to be the laboratory schools, much like the Professional Development Schools in the USA. They would provide the real context to develop, test, refine and exemplify effective teaching practices through collaborative research and to provide a clinical setting for the professional development of in-service teachers who would be visiting the IED. The campus was to serve as both an academic centre, part of the AKU, and a Professional Development Centre (PDC).[1]

However, unlike the PDS in the USA and internship partnerships in the United Kingdom, the IED could not assume ready availability in Pakistan of teachers who could model the exemplary practices and new approaches to teaching, which the IED wished to introduce in schools. Such teachers had to be educated through an extensive programme, starting with M.Ed. studies as described above. Teachers were selected for this programme from the schools which accepted a partnership role with the IED. The programme was conducted mainly at the university and by university faculty, although with opportunities for classroom and school experience. Courses in the programme were both academically and professionally oriented with a focus on theory and research as well as on school-based practice and reflection.

During school-based experiences, however, the M.Ed. course participants and faculty from the university were perceived (by themselves and others) as people with knowledge rather than people who were there to learn from the school or from the teachers in whose classes they practised. Even when school staff (the graduates of the M.Ed. programme) taught university courses, such as the Visiting Teacher Programme (VTP), it was knowledge and expertise acquired at the university rather than their experience acquired at the school which qualified them to do so. Moreover, they worked under the supervision of the university faculty rather than 'with' the university faculty. These perceptions and practices raised issues of power, status and ownership and, shaped the nature of collaboration between IED and schools during this initial period. The university was the more powerful

of the two in terms of formal knowledge, availability of resources and its affiliation with high status universities in the West. The schools were more powerful in their ownership of the teachers including the PDTs and the Visiting Teachers (VTs) who depended on schools for their jobs. Tensions arose in cases where the schools felt that their own status and power over the PDTs were being threatened or when the new knowledge from the university was not able simply and quickly to meet the schools' needs. An immediate response from some schools was to stop sending their best teachers for IED programmes. A different response from some other schools and systems was to resist sending IED graduates back to teach in university-based programmes. This response was actually an indication of IED's success in that the schools and school systems became less passive and more demanding as they began to understand the process of change being initiated by IED and to build their own structures for professional development.

An Evolutionary Process Promoting Change

Those who have studied school–university collaboration in other contexts suggest that university–school partnerships or collaboration are desirable and beneficial but difficult to implement (Darling-Hammond, 1994; Ginsberg & Rhodes, 2003; Dallmer, 2004). Goodlad & Sirotnik (1988) identified three conditions for symbiotic partnership: dissimilarity between or among the partners; mutual satisfaction of self-interest; and sufficient selflessness on the part of each member to assure the satisfaction of self-interest on the part of all members. Looking at the IED experience of collaboration with schools, we can see that, in the initial phase, the IED–school relationship met some but not all of the above conditions. As noted, IED and schools were different in their resources. IED had the strength of explicit, formal, theoretical and new knowledge about best practice in teaching and teacher education, primarily obtained in and from research and practice in western contexts. The schools had the strength of experiential knowledge which was implicit, informal and contextual. However, initially, not enough attention could be given to bringing the two together. A committee, with members from school systems, set up to advise the IED Director, neither succeeded nor endured. A head teachers' forum that was set up in the very first year of IED operations could have participated in collaborative leadership of the programmes but became a place of learning for the head teachers rather than a place for mutual sharing. While university knowledge was judged, both by the schools and IED, to be more significant and of a higher status, it was not always most relevant to achieving schools' self-interest. The schools recognized the need for change but their self-interest lay in maintaining practices that helped them complete the syllabus and obtain good examination results, thus satisfying the systems' demands and fulfilling parents' expectations.

Some of these tensions were reflected in the work of the M.Ed. course participants and IED graduates with schools. Although both course

participants and graduates saw themselves as *mentors* working to support teachers in schools, their experience suggests that teachers associate authority and power with them as representatives of the university and/or the management and therefore as *evaluators* of teachers' work (Halai, 1998, 2002). Since these graduates were introducing new ideas, they did indeed challenge both the teachers' autonomy and the value of their prior experience, and they exposed gaps in teachers' subject knowledge. This was not helpful in promoting trust and collaboration or in readily converting teachers into reflective practitioners.

Another challenge to collaboration was the involvement of the PDTs in the delivery of VT programmes at the university-based Professional Development Centre. While, the schools had agreed, through an initial collaboration agreement, that the returning graduates (the PDTs) would be available, for several months a year, to teach programmes at the PDCs, a number of problems arose once this arrangement was put into practice. These best teachers in the schools (who had already been away for two years) would have periods out of school (each of several months) for another three years. Being away for several months at a time, meant that the school could not use them consistently as teachers or school-based teacher educators. Thus, from the perspective of the school, the partnership served university interests in delivering 'its programmes' and the individual PDTs' interests by providing them with the opportunity to work at a university as teacher educators. It did not serve the schools' interests since the PDTs were not available to the school full time and even when they were present in school they identified more with the university than with the school.

IED's interests were also determined by its external funding arrangements. Funding contracts with external development agencies required IED and its PDC to educate a large number of teachers from across a variety of school systems. The urgency to meet these targets and the differences between school and IED interests, as discussed above, made it difficult to engage in the kind of partnerships envisaged in some of the concepts derived from Professional Development Schools.

In addressing such challenges, IED's partnership with schools and school systems has survived and evolved over time. IED and its Professional Development Centre do not work exactly as envisaged in the models which inspired their establishment. Instead they have responded to the sociocultural context in which they are located, to their own needs, the needs of the individual teachers, the schools, and the school systems with which they have been associated.

Learning, Teaching and Development

Concepts and Issues

A major theoretical building block of the model proposed by the first task force was that of *reflection* as a central element of the developmental process.

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The task force envisaged development of reflective teachers who would actively develop their teaching through reflective processes. Such conceptualization is rooted in theory and research over some decades relating to teachers' thinking and development of thinking and its relationship to professional practice in teaching and learning. We look first at some of the theory and research in this area and then relate this to issues in IED practice.

Teacher Thinking and Critical Reflection

Clark & Peterson (1986), with reference to Shulman's work (for example, Shulman, 1987), talk about the teacher as a thoughtful professional. Cooney (1984) talks about teachers' implicit theories of teaching and learning which influence their teaching decisions and classroom acts. Elbaz (1990) writes about the importance of encouraging the expression of teachers' own voice in order to 'redress an imbalance which had in the past given us knowledge of teaching from the outside only.' Smyth (1987) claims that it is only by exercising and intellectualizing their voice, through a critical approach to teaching, that teachers will be empowered in their own profession. These references chart a progression from recognizing teachers as thoughtful professionals to acknowledging the importance of teachers' overt expression of their thinking in a critical form. Smyth writes,

> Put simply, to act reflectively about teaching is to actively pursue
> the possibility that existing practices may effectively be challenged,
> and in the light of evidence about their efficacy, replaced by
> alternatives. Reflection, critical awareness or enlightenment on its
> own is insufficient – it must be accompanied by action. (Smyth,
> 1991, p. 44-45)

Smyth suggests that being critical involves more than a reflective approach to teaching, it requires action. Kemmis (1985) sees the reflective process itself as demanding action. He argues:

> We are inclined to think of reflection as something quiet and
> personal. My argument here is that reflection is action-oriented,
> social and political. Its product is praxis (informed, committed
> action) the most eloquent and socially significant form of human
> action. (p. 141)

Dewey (1933) wrote about reflection as involving action in response to a perceived problem: 'Demand for the solution of a perplexity is the steadying and guiding factor in the entire process of reflection' (p. 14). From these notions, teaching development can be seen as a form of critical reflection in which 'informed, committed action' is a fundamental characteristic. This is a theoretical ideal, and we shall see shortly how such an ideal relates to issues in practice.

Active Inquiry and Professional Growth

Critical reflection, as conceptualized above, can be translated into notions of *inquiry* in professional practice. *Informed, committed action* can be translated, practically, into inquiry approaches that are explicit in learning and teaching. Research shows that inquiry approaches facilitate knowledge development at all levels and influence communities within schools, educational localities and the educational establishment (for example, Hamilton, 1998; Wells, 2001). When such inquiry is conducted in a systematic manner and its results made public, it becomes research (Stenhouse, 1984). The kinds of research involved may vary from practitioner-research (insider research) designed to enhance practice, to more formal research designed to enhance knowledge in a generalized sense (outsider research). The rhetoric in teacher-research projects often suggests, implicitly if not explicitly, that these projects lead to better teaching. However, it is very hard for teachers on their own to undertake research since it is a very different activity from teaching (McIntyre, 1997). This is despite the fact that some teachers see their practice itself (of planning, teaching and reflecting on teaching) as a research process (Jaworski, 1998). Thus, an important question is how do teachers start to become inquiring professionals?

Schön's writing about the development of professional knowledge through reflective practice is now well known (Schön 1983, 1987). As teachers engage in research or inquiry, ask questions about their practice and explore aspects of practice, their knowledge develops. In Schön's theory, *reflection* and *action* are fundamentally linked in three stages: reflection-on-action, reflection-for-action and reflection-in-action. One interpretation of his use of these terms is that reflection on and for action by a teacher looking critically at what has happened in practice and planning for future practice leads to an enhanced awareness of issues and a theorising of concerns such that in moments of choice and decision-making in the classroom the teacher is able to make informed decisions in a moment of action.

The better informed the decisions, the more likely they are to contribute to enhanced learning for pupils. Such a theory accords with Mason's (2001) 'discipline of noticing', in which 'noticing-in-the-moment' leads to informed action in the classroom. As teachers become more aware of issues in their teaching, through reflection *on* practice, they become more able to notice issues as they arise in the classroom and respond there and then. Eraut questions whether teachers have the time in such classroom moments to reflect critically and act accordingly, and asks for more evidence of such practice (Eraut, 1994, 1995). However, some research conceptualizes the possibility for reflection-in-action and has provided examples from real classroom situations (for example, Jaworski, 1994, 1998). We need to be clearer about how such cycles of reflection and action *become* part of teachers' activity, particularly in relation to sociocultural settings which perhaps do not easily facilitate such ways of thinking.

Research shows that real opportunities for teachers' critically reflective engagement are unlikely to arise without support and encouragement (for example, Vulliamy & Webb, 1992; Atkinson, 1994; Jaworski, 1994). Support can be of many forms, but one form involves collaboration between teachers, educators and researchers in a variety of ways, as has become increasingly evident in the IED model. However, the intention of support, and good will in setting up support systems, does not ensure outcomes of the sort envisioned in theory.

From Conceptualization to Implementation

Based on theoretical perspectives identified above, *critical reflection* was from the start a key concept in IED operations. From the *Reconceptualization* module held at the beginning of 1994 in the first M.Ed. programme, through to modules in mathematics, science, English and social studies, reflection has been a cornerstone of the didactics of the M.Ed. course, and of course participants' growing theoretical understanding of learning and teaching activity in a range of subject areas. This has been seen practically in CPs' collective reviewing of a day's activity so as to address their own learning, in writing reflective journals at all stages of their course, and in learning to engage with critical issues. For example, CPs have reflected critically on forms of educational practice in which they had previously engaged as students and teachers. These included:

- repressive teacher actions such as physical punishment if the student had not responded in the way a teacher had expected;
- direct instruction in which they had to follow exactly the teacher's or the textbook's methods; and
- rote learning to reproduce exactly the answers required in an examination.

Course participants engaged in, and learned to value new practices in their various subject areas within the M.Ed. programme. These included inquiry approaches to learning and teaching mathematics, use of everyday materials in science and ways to address critical issues in social studies. They identified ways in which such approaches were more beneficial to students' learning than their own student experiences had been (see Chapter 4). In modules on teacher development and classroom change, they theorized reflection and related it to their didactic discussions. One danger that manifested itself as an outcome of implementation of conceptual development was that old practices translated as 'bad' and new practices as 'good'. Time was needed to accommodate the new thinking to deeper understandings of old practices. In the immediacy of relating new to old, as they visited schools and worked with pupils and teachers, some CPs developed an elitist attitude towards the existing practice of other teachers. In terms of Schön's three kinds of reflection, the CPs learned to engage in reflection *on* practice and reflection

for practice, but reflection *in* practice was more elusive. They were unable to scrutinize their own thinking and action in sufficient depth and in relation to the theoretical perspectives they were starting to appreciate.

Early Outcomes from Implementation of Concepts

Practices *in* the M.Ed. programme encouraged CPs' reflection *on* their own learning, and where practices involved work with school pupils CPs also reflected *on* pupils' learning. Such practices contributed to the field-focused nature of the programme. CPs worked with pupils in an IED context or a school context determined by practicalities such as the time of year that contact with pupils was needed, or the nature of contact. If CPs needed to work with pupils during the school vacation, then some pupils were invited to the IED to make this possible. Sometimes it was possible to take 30 CPs into a small number of school classrooms, or a laboratory, where they worked in groups of two or three with four or five pupils. Such activities resulted in considerable learning for CPs which was articulated and consolidated in post-activity reflection, namely, reflection *on* practice. When CPs were in school working with teachers, or teaching lessons themselves, the same was true. However, periods in school were necessarily of short duration; relationships between CPs and pupils or teachers were correspondingly superficial, and CPs' engagement with or responsibility for the curriculum or other aspects of the systemic milieu was minimal. Considerable thought and energy was therefore required to forge relationships that allowed fruitful work in a very short time, and this militated against recognition of issues in practice, let alone action on recognized issues. Thus the CPs were never in a situation where they had to think in depth about issues in teaching as faced by the regular teachers.

Research shows us, also, that reflection *in* practice requires a deep engagement with issues of practice, that may be difficult for the inexperienced practitioner grappling with the demands of new practices (Calderhead & Shorrock, 1997; Jaworski & Gellert, 2003). Even for experienced practitioners, a deep or critical engagement with issues is not always a 'natural' state of everyday practice (Brown & McIntyre, 1993). Some kind of activity needs to promote such engagement and associated reflection. In this respect IED programmes have drawn on action research models as a basis for encouraging critical engagement with issues (Carr & Kemmis, 1986; McNiff, 1993). Many of the M.Ed. modules included an action research project, or theoretical work on action research. Course participants undertook very small-scale action research in other teachers' classrooms. Their understandings of the action-research cycles and of the processes, practice and issues of action research were at a naive level so that their focus remained on the exigencies of practice, rather than at the meta-level of issues arising. Thus interpretation in the M.Ed. programme of concepts of critical reflection and action research led to recognition of the

complexities of translating theory into practice, both in systemic and conceptual terms.

Elements of the Evolutionary Process and their Associated Issues

Complexity here is a key concept whose recognition is an outcome of programme implementation. CPs coming from educationally limited starting points were introduced to new theories and perspectives, experienced new practices and had to put into practice themselves what they experienced. They were expected to reflect on their own activity and thinking, the associated practical outcomes and their relationships to sociocultural practices in settings where such thinking was not necessarily a part.

One part of this complex scene involved the pedagogical processes used by course leaders to promote learning at a number of levels: the learning of CPs themselves, CPs' promotion of pupils' learning and, less directly, CPs' facilitation of teachers' learning. One clear example of such pedagogical processes was the use of *cooperative learning* as a way to develop learning through interactivity and group dynamics in classrooms. Another was the use of *everyday materials* in science or in mathematics to promote conceptual thinking. Use of cooperative learning and everyday materials can be seen both as a set of strategies for organizing classroom activity, and as an example of interpreting philosophical positions on learning, based in sociocultural learning theory. Both philosophy and strategies were manifested in a range of modules where they took different forms and used different terms according to the experience and preferred terminology of the module leaders (see Chapter 4). It became clear, through reflective activity – both oral and in writing – that CPs perceived value for themselves in the activities they experienced, talking about activity in terms to which they had been introduced in respective modules. However, for CPs, the strategies took on an importance that seemed unrelated to their philosophical basis. Thus, CPs' planning for classroom activity with pupils might involve *group work*, the *jigsaw* strategy, or *homemade materials* without actually being specific on learning goals or ways in which such strategies were designed to address learning goals. Observation of these issues challenged module leaders to critique their own practices through which such terminology was introduced and concepts developed. We needed to rethink our implementation of the theories to which we were committed within the sociocultural frame in which we worked.

In the above paragraphs we have been talking largely about CPs' learning as part of the M.Ed. course. While our remarks here should not be seen to undervalue the learning and transformation which did take place for most of the CPs, problematic aspects of this learning became most evident when the CPs as graduates, now PDTs began to work in schools, fulfilling the learning cycle that was the driving force of the M.Ed. programme. As has been explained in earlier chapters, the growth of PDTs was far from painless:

PDTs faced problems in lack of acceptance or understanding in their school, by fellow teachers or head teachers, lack of role definition; trying to follow theoretical principles without the practical grounding or support for experimentation; concern about personal qualities or qualifications to deal with situations and issues. At the same time they were expected to offer courses for visiting teachers (VTs) at the IED, building on their knowledge of the M.Ed. programme.

We see here a complex microcosm of a more global situation. What was experienced here by CPs/PDTs in their learning process, guided by module leaders, the IED faculty, can be seen in the traditional approaches to learning and teaching that CPs criticized from their own experience; in the classrooms of partnership schools in which they worked with pupils and teachers; in the university seminar rooms in which they worked with IED faculty. In all such situations, in and beyond IED settings, learners are confronted with new experience leading to new knowledge, and to the assimilation and accommodation of such knowledge within sociocultural settings that limit the very processes that promote workable know-how. In conceptualizing reflection in action, the IED faculty sought modes of activity in which CPs would engage to promote desired learning. However, learning outcomes were not always what had been envisioned, and the promoters needed themselves to ask critical questions about the processes in which they had engaged.

Coming back to our earlier discussions of partnerships and collaboration, the PDT re-entering the field could be seen as a key character in systemic linkages, for example between school/school system and the AKU-IED. Bringing the wealth of new knowledge, or know-how, from the M.Ed. course (albeit with limitations as expressed above) the PDT had to adjust to a familiar 'old' system, while living with all the recent experiences from the 'new'. But, fitting into the new system had made it difficult to return to the old, since customs and expectations are so different. We can see from Razia Mohammad's doctoral research the difficulties that VTs found in returning to their classrooms and being teachers again while simultaneously accommodating their recent learning (Chapter 13; Mohammad, 2002). For PDTs, a longer time away from school and a greater awareness of educational issues and practices made it both less possible *just* to return to school culture and custom, and difficult to carve a new path for themselves due to insecurity or non-transferability of knowledge. Where teams of PDTs and VTs were able to work together and reflect on their experiences in doing so alongside IED faculty, there was more evidence of success. See for example the team activity in the Northern Areas (recounted in Chapter 12) and the mentoring programme in Baluchistan (Chapter 6). However, some teams were less coordinated than the cases reported in Chapters 6 and 12; their relationships with schools were of a short duration and on a one-off basis. In these cases, there was less overall satisfaction with the impact of the team on the school or schools with which PDTs worked.

We saw earlier something of power relationships and their influence on systemic collaboration and partnership. PDTs were expected to operate differentially and simultaneously in two different systems. Their teaching of courses for VTs bound them to the IED system, whereas their return to school demanded a re-acculturation to the school system. Mohammad (2002) makes clear some of the constraining factors in the school system: excessive correcting of 'copies' (exercise books), for example, or, in certain schools, lack of care for pupils' well-being or respect for their thinking and development; teaching that was largely teacher-centred, depending heavily on mandated texts and working towards the strict formality of examinations; teachers doing a job to earn an often meagre salary on which their family depended and therefore subject to the idiosyncrasies of head teachers who had to maintain the system.

Head teachers had a responsibility to maintain the system, but the courses for head teachers at the IED challenged many aspects of this system. Some came to see possibilities for change within seemingly inflexible structures, but nevertheless acknowledged difficulties in sustaining change (Chapter 9). These difficulties related to factors in the educational system and in society. Thus, head teachers taking part in IED programmes become also key characters in systemic linkage. Power relationships here are diversely related to knowledge and flexibility in systems. Where, as one CP put it, 'knowledge is power', those with more overt theoretical knowledge and practical know-how might be seen to have greater power – certainly in the sense that they are able to deal with abstract concepts and conceptualize alternatives. However, these qualities are not necessarily power-yielding as we see from experience, evaluation and research in IED programmes.

Engeström (for example, in Engeström, 1998), speaking from an activity theory perspective based on the work of Leont'ev, uses a triangular frame to capture mediational factors in an educational system (see Figure 10). Here the lower part of the triangle deals with factors often ignored (or hidden) in considerations of educational development. In IED collaborations, operation within the various systems involves deep layers of knowledge rooted in sociosystemic activity in which, to use Engeström's terms, the rules of operation and interaction, the community relationships, and the division of labour differ greatly from one system to another (Engeström, 1998).

For example, we might regard an activity system in which the PDT is the *subject*, with their *object* being certain goals deriving from their IED activity. Action plans, and so forth might be seen as *mediating artefacts* (see Chapter 3). If we consider only the top triangle, it is as if we consider only the tip of the iceberg. The lower triangles relating rules, community and division of labour can be seen as the 'hidden curriculum' which nevertheless influences and constrains what PDTs can achieve. This hidden curriculum involves rules of activity within the school and IED systems, intersecting communities within IED, school and society, and division of labour in terms

of who takes responsibility or reports to whom at different levels, all seriously influence and constrain what is possible. These 'hidden' factors are extremely powerful in determining what the PDT can do and achieve. We can apply the triangular frame to the head teacher as subject in a similar way. The rules, community and division of labour that underpin in fundamental ways the activity of these participants cannot be ignored in developmental processes and practices as we have seen.
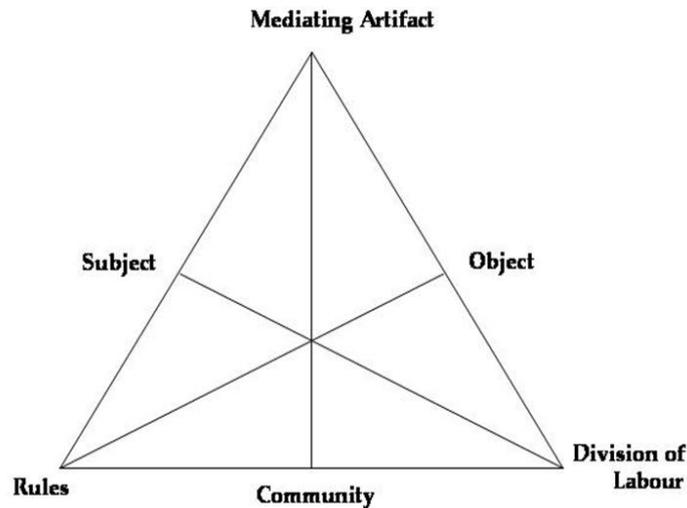

Figure 10. The mediational structure of an activity system (from Engeström, 1998).

There seems, potentially, to be some sort of clash between knowledge and systems. While knowledge developed through activity with philosophical groundings in reflection, collaboration and critical inquiry might be seen to confer power to act differentially, the inertial effects of school, society and culture militate against broader development. Thus we see embryos of achievement where developmental progress is in evidence, but these seem to be outweighed by systemic inertia. A key question seems to be how knowledge in different parts of the system interrelates in terms of human knowing, group or individual.

Assessing the Impact of IED and Moving Forward

The IED model of educational development was based on the assumption that a critical mass of professionally developed individuals (both teachers and managers) can bring about change in schools. In this chapter we have discussed many of the issues and challenges to this model. However, we now comment on what has been achieved and what lessons we can learn about

teacher development and school change in developing countries from the IED experience.

Overall, the IED experiment is a success story of an institution being able to bring new ideas and adapt them to particular sociosystemic contexts in an evolutionary developmental process. In this process of reflection and adaptation, the IED programmes have become more field-based, and more flexible, providing time and opportunity to engage in reflection on action. Participants in the Certificate and Diploma programmes, for example, spend up to a full academic year in practising new knowledge learnt at IED in their own classrooms where they are supported by PDTs and IED faculty who visit and mentor them. The M.Ed. programme has been adapted over the years so that the course participants have more choices than were available in early years. CPs can now choose from a number of elective courses and opt either to carry out a dissertation or develop and implement a small-scale practical education project to complete the M.Ed. requirements. The participants can also elect to graduate with a specialization in teacher education or in educational management. This is an important possibility since many of the graduates of the programme go on to take on management positions from where they can affect the rigid systemic context we have been discussing in the last section.

IED has increased in its 'university-ness'. It is increasingly engaged in the development of, and experimentation with, educational programmes and in scholarship. However, at the same time it remains committed to the work in schools and its partnerships. Unlike other universities, IED maintains a continuing and active contact with its graduates, particularly the PDTs, and with schools in a variety of ways including the field-based course work and school-based research. In the process of evolution IED has realized that its partnerships with other institutions are desirable yet complex and demand flexibility in defining the terms of partnership. In the partnership with schools, for example, a key difficulty in implementing change was that while the individuals, who participated in IED's programmes, had changed there was no corresponding change in the school structures and systems – the 'inertia' we mentioned above. Such change has now begun to happen. We cite a few examples below.

Several private-not-for-profit collaborating schools have undertaken curricular reform and academic restructuring. The PDTs and other teachers who attended IED programmes have participated and taken leadership roles. Since the reform process is owned by the school system teachers are supported to change traditional teaching practices and introduce many of the teaching approaches and values promoted in the IED programmes. As one such school system encounters problems in introducing and sustaining change in classroom practice, it is beginning to formulate research questions and to invite IED to collaborate in and support research in the system's schools.

Another school has established a professional development centre associated with the school and offers professional development programmes for its own teachers and for teachers of its school network. Some of these programmes are offered in collaboration with IED and supported and supervised by its faculty but nevertheless held in the school. There is active support and much less resistance to classroom implementation of new teaching strategies introduced in these programmes because they are initiated by the school itself. A similar initiative has been introduced in an IED collaborating school in Bangladesh (Chapter 11) which has set up a very active school-based professional development programme.

Government education systems in Pakistan have been IED partners from the very beginning of IED activities and have sent teachers from the system to various IED programmes. However, the government is now beginning to take the initiative to try out new approaches and develop new structures. Thus, for example, one provincial government has become interested in establishing a professional development centre for in-service teacher education. The idea is that several of the PDTs from the government sector would develop the programmes offered by this centre. Another provincial government has invited IED to use the school-based approach to teacher education for a large number of teachers across the province. In the process of achieving this, the government seems open to changing policies and structures for in-service teacher education in the province.

As these developments have come about, IEDs' role and expectations of itself and schools have, quite naturally, changed. As discussed earlier, a number of constraints, not least the funding arrangements required for large-scale interventions, would not allow IED to engage directly in school improvement work and invest in close collaboration with individual schools as envisaged in the initial inspiration for the IED model, the Professional Development School. Instead, the IED has taken on the varied roles of consultant, adviser, supporter and collaborator with the systems while it continues to educate teachers, teacher educators and educational managers to lead change in these systems. The tensions of power and territory which were apparent in the early years have dissipated where schools and systems have developed expertise (primarily through IED involvement), become more confident, introduced new academic and professional development structures and taken on ownership of change. It is clear that IED has succeeded in raising awareness in these schools and systems, with some acknowledgement of teachers as professionals. It has also contributed to building school-based expertise and to promoting a culture of professional collaboration for school improvement in many of the schools it worked with.

The need to assess the impact of the IED model is keenly recognized. Several in-depth case studies of schools from various systems and regions in which IED has made an input have been started by IED faculty to identify impact and extract the stories of personal and institutional change. Initial analysis from some of the cases underscores the immense complexity of the

process but also shows the possibilities. These studies of the IED model will add very significantly to our knowledge about the nature and process of partnership and change in schools and school systems and add to the rather limited literature on school improvement and change in developing countries. In doing so, it will also contribute to the theory of educational change which is at the moment primarily based on the experience and evidence in the context of the western countries.

Note

[1] Since these times, the IED has grown to encompass a second PDC in the Northern Areas of Pakistan, a third in Chiltral in the North West Frontier province of Pakistan, and a fourth in Eastern Africa. At the time of writing, a fourth PDC in central Asia is in the planning phase, as is a second IED in Dar es Salaam, East Africa.

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