Book Chapters

January 2006

# Creating a critical mass: The visiting teacher programme

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CHAPTER 5

# Creating a Critical Mass: the Visiting Teacher Programme

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Perhaps the paramount issue facing education planners in Pakistan today is how to recruit, train, deploy and improve the quality of teachers in primary and secondary education. (The World Bank, 1988, p. 22)

The momentum this VT Programme has generated (among the course participants) is overwhelming in spirit, ideas, energy, commitment and desire to seek new avenues for change and make change happen. (Mithani, 1996)

### Introduction

The Institute for Educational Development (IED) began the first Visiting Teacher Programme (VTP) [1], in October 1995. The Visiting Teacher programmes are offered in the areas of social studies, English, mathematics, science and primary education to teachers from the IED's cooperating schools in Pakistan and other developing countries in the region. These schools send teachers for their professional development to the IED for eight weeks of rigorous and supervised work, after which they return to their schools. The programmes are designed to prepare classroom teachers who, in concert with Professional Development Teachers (PDTs) [2], would form a critical mass of teachers with a shared outlook and who would support each other in enhancing the quality of education in their schools.

This chapter provides a description of the VTP. It highlights the key objectives and features of the programme, the role of the PDTs, and the impact of the programme on PDTs and the visiting teachers (VTs) as evident in programme reports and impact studies.

### Description of the Visiting Teacher Programme (VTP)

The VTP is based on the teaching hospital model (Cornbleth & Ellsworth, 1994). In this model teachers learn theory at the university followed by practice in school. Of the eight weeks approximately three weeks are spent in teaching practice in real classrooms.

Teachers selected for the VTPs must have a first degree [3], three years' teaching experience, indicate a willingness to endure the rigour of the programme and have the desire to develop professionally. The VTPs are designed, implemented and evaluated by a team of PDTs serving as part-time faculty. The PDTs are supported by an IED faculty member and, in the initial programmes, by a faculty member from a partner university (PU) as well.

The philosophy of education and approach to teacher education advocated by the IED is radically different from that advocated by other teacher education institutions in Pakistan. Unlike most of these institutions where transmission of knowledge through the lecture method predominates, the VTP is based on the constructivist philosophy of learning and adopts an active participatory methodology. Learners are active creators of knowledge who reconstruct their knowledge when faced with new experiences (Piaget, 1977). Interaction with others through communication, reflection and interpretation enhances their potential to learn (Vygotsky, 1981).

### *Aims and Objectives of the Programme*

The programme has two aims: the in-service professional development of classroom teachers and the development of the PDTs as teacher educators. The PDTs, supported by the faculty, plan, conduct and review the programme. This experience is expected to prepare them as teacher educators. The programme also aims to contribute to the professional development of classroom teachers through the realization of the following objectives:

1. *Improving subject matter knowledge.* Research in developing countries suggests that teachers' subject matter knowledge is probably the most important factor influencing their students' academic performance (Warwick & Reimers, 1995). Therefore a key objective of the programme is to attempt to deepen knowledge and understanding of the nature and content of the subject they teach.

2. *Improving existing and introducing new instructional skills and strategies.* Teaching in most classrooms in Pakistan is based predominantly on the transmission of knowledge, attitudes and values through lectures, reading from textbooks and teacher directed questions (Aziz, 1992; Warwick & Reimers, 1995; Hoodbhoy, 1998). The VTP attempts to provide teachers with both general and subject-specific teaching skills and strategies.

3. *Broadening the conception of their role as teachers.* Teaching is generally viewed as helping students to perform well in tests and examinations. The VTP seeks to broaden teachers' view of education by encouraging them to see teaching not simply as an activity aimed not only at raising the academic performance of students, important though it is, but also at their holistic development and preparation to deal with persistent and emerging challenges of their societies.

4. *Increasing understanding of students and the learning process.* Teachers often focus their attention on the academically brighter students and those who show an interest in their classrooms. The VTP attempts to increase teachers' ability to recognize the individuality of their students and adjust the learning process to suit students' individual differences.

5. *Developing greater confidence in their own abilities as teachers and facilitating independent learning.* There is a belief that pre-service teacher training with occasional in-service training is sufficient for the professional development of teachers. The VTP takes a different approach. It attempts to enable teachers to become critical enquirers into their own practice and introduce them to the knowledge, skills and attitudes required to continue to learn independently.

6. *Preparing VTs to play a supportive role to the Professional Development Teacher.* Two to three PDTs would not be able to bring about sustainable change in their schools. Graduates of the VTP together with the PDTs would form a team to facilitate the in-service professional development of their colleagues and create a critical mass for school improvement (Bacchus, 1994).

The above objectives are met by making the following features an integral part of the total instructional programme.

1. *Maintaining a dialectical relationship between theory and practice.* Theoretical inputs on teaching and learning are followed by application in the real classroom and classroom practice is followed by reflection to review theory. The dialectical link between the two is made meaningful by promoting reflection.

2. *Developing the ability for critical reflection.* Reflective practice forms an integral part of the programme and is encouraged through such activities as journal writing, self-reflection and collaborative reflection on teaching, and problem-solving activities;

3. *Mentoring.* Mentoring is seen as a means of facilitating the professional development of both the PDTs and participants of a VTP. The role of the mentor is to challenge assumptions, encourage independent and critical thinking, encourage self-identification of strengths and limitations and find ways to address them.

The above features facilitate VTs' and PDTs' learning from the programme and are expected to be particularly helpful when they return to their school contexts and engage in the professional development of their colleagues. On

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return to school PDTs are expected to mentor VTs and facilitate contextually appropriate use of their learning from the course. Together they would conduct professional development activities at school such as workshops, lesson demonstrations and peer coaching for their colleagues.

## The Role of the PDTs

The PDTs are seconded from their schools for 4-6 months to conduct the VTPs. While engaged in conducting the VTP they learn the importance of designing a contextually relevant programme, the need for a safe learning environment and of building on the VTs' prior knowledge and experience.

### Planning the VTP

Planning a VTP usually begins a month or two prior to its commencement. The team meets regularly to select the VTs, identify their needs, frame specific objectives of the programme, decide how best to realize the objectives and how to assess the VTs and the programme.

The VTP depends on effective teamwork. The initial phase of coming together to plan helps to develop a collaborative working relationship among the facilitating team. The team members learn with and from each other as they reflect on their own experiences, and from the literature on teaching and learning. They learn how best to address the needs of the VTs and realize the objectives of the programme. Once the knowledge, pedagogy and teacher development aspects to be covered in the programme are identified, each PDT identifies his/her areas of strength and interest. Often PDTs sharing similar interests but different strengths are assigned responsibility to develop and teach a specific area. Given that this is a professional development opportunity for the PDTs, they are often encouraged to take up a new area perceived as difficult, and to acquire new knowledge and skills with the guidance and support of more knowledgeable colleagues or the faculty member. The sub-teams come together regularly to discuss plans for teaching and receive feedback in a supportive yet challenging environment.

During the planning phase, the faculty member acts as mentor, tempering the PDTs' desire to teach all they have learnt in their Masters Programme; raising questions that lead team members to question their assumptions and experiences; encouraging them to ground practice in their experiences and the literature; and providing personal and professional support as and when needed.

### Implementing the Plan

The VTP usually begins with introductory activities for VTs to get to know each other. Introductions are followed by critical reflection on their past

practice: their teaching methodology, the curriculum and textbooks, teacher-student relationship and assessment practices.

This is seen as an opportune time to introduce VTs to the concept of reflective practice. They are encouraged to continue critical reflection on their learning through daily writing of a reflective journal. PDTs collect journals each week, read them and provide critico-constructive feedback. Difficulty in reflective writing has led teams to find creative ways of promoting reflection such as having VTs answer guided questions, post-lesson conferences and small group and whole class reflection activities in the classroom.

The programme continues with an introduction to the processes of children's physical, intellectual and psychosocial development; and to how children learn through discussion of theory and reflection on observations of children in real classrooms. VTs also learn how to plan effective lessons. Usually two members of the team lead teaching sessions, which include some mix of sharing relevant knowledge and experiences, engaging VTs in activities which challenge and question their existing ideas and help them to construct new ideas and to reflect on their learning. Other team members act as observers recording data for feedback and occasionally contributing to the session. The responsibilities of teaching and observing are rotated so that all team members get the opportunity to grow in all aspects of the PDT role.

An important focus of the programme is to improve teachers' content knowledge. The PDTs have consistently found that the subject matter knowledge of many VTs is quite superficial despite the fact that most have an undergraduate degree in the area. Even those with considerable teaching experience at higher levels admitted that prior to the VTP they 'did not truly understand certain fundamental ideas' or 'had never thought about certain ideas' (Lakha, 1999). The question PDTs have to address is: to what degree can teachers' content knowledge be improved in eight weeks and what is the best way to do so? The PDTs have addressed this question by directly teaching content as well as teaching VTs how to develop their content knowledge on their own. In teaching the content, misconceptions and gaps in knowledge are addressed. VTs are helped to identify what they know, what they do not know and where and how to find out.

A number of instructional strategies (questioning, cooperative learning and enquiry/investigation) are used while teaching content and helping VTs learn how to learn. VTs are asked to reflect on the processes in which they engage and to identify key elements of the strategy. First-hand experience of the strategy as learners enables VTs to assess its strength and limitations for themselves. These instructional strategies are also explicitly taught and practised in preparation for use in real classrooms. In using instructional strategies which focus on process rather than product, VTs begin to see the need for alternative assessment practices. For example, when VTs conduct an inquiry in small groups and make classroom presentations, they begin to realize that learning has been demonstrated. What is required are ways to

record and assess this learning. PDTs help VTs to improve current practices by teaching them how to design better essay and objective test items, and develop the skills to implement the alternate assessment practices introduced.

During the programme, a conscientious effort is made to ensure that the VTs spend at least a third of the programme in real classrooms. They spend time closely observing a student or a small group of students when studying theories of development and examining how children learn. Besides this, VTs teach individual lessons or a planned unit on topics of their choice. Lesson planning involves development of objectives, selection of content and instructional strategies, preparation of teaching and learning materials for teacher and students, and development of tools to assess learning outcomes. Lesson planning facilitates synthesis of their learning and helps VTs recognize that they do have some control over the curriculum. Implementation of the plan in the real classroom is observed by a peer and guided by a PDT. Teaching is followed by self-reflection and group reflection. Reflection on practice is crucial to identifying possibilities and challenges and finding ways to address them. One VT wrote about her experiences in a VTP:

> Each concept and idea that was conveyed and exposed was given time and opportunity to practice in real classroom situations. This repeated and reflected practice removed doubts, made the understanding very clear and gave us confidence in practicing the new concepts. (Dean & Niyozov, 1996a, p. 35)

Joyce et al (1987) notes that teachers must have at least 25 opportunities to practise a teaching strategy before it can become part of their repertoire. The lack of sufficient practice is one great limitation of the eight-week VTP and is one of the reasons for a shift to other forms of VTPs (see Chapters 6, 7 and 8).

As the VTP draws to a close, the participants focus their attention on discussion of the process of educational change and the preparation of a realistic action plan to bring about change in their own classrooms and schools. These plans are shared so that VTs can learn from each other.

### *Behind the Scenes*

The PDTs critically reflect on their teaching at the end of each day, usually in the presence of the faculty member. The reflections seek to identify what went well, what did not, and why. The debriefing sessions eventually turn into planning sessions. Each sub-team shares plans and receives input from other team members. Each day's learning contributes to improving future sessions. The critical reflection sessions encourage the PDTs to strive constantly to improve their teaching and become more reflective practitioners.

At the end of the VTP, the PDTs evaluate the VTs and the programme. Evaluation of VTs is based on criteria shared at the beginning of the programme. VTs receive qualitative feedback on the degree to which they met the criteria and what they can do to improve. Evaluation of the programme is based on analysis of written feedback provided by the VTs on the end-of-the-programme evaluation form and the PDTs' own reflections. The evaluation results in the PDTs identifying successes, challenges and dilemmas faced, and lessons learnt during the programme. They suggest ways to build on the successes, address the challenges and raise issues that require thoughtful resolution. All these form part of a report from which PDTs can learn and to which IED can respond.

### Impact of the VTP

The VTP had an impact on both the PDTs facilitating the programme and the VTs participating in it. The impact on the PDTs has come from their reports on the programme. A number of Masters and Ph.D. dissertations (Ghulam Muhammad, 1998; Vazir, 1998; Lakha, 1999; Mankeia, 1999; Ahmed, 2000; Rehmani, 2000; Fakir Mohammad, 2002) have been undertaken to gauge the impact of the VTP. Some are studies of the VTs during the VTP while others are studies of the VTs a few years after programme completion. These studies have used interviews, analysed documents and observed VTs teaching in classrooms to identify the influence the programme has had on VTs' knowledge, skills, beliefs and practice of teaching. The studies have consistently revealed a profound impact of the programme on the expressed beliefs of the VTs about the subject they teach and about teaching and learning processes. Less evident, however, is the translation of their learning from the programme into significantly different teaching practices in the classroom. The studies reveal that the difficulty in shifting from traditional to innovative practices are due to a combination of programme and context factors which include what was offered in the programme and how it was offered, the overly supportive environment at IED, and the environment and expectation of the school to which they return.

### *Lessons Learnt by the PDTs from the Programme*

Reports of the VTPs indicate that participation in the conceptualization, implementation and evaluation of the programme is a transformational experience for most of the PDTs. Preparation of the VTP provides them the opportunity to evaluate critically the knowledge they acquired during the M.Ed. and find ways to adapt it to the needs and contextual realities of the VTs. While conducting the programme they realize the truth of the statement, 'one learns best when one teaches'. Reflection on the experience brings forth many valuable lessons, such as, the importance of creating a

conducive environment for learning and the need to build on the VTs' prior knowledge and experiences. They recognize the importance of cooperation for effective teamwork and the need to provide practice and follow-up support for knowledge use. Following are the lessons learnt by the PDTs.

*A safe and caring environment promotes learning.* The PDTs learnt that creating a safe and caring environment is necessary for effective learning. Creating such an environment takes time and requires consistent modelling of caring behaviours such as listening attentively, respecting persons and ideas and giving individual attention. When VTs realize that their ideas are respected and valued, their self-esteem and confidence increases, facilitating their active participation in learning. (Halai et al, 1996; Shah, 1999; Alvi et al, 2000; Baber et al, 2000; Hayyar et al, 2000).

*To build on prior knowledge and experiences.* The PDTs learnt that a complete break from past practice can create doubt and confusion leading to a loss of confidence as described by a VT in her journal:

> Now I know that I have to revise all my previous conceptions and learn new approaches, but I am a little confused whether I would be able to find a better way of teaching or whether I'll take only this idea that 'I don't know how to teach'. Before coming here I had the feeling that I am a very good teacher. Now I have to get this feeling again. (Halai et al, 1996, p. 11)

Journal entries like the above made PDTs realize the need to begin from where the VTs are at a particular point in their career and build on their prior experiences rather than try to replace them. They are therefore, first introduced to simple generic cooperative structures, such as, think-pair-share or round table, which they can use during a lecture and then to more complex structures, such as, a jigsaw which can be used as a strategy itself.

*To contextualize teaching.* PDTs know that conceptual understanding is promoted by the use of teaching aids. They are acutely aware that most VTs come from resource deprived schools. They, therefore, teach VTs how to make low cost/no cost teaching aids, from recyclable materials, easily available in their contexts. Similarly, VTs have difficulty recognizing the utility of learning how to conduct knowledge inquiry because of a lack of books and other reading materials in their contexts. The PDTs help them identify organizations from which they can acquire free materials and to see the community as a resource.

*Understanding what cooperation and collegiality involves.* Although cooperation and collegiality are stressed during the M.Ed. programme, the competition for marks often results in contrived collegiality among the PDTs. However, working closely together for 3-4 months towards a common goal, they learn

that showing respect for others, giving due weight to alternative viewpoints, being honest with and trusting of others, being willing to say 'I don't know' or 'please help me', putting team goals ahead of personal goals, participating in joint problem solving and decision-making results in authentic collaboration and collegiality. (Dean & Niyozov, 1996a, b; Halai, 1996; Muhammad Sheikh et al, 1996)

*Practice and support are required for knowledge use.* During the VTP, VTs have relatively few opportunities to use their new knowledge, skills and strategies in the real classroom. The PDTs realized that if VTs are not provided opportunities to practice, and, given constructive feedback, they would revert to old practices. Becoming aware of the limitations of an eight-week university-based programme, PDTs suggested that the course be divided into shorter periods alternating between university and school or a systematic programme for follow-up of the graduating VTs should be put in place.

### Influencing Teachers' Beliefs and Practices through Teacher Education

There are different perspectives regarding the relationship between beliefs and practices. One perspective is based on the assumption that beliefs guide practice. When teachers become involved in new experiences, they question their held beliefs and alter their practice (Thompson, 1992) Another perspective is that beliefs and actions are not explicitly distinguishable so that one cannot identify which changed first, but acknowledges that change requires awareness either of one's own thought or experience (Fennema et al ,1996). Research on the impact of the VTP revealed that teachers expressed a change in their beliefs about the subject, about how students learn and about teaching but change in practice was hindered because they did not know how to convert these beliefs into effective practices and because of the imperatives of school (Ghulam Mohammad, 1998; Lakha, 1999; Ahmed, 2000; Rehmani, 2000; Fakir Mohammad, 2002).

*Change in beliefs about the subject.* Research studies (Ghulam Mohammad, 1998; Mankeia, 1999; Ahmed, 2000; Fakir Mohammad, 2002) have reported a change in VTs' beliefs about the nature of the subject. For example, before attending the programme, social studies VTs perceived social studies as the study of historical events and names of places in geography. From the programme they learnt that 'social studies creates social awareness among people, develops their thinking ability and creates [responsible] citizens' (Ghulam Mohammad, 1998, p. 34). Similarly, VTs' belief of scientific knowledge as factual and true and therefore more valid and authentic than other forms of knowledge was changed to recognizing the tentative, controversial and sceptical nature of science (Ahmed, 2000).

*Change in beliefs about how students learn.* Changing teachers' beliefs about how students learn is important because as Harlen (1993) states:

> A teacher's view of how learning takes place is very important,
> since it determines what experiences and materials s/he provides,
> what role s/he takes in the learning and what role the pupils are
> expected to take, what is assessed and how success is evaluated.
> (p. 37)

At the time of entry to the programme most VTs believe that learning is a passive reception of knowledge from an authority such as the teacher or the textbook. Many VTs categorize students as 'intelligent' or 'slow' believing the children have an innate ability that predisposes them to learn. They also believe that a student's motivation to learn determines the degree to which learning takes place. Motivation, however, is seen as emanating from the student. These beliefs are evident in the comment of a VT,

> Learning can only take place if students themselves are willing. It
> is the first pre-requisite. They should be enthusiastic and curious
> by nature. They should be willing to devote much of their time to
> reading. (Ahmed, 2000, p. 33)

After a few weeks of active engagement with new ideas and materials that facilitate their learning, VTs realize that while innate ability and motivation to learn are important, the learning experiences provided by the teacher in the classroom can develop students' abilities and enhance motivation to learn.

These emerging beliefs are further strengthened after practice teaching in which VTs involve students in the teaching and learning process. Lakha (1999) observes that during a post-practice teaching discussion a VT remarked, 'I was surprised to see students coming to the blackboard and explaining', and in his journal noted, 'it was [a]very interesting incident for me because I [did not] expect that the students [could] also explain their answer' (p. 40).

The knowledge that students are not empty vessels but can think is likely to influence teaching practice. Fennema et al (1996) notes that, 'there is increasing evidence that knowledge of children's thinking is a powerful influence on teachers as they consider instructional change' (p. 405).

*Change in beliefs about teaching.* Most VTs entering the VTP view teaching as largely teacher centred and didactic. After a few weeks in the programme, a radical change in thinking about teaching is expressed. Many VTs who perceived Mathematics as product-oriented, procedure-driven and learnt-through practice, initially could not see the purpose of practical activities in teaching Mathematics. However, as they found their understanding of mathematical concepts improving through activities, they realized that they could use activities to promote conceptual understanding in their own

classrooms. This is what one VT said, 'I was [a] traditional teacher, encouraging rote learning, but now I have realized, Maths is not rote learning and we can do practical work' (Rehmani, 2000, p. 72). Another VT, who prior to the programme stated that the aim of teaching is to complete the textbook, remarked at the end 'Now I am thinking [whether] the concept of the lesson is clear in [the] student's mind and not about how much of the lesson [is] left' (Lakha, 1999, p. 41).

Some VTs were stressed because they saw the value of what they were learning but felt contextual pressures and constraints would hinder implementation. A VT lamented:

> I am feeling stressed at the end of the programme, [because] it will be difficult to apply what we learn here in our context as there are many problems ... lack of cooperation of teachers, the strength of students, the environment of the schools and the headmaster behavior. (Lakha, 1999, p. 38)

Other VTs were deliberately setting aside new information, as they perceived this information to be inappropriate for and inapplicable in their context. VTs, especially those teaching classes 9 and 10 in which students sit for the Matriculation Board examinations felt they could not use activities as they were time consuming. A VT stated, 'The time that we have is not adequate to cover the syllabus through activities, [as activities] require time' (Lakha, 1999, p. 32).

The observation (Fakir Mohammad, 2002) that teachers set aside new information when it is not relevant to their own teaching situation seems to be true here. For these VTs their perception of the challenges of teaching in their context proved to be a barrier the VTP had not helped them address.

*Change in the practice of teaching in their own real classrooms.* At the IED, VTs seeing the benefits that accrue to students during practice teaching, express a desire to bring about change in their own classroom practice when they return to their schools. Classroom observations indicate that VTs have changed their attitude towards their students, tried to engage students as active participants in the learning process, and have used some skills and strategies to improve their traditional classroom practices. They, however, leave out ideas and strategies that are new and relatively difficult to translate into effective classroom practice without further support.

Classroom observations (Mankeia, 1999; Rehmani, 2000; Fakir Mohammad, 2002) indicated a change in VTs' attitude towards their students. This was reflected in the way they dealt with students in the classroom. Instead of 'yelling and punishing students when they made mistakes', VTs now tried to 'understand' why their students were making mistakes. They dealt with the mistakes by providing oral and written feedback (Fakir Mohammad, 2002), and working with them individually often outside of their regular class (Mankeia, 1999).

Students were more active in VTs' classrooms. They came to the board to work out problems and explain the process used to their colleagues; they worked in small groups; and they made presentations based on group work and inquiry (Mankeia, 1999; Fakir Mohammad, 2002). However, in many cases this active involvement was more physical than intellectual. The VTs praised students when they worked out a problem correctly but did not explore their thinking when they made mistakes. Group work consisted largely of solving questions or explaining material in the textbook, and presentations consisted of sharing the group findings with the rest of the class.

Teachers usually use questioning as a way of finding out what students know prior to teaching and checking for understanding after teaching. Prior to the VTP, these questions usually required students to recall facts, and if students could not answer they were not encouraged to do so. Classroom observations following the VTP revealed that VTs have improved their questioning strategies. They ask questions to promote different levels of thinking, provide wait time, call on many students and encourage the students to answer their questions (Mankeia, 1999). Fakir Mohammad (2002), however, found that 'the major criterion of success in the lessons was emphasis on students' right answers to teachers' mainly closed questions' (p. 135).

Skills related to the subject, such as map skills in social studies, are used by the VTs in their teaching. Mankeia (1999) observed a VT teaching longitude and latitude and how to draw an outline map and noted that 'the teacher has a sound understanding of map skills' (p. 36). In the post-lesson interview the VT proudly stated, 'Before the VTP, I was facing difficulty in drawing (maps) and understanding the direction on maps but now my students are getting distinctions in the board exams in the map drawing section' (Mankeia 1999, p. 36).

The VTs seemed to have great difficulty in using the new instructional strategies introduced in the VTP and adapted a few of them to suit their needs. For example, VTs get their students to practise the social skills of listening actively and using quiet voices, introduced in the VTP as part of the strategy of cooperative learning, because it results in a quiet and orderly classroom and promotes the transmission of knowledge. This has been so effective that one school has made the use of these two social skills a school policy, encouraging students to use them even during break time! (Vazir, 1998).

### *Personal Change*

Joyce et al (1987) state that professional development is, first of all, a matter of personal development. Most VTs noted a change in themselves. These changes include discovering strengths and building confidence; developing respect for others and valuing others' perspectives; asking questions and

seeking information from others (Ghulam Mohammad, 1998). A VT claimed, 'I have become more flexible. I am trying to understand people. I cannot say I have changed a hundred per cent but it has started' (Lakha, 1999, p. 51). Another noted that 'Before the VT course I thought it was useless to seek information from others, but after working there I realized I can learn from others also (Ghulam Mohammad, 1998, p. 55). Yet another VT recalled 'Before coming to IED when workshops were conducted in school, I could not participate but here I try to take part and I have got confidence' (Lakha, 1999, p. 33). VTs credited gain in confidence to the presentations they had to make and to microteaching. More female VTs mentioned gaining enough confidence to present in front of male colleagues. They felt their confidence had prepared them to talk to their seniors and superiors who are often male.

### Facilitating and Hindering Factors

*What Facilitated These Changes?*

In studies of the impact of the VTP two factors were mentioned by VTs as facilitating change in themselves and in the knowledge, beliefs and attitudes required for effective teaching and learning. These were the enabling environment provided by the PDTs and IED and the different approach to teacher education used in the programme.

*Enabling environment.* The constant support and encouragement from the PDTs and other faculty members and the facilitative intellectual and physical environment of IED helped the VTs build confidence. This is exemplified in a VT's comment:

> The most important aspect of the course was that one never felt stressed, although we had set goals and deadlines to meet. The course was conducted in a pleasant, friendly, success promoting and encouraging manner. It helped to develop my confidence. It taught me to critically question and examine every aspect of teaching and learning, to reflect on the current practices, syllabus and make decisions to bring about a change for the betterment of the society by developing critical citizens. (Dean & Niyozov, 1996a, p. 41)

> The lack of a similar facilitative intellectual and physical environment in schools, however, makes it difficult for VTs to use their new learning and results in their reverting to routine practices. (Fakir Mohammad, 2002)

Another VT expressed a similar view:

> Nobody [in school] there had a similar perspective of teaching
> such as I had developed at the IED. And after a few weeks I
> locked my files in a cupboard and resorted to the routine way of
> teaching. The IED environment is far away from the real situation
> of school; IED's methods negate the applicability of its philosophy
> in school. IED provides relaxation in timing and luxury in
> resources and satisfies all basic needs, which [is] quite in contrast
> to school[s] where teachers have difficulty in getting a chair or a
> glass of water. IED's learning could be only sustained in the IED
> environment. IED represents an artificial environment for
> teachers. (Fakir Mohammad, 2002, p. 109)

*The approach to teacher education.* Most VTs come from contexts in which teaching and learning follows what Freire (1970) calls 'the banking concept of education' where teachers 'deposit' knowledge into students. Students are expected to memorize and regurgitate this knowledge in examinations. Since the education system is driven by examinations that assess students' knowledge of textbook facts, teachers use methods, such as lecture and recitation, to ensure students know the facts well enough to pass the examinations.

The VTP, on the other hand, is based on the social constructivist perspective which assumes that learners construct knowledge for themselves through encounters with new ideas or situations. Interaction with others facilitates knowledge construction. The role of the teacher is to provide new ideas for learners to interact with and construct knowledge. The VTs soon recognize that it is not the transmission of knowledge but the nature of the activities provided and their engagement in meaning making that facilitates their learning. They realize that the same process can be used with students in their own classrooms as evident from this VT's comment:

> I can use some activities in my large classroom teaching. I [can]
> use [this] paper activity, this I can use. This will not be a problem.
> Low cost/no cost resources will be easy [to] use and the
> headmaster and colleagues cannot disturb or object because it is
> in my classroom. (Lakha, 1999, p. 40)

Another VT credited the change in her teaching to the approach used in the VTP:

> My style of teaching is different, I don't consider myself as an
> expert, both students and teachers play an equivalent role, I learnt
> this on the VTP from the tutors' roles. I am more flexible in my
> teaching; previously only content mattered; now the method is
> also important. The best part is if one thing does not work I
> modify it to my students' needs. (Vazir, 1998, pp. 57-58)

*What Hindered the Change?*

The factors that hindered the conversion of programme learning into effective classroom practices can be placed in three categories: programme factors, school factors and out of school factors.

*Programme factors.* Some programme factors hindered learning and subsequent change in practice. First, the instructional language of the programme, namely English, is a foreign language for many VTs and not the medium of instruction in their schools. Their limited prior exposure to English may have hindered conceptual understanding and use of the ideas presented during the programme. Second, an emphasis on covering the broad curriculum rather than spending the required time for in-depth understanding of a particular content area or strategy was also a problem. VTs recalled struggling with ideas and sometimes being left confused because of the need to move to the next topic (Ghulam Mohammad, 1998). Third, VTs were not always helped to make their tacit learning explicit during the programme. Lakha (1999) observed that many VTs recognized the changes that had occurred in their attitudes and personal behaviour; they, however, were not able to articulate changes in their thinking. Fourth, not enough time was spent on how the ideas and strategies being taught could be adapted in different contexts (Rehmani, 2000). This may be due to the fact that some PDTs teaching the programme had learnt but not themselves applied the new ideas and strategies in real classrooms as they went straight from being students in the Masters programme to becoming teacher educators without the opportunity to teach in real classrooms. Fifth, PDTs sometimes seemed to lack awareness of the contextual realities in which VTs worked and the constraints these realities may pose to change. Consequently, they did not pay adequate attention to VTs' fears of not being able to use 'group work' or 'activities' because these 'require time' which they did not have as they had to 'complete the syllabus and prepare for exams' (Dean & Niyozov, 1996a, b). PDTs often interpreted these concerns as arising from personal factors rather than from the acute awareness of the challenges VTs knew they would face in their schools.

*School factors.* Lack of support from administrators and colleagues is an important hindering factor. Fullan (1991) argues that if administrators are not actively involved and highly visible supporters of particular practice, the likelihood that efforts to use these practices will continue, is minimal. In many cases, the head teacher had restrained the returning VTs from changing their practice instead of supporting them. One VT recalled,

> Once my students were busy in discussion and there was noise in the class, [the head] entered the class and scolded the students about discipline and asked me to stop this game and start to teach as before. (Mankeia, 1999, p. 55)

Another VT stated regretfully,

> Now I am not using my VT learnings because when I came back I
> was very enthusiastic and I used them. But nobody observed my
> classes, checked my planner or asked me what I was doing.
> (Mankeia, 1999, p. 48)

Guskey (1995) observes that teachers need support for change. Support can take 'the form of coaching, providing practitioners with technical feedback, and guiding them in adapting new ideas and practices to their unique contextual realities' (p. 124).

All VTs pointed out that the pressure to complete the textbook and to revise it so that students would have sufficient practice to pass their examinations hindered the transition from teaching for rote learning to teaching for understanding. Teachers preferred to teach to complete the syllabus and obtain good results in the examination. This is evident from a VT's comment,

> I have to complete the syllabus before the final examination. We
> check their memory and skills of drawing [geometrical shapes] in
> the examination; conceptual clarification is not a basic
> requirement of the examination. If we 'check' [assess] their
> concepts, none of them will pass the examination. (Fakir
> Mohammad, 2002, p. 263)

Most of the VTs noted the lack of time to plan lessons, to complete lessons and to reflect on their lessons. A constructivist approach to teaching requires teachers to think of how they can build on students' previous knowledge. This entails designing activities and organizing them so as to facilitate learning. For VTs in resource- deprived schools it involves much more as is evident from this VTs' comment:

> Last evening I spent my time buying material and drawing
> triangles. I bought paper sheets and a geometry box to prepare
> these worksheets. It is not easy to plan a lesson the way I learned
> at IED. (Fakir Mohammad, 2002, p. 255)

Despite spending time on lesson planning, the limited time allocated for classroom teaching affects the learning outcomes that the teachers can actually achieve. In most schools a teaching period is of only 35-40 minutes' duration, which is insufficient for students to engage in activities aimed at facilitating conceptual understanding. Teachers have to negotiate with colleagues to take two consecutive periods or revert to transmission of knowledge towards the end of class time.

There is no notion of time for reflection in most schools even though there is a growing body of evidence (Schon, 1983, 1987; Pollard & Tann, 1993) that reflection is an important source of learning and of continuing professional development. The question that comes to mind is, where is the

time going to come from? What changes will be required to make the time for learning for understanding in our schools?

*Out of school factors.* The prescribed national curriculum that comes to teachers in the form of a textbook they are bound to teach and board examinations which are based entirely on recall of textbook content seem to be the two greatest hindrances to change. Teachers are torn between facilitating acquisition of knowledge, skills and attitudes, which they feel are important for life and completing the syllabus so as to prepare students for their exams. Teachers often look for support to parents but find that they too have come to see teaching as covering the textbooks and learning as memorization of textbook content. A VT claimed, 'I tell my students to read the newspaper and watch National Geographical movies but their parents want them to memorize answers and go through exams' (Mankeia, 1999, p. 47). Pressure from all stakeholders for good results in the examination reinforces tradition (Fakir Mohammad, 2002).

### Conclusion

The above discussion based mainly on the VTP during the first five years shows that some learning did accrue to the teachers who participated in the programmes. They left the programme with a better understanding of the concepts in particular subjects, with enhanced teaching and learning skills and with the desire to move from being the 'sage on the stage' to a 'guide on the side' in their classrooms. However, there was limited and often superficial change in classroom practice. It was clear that while the VTP had from the very beginning included opportunities to practice the newly learned strategies, these were not enough. Also, during the programme, the VTs did not practise in their own classrooms but in a new classroom acquired for the purpose and which was therefore new to them. Acknowledging these problems, the VTPs have become more school-based over the years. At present the course participants spend at least half (120 hours of the total 240 hours) of the course time in their own classrooms implementing the strategies learned in the face to face part of the course. During this period, they participate in weekly seminars to discuss problems of implementation and together try to find solutions. PDTs and IED faculty visit them in their classroom at least five times during the term to provide classroom support.

Despite this change, the institutional imperatives of curriculum and examinations, the resource constraints, and acceptance of the orders of their school authorities continue to be a challenge for implementation and continuation of classroom change. For the VTs choice, to change existing practice, is limited by their own capacity as well as by the structures of the school and society within which they have to choose (Corrigan, 1990). The VTs perceive school culture as static, authoritative, and impossible to change and hence they either do not initiate change or give up quickly. The

programme facilitators and the graduates must both recognize that teaching is a site of conflict and struggle, which are individual and social, complex and evolving (Dean, 2000): a practice they must understand in order to influence the conditions in which they work.

IED now has a 'critical mass' of teachers in many of its cooperating schools. To the emphasis in the VTP on classroom change must be added ways for VTs to work in concert with PDTs and head teachers to bring about change in schools. For as Margaret Mead the famous sociologist reminds us, we should never doubt the power of a small group of thoughtful, committed teachers to change school, since it is the only thing that ever has.

### Notes

[1] This programme was renamed as Certificate in Education in 2002.

[2] Professional Development Teachers are graduates of IED's M.Ed. programme. See Chapters 1 and 3 for a more detailed description.

[3] The first degree is in most cases a bachelor's degree. However, in the case of the programme for primary teachers, this requirement had to be flexible and teachers with a lesser qualification, namely higher secondary school certificate, were accepted. This flexibility was necessary because a large number of primary school teachers in Pakistan do not have a graduate degree.

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