Introduction

I was awarded an IDRC Doctoral Research Award to undertake the fieldwork for my doctoral dissertation on “Knowledge construction through educational technology: A critical study of ‘computers-in-classroom’ discourse in Pakistan”. My initial plan to travel to Pakistan for my field research was around 15th of May however I completed my comprehensives before that and decided to travel sooner. I proceeded to Pakistan for my fieldwork on the 18th of February 2004.

In the following space I am going to draw attention to and discuss the related methodological issues besides some of the problems that I faced during the data collection process.

Field Research

I proceeded to the field with the assumption that the importance of the use of information and communication technologies (ICT) in this globalized era cannot, and should not be underestimated. Technology in classrooms can address issues and problems related to knowledge construction, facilitating learning and raising critical awareness and can play an important role in development and poverty alleviation. However at the same time I was aware of the hierarchical nature of Pakistani society along with a tiered public educational system. I was also aware of the fact that introduction of computers without proper reflection on social, cultural and economic factors has the potential to create and uphold the inequities in social and educational systems.

One of my concerns was to see how computers were being introduced in the public schooling system and what kind of discourse was being built around this introduction that would benefit general population in creation and production of knowledge. My research focused on relationships between technology, power and
education from a critical pedagogy perspective. I wanted to explore in what ways and under what conditions technology plays a significant role in raising educational standards through production of knowledge and in imparting knowledge that leads to a society based on nonexploitative relations and social justice.

Being conscious of the fact that technology has the power to play multiple roles and act as a sorting mechanism where select students might be favoured on the basis of race, class, and gender. I wanted to explore the evolution and mechanisms of educational technology discourse in Pakistan. Specifically, how technology was being linked to education and what consequences such rhetoric would have on the general perception of people about being educated and literate? I wanted to examine what kind of educational technology was being invested in and who were the likely beneficiaries in terms of class, gender and regional groups. I was also interested in finding out the socio-educational impact of educational technology in a developing country like Pakistan especially in terms of what it means to policy makers, teachers, students and parents/community?

**Methodology**

**Sample Size and Sampling Techniques**

My proposed sample consisted of 30 respondents consisting of six policy makers, six school heads, six teachers, six parents and six students while half of the respondents in each category being females. I had initially chosen two public schools (both in Lahore and Islamabad a total of four schools) for observation. Since public schooling system in Pakistan is tiered therefore I wanted to study two very different types of public schools comparatively: one of them totally government funded; and the other semi-autonomous but still publicly funded (Pakistan Air Force School). However armed forces seemed very hesitant in sharing any information regarding their educational system and structure. As a matter of fact I was not allowed even to enter the school. Therefore, I had to settle down for two schools that fell totally under government in both the cities.

I had proposed a purposive sample in my research proposal and I stuck to that during my field research. My links from previous years provided great help in locating important research participants. I am extremely thankful to Dr. Shah from Pakistan International Centre for Research and Academies, Islamabad (PICRA) in helping me with locating research participants. Mr. Baqui Siddiqui at Ali Institute in Lahore was also a big
help and so was Dr. Shahzad Qaiser who got me in touch with all senior bureaucrats and allowing me to sit in discussions and lectures at the Staff College (where senior bureaucrats are trained). I owe much thanks to all these and many others for helping me with a number of issues, starting from my personal problems to getting appointments etc.

Pilot study

I had previously conducted a pilot study in Pakistan in the winter of 2002. It helped me discover issues of convergence/divergence between official and local perspectives on the introduction and use of educational technology in schools and prompted me to use critical ethnographic approach as the most useful approach to study the introduction of computers and resulting discourse about the role of technology in Pakistan’s public educational system.

Field research in 2004

My field research in 2004 built upon my earlier field research using qualitative methodology. Main methods that I used to collect data were critical ethnography, collecting document and in-depth interviewing. Initial weeks of my field work were devoted to locating, contacting and snow balling the respondent sample and in building a rapport with the research participants, gaining access to curricular and policy documents, getting hold of the prescribed textbooks.

Critical ethnography

Critical ethnography can be distinguished from other traditional ethnographic forms on the basis of having a transformative agenda, rather than concerns for describing and interpreting cultural meanings. However, this does not mean that interpretation of how cultural meanings are produced and what is accounted for as truth is not a concern for critical ethnography. Rather, this can be regarded as the first step but critical ethnography does not stop here. It seeks how those meanings and formations that are accounted for as truth come about and who defines the meanings/truth and who benefits from them. It is taken as a given that in doing so a critical ethnographer will become transformed through the process of learning and at the same time it is her aim to raise the political consciousness of the participants also. Thus, the role of critical ethnographer is not of a disinterested participant observer of the traditional ethnography but that of an active/activist participant.
I choose two schools in each city (Lahore and Islamabad) and after meeting with the respective principals I got their permission to sit and observe children in their computer classes. I decided to spend two days at each school. This gave me two working mornings off to visit libraries or government offices that also operate for all practical purposes at half day schedule (although some have office hours of 9-5 but it is difficult to find officers after lunch hour). While observing students, teachers, and administrators I was constantly trying to understand how my respondents were constructing reality and relating to discourse on educational technology. It was very interesting and informative to see how the cultural, social, power and gender dynamics of the Pakistani society spoke out especially in relation to the use of technology in the classroom in particular and daily school life in general.

**Interviewing**

Along with observation, unstructured interviewing was a tool that I had initially proposed. I proceeded with the assumption that the narratives and the stories of the people reflect their experiences and constitute reality. My choice to conduct in-depth interviews was not directed towards getting specific answers to questions (especially pre-meditated answers to pre-meditated questions), rather my interest was in understanding the experience of people like policy makers, teachers, parents who were all stakes holders as far as introduction of computers in educational system was concern I wanted to understand the meaning they made through such experiences.

**Document analysis**

I collected a lot of secondary data in shape of various documents described above. I collected various policy documents from different government offices, libraries. In certain cases my respondents provided me with some documents. I made copies of policy documents related to educational policy formation in Pakistan since its conception in 1947 and especially educational technology related documents since 1980’s and regularly mailed them to my address at Montreal. I still have to analyze these documents in detail. As proposed in my research proposal I will look at these documents research sites that have a historical context. The underlying contention is that these policy documents, records and reports were not written in a void. They were written within
particular historical, political and socio-cultural context by people who were constructed by these discourses and who constructed these discourses.

**Problems faced during research**

Quite a few of the problems that I faced while doing field work in Pakistan were already anticipated by me and this is because I have previous field experience as an anthropologist. As a matter of fact I have previously worked on a number of projects in Pakistan both in rural and urban areas and therefore I was well aware of different types of problems that arise starting from the level of sensitivity to the topic in question to extent of being a young female researcher in highly patriarchal Pakistani society. I did face some hostility from certain lower level government officials. However I was surprised by total non-cooperation from the Air-Force base commander when I requested his permission to visit their school and as a result I had to drop that segment of my research.

I also had problem with residence arrangements especially because I was traveling between Islamabad and Lahore. In both Islamabad and Lahore no body wanted to let me rent unless it was a minimum lease of six months (which is understandable in Pakistani context as I was told by home owners that they have had bad experiences with people coming in and living for a couple of months and disappearing with out paying bills etc.). It presents a complex situation for a researcher who plans to travel and divide her time in two cities during the period of six months. Youth hostels or women’s hostels are scarce and I was advised to stay away from them for safety reasons.

I was advised by my awarding officer Mr. Jean-Claude Dumais to register with Canadian Embassy once I was in Pakistan. Despite my repeated tries which include leaving phone messages and writing e-mails I did not hear from my embassy and had to give up my hope of registering. To some extent I faced problems with respect to the access to policy documents at the Ministry of Education. These documents, although public, were not easily accessible. This problem was solved by a favor granted to me by a senior bureaucrat who wishes to remain anonymous.

**Over all research experience**

I can confidently conclude that my over all research experience went well and I was able to accomplish quite a bit, of course timely help from IDRC was a major factor in my achievement as I don’t know how I would have managed with out the support that
fered by IDRC. I am particularly thankful to my awarding officer Mr. Jean-Dumais in the timely release of funds and time to time guidance.

Calendar of Activities

ry 18th 2004
Departure from Montreal

th to Feb 29th 2004 (Lahore)
Arrival in Pakistan;
Settling Down;
Making initial contacts.
Trip to Islamabad to Pakistan International Centre for Research and Academies, Islamabad (PICRA).

1st to 31st 2004 (Lahore)
Observations at schools
Trips to library (Quid-e-Azam library, Punjab Public Library and Ali Institute of Education Library)
Trips to Ali Institute
Interviews with education board members, administrators and parents.
Weekend trip to Islamabad for interview with a senior policy maker.

1st to 28th 2004 (Islamabad)
Pakistan International Centre for Research and Academies, Islamabad (PICRA).
Observations at schools
Interviews at the Ministry of Education, Government of Pakistan, Islamabad;
Library Research (data collection) at Academy of Higher Education Planning, Islamabad.
Two trips of two days each to Lahore. One, for observing workshop on teacher training on computers. Two to visit spring festival for physically challenged kids.

29th to 31 May 2004 (Lahore)

Observations at schools
More data collection by making trips to library (Quid-e-Azam library, Punjab Public Library and Ali Institute’s Library)
Interviews with teachers, policy makers and parents.

1st to 30 2004 (Islamabad)
Pakistan International Centre for Research and Academies, Islamabad (PICRA).
Observations at schools