Title: Investigating Educational Change: The Aga Khan University Institute For Educational Development Teacher Education For School Improvement Model

Authors: **Anil Khamis Ph.D.**
School of Lifelong Education and International Development
Institute of Education, University of London
E-mail: a.khamis@ioe.ac.uk
Phone : +44 (0)207 612 6640
Fax : +44 (0)207 612 6632

Pamela Sammons Ph.D., FRSA, School of Education, Nottingham University
E-mail: pam.sammons@nottingham.ac.uk
Phone : +44 (0) 115 951 4434 / +44 (0) 115 846 7200
Fax : +44 (0) 115 951 4435

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Abstract

This article continues the analyses of the impact of an innovative teacher education programme aimed at school improvement in a developing country context (Khamis and Sammons 2004). Building on recent publications that have analysed outcomes of the teacher education programme and how the cadre of teacher educators has worked to initiate improvement in schools in Pakistan, the article considers the 'Teacher Education for School Improvement Model' based on findings from nine co-operating school case studies. Lessons are presented to further inform the development of teacher education programmes and the measurement of effectiveness of such programmes in developing country contexts. The article further considers relevant international research on educational change and reform to draw further lessons. These lessons include the need to pay greater attention to the cultural contexts and milieu in Pakistan, and the need to create models of school improvement and teacher education that originate within developing country contexts rather than the adaptation of European/North American models that are based on sources of data in those contexts. The article concludes by arguing for the need to develop better theoretical understandings from the current innovations underway and placing the onus on intervening agencies to better inform educational change strategies promoted in developing country contexts.

1.0. Introduction

This article follows on from an earlier article that examined an innovative teacher education programme in a developing country context based at the Aga Khan University Institute for Education Development (AKU-IED) in Karachi, Pakistan (Khamis and Sammons 2004). The earlier paper outlined both methodological and design aspects of the teacher education programme and its outcomes. In summary, the outcomes, aspirations, and changes adopted by teacher education graduates closely aligned to the aims and expectations of the programme. This suggests a high degree of effectiveness of the programme, which is based on innovative educational practices, pedagogies, and the promotion of children-centred and active learning methods as well as the empowerment of graduates to promote needs-based changes to promote school improvement. This article is divided in two parts. Part one reviews the precursors to the original initiative to offer teacher education that build on innovations undertaken by the Aga Khan Development Network of which the University is an integral organisation. Part two draws together findings from two carefully selected school case studies to analyse and consider critically the theoretical implications of the 'teacher education for school improvement model' developed by AKU. The two case studies represent two extremes of the schools with which the programme initially established co-operative relationships and from which the original 21 teachers were selected for the two-year MA training programme. These two case studies are drawn from a total of nine school studies representing different sectors: government, private, and non-profit which, in turn, represent different medium of instruction (Urdu or English) and the gender basis of the pupils (boys or girls school). The overview and experiences of the original cohort of teacher educators as well as the design and components of the teacher education programme are presented in detail in Khamis and Sammons (2004). This article builds on this and other recent work to critically inform initiatives that target systemic change in Pakistan in the first instance and in developing countries more generally.

1.1. Precursors to the AKU-IED M.Ed. Provision: The Aga Khan Foundation

The AKU-IED intervention builds upon the innovations funded and developed by the Aga Khan Foundation (AKF). The Foundation funded school improvement initiatives in the 1980s and 1990s in South Asia and East Africa. The implementation body in most cases was the Aga Khan Education Services through its network of early childhood centres and primary and secondary schools. According to AKF, its approach and justification for involvement in such work is to develop models of good practice and to learn lessons that it can disseminate to others, including government, for uptake (Greenland in Black et al. 1993).

AKF sought to develop models that would bring about improvement in schools. The school improvement initiatives were based on the assumption that educational change is best effected when:

(i) Attention is paid to the individual school;
(ii) Teachers are trained in their own classrooms or, to borrow a term from medicine, the use of 'clinical' methods that involves working alongside teacher trainers; and
(iii) School management is improved.

1.2. Assessment of the School Improvement Model

Evaluators, whilst generally supportive of the AKF-funded school improvement projects, raised certain concerns about the nature of the programmes and suggested avenues for greater effectiveness (Anderson and Sumra 1994, Black et al 1993, Bude 1992). Briefly, the assumptions underpinning the school improvement initiatives of the Foundation were drawn from the Schenley school improvement model developed in Pittsburgh, USA in the 1980s (Denton and LeMahieu undated ca. 1985; see Khamis and Sammons 2004 for a more complete treatment).

The initial AKF funded school improvement projects had the following characteristics and emphases:

A) Individual school: the evaluators concluded that the focus on the individual schools proved to be appropriate for improvement, especially when deliberate efforts were made to include the whole staff. The central critique, however, was that systematic attention to individual schools did not lead necessarily to a realisation of maximum benefit for the *professional networks* that build on the potential links between teachers and schools.

B) Clinical Training: The idea of clinical training or field-based approaches ought to be taken forward particularly to deal with the practical challenges of individual classrooms. Challenges of clinical training have to be addressed to ensure the continuing professional development of trained teachers. Teachers trained in the clinical approach demonstrated a lack of sophistication; that is, there is a need to negotiate with teachers their developmental needs versus train teachers to implement a standard model of school improvement.

C) Inadequate attention to ensuring a central role for head-teachers: Head-teachers have a pivotal role in deciding the fate of any changes especially regarding sustainability and continuation towards improvement once the intervention ceases. A more focused training of heads relating to their role in a school where the innovation is taking place could be effective in ensuring the continuing support which is necessary once teachers have been through the training process.

D) Child-centred/activity-based learning and teaching strategy has not led to lower standards: Attainment in basic skills in mathematics and language was not adversely affected by the introduction of new pedagogic approaches; indeed there were some gains in language skills. The new pedagogical approaches and strategies brought about substantially more opportunity for pupils to develop non-cognitive and personal and social skills. Pupils were deemed to be more self-confident and better able to take responsibility for their own learning. The classroom environments were judged to be more stimulating; especially in the way teachers used wall space and laid out learning

areas. However, there was potential for more individualisation and group-work to be offered which requires teachers to engage in more training.

Black et al. (1993), Anderson and Sumra (1994) and Bude et al. (1992) offer similar conclusions regarding the school improvement and teacher development initiatives funded by AKF. Anderson and Sumra (2002:56) put it this way:

> *The various commentators on SIP (School Improvement Programme) progress at the end of Phase II agreed that the institutionalisation of school improvement activity, and the resulting improvements in teaching and learning materials, curriculum development skills, and teacher attitudes were significant accomplishments. They also agreed that intended changes in teaching methods remained elusive in practice.*

Black et al. (1993:67) consider the school improvement projects reviewed by them '*that many aspects of the programme have been accomplished while there is still scope for improvement in others.'* The evaluators of the projects in Tanzania, Kenya, Pakistan and India offer the following four lessons and direction for further school improvement initiatives:

- Distinguish between developmental aspects of projects and the potential to build generalisable models in practice.
- If generalisability is important, draw up a profile of potential beneficiaries from the outset.
- Require a strategy to disseminate experience from individual projects.
- Work towards self-sustainability once the funding is withdrawn.

1.3. The AKU-IED initiative: A Research-Based Institution in Partnership with Schools

Building upon the experiences and learning amassed by AKF, AKU-IED deliberated that the education of all children in Pakistan, and more generally in developing country

contexts in East Africa and South and Central Asia, depended upon the improvement of the performance and status of teachers. Such improvement, it argued, depends upon the creation of a network of Professional Development Centres for teachers dispersed throughout Pakistan but linked to a centre of excellence of international quality (Judge 1991). Whilst consistent with the school-based approach to teacher development adopted in AKF's earlier programmes, it held that a tertiary research-based institute situated in the developing world would overcome the weaknesses demonstrated in the earlier school improvement programmes.

AKU-IED has particular assumptions about the function of education and how to best effect development evident through its objectives and organisational structure. These assumptions relate to the role of teachers to effect whole school change; the academic culture of teacher education and training institutions; the character and assessment of teaching and learning; and the human resource requirements of a country and the role of the educational sector to provide the necessary expertise for national development (Bacchus 1996). The underlying basis of the intervention lies in a problem-oriented approach to development that is in keeping with the Aga Khan Development Network's endeavours to date (Judge 1991).

The section below, using longitudinal case study approaches in which the individual school is the unit of analysis apropos the M.Ed. programme design, illuminates the outcomes of the AKU-IED intervention at the end of the three-year period. The graduates of the programme, known as Professional Development Teachers (PDTs), were contracted to work for three years upon completion of the programme of study, which was offered to them on a sponsorship basis. Part two of the article below analyses the perspective of school improvement from the field, the factors facing PDTs as well as the school vis a vis the AKU-IED intervention, and issues and concerns that arose as a consequence. Two case studies are presented in detail representing a private (School 'B') and a government school (School 'I') from a total of nine schools studied. Both schools use Urdu as the medium of instruction (however, they both concentrate on greater use of English in the hope of serving their pupils' learning needs and life chances) and serve

low-income communities. Both schools are located in Karachi – a densely populated mega-city.

2.0 Co-operating School Case Studies

The studies below illuminate the varying conditions facing schools that must be grappled with if educational change models intended to lead to reform are to be promoted in Pakistan and more broadly in developing country contexts.

2.1. School 'B' PDT

The PDT, Jasmine (pseudonym), of this school works in the private sector. The school has a long history in the country catering to a distinct (parochial) population. Jasmine took the initiative herself to enrol in the AKU-IED M.Ed. programme. The school eventually became a co-operating school as it was deemed to be in its interest to be affiliated with AKU – a premier institution in the country. However, during the programme, Jasmine was considered to have 'left' the school. When she returned to the school upon completion of the two year programme she struggled with her designation as 'PDT' conferred at AKU-IED. The uncertainty surrounding her role and responsibilities was never resolved and remained a feature of her work for the remainder of her stay at the school.

Jasmine was given free reign to plan and play whatever role she deemed appropriate. She was not given any particular tasks, guidance or direction. The principal's only concern was that Jasmine should work equally with both the primary and secondary school. Previously, she had encountered teachers' concerns and resolved to work as a mentor with teachers of class IV and V the last years of primary school to ease the transition to secondary schooling. She felt comfortable with this role, which was the topic of her dissertation. She also began to situate herself in school life socially and professionally and began to share with teachers her experiences at AKU-IED and what she hoped to do in the school.

I made out a plan of how I would like to work and that plan involved teaching one class and working with teachers of classes IV and V. ... kind of to care for their suggestion that I would be with both primary and secondary school teachers. ... So say I want to meet with teachers: math teachers who teach class V, so when do I meet them? So negotiations started there but – I mean with mixed results.

The point of re-entry was marred by frustration and lack of support to play her role as 'PDT' as she had come to perceive it: an expert teacher practitioner and teacher educator who would be employed to mentor colleagues to initiate changes in teaching-learning in the school. After four months the PDT was contractually required to conduct a two-month in-service (Visiting Teacher – VT) programme at AKU-IED. At this point, she felt guilty about leaving the school at a critical juncture:

I think this time-sharing between AKU-IED and the school was the most problematic issue of my work as a PDT in school, and that became a recurring issue. ... And somehow, at times, I felt as if I was leaving ... something personal and it wasn't something bad.... When I went back after the first VT programme then again I picked up the work. And I had thought carefully that this time when I leave for the VT programme again, I will have hopefully set up a structure that will allow me to maintain my links when I am at AKU-IED.

During the VT programme the PDT seems to have been more at ease than at school. Whilst feeling ambivalent about leaving the school, she felt unsupported to make her contribution. The VT programme and her time at AKU-IED, a total of six months, allowed her to reflect on her experience and how to maintain the thrust of her work at school in spite of her association with AKU-IED becoming problematic. She thus resolved to work with a core group of teachers, including VTs, to continue with school improvement activities.

During the second year at the school, Jasmine established links with various trained and interested teachers who wished to develop their classroom teaching practices. Her work

centred around two major activities. She worked directly with teachers in a mentoring relationship in the classroom concentrating on teaching-learning processes. Simultaneously, she advocated certain changes, for example, she lent her support to teachers who challenged the examination system in the school. Jasmine was not able to work with the more senior teachers, who resisted her involvement, and focused her energies on younger inexperienced teachers in the role of teacher educator. She found that they were more amenable to proposed changes in practice and she began conducting teacher development workshops, assisting with lesson planning, and resource (low-cost) development.

The school management: head-teachers and principal did not participate or lend overt support to her work and the primary head was openly hostile towards her. Gradually, it transpired that teachers perceived Jasmine's work as a reflection of her own ambitions that came to be perceived as an imposition. This resulted in teachers not taking ownership for the changes implemented. Jasmine was accused of ulterior purposes that related, for instance, to her research interests. Consequently, she resolved to alter her approach and critically challenged her self-perception and role as PDT as well as her career aspirations. With the support of the core group who were initiating changes in their own teaching practices, Jasmine's initiatives became more diffuse. Her experiences with the head and her reflections led her to devise different strategies and approaches to continue her work, which was now not confined to the parameters of the school.

Her overt commitment to school improvement continued throughout her stay during the last and third year of her contract. She instituted regular weekly visits to the school whilst conducting VT Programmes, particularly as she had decided not to return to the school as a teacher. However, she did not want to sever ties with the school or jeopardise her relationships with colleagues. She was also concerned that the work she had initiated should continue. To this effect, she endeavoured to support the core group of interested teachers in their efforts at school improvement well beyond the time she formally left the school.

2.2. School 'I' PDT

The PDT, Shirin (pseudonym), in this school was the only female government system candidate on the M.Ed. programme, which included three male counterparts. Prior to returning to the Urdu-medium school, Shirin was required to develop a re-entry action plan. This action plan was developed at AKU-IED as no one at the school was willing to be involved with it. Immediately, the school the head put aside the action plan.

> *When I went to my school after the programme, we prepared the future plan, action plan, which our faculty initiated (re-entry process). But when I joined my school and I wanted to discuss my plan with my head, she said "no it doesn't make any difference. Now that you have come back to school you can join and take the time table and teach all these subjects".*

This school, like the vast majority of government schools, does not have the required number of teachers with the requisite expertise to cater to the students enrolled. The average class size exceeds 75 and many classes have in excess of 120 children. The PDT previously was a science teacher at the matriculation level (secondary school leaving certificate). The directorate had not authorised her replacement when she left for the M.Ed. and so the head expected her to resume her duties upon returning. A further consideration in the government sector is that any activity affecting the curriculum, teachers' work or pupil expectations including classroom practice must be ratified at all the appropriate levels of the bureaucracy: director of education, district education officer, and head-teacher. For example, classroom inspections have set criteria and processes defined that must be adhered to if teachers are to receive a positive assessment and therefore pay increments and promotions; any divergence warrants reprimand. Other considerations, besides a fear of reprisal for engaging in unsanctioned activities, are also present in the government system: weak administrative and managerial oversight; resource depleted environments; and the double shift nature of most government schools. In this particular school campus there are four distinct shifts catering to different cohorts of children. The complex nature of the school and the various guises in which teachers

work in the school is compounded by the fact that multiple separate arrangements exist on the school grounds for primary and secondary students, boys and girls, and an intermediate college (A-level college). This complexity allows us to appreciate the nature of Shirin's work prior to her studies at AKU-IED.

> *I already have a Masters of Education with a focus on Educational Administration and Management and an MA in Islamic Studies which I studied privately. Mostly I teach biology in matriculation classes, general science and mathematics. I am in charge of the biology section and am an external examiner for biology. I have done a computer studies course, which was arranged by the Directorate of Education, especially for those who are taking the matriculation classes because that was introduced as an optional subject instead of biology.*

Drawing on the comments made by teachers in focus group discussions as well as direct observation, a number of factors were identified that appear to maintain status quo or inertia in government schools:

- Deputation to other schools: in one study school more than 50% of the teachers were either deputed to the school or deputed away from the school. That is, teachers did not consider themselves permanently assigned to their school.
- High incidences of teacher and student absenteeism, unscheduled, and scheduled holidays. On average, classes observed had a 30% student absentee rate.
- Lack of resources – material and financial – to support the school. The school is in severe need of appropriate equipment, upkeep and refurbishment.

The school environment is oppressive and unpleasant and teachers are given very little incentive to stay in school and apply their professionalism. It was in this environment that Shirin returned after visits to Oxford and Toronto, which were required aspects of the M.Ed. course. Shirin demonstrates a remarkable sense of resilience to reorient herself with a flexibility of mind and determination that she would work for change from the classes she was given to teach. She determined to challenge the status quo and promptly

started to implement innovative teaching-learning methods. She is confident of the appropriateness of the new methods, learnt at AKU-IED, and of her own ability to encourage pedagogical change. Shirin knows that conditions are not ideal but is prepared to try to overcome the obstacles she has identified and analysed.

In the first year Shirin consolidated her position as a schoolteacher, rebuilds relationships with colleagues, and demonstrates that new methods indicative of effective learning are possible in a government school context. After this initial period, Shirin returns to AKU-IED to conduct the VT programme, which affords her a period of reflection about her work. When she resumes her duties at school, Shirin continues to teach using innovative approaches, invites teachers to her class to observe her – to their utter shock as classrooms are private domains of teacher and visits only take place at inspection time – and advocates change in informal discussions between periods and other suitable times *'not during the talk in the staff room as that would bring about the head's disapproval'*. The PDT continues to demonstrate courage to pursue a lone course and expends much more effort and time than required for the sake of serving her students' learning needs. She continues to work away relentlessly despite any acknowledgement of her efforts forthcoming until she has a fortuitous breakthrough.

> *Finally, one important thing was that when the inspection team came from the District Education Office to my school they heard that one member from this school has done a Masters from AKU, so they wanted to see my lesson. At that time the head sent the whole group to my class and they sat there the whole lesson … in the debriefing session, the whole team they said that that is a model lesson for the whole district.*

In the second year, Shirin demonstrates that change is possible even in the most difficult circumstances. She adopts attitudes and approaches, which are indicative both of Shirin's learning at AKU-IED and the culture and function of schools:

- The PDT bases her work on her learning and experiences at AKU-IED during the M.Ed. programme and as an adjunct faculty conducting VT programmes.
- She establishes links with VT who had returned from AKU-IED.
- She is sensitive to context and authority in school: she does not openly defy the head and works on classes assigned to her.
- She capitalises on the opportunity to develop her own experiences in the classroom; that is, to apply theory to practice.
- She demonstrates commitment and professional competence that is acknowledged by pupils and colleagues alike.
- She penetrates the isolation of the classroom teacher by putting herself on show and pursues opportunities to mentor others as they arise (that is, played the role of teacher education).
- She bolsters teachers' confidence and morale.
- She applies new methods even to the sensitive subjects such as Islamiat (religious education).
- She does not force change on teachers but makes herself available to each one and demonstrates her conviction and determination by continuing her efforts.

Shirin exhibited respect and concern for her fellow teachers in regard to the demands they face in their work, respect for their years of service and seniority, conditions that they must contend with, such that by sheer example and transparency of intention she was able to draw more and more teachers to her work.

In the third year, Shirin detects that she may be perceived as constituting a threat to the head and this explains many of the obstacles she has faced. Her previous education as well as her seniority could have made her a potential candidate for promotion to the position of the head of the school. With this realisation and her own motives for being a teacher, and latterly her change in beliefs about teaching, the PDT exhibits certain ways of working which make her popular with teachers and students as well as an effective agent of change in the school. She respects all rules that govern the life of a teacher in a government school, she does not expect monetary rewards as she is already at the top of

the salary scale, she appreciates the sensitivities and difficulty in discussing certain aspects about teaching in public that may challenge the stance and authority of the head, and accepts the conditions as they exist and works for change in the ways open to her; that is, as a teacher in the classroom.

These developments combine to convince many teachers that Shirin's work is worthwhile and sanctioned and promoted by the government authorities. She has successfully challenged teachers' notions about children and their learning as well as the value of teaching, the work they themselves are engaged in. Shirin comments that her work is a matter of her faith and its realisation:

> *You see the whole: this training changed me personally ... changed my thinking. Whenever I think about teaching, learning, I always relate it to how can I involve the teachers to go through this process. ... In my view the importance and sanctity of a teacher is very great. No matter whether others realise this or not but I attach great importance to it. To me it's equivalent to faith.*

Ultimately, the inertia in the system, the high teacher turnover rate, changes in the headship and pupil absenteeism with a lack of systemic consistency to sustain her school improvement work conspire to tempt Shirin to leave her school and work with AKU-IED at the end of her contract period.

3.0. Discussion

Each co-operating school's experience has been varied in terms of initiating and sustaining improvement. In contrast to the above case studies, Khamis and Jawed (2006) describe and analyse an 'idealised intervention': improvement in School 'A', a non-profit private school. This school is characterised by a voluntary board of governors who oversee change and an effective school principal who utilises rational and transparent management and fiscal policies. In that school, a number of factors affected the PDT's work at a relatively early stage:

- New formations of work amongst teachers including mentoring relationships, peer review and critical debate upon the school becoming a co-operating school and enabling teachers to reconceptualise their role in terms of pupils' learning needs.
- Critical awareness by the school management of organisational changes required to meet its educational objectives. The school adapted educational change models that underpinned the AKU-IED intervention.
- Imbibing a sense of hope and expectation for positive change with commensurate reward systems.

School 'A' created processes that catalysed improvement in which it managed to: systematically update the curriculum; developed teacher specialisations; emphasised acquisition and use of recent research knowledge regarding school improvement and effectiveness; and facilitated teacher self-learning and experimentation. The school management and decision making structures also changed in response to the changes unfolding.

Only three of the PDTs studied (out of a total cohort of 21) had some classroom teaching responsibilities upon graduating from AKU-IED. All three chose to have such a role, which was not made compulsory, and they chose to concentrate on teacher education activities. Whilst it is clear that the specific work and improvement activities initiated by PDTs was determined by themselves and reflected the efficacy of the training they received at AKU-IED, how they were perceived, the priorities which governed the use of their expertise, and the eventual outcomes of their school improvement efforts were determined by their school systems.

Siddiqui and MacLeod's (2004) tracker study of AKU-IED graduates of subsequent M.Ed. programmes finds a 'flight from the classroom' phenomenon and that the field-based and classroom focus of the M.Ed. itself has diminished. Whereas the original programme aimed at classroom pedagogical improvements as a precursor to school improvement, subsequent programmes have highlighted the role of teacher educator and

change agent at the expense of exemplary classroom teacher (Sammons and Khamis 2005). In part, the evolving aims of the programme reflect two major considerations in the context of Pakistan. First is the role definition and self-perception of highly qualified educators and, second, the resource limitations that require programme effects to be spread to large numbers of teachers. Both these aspects are evident from the detailed case studies presented above and from the work of PDTs beyond their contractual periods.

These findings challenge the appropriateness of efforts at improvement based on 'whole school' approaches (Goodlad 1990). What this study enables is an understanding that it is the head (or principal) who has sole designated and definitive authority in the schools, is not based on pedagogical leadership, but on the power vested in the position to make decisions that are related in a top-down fashion from the Directorate of Education. As no training is required to become a head-teacher in Pakistan, in operational terms what prevails are 'tried and tested' measures. These measures are based on the compliance of teachers who primarily focus on completing the syllabus in the hope that pupils have a chance of success in the examinations. These exams are themselves a reflection of a pedagogy that favours recall of facts, which in turn reinforces the tendency to rely on teaching-learning that favours memorisation and rote learning (Mohammed 2004, Rareiya 2005, World Bank 1996). How decisions are viewed and what is considered of value and appropriate when, in particular instances, the authority of the head was challenged at the pedagogical level or in terms of the development of the teaching-learning process, subtle micropolitics come into play to thwart PDTs' improvement attempts.

An important finding thus us is that the whole school notions underling school improvement efforts are important, but in this context where schools do not have the ability to set priorities, we need to reconsider whether school improvement should be pursued via a model that appreciates the dependence of the school on systemic aspects that are variable and fraught with administrative and efficiency weaknesses. A further consideration arising form this study is to consider schools' actual and immediate needs. In analysing and providing development programmes, it must be acknowledged that

pedagogical change processes that aim to initiate and sustain school improvement are dependent on commensurate management structures that facilitate such a process.

Another major implication is that in resource poor contexts, field-based teacher development programmes have only limited effects. Indeed, the AKU-IED programme has consistently become less field-based; whilst this not an issue per se, it challenges the nature of school-university relationships that are considered to be important to improve schools (Mortimore 1998). It is crucial to not only appreciate the culture and context of any intervention but respond to the effects that an intervention has: to have invested so much authority in the PDTs led to heads being challenged and lent more weight to the push and pull factors experienced by the PDTs at school. Ultimately, in the vast majority of cases, a shift occurred in the energies of the PDT away from the school towards more idealised approaches.

A final consideration to be highlighted is that the literature on educational innovation provides a wealth of contributions to the theoretical analysis of change intended to lead to school improvement ranging from simple typologies to process models of considerable complexity (Teddlie and Reynolds 2000). The vast majority of this research is based on empirical work in North America and Europe and theoretical models thus generated have been applied to developing country contexts (Dalin et al 1989, Fullan 2003, Gray et al 1999, Huberman and Miles 1984). A dilemma facing educationists in developing countries, where seminal longitudinal and resource intensive studies have not been conducted and which have relied on the available research literature, is the applicability of the theoretical models in tandem with context-specific needs. Clearly, the application of this research knowledge does not apply equally to conditions in developing countries and the research literature also reveals that the process of organisational change is always complex; educational reforms are no exception, whether initiated at national, local or institutional level (Khamis 2006, Sammons and Khamis 2005). With regard to developing countries, more adequate models will be required that enable analysis of the effects of programmes situated in evolving institutional infrastructures. The present study has highlighted that the dominant school improvement model, to be more effective, will

have to take cognisance of both the policies and practices that govern schools that in turn create the environment in which teachers function. The model will also need to recognise that intended or positive change is itself a manifestation of various other processes whose outcomes are at best unpredictable and unanticipated.

To attempt the theorising of such a model and to appreciate the intricate interactions possible, a starting point is the number of areas of 'successful' intervention. The task of improving upon these innovations then, in the first instance, must be the responsibility of those who seek to intervene and those who control the resources available.

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