

Voices of Teacher and Teacher Educator

ISSN 2455–1376



Volume VII Issue I August 2018

Voices of Teachers and Teacher Educators

Volume VII Issue I

August 2018

Published by:

National Council of Educational Research and Training (NCERT) on behalf of
Ministry of Human Resource Development, Government of India, New Delhi.
Preparation of the publication at NIE (NCERT), New Delhi.

Cover Design & Layout Design: Mohd. Amir and Tarkeshwar Gupta

About the Journal

The journal 'Voices of Teachers and Teacher Educators', an initiative of the Ministry of Human Resource Development (MHRD), is now being co-ordinated by the NCERT. The Journal highlights the vital role of teacher education in India, as the country is poised to provide quality education to all its children, irrespective of gender, caste, creed, religion and geography. The National Curriculum Framework (NCF)-2005, the National Curriculum Framework for Teacher Education (NCFTE)-2009 and the Right of Children to Free and Compulsory Education Act (RTE)-2009 all reflect this commitment and underline the principles that make such an effort necessary and also spell out the strategies for it. The challenge is to augment the role of teachers in shaping the social transformation that India is witnessing, have a long lasting impact on the quality of education, and making education equitable. Teachers and all those concerned with education need to recognize that their ownership and voices are important and that they can and do learn not only from their own experiences but also from each other through collective reflection and analysis. The Journal attempts to lend voice to teachers, teacher educators, researchers, administrators and policy makers in varied institutions such as schools, Cluster Resource Centres (CRCs), Block Resource Centres (BRCs), District Institutes of Education and Training (DIETs), Institutes of Advanced Studies in Education (IASEs), Colleges of Teacher Education (CTEs), State Councils of Educational Research and Training (SCERTs), etc., and make their engagement visible in accomplishing extraordinarily complex and diverse tasks that they are expected to perform. Contributions to the Journal are welcome both in English and Hindi. For maintaining and ensuring quality of reading we are making this Journal a peer reviewed Journal from the next issue. Voices is an e-Journal and we hope to circulate it widely. We also look forward to suggestions and comments on the articles published. The views expressed and the information given are that of the authors and may not reflect the views of the NCERT.

Call for Contributions

This biannual publication is for all of us: teachers, teacher educators, administrators, researchers and policy makers. It seeks to provide a platform and build a network for our voices, ideas and reflections. To enable this journal to reflect all voices, we must contribute to it in as many ways as we can. We look forward to many contributing with different experiences, questions, suggestions, perspectives as well as critical comments on different aspects of teacher education and schooling. The contributions could be in the form of articles, reports, documents, pictures, cartoons or any other forms of presentation amenable for print. We also seek comments and reflections on the current issue to improve publication and make it a participative endeavour. We must together make this journal truly reflective of our voices. We look forward to receive your contributions for the next issue by 31st October 2018. We also look forward to comments and suggestions. The contributions can be sent to the following:

E-mail: voicesofeducators2016@gmail.com

Advisory Board

Hrushikesh Senapaty

M.A. Khader

Ashok K. Srivastava

Editorial Team

Hriday Kant Dewan

Amarendra Behera

B.P. Bhardwaj

Ranjana Arora (Convener)

Associate Editors for the Issue:

Kirti Kapur

Vijayan K.

Aerum Khan

Contributors

1. Nimrat KD Khandpur, Azim Premji University, Bengaluru
2. Vimla Ramchandran, ERU Consultants Pvt. Ltd.
3. Mythili Ramchand, Director, RV Educational Consortium Rashtreeya Sikshana Samithi Trust
4. Jasim Ahmed, Associate Professor, Institute of Advanced Studies in Education (IASE), F/O Education, Jamia Millia Islamia, New Delhi
5. Richa Goswami, Ph.D. scholar at Tata Institute of Social Sciences.
6. Indira Vijyasimha, School of Education, Azim Premji University, Bengaluru
7. Amrit Pal Singh, Pursuing Ph.D. (Edu.), Noida International University, Uttar Pradesh and Dr(Smt.) Pooja Gupta, Associate Professor, Noida International University, Uttar Pradesh
8. Mukesh Malviya, Teacher, Govt. Gyanoday Residential School, Madhya Pradesh
9. Latha K., Doctoral Research Scholar, Tata Institute of Social Science, Mumbai and Padma M. Sarangapari, Professor, Tata Institute of Social Science, Mumbai
10. Rajini Dwivedi, Freelance Educator, Tejpur, Guwahati
11. Hriday Kant Dewan, Azim Premji University, Bangalore
12. Indumathi.S, Faculty, 'I Am A Teacher', Gurgoan and Sameera Sood, Hetritage School, Gurgaon
13. Uma Shankar Periodi and Rudresh S, Azim Premji Foundation, Karnataka
14. Jyoti Sethi, Research Scholar at CIE, University of Delhi
15. Gurumurthy Kasinathan, Director IT for Change
16. Akhilesh Yadav, Village- Dhanua (Sheraligarh), Post- Bahariyabad, Dist- Ghazipur , Uttar Pradesh
17. Aerum Khan, Assistant Professor, CIET-NCERT, New Delhi

CONTENTS

S.No.		Page No.
	<i>About the Journal</i>	iii
	<i>Editorial</i>	vii-xi
1.	Operationalizing the Quality of Teacher Education Institutes: Principles and Challenges Nimrat KD Khandpur	1-9
2.	The Training Game that Teachers are Expected to Join in Vimla Ramchandran	10-16
3.	Preparing Reflective Practitioners – Curriculum and Pedagogic Implications Mythili Ramchand	17-23
4.	Teacher Education In India: A Critical Analysis Jasim Ahmed	24-36
5.	Framework of Teacher's Knowledge: Concerns for Teacher Preparation Courses Richa Goswami	37-46
6.	Literacy Workers or Competent Professionals Indira Vijyasimha	47-58
7.	पाओलो फ्रेरे के शैक्षिक विचारों के संदर्भ में समकालीन भारतीय शिक्षक शिक्षा की स्थिति : एक विश्लेषण अमृत पाल सिंह और डा०(श्रीमति) पूजा गुप्ता	59-67
8.	शिक्षक-प्रशिक्षण जो थोड़े अलग से थे मुकेश मालवीय	68-70
9.	Collegiality in Teaching: Perceptions and Experiences of Beginning Teachers in India Latha K. and Padma M. Sarangapani	71-85
10.	शिक्षक शिक्षा में पढ़ना सीखने की जगह रजनी द्विवेदी	86-92
11.	In-Service Capacity Building Hriday Kant Dewan	93-98
12.	School Based Teacher Preparation- Possibilities and Challenges Indumathi.S and Sameera Sood	99-106
13.	A Unique Initiative of Government of Karnataka in Teacher Professional Development Uma Shankar Periodi and Rudresh S	107-112
14.	Learning to Teach Mathematics for Social Justice: a Dialogic Reflection Jyoti Sethi	113-120

15. Exploring Teacher Agency - ICT Program Design in School Education 121-128
Gurumurthy Kasinathan
16. उच्च माध्यमिक स्तर पर दिव्यांग विद्यार्थियों की शिक्षा के प्रति अध्यापकों की अभिवृत्ति का अध्ययन 129-139
अखिलेश यादव
17. Book Review- Resource Book on ICT Integrated Teacher Education 140-143
Aerum Khan

Editorial

This issue of the Voices of Teachers and Teacher Educators is on teacher preparation and development. It is expected that this may also have issues more due to the importance of the theme and also because of the large churning in ideas around this. Various consultations and discussions have brought out the status of the teachers, their stratified reality, the way they are governed, their ability and preparation as major concerns. And on top of all there is the concern about the attitudes to them and their motivation. All these factors have inter-relationships and mutually strengthen each other. The fact that teachers are key to the enterprise of teaching has been stated very often but in terms of its reality on the ground the appearance is far different. The teachers not only have a low self image but are also have a low social image. Obviously these two images mutually feed each other. The community, administration and even children do not consider teachers as models for others and not even worthy of great respect. A common teacher in general is just one more person and not considered worthy of too much respect even though many people may remember and revere their own teachers and consider them as special contributors to their lives.

The teachers feel oppressed and also confused about their role and their status as there are many diverse kinds of expectations, ideas and statements about their role. On one hand they are expected and declared to be the builders of the society and expected to build the ethics of the society through the education of children and on the other they are lowest rung employees of the large bureaucratic and political system that very rarely showcase motivating examples on ethical front. They may be deputed to whatever sundry formal or informal tasks that come the way of the system. And then they are to build a feeling for and understanding of the democratic country as per the constitution but are themselves governed and administered arbitrarily without much scope for using their own ideas and being able to explore and learn through the experience of exploration. Increasingly the scope and meaning of education itself is getting restricted and limited to the task of having the student acquire minimal arithmetic and reading skills. Today the loudest voices suggest and indeed demand that teachers and school just facilitate students to show performance and get marks and percentage in examinations. Their role is reduced to mechanically following the procedures and activities given in the order and in the manner provided. In this they are expected to follow the guidelines attempting to help reach answers with all types of short-cuts, often without an understanding of why they work. They are to be away from school multiple times and do a lot of paper work spending a lot of time in these and other such tasks leaving them with no scope and time for fulfilling the wider educative agenda or even the classroom needs of children.

The teaching community in all schools whether public or private schools, is arbitrarily stratified. In each school there can be many types of teachers with different conditions of employment. With different histories and manner of appointments the terms of service are also different. It is not as if the role and responsibilities of these sets are very different and in this situation it is very difficult to keep motivation when people doing the same job have very different status and/or compensation structures. Such a stratification destroys for both sets of teachers, the seriousness and the gravity of the role. In the public system, in many cases the teachers in the same institution or school are governed by different rules and administrative bodies. In private schools teachers have always

been hired arbitrarily with no service rules and conditions and maybe fired if they cannot ensure success or they do not toe the line. This arbitrariness is not seen in the public school system but having guest teachers and such other devices is with the same principle. In spite of the rhetoric, there is a reluctance towards long-term investment on teachers with a view to empower them in both systems and the effort is to make them deliver quickly and for that the chosen strategy now is controlling and directing them. Besides this even in the public system, the kind of governance and administration processes teachers generally have to deal with and navigate every day shrinks their motivation, space and occasions for learning. While there is a sense of security of being in a profession for those who are regular, there is no mechanism for involving and engaging them in making the system work better. The teachers are considered to be shirkers and referred to in variety of derogatory terms as tonal distortions of the word “teacher or master”. Apparently well intentioned people and improvement processes also contribute to the threat to the notion, profession and role of the teacher through the suggestions that emerge from them as they keep only the short term and the superficial purposes in mind.

In a deep sense much more than any other profession the general impression is that the best do not come to teaching and those who come are not interested. It is not their first choice and they can not be expected to do better and make judgements or even contribute to deciding what should be done. There is a disdain about the requirements from the role of the primary school teacher, she is not expected to have to know too much or do too much. The feeling in most people who are educated is that I could do better than the teacher. This influences the conversations on how much should the teachers be compensated and how should their work be judged. They are the butt of everyone’s comments and advice. While some who advice are justified in their attempts to do so, many ‘advisors’ have not taught in a school and many not even been to the school and classrooms for a reasonable time with independent interaction even with children of one or two classes. These persons yet consider themselves capable and authorised to dictate and direct what the teachers should do. The result is that for the teacher school experience is not a means of growing and reflecting or an opportunity to attempt to create for herself and for children a deep sense of interaction within the school but is just to obtain and practice the techniques to manage children and deliver content. It is focussed at how to somehow survive in the class-room as a teacher. There is no occasion for and expectation of having situations that give the teacher a sense of experiencing the joys, the pains and challenges and somehow to feel close to the children, the community and their learning.

Given their low esteem even the colleges that prepare them for teaching and the teacher educators also feel un-motivated. Their preparation program at the school, university/college or the teacher college stage does not expect them to read, understand and interpret on their own. This leaves both the teachers as well as teacher educators cognitively under-prepared with limited scope of improvements. The focus in programs of teacher development is on methods and techniques, it is about obeying and following procedures. Their preparation or even the in-service programs does not urge them to articulate their ideas, understanding, experiences and their methods for appreciative inquiry. They rarely get the opportunity to think on these issues to explore and challenge their own and other naive beliefs about education and society as well as their

interplay. The system only adds to their reluctance to engage their held beliefs with reasoning and new ideas. Due to inadequate preparation and opportunity they find it difficult to develop a questioning and challenging attitude and instead continue with the tendency to accept what is told or given in written (or oral form) as the correct knowledge.

Given that the world around is changing, the context of education also is undergoing changes. The notion of what is worth knowing and what it means to be educated and the key principles of teaching learning are all evolving leading to a somewhat changed notion of knowledge, education and educational process. There is therefore a need to create, accept and construct shared alternate definitions of a teacher, a learner and the learning process among all those who interact with the schools. This requires efforts in multiple dimensions and from multiplicity of people. The major issues that need to be kept in mind can be defined as creation of an ambience that preserves the purpose and possibilities in a capable and willing person. Indeed it should be able to even create some purpose and possibilities for the teachers. It requires a structure, a process and its implementation such that the basic principles are reflected at all levels of the system. It certainly requires better teacher preparation programmes and more carefully constructed and implemented in-service interactions among and with them. In the present context the variety of views and perspectives need closer inspection and critical review. We need to examine the overuse of terminology and concepts in alien formulations. Deeper organic understanding of what teaching-learning process requires must not be replaced by terms that sound profound but convey very little. The essential need is to understand children their social context, their aspirations, strengths, the political environment and be sensitive to the communities children come from. All this is essential to complete the purpose of education for these children. There are wise practices among teachers and that can be learnt and shared through exchange of ideas and mutual observations. All this should not be allowed to be clouded over by terminology like pedagogic content knowledge, competency, etc. Teaching and learning is a human process that evolves for each teacher/child group and should only be informed and enriched by such terms rather than bury the natural possibilities under the tension and fear of following the terms.

These programs must see teachers also as trainers and as presenters of ideas and not just receivers. The trainers must have reasonably long experience of being in school, of teaching children and have a sense of how to convert the 'complex' principles of education they want followed and developed in to interactions with teachers and suggest ways of making it possible in the classrooms. Clearly the focus of the effort should be to make teachers and educators feel freer and experience freedom and responsibility. They must develop a shared vision of education and scaffold each other to make it happen. Avoiding quick fix solutions and slogans, helps us work towards setting up cohesive processes of engagement between the community, teachers, civil society organisations and the govt with its administration. Teachers need to have spaces for the expression of their personality and an image that is of a responsible contributor to the society. Governance and management can not be only for control and direction giving just as it can not be allowing what each wants to do. The formal system has been set up for a purpose and must reflect the principles it espouses in words as well as in action. The balance between individuality and collective functioning has to

be evolved and to be consciously and constantly worked towards in all aspects of teacher development and functioning.

This issue of VTTE has a broad spectrum of papers from people with different experiences. The papers analyse the challenges of the system at the institutional as well as individual practitioner level and give examples of possibilities of processes and mechanisms that show promise of hope. These include processes in the large public system, process with the public system and in private institutions. They also include studies with teachers and their own reflective experiences.

The papers in this volume reflect the wide scope that teacher capacity development covers and underlines its importance while expressing concern about the way it is today. Even though it has now become an almost acceptable principle that in service interaction is necessary, the papers in this volume point out the challenges in this. The spectrum of papers ranged from the recent changes in the pre-service programme to the idea of preparation of teachers and what does such a process entail in general and for specific subjects. It also includes experiences of being part of processes showing the challenges of in service programmes and the possibility that exist to modify and improve them. The papers also point out that teacher preparation and capacity building is linked to their being recognized as such and having a respectable identity professionally in all aspects of their work including when they are to participate in inservice programmes and which ones.

The paper by Nimrat briefly reviews the issues and challenges related to the quality of teacher education in India and efforts towards assessment and accreditation. In particular the structures such as NCTE and NAAC that are responsible for them and presents the major aspects of a critiques on them. She not only recommends a comprehensive framework for assessment usable for self-assessment by the institute and for accreditation but also points to challenges inherent in such a task.

The next article by Vimla is about the development of a person into a teacher. She argues that pre-service and in-service trainings need to be interlinked. Her paper points to the disorganized, repetitive and uninteresting trainings, teachers have to participate in and suggest that these need to be built from ground up.

The paper by Mythili develops the notion of a reflective practitioner and explores it in the context of the teaching profession identifying the need, the key features and the mechanisms to make it possible.

The paper by Jasim Ahmed revisits development of teacher education in India and analyses present challenges in the light of the recent curricular change. It suggests the need to have a clear vision and mission for teacher education that should be pursued over the long term and not changed frequently.

The paper by Richa Goswami presents a framework for teacher's knowledge for being in a classroom. Her paper includes a small study on merit of the knowledge of the teacher's from a few schools of Udaipur, Rajasthan. She brings out dimensions of this knowledge that reflect the various factors that affect classrooms.

The paper by Indira Vijyasimha presents a case study of how a well thought out teacher develop program can contribute positively towards innovative education of tribal children through analysis of the effort of a non governmental organization towards this. Indira used many sources of data from the classroom.

This paper by Amrit Pal Singh and Pooja Gupta analyses the situation arising out of the implementation of 2 years B.Ed. programme and asks for restraint in the pace of implementation.

The paper by Mukesh Malviya based on his experience as a teacher brings out what he considers as the remarkable features of an in service teacher development program which he was a part of. His paper indicates like the other papers do, the need for a respect and scope for the intellect of the teacher in the interaction.

The article by Latha and Padma presents the experiences and expectations of Beginner Teachers based on a qualitative study of teachers in Karnataka. They point out that collegiality among teacher team is essential. They point out that in the Indian context it is collegiality that beginning teachers find essential for their work.

A paper by Rajni based on her long experience of working with teachers in workshops and her own development as an educator underscores the importance of teachers developing the ability to read with understanding and the process for it. She underlines that shared reading and reflection on the meaning of what the reading is about helps in understanding.

The article by Hriday Kant Dewan explores one aspect of the in-service orientation of teachers and using the experiences of participation in some large scale teacher training programs points out the need for revising of the mechanism of training and the preparation of the resource group that would provide the training.

The paper by Indumathi and Sameera analyses and presents the experience of a teacher preparation programme that is embedded in a school. The program has many important features like reflection, feedback and monitoring.

A Paper by Uma Shankar Periodi and Rudresh is based on the effort of the state of Karnataka to make teacher professional development meaningful for teachers by giving them choice of picking modules they want to join. The online management of the module allocation and group formations is landmark attempt at making training relevant and choice based.

The paper by Jyoti Sethi is based on her work with six elementary teachers who collaborate to explore critical maths education for social justice using a task based programme. It tries to reduce the gap between research learning and on ground work.

The paper by Gurumurthy suggests that digital technologies can affect teacher as it gives them an opportunity to exercise her freedom. He suggests that only by studying its results the role of Information and Communication Technology (ICT) can be fully understood itself.

The issue of education of the specially abled has been on the forefront for last decade in particular. The most important group for making it possible are the teachers. The paper by Akhilesh Yadav is a study of the attitudes to such children.

Aerum has reviewed the Resources Book on ICT Integrated Teacher Education specifically for this issue.

This issue has addressed many issues but a lot have been left unaddressed. The importance and the scope of the teacher education merits another volume on this. But we will wait at least for one issue to revisit this. In the meantime we will deliberate upon other aspects of education.

Operationalizing the Quality of Teacher Education Institutes: Principles and Challenges

Abstract

The paper briefly reviews the issues and challenges related to the quality of teacher education in India. It then traces efforts towards assessment and accreditation of teacher education institutes with specific reference to National Council of Teacher Education (NCTE) and National Assessment and Accreditation Council (NAAC), highlighting major critique of the same. A discussion of what the purpose of accreditation should and how this purpose can be achieved is followed by a recommendation for a comprehensive, developmental framework for assessment of teacher education institutes which can be used for self-assessment by the institute and accreditation by an external body. The development of such a framework is illustrated with a discussion of challenges inherent in such a task, and the principles that emerge.

Context

The phrase ‘quality of education’ seems almost incongruous – after all, if formal education does not adhere to certain basic standards, then should such an education be permitted at all? This question is particularly relevant in the context of teacher education institutes in India, and particularly poignant, given that what happens in our teacher education institutes directly impacts what happens in our school classrooms, thereby affecting the lives of innumerable children.

The history of teacher education in India is fraught with neglect and adhocism, despite best intentions, amidst which the Report of the Justice Verma Commission stands as a landmark in the history of teacher education in the country. The Justice Verma Commission was a High-Powered Commission appointed by the Supreme Court in 2011 while hearing Special Leave Petitions filed by 291 teacher education institutes against

a High Court order that stated that grant of recognition to these teacher education institutes was in breach of the Government of Maharashtra’s directive that no new institute offering the elementary teacher preparation program should be opened in Maharashtra.

The Commission was required by the Hon’ble Supreme Court to ‘examine the entire gamut of issues which have a bearing on improving the quality of teacher education as well as improve the regulatory functions of the NCTE.’

The Report of the Commission emphasized the symbiotic relationship between school and teacher education. It highlighted the fact that while 80% of elementary school children were educated in State schools, 90% of teacher education institutes are in the non-government space, thus necessitating an appropriate regulatory framework for quality standards in teacher education. It pointed out that

NCTE, even as a statutory body, had not been able to control the proliferation of sub-standard teacher education institutes, leading to commercialization of teacher education in the country.

An indication of the magnitude of uncontrolled proliferation of teacher education in the country can be inferred from the fact that the number of programs recognized by NCTE in 2007-08 had increased to 11863 from 1215 in 1995-96. The growth was skewed in terms of number of programs recognized by NCTE in each of its Regions; in 2007-08, the Southern, Western and Northern Regions offered programs from 2500 upwards while the Eastern Region offered only 511. More recent data is not available in the public domain.

The Report of the Justice Verma Commission states that while the expansion of a system per se may not be 'objectionable, it becomes problematic when the major part of this expansion is of poor quality institutes. It is pertinent to note that this expansion has largely happened in the private self-financing sector.' The Report attributes this growth to the fact that NCTE allowed self-financing institutes to offer teacher education programs in consonance with the policy of liberalization and privatization in other sectors.

The concern expressed by the Report of the Justice Verma Commission regarding the quality of teacher education is manifested in the poor quality of teachers, and therefore poor learning outcomes in schools.

Practices to assure quality of teacher education institutes

A review of practices across the world reveals different models to assure quality of higher education institutes; these could even be specific to institutes within a country. Generally, these models focus mostly on processes

and emphasize the development of a system of quality assurance within the institute itself. Thus, self-evaluation is the most prevalent means of quality assurance, with the intent to facilitate continuous improvement, but in order to add value to internal quality and quality assessments, external quality monitoring is also in practice all over the world.

In case of teacher education, there is no specific teacher education accreditation agency in most countries but a higher education accreditation agency takes care of teacher education as well. According to the literature, there are basically two models of quality assurance in teacher education – the first is affiliation to a university and the second is accreditation by an independent body. Broadly speaking, there are three major ways of assuring quality – self-evaluation, benchmarking against standards – which may be based on best practices as evidenced by literature, conceptual frameworks for teacher education, and lessons from the field – and external quality monitoring.

India is peculiar in that programmes of teacher education are offered both as part of the University system and in stand-alone teacher education institutes. However, regulation of all programmes of teacher education is done by the National Council for Teacher Education (NCTE), established by an Act of Parliament (Act No.73 of 1993) "with a view to achieving planned and coordinated development of teacher education system throughout the country, the regulation and proper maintenance of norms and standards in teacher education system and for matters connected therewith".

In addition to NCTE, the National Assessment and Accreditation Council (NAAC) is an autonomous body established by the University Grants

Commission (UGC) of India to assess and accredit institutes of higher education in the country. It is an outcome of the recommendations of the National Policy in Education (1986) which laid special emphasis on upholding the quality of higher education in India. To address the issues of quality, the National Policy on Education (1986) and the Plan of Action (POA-1992) advocated the establishment of an independent national accreditation body. Consequently, the NAAC was established in 1994 with its headquarters at Bangalore.

NAAC has established assessment and accreditation norms for higher education institutes providing professional programmes, including teacher education institutes. In addition, in 2015, NCTE signed a Memorandum of Understanding with the Quality Council of India to accredit teacher education institutes preparing teachers for the elementary stage.

However, several issues plague the accreditation process in our country. Criticism of these accreditation processes includes the concern that, too often, they are based on minimal information and quantitative measures, and often focussed on physical infrastructure or simply on learning outcomes without examining processes and the quality of provision other than physical infrastructure or qualifications of faculty, etc. Standards and criteria are criticised for being too narrow and often missing out on the context of institutes, and are often so theoretical that they miss out on the realities of the field. Where the qualitative aspects are in focus, there is the issue of variation of judgments within and between inspecting teams. While self-evaluation reports are required from teacher education institutes, the unwillingness of some of the peer teams to take tough decisions, and the overemphasis

and liberal attitude of few others has resulted in distrust in the process and dissatisfaction with the outcome.

Another major issue is that the NAAC accreditation results in assignment of a grade to a teacher education institute but does not provide any detailed or comprehensive feedback on how to improve processes and outcomes. Thus, the focus remains on catering to the immediate need to improve observable criteria rather than effect a deep and wide ranging, sustainable change. Often, the notion of quality remains limited to that defined by the NAAC indicators, often preventing contextualised and out-of-the-box approaches to improving quality. While indicators and criteria help in assessing particular aspects, they are often limiting and mechanical, often leading to a losing sight of the larger goals of teacher education.

While the NAAC framework endeavours to cover all aspects of quality, it is basically generic rather than geared towards teacher education institutes. Also, the tools to gather data are insufficient and focussed on records and observable criteria. At best, in the absence of internal quality mechanisms, which are not a mandatory requirement, the NAAC assessment becomes a one-time event to check quality against certain indicators as opposed to a continuing pursuit of excellence. At worst, stress on aspects like documentation as a source of evidence could put pressure on teacher educators to 'generate' evidence.

To make matters worse, NCTE has been plagued with a number of issues, ranging from an absence of institutional mechanism to review norms and standards, recognition of courses rather than institutes, lack of guidelines for innovative programmes of teacher education, expertise of pre-

recognition visiting team members, and so on. Thus, teacher education is doubly troubled – from inception of institutes to certification of their quality.

What should Accreditation do and how?

As opposed to being an inspectorial or critical process, accreditation must have two purposes – quality assurance and institutional development. It must encourage accountability with a culture of continuous improvement and reflection. A rigorous and transparent accreditation system must help identify exemplar institutes, those that need support, and those that are in violation of regulations and therefore need to be closed.

The value of accreditation is different for different stakeholders. For an institute, it helps determine if it meets or exceeds standards of quality and is a recognition of efforts to develop and improve. For students, it helps them choose good institutes for enrollment. For schools, it helps to determine whether a future teacher to be hired has received a degree from an accredited institute. For teacher educators, it provides an indication of whether the institute will provide them an academic culture within which they can realize their professional identity. Finally, for the public, it is an assurance that there is conformity to general expectations based on external evaluation.

It follows that the purpose of accreditation must not be to label or rank but to improve quality, and for degree equivalence across institutes, or certification of programmes. In order for this to happen, a comprehensive framework which can be used by institutes for self-assessment is required. This framework must be dynamic; periodic review should be undertaken to ensure it is aligned to contemporary policy and discourse in education.

Such a framework must have a comprehensive range of indicators, both qualitative and quantitative. While quantitative indicators lend themselves to robust and objective measurement, it is equally important to have indicators that reflect the nature and quality of processes. Hence, the indicators should be a mix of quantitative and qualitative measures.

The larger ecosystem influences the functioning of an institution; in turn, the functioning of the institute affects the performance of an individual. Hence, a holistic and comprehensive approach to assessment through involvement of multiple stakeholders tracked through multiple data points or evidences is recommended. Therefore, the indicators could include ‘enablers’ (a mix of inputs and academic support processes– e.g. resources as well as capacity building) which facilitate the achievement of performance or outcomes in a system.

Much can be said in favour of both programme and institutional accreditation – while institutional accreditation is necessary for the development of institutional culture, environment and processes which enable implementation of programmes of quality, programme accreditation is focused and specialized. However, focusing on the programme to the exclusion of the larger universe it is situated in is taking a narrow approach – the context of the University the department of teacher education located within in, or the other engagements of the teacher education institute, determine the culture of the teacher education programme plays out in, and significantly impacts its quality. Thus, an institute would necessarily have to engage with both, preferably in the mode of self-assessment. This is especially relevant given that initiating a teacher education programme requires

approval from NCTE, the statutory body for teacher education, which gives recognition to programmes, and not institutes. While there are certain principles which inform the entire variety of teacher education programmes, a clear distinction can be made between a programme preparing elementary teachers and one preparing teacher educators. Similarly, a programme intended to prepare teachers for physical education classes has different requirements from that preparing teachers for social science classrooms. To reiterate once again, care must be taken to include indicators which are not limited to infrastructure and overt aspects of processes and outcomes but also consider the qualitative nuances.

Any institute (or department within a larger institution, or a network of institutes as in a University) acts as a part of a system comprising interdependent yet interacting elements embedded in a particular context from which the institutes obtains inputs or resources, uses the input to organize academic processes, and produces outputs. Institutional survival and growth depend on adapting to and influencing the changing environment, as well as on producing outputs that are valued by external stakeholders – which again enables the institute to obtain resources (e.g. either locally or from the government or another source). The context provides incentives to the institute(s), stimulating them to act in certain manners. Some incentives foster productivity, growth and capacity development, others foster passivity, decline or even closure. Therefore, efforts to enhance institutional quality may often be best served by addressing both internal and external factors; a one-dimensional approach is unlikely to succeed. At the same time, institutional development efforts must, for several reasons, be addressed strategically and

in a sustained and long-term manner for them to succeed.

Developing a Framework for Assessment of Teacher Education Institutes

From the foregoing discussion, it is clear that the first step towards a robust system of assessment and accreditation to assure quality would be to develop a comprehensive and rigorous framework for assessment of teacher education institutes.

While from a theoretical perspective the development of an assessment framework for teacher education institutes should be a fairly straightforward task, there are several challenges inherent in such an exercise. The process itself is fraught with certain questions, being, at its most simplistic, a struggle between what can be measured and what ought to be assessed

The first of these is the format of the framework. The essential components of such a framework would be indicators and criteria – indicators are literally indicators of quality, while criteria operationalize these indicators into tangibles. For example, while quality of research would be a necessary indicator in a framework to assess teacher education institutes, how can quality of research be observed, and therefore assessed, would be the criteria. While there is no single set of criteria that would fulfil the indicator, a choice needs to be made regarding how quality of research may be operationalized – these would be the criteria. For example, Conducting and documenting research studies and projects, Mentoring research studies and projects, and Dissemination of Research Findings could be some criteria to operationalize the quality of research.

The next question is – do we need to categorize these indicators or will a laundry list suffice? And if we categorize them, will there be overlap? Is it possible at all to categorize, given that each of the indicators are so interlinked – e.g. is it possible to speak of quality of teaching-learning without speaking of infrastructure and learning resources? Or of quality teaching-learning without research? The answer is that categorization is necessary, and not only to make the framework more manageable through breaking up a large laundry list into domains on the basis of similarity of indicators and the criteria describing each. It is also necessary to give each institute being assessed a chance to showcase their successes, and to determine whether these successes can be leveraged to improve their quality, along with dissemination to other institutes. For example, if an institute is not strong on research but strong on connect with school, it can be encouraged to leverage this connect to conduct school based research. And its success can be disseminated to other institutes.

While it is well established that indicators and criteria are definitely required, the question arises – how do we identify the level of functioning of an institute and also indicate the roadmap for further improvement? As discussed earlier, often, it is possible that institutes have a limited understanding of the parameters of quality, often restricted to the indicators, and/or criteria, that are part of the institutional accreditation process. This question can be addressed through having levels in the framework. These levels should be in the form of a developmental continuum of evidence in the form of institutional practices for each of the criteria. The advantage of having these levels, which are in the form of rubrics, is that they indicate progression across

levels based on increasing complexity of practice or the appearance of new practices. This can help place an institute at a certain level based on evidence related to a certain criteria within an indicator, and then indicate to the institute expectations from them in order to progress along the continuum. For example, let us consider the case of an indicator which examines in-service programmes conducted by a District Institute of Education and Training (DIET). This indicator could have the criteria of planning, implementation of in-service programmes etc. For the criterion 'planning in-service programmes', the first level could entail supporting in-service education activities organized by other agencies (SCERT, CTE/IASE, SSA and RMSA, etc.) as well as undertaking assigned responsibilities related to programmes initiated at state level. The next could be developing a plan for initiatives at the Block level based on the identification of development needs through engagement with teachers, and Block and Cluster level Resource Persons. A third could be facilitating establishment of learning communities and activities like teachers' forums, seminars/conferences, etc to support capacity development at the DIET level. The next level could be putting in place training management systems and maintaining records of individual teachers' participation in professional development activities. Finally, the criterion could be further operationalized at the last level as facilitating Cluster level Resource Persons in the implementation of an individualized development plan for each teacher (shared with the Head Teacher).

The advantages of a developmental continuum also include the range it offers to operationalize a criterion. For example, from the mere presence

or absence of a criteria, or a limited description, the levels offer a representation of the various ways in which it can manifest. For example, the criterion 'use of technology in teaching-learning' could require a yes/no response. But if we define levels, then the possibility increases – we can offer the institute an opportunity to select from – technologies used to share resources, technology is used in the form of Power Point presentations, utilized technology for independent research, technology enabling self-directed learning, and so on. Now, the challenge here is to balance between macro-level descriptors and descriptors which go into too much detail. While cryptic or macro-level descriptors can lead to misinterpretation or confusion, too many details can also lead to confusion. For example, if an attempt is made to clarify criteria through liberal use of examples, there is a danger that the examples will be taken as descriptors. Thus, a balance must be maintained between complexity and simplicity while maintaining rigor. The thumb rule is that the framework must be accessible to the users, while providing a common vocabulary for discussions on quality.

The question now arises, given our current context, are the descriptions of levels too ambitious? With reference to the previous example, it might be asked - most DIETs lack basic physical and human resources; for them a holistic journey of institutional improvement can be seen as a huge leap of faith. Further, do the so-called 'negative' institutional practices or lack of practices also find a place in the framework? For example, if an institute does not have a library, or does not adhere to the guidelines for school internship programme, would this find a place in the lowest level? This question is also important since these 'negative'

or 'missing' practices are often seen in institutes, not because of absence of will or maleficent intentions on the part of the institute but simply as a result of insufficient funds or the lack of a supportive ecosystem, or inability to manage several demands placed on an institute deficit in resources. This question can be addressed through taking the approach that such practices do not find a place on a framework indicating the quality of an institute, simply since they do not operationalize quality, but the lack of it.

This takes us to the next question – is it fair to include in the framework criteria which are influenced by factors external to it? For example, the school internship involves a partnership with schools, and it is not possible to create a plan independent of schools. Thus, it is necessary to restrict the framework to practices which are within the purview of the institute, for example, in the case of school internship, the creation of a sustained and meaningful reciprocal relationship with schools, selection of schools for school internship and matching schools to student needs, orientation of schools, and so on.

The next question is – would it also make sense to articulate enablers? By enablers is meant the factors within the ecosystem in which the institute operates which would facilitate their quality. While the idea is sound, it would make the framework complex. At the same time, the presence of categories means that if an institute is deficit in, say, infrastructure, it follows that other indicators will also be compromised. Thus, a more sensitive approach to assessment ensues. The temptation of assigning arbitrary ranks and taking punitive action also gets reduced.

As far as the development of the framework is concerned, the initial draft can be created through collation of expert opinion and consultation with

a representative group of stakeholders, in addition to review of policy and literature (including analysis of conceptual models of teacher education). Another critical source is evidence from practice through observation of teacher education institutes – their facilities and processes – including necessary interactions with other stakeholders (e.g. practicing schools). Critical incident analysis/ behavioural event interviews may also be carried out to get a holistic picture of not only institutional practices but also of what motivated them, related reflections, etc.

The initial draft must undergo content validation by academics and practitioners (through dissemination of the initial drafts for review, intensive workshops, focus group interviews, surveys, seminars, conferences, etc) and endorsement by stakeholders (could be based on principles, such as flexibility, commonality of language, credibility, and simplicity and transparency). In addition to these, actual use of the framework by developers to assess quality of ‘real’ teacher education institutes is necessary so as to get an accurate assessment of its worth.

Thus, framework development and validation must happen through an iterative process of engaging with the field and secondary research.

Conclusion

If the discussion so far, and the experience with developmental frameworks, is to be summarized, the greatest challenge is balancing comprehensiveness and simplicity while maintaining academic rigor, and while ensuring sufficient flexibility to allow the framework to lend itself to

contextualization.

As far as possible, practices must be articulated so that they can be assessed but there is also a need to state intangibles (e.g. institutional culture) so that reflection and dialogue can be initiated around them. It must be ensured that each practice is articulated in the framework through elaboration along a developmental continuum, encompassing the stretch from ground reality to the aspirational.

The framework must facilitate self-assessment, identification of developmental needs and articulation of outcomes of teacher professional development programmes, while allowing for external validation of the institute’s assessment. Ownership of stakeholders must be ensured through their involvement and appropriate dissemination. Care must be taken that the framework undergo review and be updated regularly. Finally, the framework must not be used for labelling individuals or assigning ‘ranks’; it must not be a basis for punitive measures.

While such frameworks are often criticized for being reductionist and simplistic, for not being comprehensive enough or leaning towards what can be easily assessed, and so on, the fact remains that without operationalization, there is a clear and present danger that ‘quality in education’ will remain mere rhetoric.

Acknowledgement

The author would like to acknowledge the opportunities provided by the Azim Premji Foundation, which made it possible to glean the understanding reflected in this paper. The views expressed are her own.

References

- Dill, D.D. (1995). Through Deming’s Eyes: A Cross-National Analysis of Quality Assurance Policies in Higher Education. *Quality in Higher Education*, Vol. 1

- Hill, A. (2003). Themes in current education discourse that impact on teacher education. Education Papers and Reports. Paper 5. http://dkcput.ac.za/ed_papers/5
- Ministry of Human Resource Development (MHRD). (2012). Vision of Teacher Education in India. Quality and Regulatory Perspective. Report of the High-Powered Commission on Teacher Education Constituted by the Hon'ble Supreme Court of India. Volume 1. Retrieved from <http://www.teindia.nic.in/Files/TE-India-Report/JVC-Vol-1.pdf>
- Ministry of Law, Justice and Company Affairs. (Legislative Department). (1993). The National Council for Teacher Education Act, 1993. Retrieved from: http://ncte-india.org/ncte_new/?page_id=883
- NCTE. (2009). Teacher Education. Reflections Towards Policy Formulation. New Delhi: NCTE
- NCERT. (2015). What Students Of Class X Know and Can Do. A Summary of India's National Achievement Survey, Class X, 2015. Retrieved from <http://www.ncert.nic.in/departments/nie/esd/pdf/NASSummary.pdf>
- NCTE. (2015). Demand and Supply Position of Student-Teachers for the year 2014-15 (Predicted). Retrieved 3 Oct 2017 from http://ncte-india.org/ncte_new/pdf/Demand%20&%20Supply.pdf
- Pratham. (2016). Enrollment and learning report card. Annual Status of Education Report. Retrieved from: http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202016/4%20pages/enrollmentandlearningreportcard_english.pdf
- Tripathi, A. (2012). Concept note. Teacher education quality framework. Azim Premji Foundation. Personal Communication.

The Training Game that Teachers are Expected to Join in

Abstract

This article explores the interlinkages between orientation of teachers after they are recruited, their working conditions and in-service teacher capacity building and how the three together influence the day to day practice of teachers in school. Bringing about change demands a multipronged strategy that addresses the needs and concerns of teachers from the ground up.

During the course of six teacher-focused studies that I was part of, we interacted with teachers and administrators across several states of India. One of the issues that invariably cropped up was the post-1995 in-service teacher training regime adopted by District Primary Education Programme (DPEP) and then SSA. Teachers everywhere complained about how it was conducted and that the donors who were pushing it in DPEP and MHRD, GOI that was designing it had a warped notion of training and capacity building. The first study was on teacher motivation and this was done in Rajasthan (2005)¹. This was quickly followed by a qualitative study on the everyday practice of primary school teachers (2008)². Soon I was part of another in-depth study on the elementary education system in India – where we not only interacted with administrators and teachers, but we observed classroom and spoke to

children (2009)³. This was followed by a study on school management (2013)⁴ and one on women teachers in Rajasthan (2014)⁵. Subsequently I led a 9-state study on the working conditions of primary and secondary school teachers – one that was anchored in NUEPA (2015-16)⁶. While the last and most recent study focused on the working conditions of teachers, it became quite evident that there is a very close relationship between the conditions under which teachers are expected to work and the way they

3 Rashmi Sharma and Vimala Ramachandran (2009): *The Elementary Education System in India: Exploring institutional structures, processes and dynamics*. Routledge New Delhi

4 Ramachandran, Vimala and ERU Research Team. *School Management for Quality Inclusive Education and Decentralised School Governance*. European Union, NUEPA and Save The Children (India)

5 Kameshwari Jandhyala and Vimala Ramachandran. *Women Teachers Matter in Secondary Education*. Economic and Political weekly. Volume L, Number 32, August 8, 2015

6 Ramachandran, Vimala; Béteille, Tara; Linden, Toby; Dey, Sangeeta; Goyal, Sangeeta; Goel Chatterjee, Prerna. 2018. *Getting the Right Teachers into the Right Schools: Managing India's Teacher Workforce*. World Bank Studies;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/28618>

1 This section of the paper draws on Vimala Ramachandran, Suman Bhattacharjea and K M Seshagiri monograph titled *Primary teachers in India – The twists and turns of everyday practice*. 2009.

2 Ramachandran, Vimala, Suman Bhattacharjea and K M Sheshagiri. 2009. *Primary teachers in India – The twists and turns of everyday practice*. Azim Premji Foundation, Bangalore. Available at <http://azimpremjifoundation.org/Education-Readings>

interact with and work with children in the classroom. Most often these two dimensions of the life of teachers are rarely correlated. In this short paper I seek to see the interconnections between the two.

How teachers are recruited, the kind of orientation they receive, the physical working conditions, the service conditions of teachers, the duties and responsibilities assigned to them and most importantly in-service training and capacity building regime influenced the day to day practice of teachers. The classroom experience of teachers and the students is moulded and framed in the larger environment in which teachers work and children study.

Let us start with the positives. At the outset teachers across the country agree that there have been positive changes in the last eighteen years (since 2000) – pupil teacher ratios have come down (with the exception of Bihar and Uttar Pradesh), there has been a steady increase in the educational qualifications of fresh appointees and the practice of appointing contract teachers with lower than stipulated education qualifications have steadily come down (Jharkhand being a notable exception with 49% contract teachers). Many years of centrally supported projects like DPEP and SSA resulted in better infrastructure, drinking water and toilets in all schools. The Right to Education (RTE) Act of 2009 has led to greater participation of children in the schooling system. This is where the list of positives tapers off.

In-service teacher training, since the DPEP days has evoked mixed responses from teachers. In all states that I went to in the last twenty years – in-service training continues to utilise the ‘cascade model’. This is despite the fact that there are reported transmission loss at each successive

level of training. Teacher training packages were designed at upper levels of the educational administration and in many cases people with little or no personal experience of teaching at the elementary level. The DIET and other block and cluster level structures managed the logistics – with almost no role in the training process itself. Teachers and the trainers we met over the years said that the training was poorly designed, implemented in an ad hoc manner and has little connection with the real needs of teachers with respect to content or instructional strategies. No follow-up is conducted to evaluate the effectiveness or relevance of training content to teachers’ practice. Pedagogical underpinnings of these training programmes tend to be highly superficial and poorly understood even by the trainers themselves (Vimala Ramachandran et al 2008). Several studies (Sararangapani and Vasavi 2003, Dhankar 2002, Dyer and Choksi 2004 etc.) pointed out that the teachers and trainers used new jargns like ‘activity-based learning’ and ‘child centred learning’, but these new words had almost no bearing on classroom practice. In one of my field visits one teacher pointed out that they were taught new pedagogies in the same old didactic top-down lecture mode – with almost no hands-on practice. They were asked to use a lot of teaching material (charts, pictures) and as a result activity-based learning has become synonymous with cards and ladders and a lot of colourful material in the classroom.

Way back in 1996, when DPEP had barely started, Caroline Dyer, who has done a lot of in-depth work with teachers and in DIETs succinctly captures the situation – *Teachers felt that their trainers were not sufficiently aware of the realities of small schools with single rooms and no facilities, and*

hence did not offer strategies for working in such conditions. (...) The pedagogical problems of the teachers in Gujarat's rural schools are not primarily related to infrastructure, but to the absence of skills to cope with either teaching several classes simultaneously, or the needs of first generation learners, compounded by heavy and often irrelevant curriculum. The type of pre-service training they receive does not equip them with adequate classroom management strategies, or the confidence to adapt the curriculum, and is an important factor in low teacher motivation (Dyer 1996). Notwithstanding similar feedback over the last twenty years—the administration continued as if they had discovered a magical technique to enhance the capabilities of teachers. This approach continued into SSA which was launched in 2001 and was supposed to have been designed keeping in mind the lessons of DPEP.

Summing up the tragic situation H K Dewan points out: *'Crucial issues regarding the duration, content and process of training are decided by an arbitrary process. Speediness, rather than quality is the criterion for deciding who will train, the argument being that unhurried training did not guarantee quality. Moreover, the process was highly centralized—field-level personnel had no input into the pace of the training. Our discussions showed that while they were not sure of the areas that should be chosen for interaction or the content of training sessions, they were convinced that the current modules were not appropriate. One could sense the constant conflict between cynicism and resignation towards status quo and the hope that the structure would allow honest choice, review and reflection'* (H K Dewan in Sharma and Ramachandran, 2008 pp).

Why are we in such a Mess⁷?

What is a school? Were we to pose this question to teachers they start by listing building, boundary wall, mid-day meal and finally children. Yes, the overall environment in which a school is located is important but – as we all know – a school is a web of relationships between a group of teachers and children. And, tragically, this fact that gets lost in teacher- training programmes.

Teachers tell us that poor quality and irrelevant training has little impact on the effectiveness of teacher or on the learning outcomes of students. The fundamental question is not *whether* teachers should be trained; rather it is *what* training should consist of and *how* and *by whom* should it be imparted in order to fulfil the real needs of teachers.

Policies and projects, national and state interventions notwithstanding, the root of the problem can thus be traced to two assumptions: **one**, that children are homogeneous and learn at the same pace and in the same way; and **two**, that teachers are homogeneous and need the same inputs regardless of who and where they are. The data clearly reveal that neither assumption is valid. Diversity in the classroom has increased: children of different ages, different social backgrounds and speaking different languages study together. Equally, diversity among teachers has increased: they have different educational levels, service conditions, places of residence, social and community backgrounds and of course gender. But we do not have a teacher development programme that takes this diversity as the point of departure.

We need teachers with courage as

⁷ This section of the paper draws on Vimala Ramachandran, Suman Bhattacharjea and K M Seshagiri monograph titled *Primary teachers in India – The twists and turns of everyday practice*. 2009.

well as with experience. We cannot expect all new entrants to be free from social, gender and regional prejudices—after all teachers are a part of our society and they reflect its texture as much as anybody else. Yet there is no systematic process to address prejudices or deeply entrenched attitudes and belief systems. This has resulted in the persistent problem of discrimination and exclusion inside the schools and in the classrooms. Children from extremely deprived communities, those who among the poorest, young boys and girls with disabilities, those speaking different languages at home – all these children not only experience subtle and blatant discrimination in school (from teachers and fellow-students), but many of them drop out. We have also heard of teachers who are discriminated against for their caste / community and gender. While we all know schools are a microcosm of the society we live in – it is important to strive to make it an inclusive and happy space.

Teachers are a community of people who, given the opportunity, can give very sound advice on how we could break out of the impasse we seem to be caught in. Teachers agree that there are no mechanisms to select those who show talent for and interest in teaching, nor to prepare them to engage with the ground realities of school teaching. The recruitment process privileges marks and qualifications and in order to avoid nepotism in recruitment examinations have been introduced to select on merit. While this is not a problem in itself – the second step of ascertaining the aptitude of the candidates have not been introduced. Teacher candidates spend a year or two receiving and being tested on a vast amount of theoretical knowledge that is of little help in real classroom situations. Given the burgeoning of poor quality teacher

education institutions, the certificate is nothing but a piece of paper required in many for appointment. Most importantly, teachers tend to teach as they themselves were taught, unless they are provided with opportunities and incentives to analyse and question their own experience and thereby construct a different conception of what classroom processes should aim to achieve. Teachers tell us that they are expected to ‘follow orders’, ‘cover the syllabus’, ‘fill out formats’, and so on – and the actual learning outcomes of children is rarely taken into the equation. As we had concluded in the 2009 teacher study “It is hard to think of a more damning indictment of the education system than this single fact: teachers do not even conceive of their work in terms of creating an environment where all children can learn...” (Vimala Ramachandran, et al. 2009).

Above and beyond what teachers bring to the job, the education system acts in a number of ways to shape what teachers do in the classroom. These include the nature and amount of in-service training they are provided, the kind of supervision and support they receive and the encouragement/incentives the system offers for dedicating more or less effort to teaching. The degree and nature of teachers’ accountability—to their administrative superiors, to their students, or to parents — affects what they are willing to attempt. Equally the amount of real autonomy they have in the classroom impacts their ability to adapt content and methods to local needs.

Teachers are rarely asked what kind of training would be useful to them. Despite the huge emphasis on in-service training in recent years under DPEP and SSA, teachers for the most part view these courses as formalities

that have to be completed, rather than as important resources to help them do their job better. It is therefore not surprising to find that student learning outcomes appear to be not much affected by whether the teacher is 'trained' or not.

An important reason for the continued distance between intentions and practice with respect to teacher-training relates to the suitability of those responsible for designing and imparting this training. Those with advanced degrees and administrative seniority are the ones who call the shots and real experience in teaching in the school is not factored in. While the BRCs and CRCs were established to provide academic support to teachers, in practice they essentially fulfil routine administrative functions. The primary school teacher has no source of academic support. Given that training programmes provide little help to teachers in the classroom they are left to their own devices and end up muddling through as best as they possibly can. We then turn around and blame the teachers when assessment surveys find poor learning levels.

Teachers report that they are actively discouraged from adopting creative practices – they are expected to follow what they are asked to follow. Both pre-service and in-service teaching methodologies discourage questioning, discussion and analysis by teachers. They are expected to adhere to the content exactly as they received it. To top it all, the supervisory system focuses on collection of administrative data and on ensuring that schools and school personnel conform to standards and procedures. Teachers are caught in between – they do not have the autonomy, they have to follow instructions and they are expected to finish the syllabus.

Another powerful disincentive is the informal system of patronage and

rent-seeking that operates in many areas of the country. Given the close nexus between the cadre of teachers and the electoral system in India – many teachers, willingly or unwillingly, dedicate time and effort to keep local politicians and elites happy, given that they control the limited rewards obtainable within the system—in particular, transfers to desired locations.

School heads (where these exist) exert limited authority over teachers, since promotions, transfers and other decisions are taken elsewhere. Supervisory personnel are confined primarily to administrative inspections and are known to exert a negative influence on innovative teaching practice. Local communities do not have the skills to undertake this kind of professional evaluation of teachers. District education authorities often operate on the basis of political or administrative, rather than educational, criteria. If this is the overall scenario – to whom then are school teachers accountable for the quality of learning outcomes? Who within the system has the authority and the ability to define what constitutes good teaching practice, evaluate whether teachers are doing a good job, reward those who are, and sanction those who are not? The short answer to this question is: nobody.

Today, the overall educational experience of children is reduced to the marks they obtain in examinations. Other dimensions of child development is rarely discussed. Do our schools equip our children to face the world with confidence? Do we try to develop a discerning mind? Can our children critically reflect on their situation? Do they have the confidence to explore and reach out to knowledge and skills that they may need to prepare them for the future?

Education is not just another sector of the economy like transport or agriculture. It is perhaps the *only* sector where outcomes depend at least as much on processes as on inputs. In other words, the best textbooks in the world will be of limited use in the hands of an incompetent teacher, whereas a talented and sensitive teacher always finds ways to catalyse students' learning even under the most difficult of working conditions.

However, if teachers do not view students' learning—however defined—as part of, let alone central to, their professional responsibilities, then clearly the situation cannot be remedied by tweaking quantitative targets or by establishing additional administrative layers.

In order to promote competence and nurture talent among teachers, the education system needs to prioritise these aspects and operationalise them throughout the system. This means, for example, that teachers should be chosen on the basis of aptitude and interest, not only on the basis of marks. Promotions and salary increments should be awarded for effective teaching, not only on the basis of seniority. Supervision should encourage innovative practices, not punish them. And training programmes should aim to help teachers think for themselves about what they are doing, not merely to do as they are told. Most of all, these different areas of educational policy must be coordinated so that they all push teachers in the same direction, towards better teaching practices.

What this means, in short, is that educational criteria need to take precedence over administrative logic. But this can only begin to happen if those providing leadership in educational departments and institutions are themselves educators

rather than administrators.

In India, elementary school teaching experience is of little value *even within the primary education sub-sector*. Academic and administrative staff alike are selected for higher-level positions within the sector on the basis of the professional distance that they have travelled *away* from primary school teaching, rather than experience and demonstrated expertise within it. Advanced degrees (like M.Ed.) is often *required* for senior level posts in the the education sector, even if (as is often the case) the holder of the degree has never set foot in a primary school since he graduated from one. Not only does this increase the likelihood that the wrong people will be in charge of the sector, in many states it also means that talented primary school teachers are unable to apply for leadership positions. Do these criteria make any sense? Is it not more important that those responsible for primary education should have first-hand knowledge of the issues and constraints that primary schools face on the ground?

Teachers across the country ask these hard questions and many of them we met in the course of the last 15 to 20 years thought deeply about their own experience as teachers. It is indeed tragic that we rarely listen to them. More disturbing is that we paint all teachers as unmotivated shirkers who are marking time. Why can't we start a serious dialogue with teachers and redesign our policies and rules/procedures from scratch? We have been tinkering with the colonial system that has been handed down – we need to break out and think afresh – with teachers in the frontline of reflection and formulation of new policies, administrative structures and financial allocations.

The time is now...

References

- Batra, P. (2005). 'Voice and Agency of Teachers: Missing Link in National Curriculum Framework 2005', *Economic and Political Weekly* XL (40): 4347-4356
- Bennell, Paul and Kwame Akyeampong. (2007). *Teacher Motivation in Sub Sahara Africa and South Asia*. London: DFID Education Paper
- Clarke, P. (2001). *Teaching and learning—the culture of pedagogy*. New Delhi: Sage Publications
- Dhankar, Rohit. 2002. *Seeking Quality Education: An Area of Fun and Rhetoric*. New Delhi: The European Commission, Occasional Paper
- Dyer, C. and A. Choksi. (2004). *District Institutes of Education and Training: a Comparative Study in Three Indian States*. London: DFID Policy Division (Education Papers)
- Dyer, C. (1996). *The Improvement of Primary School Quality in India: Successes and Failures of Operation Blackboard*. Edinburgh: University of Edinburgh (Edinburgh Papers in South Asian Studies No. 4)
- Jandhyala, Kameshwari and Vimala Ramachandran. (2015). *Women Teachers Matter in Secondary Education*. *Economic and Political weekly*. Volume L, Number 32, August 8, 2015
- Ramachandran, Vimala and ERU Research Team. (2013). *School Management for Quality Inclusive Education and Decentralised School Governance*. European Union, NUEPA and Save The Children (India)
- Ramachandran, Vimala, Madhumita Pal, Sharada Jain. (2005). *Teacher Motivation in India and a case study of Rajasthan; Research report contributed to a multi-country study on Teacher Motivation coordinated by IDS Sussex (UK) and Knowledge and Skills for development (UK)*
- Ramachandran, Vimala, Suman Bhattacharjee and K M Sheshagiri. (2009). *Primary teachers in India – The twists and turns of everyday practice*. Azim Premji Foundation, Bangalore. Available at <http://azimpremjifoundation.org/Education-Readings>
- Ramachandran, Vimala; Bêteille, Tara; Linden, Toby; Dey, Sangeeta; Goyal, Sangeeta; Goel Chatterjee, Prerna. (2018). *Getting the Right Teachers into the Right Schools: Managing India's Teacher Workforce*. World Bank Studies;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/28618>
- Rashmi Sharma and Vimala Ramachandran. (2009). *The Elementary Education System in India: Exploring institutional structures, processes and dynamics*. Routledge New Delh
- Sarangapani, Padma and A. R. Vasavi. (2003). 'Aided programmes or guided policies?: DPEP in Karnataka', *Economic and Political Weekly* 38(32): 3401-3408.

Preparing Reflective Practitioners – Curriculum and Pedagogic Implications¹

Abstract

This paper briefly outlines what reflective practice is and why is it important for a teacher. The primary focus of the paper is on considering how reflective practice can be implemented in the teaching profession. This is dealt in three sections. The first two sections give an overview of the conceptions of reflective practice, who is considered a reflective practitioner and what constitutes reflective practice in teacher education, culled out from literature. The last section draws from these discussions to outline an approach to prepare reflective practitioners.

Teacher preparation is on the threshold of a quiet revolution. It is increasingly being recognised that the knowledge base of teacher education is “tentative and fluid” (NCTE, 2009; p.19). The social context of any classroom is recognised as being too complex for a set of principles or disparate theories to be of any practical use for a teacher. There is also empirical evidence to suggest that teachers who make a difference are autonomous, self directed professionals (Scheerens, 2000). Teacher professional development is attempting moving away from a prescription of pedagogical and managerial skills to a more interpretative mode focusing on engaging prospective teachers in extensive questioning, reflecting and constructing knowledge, that prepares a new cadre of teachers ready to be active partners in the process of school renewal (Fosnot, 1996).

The National Curriculum Framework for Teacher Education (NCTE, 2009) recommends that teacher education programmes focus on building prospective teachers’

capacities to construct knowledge, adapt to meet needs of diverse children and diverse contexts, and equip them as professionals who can make independent judgments at times of uncertainty and fluidity. Preparing a reflective practitioner is recognised as “the central aim” of teacher education (p.19). The next two sections attempt to unpack the notion of reflective practice and who is considered a reflective practitioner through a brief review of literature ².

Conceptions

The genesis of reflective practice can be traced to Aristotle’s conception of *phronesis* as the art of making informed, wise decisions in an action-situation. *Phronesis* provides the practical wisdom to guide committed or ethical action (*praxis*) and incorporates insight, perception and experience to help situate knowledge with relevance, appropriateness and sensitivity to particular contexts (Polanyi, 1966; Dunne & Pendlebury, 2003). However we owe it to John Dewey for the

development of the notion of reflective practice in education. In his book, *How We Think* (1933), Dewey points out that “reflective practice entails decision making in the immediate context” and arises out of need to solve a problem (p.4). Dewey recognised that reflective practice involves persistence and careful consideration of practice. He was of the view that we begin to reflect on a complex situation when we face it and ask ourselves what needs to be done. This changes the situation from an “indeterminate” one to a “problematic one” (p.109), which is then taken up for examining and exploring in terms of action. Reflective teaching therefore entails decision making in the immediate context and practice.

Later, Donald Schön brought reflection to the centre stage of professional knowledge. He developed the concepts of *reflection-in-action* and *reflection-on-action* (Schön, 1983). Reflection-in-action is the instantaneous reflection while in classroom. Here the teacher draws upon a repertoire of knowledge and skills from her experience both to understand the situation at hand and to change it. Reflection-on-action happens after the class and is deliberative and conscious. This involves critically examining reflection-in-action, changing approaches and strategies, if need be, and testing these through further action. Development of professional knowledge and improvement in practice go together, as practitioners build up their repertoire of images, ideas, examples and actions that they draw from: “the familiar functions as a precedent or a metaphor or an exemplar of the unfamiliar” (p.138). Like Dewey, Schön also believed that programmes that encourage prospective practitioners to think carefully about what they do while they do it, learn in more profound ways.

Solomon (1987) pointed out that the social and discursive dimension of teaching learning was missing in Schon’s conception of reflection. He suggested reflection as a social practice in which articulation of ideas to and with others was crucial to the development of reflective practice. Reflective practice would therefore include situated, goal directed activities and dialogues. Reflection is not wholly contained in the mind of the individual but is “distributed” across the “situated learning discourse community” (Hoffman-Kipp et al, 2003).

There exists a strong tradition of reflection in India (Kumar, 1995). For example: Swami Vivekananda in 1941, identified a teacher as “one who can convert himself, as it were, into a thousand persons at a moment’s notice” J Krishnamuti in 1953 stipulates that a teacher must be “constantly alert, intensely aware of his own thoughts and feelings, of the ways in which he is conditioned, and of his activities and his responses”. For Gandhi teachers had to have the highest morals; Tagore points out that “Teaching has to help children be in touch with their complete life – economical, intellectual, aesthetic, social and spiritual”; Phule and Ambedkar saw in education a potential for revolutionary social and cultural transformation. All these perspectives are strongly rooted in reflective practice.

Attributes of a Reflective Teacher

As with the conceptualisation of the notion of reflective practice, a reflective practitioner has been described from differing perspectives. Beginning with Dewey (1933) who clearly spelt out that open mindedness, responsibility, whole heartedness and a passion for work are the personal qualities of a reflective teacher, there have been many conceptualisations of a Reflective teacher–

- Engages in a constant dialogue between thinking and doing (Schön,1983).
- Has the cognitive ability to make decisions in complex classroom situations, ability to critically examine underlying values and beliefs in curriculum, school processes and so on, and the ability to augment general theories with personal and peer narratives (Zeichner,1987).
- Thinks through and contextualizes teaching, makes rational choices and constructs robust personal knowledge from a range of theories, research and alternate viewpoints (Kennedy,1997).
- Willing to take risks, tries out new strategies and ideas, seeks alternatives and takes control of one's own learning and uses higher order thinking skills (Martin, 1989).
- Critically inquires into one's own practice and is self directed (Cole, 1997).
- Seeks creative and innovative approaches in classroom and school and places onus on contextualized knowledge (Coyle, 2002).
- Shows an active concern for aims and consequences not only of classroom practices but also those of policies, actively researches one's own practice leading to self monitoring, reflection and change, engages in collaboration and dialogues with colleagues (Pollard, 2005).
- Develops the core professional competencies of observation, communication, judgement, decision making and team working (Dymoke & Harrison, 2008).

As these briefly enumerated conceptions indicate, being a reflective

practitioner entails much more than just thinking about teaching. While it is recognised that professional knowledge and practice form the crux of reflective practice, an understanding of what constitutes professional knowledge and practice continues to evolve. Some of this understanding within teacher education is described in the next section.

Processes

Reflective practice is now a much discussed idea in the teacher education sector and there exists a vast literature on reflective practice. A few of these that would be relevant to help identify approaches to reflective practice are briefly described in this section.

van Manen (1977) provides a hierarchy of reflective practice: the technical, which looks at what went right or wrong; the practical, which examines interpretive assumptions about one's own work; and the critical which involves critically reflecting on ethical and political dimensions of educational objectives and means of achieving them. The critical aspect of reflective practice is what matters as Van Manen describes it as "an attempt to address the gap that teachers find between what they learn about teaching and what is required in the practice of teaching" (1995).

Feiman-Nemser (1990) suggests that reflective practice draws from five kinds of orientations:

- technological - wherein the focus of reflection is on effective or efficient means to achieve particular instructional objective,
- academic - that focuses on reflecting on the explicit school curriculum or subject matter,
- practical - that helps reflect on the problems of teaching,
- personal - with a focus on

construction of self as a teacher, and

- critical – that focuses on the role of school in creating a more just and equitable society.

Valli (1992) synthesizes three types of reflective practice as reflection about themselves as teachers, reflection about the practice of teaching and reflection about critical issues involved in the processes of schooling.

Brookefield (1995) suggests reflective practice can adopt four critical lenses to provide different perspectives, that of the teacher, the learners, colleagues and established theory.

Zeichner (1995) identifies reflection as an instrument that mediates action; as a deliberation among amongst competing views of teaching; and as reconstruction of experience as three distinct perspectives of reflective practice.

Pollard (2005) views reflective practice as cyclic process by which one is able to interpret one's own practice and continuously revise it.

The brief overview of literature on reflective practice and who is a reflective practitioner shows that teacher professional development discourse has shifted focus from a narrowly conceptualised objective, generalised theories and prescriptive procedures to "practical reasoning, personal judgments and interpretations" (Dunne & Pendlebury, 2003; p.195).

Preparing a Reflective Practitioner

In the present complex and changing environment received knowledge is insufficient. As the previous sections show, the discourse on reflective practice indicates that it involves a critical appraisal of not only one's actions but also the underlying assumptions and beliefs behind those actions. The central purpose of reflective practice is therefore to be critically aware of

one's thoughts and action as a means of developing genuine praxis. This view of reflective practice suggests an interpretive role of knowledge that must inform the formation of this praxis. Teacher education programmes must offer theories not as a legitimisation for practice but as an aid/prop to reflect on the nature and implications of practice. The 'thinness' of general theories needs to be augmented with cases and narratives that prospective teachers can relate to (Greene, 1994; Bruner, 1996).

Reflective practice thus enables interpretation of received knowledge to form robust personal knowledge that informs decision making in complex situations. This does not mean a capitulation to relativism of 'anything goes'. Teachers need to bring their personal theories into the public domain, open to scrutiny both by colleagues and peers as well as in the light of the received knowledge (Mythili, 2012).

In this context, use of dialogues becomes an important approach of reflective practice in teacher professional development programmes (Kegan, 2000). Dialogues help share multiple perspectives with one another. When combined with reflections, dialogues can become a powerful vehicle for developing empathy to diverse views, questioning presuppositions, and understanding aspects of one's own beliefs and assumptions.

Stories and parables are another powerful pedagogic tool to widen perspectives and help make sense of profound knowledge, by relating it to the familiar. The appeal of this tool lies in the fact that there is no one singular truth, but opens up multiple interpretations, depending on one's experiences.

Maintaining reflective journals is crucial in promoting reflections.

Writing provides objectivity by offering distance, helps clarify experiences, focuses attention on significant aspects, captures data and helps integrate ideas.

Writing and analyses of teaching cases and narratives has been found to exert tremendous influence in emerging as a reflective teacher (Alder, 2006; quoted in Dymoke and Harrison, 2008).

Co-teaching, engaging in collaborative inquiry and action research are other well researched and proven means of preparing a reflective teacher.

Forming a network of practitioners provides social and shared elements which are crucial for both developing and sustaining reflective practice.

The NCFTE (2009) envisages a humanistic and liberal teacher education programme, with reflective

practice as the central aim. Its goal is to prepare humane teachers who are thinking professionals. While curriculum changes are being brought in, pedagogic approaches in teacher education programmes must gear towards preparing reflective practitioners. It requires teacher educators to continuously strive to improve their teaching by examining their own strategies and approaches, and their effects on student teachers' learning. It therefore involves a constant, critical look at the process of teaching and learning and at one's own work. As a reflective practitioner, a teacher educator is required to periodically update her professional knowledge and practice, which includes extensive reading, writing and being actively involved as communities of practitioners.

References

- Bould, D & Walker, D. 1998. Promoting Reflections in Professional Course: The challenge of context. *Studies in Higher Education*. 23(2). pp191-206
- Dewey, J. 1933. *How we think: A restatement of the relation of reflective thinking to the educative process*. Heath & Co., Boston
- Dunne, J & Pendlebury, S. 2003. *Practical Reason*. In Blake, N et al (Eds). *The Blackwell Guide to the Philosophy of Education*. Blackwell Publishers Ltd, India. pp 194-212
- Greene, M. 1994. Multiculturalism, Community and the Arts. In Dyson, A (Ed). *The Need for Story: Cultural Diversity in Classroom and Community*. National Council of Teachers of English, Illinois
- Grimmett, P., MacKinnon, A., Erickson, G., & Riecken, T. 1990. *Reflective Practice in Teacher Education*. In Clift, R. Houston, R & Pugach, M (Eds.) *Encouraging Reflective Practice in Education: An Analysis of Issues and Programs*. Teachers College Press, New York
- Hoffman Kegan, R. 2000. What forms transforms? A constructive developmental approach to transformational learning. In Mezirow, J & Associates. *Learning as Transformation*. Jossey-Bass, San Francisco
- Krishnamurti, J. 1974. *On Education*. Krishnamurti Foundation of America, USA
- Kumar, R, 1995. Reflection on the Proposal. In Chatopadhyaya, D & Kumar, R. *A History of Science, Philosophy and Culture in Indian Civilisation*. PHISPC Monograph series (1) pp 152-166
- Loughran, J. 2002. Effective reflective practice – In search of meaning in learning about teaching. *Journal of Teacher Education*. 53(1). pp 33-43

- McLaughlin, D and Hanifin, P. 1995. Reflection, Rhetoric or Reality: A Case Study in Preservice Teacher Education. Australian Journal of Teacher Education. 20(1). pp 36-44
- Mythili R. 2012. Reflective practice and teacher Education. A paper presented at the regional seminar on Philosophy of Education organised by Azim Premji University, Puducherry, Oct. 3-5, 2012
- NCFTE, 2009. National Curriculum Framework for Teacher Education – Towards Preparing Professional and Humane teacher. NCTE, New Delhi
- Pollard, A et al. 2005. Reflective Teaching. Continuum, London
- Scheerens, J. 2000. Improving School Effectiveness (Paris: UNESCO and IIEP)
- Schön, D. 1983. The reflective practitioner - how professionals think in action. Basic Books, New York
- Solomon, J. 1987. New thoughts on teacher education. Oxford Review of Education. 13 (3). pp 267-274
- Tagore, Rabindranath. 1929. Ideals of Education. The Visva-Bharati Quarterly (April-July), pp 73-4
- Valli, L (Ed). 1992. Reflective Teacher Education – Cases and Critiques. State University of New York, Albany
- van Manen, M. 1995. On the Epistemology of Reflective Practice. Teachers & Teaching: Theory and Practice. 1(1). pp 33-50
- Zeichner, K. 1987. Preparing Reflective Teachers: An overview of instructional strategies which have been employed in PSTE. International Journal of Educational Research. 11(5). pp 565-575.
- Zeichner, K & Liston, D. (Eds). 1996. Reflective Teaching – An Introduction. Lawrence Erlbaun Associates, USA.
- Fosnot, C. T. (1996). Constructivism: A psychological theory of learning. In C. T. Fosnot, (Ed.). Constructivism: Theory, perspectives, and practice, (pp. 8 – 33). New York: Teachers College Press.
- Polanyi (1966). The Tacit Dimension. London. Routledge and Kegan Paul.
- Hoffman-Kipp, P. et. Al. (2003). Beyond Reflection: Teacher Learning as Praxis, Theory Into Practice 42(3):248-254, College of Education, The Ohio State University.
- Dymoke S. & Harrison, J. (2008). Reflective Teaching and Learning. Sage Los Angeles, London, New York, Delhi.
- Van Manen, M. (1977). 'Linking ways of knowing with ways of being practical', Curriculum Inquiry, 6(3): 205-28.
- Zeichner, K.M. (1994). 'Research on teacher thinking and different viws of reflective practice in teaching and teacher education', in I Carlgren (ed.), Teachers' Minds and Actions: reseach on Teachers Thinking and Praticce, Bristol, PA: Falmer Press. Pp 9-27.
- Feiman-Nemser, S.(1990) From Preparation to Practice: Designing a Curriculum to Strengthen and Sustain Teaching. www.brandeis.edu/.../Documents/Readings/Feiman_Nemser.pdf
- Brookfield, S. (1995). Becoming a critically reflective teacher. San Francisco, CA: Jossey Bass.
- Bruner, J. (1996). The culture of education. Cambridge, MA: Harvard University Press
- Cole, G.A. (1997). *Strategic Management: Theory and Practice*, Letts Educational.

- Coyle, D. (2002). From little across, in So, D., & Jones, G.(Eds) *Education and Society in Plurilingual Contexts*. Brussels: Brussels Universtiy Press.
- Martin, D.S. (1989). Restructuring Teacher Education Programs for Higher-Order thinking Skills, *Journal of Teacher Education*, Journal of Teachers Education, Sage.
- Kennedy, M.K. (1997), Defining an Ideal Teacher Education Program, NCATE wpd.

-
- 1 An earlier version of the paper was delivered as a key note address at a seminar organised by St. Joseph's College, Kottayam in 2013.
 - 2 The paper is not meant to be a comprehensive review of the vast and much discussed idea of reflective practice. It is more in the nature of interpretive inquiry. The vision of NCFTE, 2009 is used as the broad framework for interpreting texts that are generally acknowledged as seminal to building up the notion of reflective practice in teacher education.

Teacher Education In India: A Critical Analysis

Abstract

India is experiencing fast and sudden changes in teacher education in recent times. In 2015, the one year B.Ed. Programme was converted into two year Programme and was implemented in the same year abruptly, without much preparation. The stakeholders of teacher education have been busy in deliberating and discussing about the pros and cons of 2-year B.Ed. programme, meanwhile it is announced that from the session 2019, the 4-Year Integrated B.Ed. Programme will be launched across India. It seems to be a stage of turmoil in teacher education. Teacher educators, pupil-teachers and all other stakeholders are in a state of dilemma about what actually is going to happen and if implemented, how it will be executed in B.Ed. colleges and universities' department of teacher education. The status of teacher education which gives direction and decides the fate of school education must be crystal clear in its vision and mission. The present paper tries to revisit the development of teacher education in India, analyses present challenges, prevailing curriculum framework, eligibility criteria for teacher educators, and foresee some probable wayout for overcoming this scenario.

Background

Teacher education in India began with the history of the establishment of British Government in the country. Initially, it was meant to train teachers in English language, which was a foreign language for Indian teachers. It was started initially by some private agencies namely the Calcutta School Society, the Native Education Society and the Madras School Society during the early decades of 19th century. They were given grants-in-aid to train their teachers in their schools (NCTE, 1998, cited from 'National Archives of India, Educational Records, 1781-1839, Part 1, Chap. III, 1965'). The first record of state initiative in teacher education is Lord Moira's Minute of 1815 on the judicial administration of

the Presidency of Fort William in which the training needs of school teachers was supported (NCTE, 1998, cited from 'National Archives of India, Educational Records, 1781-1839, Part 1, Chap. III, 1965'). With a view for expanding the school education system at a low cost by utilizing 'native teachers' and maintaining a certain level of quality by providing training to these native teachers, Thomas Munro, Governor of Madras, expressed in his proposal (1826) to open a school for educating teachers, as proposed by the Committee of Madras School Book Society on 25th October 1824. He also proposed to establish training schools in each collectorate to have a regular supply of trained teachers. The Secretary

of Bombay Presidency also made a similar request during this period. As a result of all these initiatives, the above mentioned three private societies were granted funds for teacher education (Moir, Minute 1815 *ibid*, p.25).

After Woods's Despatch of 1854, normal schools were established for training primary school teachers in each Presidency, beginning with Madras (1856). By the year 1881-82, the number of normal schools (for training primary school teachers) went up to 106 with a total enrolment of 3886. All trainees were also given stipends in all the three Presidencies.

The Indian Education Commission (1882), having observed the expansion and diversification of education system in India, provided some definite directions for strengthening teacher education in India. The commission approved teacher training programmes for elementary and secondary school teachers and recommended that a separate secondary school teachers training programme should be carved out having examination in the principles and practice of teaching. Success in this examination was made compulsory to have permanent employment as teacher in any government or aided secondary school (NCTE, 1998, cited from 'National Archives of India, Educational Records, 1781-1839, Part 1, Chap. III, 1965'). As a result, six separate training colleges were established for the first time, one each at Allahabad, Jabalpur (established in 1890), Kurseong, Lahore, Madras (established in 1886) and Rajamundry (established in 1894). These colleges used to provide Licentiate in Teaching (LT), equivalent to a degree at the end of the training course. In addition to these six training colleges, there were 50 more training schools for preparing secondary school teachers. By the end of the nineteenth century, the institutional structure

of teacher education diversified into normal schools, secondary training schools and training colleges, run by state as well as private enterprise. In this way the teacher education got established as a substantial structural set up in India.

In the beginning of the twentieth century, Lord Curzon, the new Viceroy (1902-05) of India took several significant steps to bring quality in education. He passed 'Government of India Resolution of 1904' in which he highlighted his concerns on quality education. The resolution, for the first time of its kinds, prescribed conditions of schools to receive grants-in-aid and recognition including the suitability of school teachers with regard to their character, number and qualifications. Some important recommendations were:

1. training colleges should have all the required equipment;
2. training courses for graduates should be of one-year duration and the training courses for undergraduate should be of two years duration;
3. theory and practice of teaching should be included in training course and should be closely associated with each other;
4. one practicing school should be attached to each training college so that the above recommendations can be fulfilled;
5. there must be good connection between training college and school so that trainees on leaving college and entering upon their career in schools as teachers may not neglect practice of the method which they have been taught.

In 1913, through a Resolution of Education Policy, it was declared that '.....under the modern system of

education no teacher should be allowed to teach without a certificate that he is qualified to do so' (Sir Thomas Munro's Proposal, Point 5, March 10, 1826, in *ibid.* p. 74).

The Calcutta University Commission (1917-19) chaired by Dr. Sadler, recommended that a Department of Education should be created in the University of Dacca and Calcutta, and 'Education' should be included as a subject at Intermediate, Undergraduate (B.A.) and Postgraduate (M.A.) levels.

Non-cooperation movement of 1920-22, resulted into a marginal increase in the number of educational institutions in the country. A large number of indigenous nationalist learning institutions were opened up based on the idea of national education system. The British Government was alarmed on seeing the growing size and the revival of a parallel system of national education system and also the declining quality of education. To look into the matter and to come up with the relevant suggestions, a Committee was appointed in 1929 with Sir Phillip Hartog, as its chairman, popularly known as Hartog Committee. This committee made the following recommendations with regard to the training of primary school teachers:

1. increasing the duration of training programme;
2. provision of adequate staff for training institutions;
3. to bring improvement in service conditions of primary school teachers so that better quality teachers may be attracted and retained.

Based on these recommendations, in-service education programme for primary school teachers was set up and durations for different teacher training programme was specified, which were adopted by the Central Advisory Board

of Education (CABE) in 1943. These were Pre-primary teachers (2 years), Junior basic (Primary) teachers (2 years), Senior basic (middle) teachers (3 years), Non-graduates in high school (2 year), and Graduates in high schools (1 year).

After Quit India Movement (1942) the British government set up Sargent Committee in 1944, which gave the following recommendations with regard to teacher training:

1. The committee accepted the duration of the various training programmes as recommended by Hartog Committee and accepted by CABE.
2. Suitable students for teaching jobs should be identified and picked up during the last two years of their high school course and they should be given stipends for receiving teacher training.
3. Refresher course should be conducted to provide in-service training to regular teachers.
4. Research facilities should be provided to the teachers, and
5. Teaching practice should be strengthened.

As a result of Swadeshi Movement which began as an opposition to the partition of Bengal (1905) and Non-cooperation Movement of Gandhi Ji (1920-21), several national institutions were opened. Jamia Millia Islamia, presently a Central University in New Delhi, is an example, which was opened in 1920 at Aligarh, U.P by some of the students and teachers who accepted the call of Gandhi Ji; they left Aligarh Muslim University (AMU) and established Jamia Millia Islamia in the campus of AMU itself. Later on in 1925 it was shifted to Okhla, Delhi. In 1937 Gandhi Ji called a conference on Basic Education in Wardha (Maharashtra)

and explained his idea of indigenous basic education, which was craft based and not only provided primary education to children, but also provided training in various crafts so that the students after passing school may start their livelihood. The idea of basic education was accepted by all, but the big question was how and who will prepare teachers for such schools. Dr. Zakir Husain, the then Principal of Jamia School accepted this challenge and Jamia Millia Islamia started Teachers Training for Basic Education in its newly established Teachers College in 1937. In addition to Jamia Millia, experiential training based on work-education was also provided at Wardha (Maharashtra) and Gandhigram (Tamil Nadu). *This was probably the first time that through 'Buniyadi Shiksha' as 'Nai Taleem' an attempt was made to streamline indigenous education towards nation building and social reconstruction of the country.* The main focus of 'basic education' was 'all-round development of the children', development of secular values, nation-building leading to the development of nationalism, use of immediate environment of the child and work as the source of knowledge, integrating knowledge and work, providing experiential learning, and use of mother tongue as the medium of instruction and learning.

By the time of independence, the teacher education had been recognized as necessity for all levels of school education. Now there was a need to give it more structured shape and make it effective in creating quality teachers to improve quality of school education.

Teacher Education in India after independence

The major challenge faced by India on getting independence in 1947 was to strengthen indigenous education system of the country. Only education

could bring desired changes in the lives of the citizens through social reconstruction. Three main objectives to achieve at that time were - expansion of pre-service teacher education, opening of supplementary channels for clearing the backlog of untrained teachers, and stabilization and expansion of in-service teacher education. The growth of pre-service teacher education was commendable. From only 10 secondary teacher training colleges in 1948, the number rose to 50 in 1965, 633 in 1995 and 4686 in 2017 (Source: <https://targetstudy.com/colleges/bed-degree-colleges-in-india.html>, 11.11.2017).

The University Education Commission (1948-49) pointed out that too little time and too little weightage was given to school experience programme i.e. teaching practice. The commission labelled school teaching practice as unsatisfactory. It recommended that in one year's course, not less than 12 weeks should be devoted to supervised school teaching practice and further said that supervisor's presence throughout the 12 weeks should not be expected. The commission also recommended that the training colleges must not admit a number of students which they cannot provide proper school whom teaching practice facilities.

The Secondary Education Commission (1952-53) recommended the following important points with a view to bring qualitative improvement in teacher education:

1. The minimum eligibility to get admission into Primary Teacher Training should be Higher Secondary and the training should be extended to two years.
2. The eligibility to become secondary school teachers should be undergraduate and the duration of training continue to be one year which may be extended to two years as long term measures.

3. Four year integrated model of teacher education may be introduced as an innovative experiment in Regional College of Education (RES) of NCERT to provide multipurpose orientation to school education, which was started during 1963-65.

The Indian Education Commission (IEC) popularly called 'the Kothari Commission' (1964-66) recommended the opening of supplementary channels to clear the backlog and the large number of untrained teachers. As a result summer courses, part-time courses, correspondence-cum-contact courses, and vacation courses were started. The concern for maintaining quality in teacher education also emerged. A conscious effort was made to bring together all teacher educators for more focused attention at all levels of teacher education programme. The idea of setting up comprehensive colleges of education as recommended by IEC (1964-66) was a step in this direction. The National Policy on Education (1986) and its Programme of Action (1992) further reiterated these ideas with emphasis on their implementation. In 1982-83, the Teacher Education Commission status. "The status of the teacher reflects the socio-cultural ethos of the society; it is said that no people can rise above the level of the teachers". With this reflection, the commission put forward the idea that education in general and teacher education in particular need to be given the highest priority by the government in terms of recruitment and selection of teachers, financing, educational process, assessment and placement of the pupil-teachers. The teacher education and school education system should not be made jeopardized and must not be administered and organized by people of low caliber, low morale, and people with no vision.

In India, it has been observed that school curriculum is developed first followed by teacher education curriculum, as we also see in the case of National Curriculum Framework (NCF)-2005. To fulfill the dreams set out by the NCF 2005, National Curriculum Framework for Teacher Education was developed in 2009 and implemented in 2010. What about these mid five years term (2005 to 2010)? And what happened to the NCF 2005 and its objectives? Are the results of secondary and senior secondary boards are compatible with the ethos of NCF 2005? These are few of the questions which need to be debated. Any curriculum designed and implemented must be such which may be practically put on the ground. Dreaming high is good, but dreaming realistically is better, as it may be achieved and celebrated.

The four year integrated programme was instituted by Kurukshetra University in July 1960 on the recommendation of Dr. A. C. Joshi, the then Vice Chancellor of Punjab University. This scheme was on the pattern of American Teachers College. The scheme was also launched with a view to produce 'quality teachers'. For this bright promising students were to be admitted, good incentives such as exemption from tuition fees, awarding of monthly stipend, and assurance of service after training concluded were provided to motivate the students. Later on in 1963 it was introduced at all the four RCEs of NCERT, which is still continuing.

In the chains of reforms, National Council for Teacher Education (NCTE) developed National Curriculum Framework for Teacher Education (NCFTE) in 1978, 1988, 1998, and in 2009. In the first NCFTE, which was brought in 1978, the focus was on pedagogic theory, working with the community, and content-cum-

methodology and practice teaching, including related practical work for all the stages of teacher education.

NCTE appointed a committee to draft NCFQTE (National Curriculum Framework for Quality Teacher Education) in 1998 under the chairpersonship of Prof. J.S. Rajput. The main recommendations of the committee were- transition of one-year B.Ed. Programme to two years of duration, and outlining specific programme for teacher education at Masters level.

Present NCFTE (2009) tried very hard to put teacher education on to the right track. Not only a comprehensive curriculum framework was brought out but also an attempt was made to root out the anomalies and corruption spread in teacher education. To improve the quality of teacher education and to bring quality in teachers and teaching many steps were taken including the initiation of nationwide teacher eligibility test (CTET & TET in various states) to filter and induct good teachers into the school education system. The layout of the curriculum for teacher education (NCFTE-2009) was conceived in such a manner which comprises three broad curricular areas. These were 'Foundation of Education' which includes courses on Learner Studies, Contemporary Studies and Educational Studies; Curriculum and Pedagogy, which include courses on Curriculum Studies and Pedagogic Studies; and School Internship Programme. Together they constitute the common core curriculum for all stages of teacher education. The NCFTE-2009 also showed concern towards some important issues like inclusive education, equitable and sustainable development, gender perspectives, role of community knowledge in education and ICT and e-learning in schooling. These issues and concerns have

been tried to be addressed in 2014 regulations and the model curriculum given by NCTE.

Owing to the deteriorating conditions of teacher education in the country, Justice Verma Committee (JVC) was appointed which submitted its report entitled "Vision of Teacher Education in India: Quality and Regulatory Perspective" in August 2012. It recommended a number of reforms for planned and coordinated development of teacher education in India. Some important recommendations were:

1. The government must raise its investment in establishing teacher education institutions.
2. The institutional capacity of teacher preparation must be increased, especially in the deficit states like eastern and north-eastern states of the country.
3. Teacher education should be made a part of the higher education system.
4. The duration of the teacher education program should be increased as also recommended by the Kothari commission (1964-66)
5. Each pre-service teacher education institution should have a dedicated school attached to it which should work as a laboratory where pupil-teachers get opportunities to observe, experiment, learn new ideas, reflect and hone their skills so that they may become reflective practitioners.

NCTE Regulations 2014 & Some Pertinent Issues

Uniformity in 'Teacher Education Curriculum'

Different universities have different curriculum and course structure. Some universities are running it in annual mode (2 Year Course) and others in semester mode (4 Semester Course).

NCTE need to develop the strict norms to run the course either in annual mode or in semester mode for all the universities to follow these.

NCTE has provided suggestive curriculum for different teacher education courses like B.Ed., M.Ed., D.El.Ed., B.P.Ed. etc. There are no clear-cut guidelines as to which portion/part or course is compulsory to be made the part of curriculum and which part of the suggestive curriculum may or may not be included. If NCTE would have given the core component whose inclusion would have been essential and the others may be suggestive in nature, it would have been helpful in bringing higher level of uniformity in curriculum. In this regard, the curriculum framework for B.Ed. Special Education and M.Ed. Special Education, put forth by RCI (Rehabilitation Council of India) are worth mentioning, wherein the entire curriculum is developed and provided by the RCI. Universities and college of Special education are made to follow and implement the curriculum as provided. Different universities are having different numbers and combinations of core, pedagogy, and optional courses in different semesters/years reflecting a large extent of variation in the curriculum, course structure, focus of the course, nature and extent of field work and internship, offered electives/optional etc. The critical analysis clearly shows that the universities are free to choose whatever they feel to include in the curriculum. The provision of courses and assessment of theory papers also speaks volumes about the spree enjoyed by these universities. The range of papers prescribed run between 7 to 23 with the weightage of assessment from 1450 marks to 4000 marks and the range of internal assessment of obligatory papers from 20 per cent to 50 per cent to 100 per cent. The NCTE

fixes just 1350 marks for the two year B.Ed. course (NCTE Regulation, 2014). Thus taking it away from uniformity and raising the question of threat to parity from university to university.

The NCTE regulation 2014, its immediate, compelling implementation and after effects need to be discussed and debated before taking any decision in teacher education. Some crucial and important issues are mentioned below:

Duration of the Course

As of now, since 2015, D.El.Ed., B.Ed. and M.Ed. all have been made equally a two year programme. D.El.Ed. is an undergraduate course; B.Ed. is a graduate course, whereas M.Ed. is a postgraduate course. We need to think about the rationality behind the equal duration of all courses. There should be variation in the duration of courses at all the three levels to make it more justifiable.

The enhancement of course duration has been recommended by earlier commissions and committees, but the way in which it was implemented, draws attention and raises many questions. It was launched abruptly; all the universities/institutions were instructed to implement it from 2015 itself. The universities had no choice, but to follow. They were compelled to develop the curriculum within two months and implement it. No much time was given to discuss, debate and come out with a curriculum which may be compatible with the present need and time.

The 2-year B.Ed. and 2-year M.Ed. was implemented in 2015. First batch passed out in 2017 and the second batch is about to pass out in 2018. The experiences of teacher educators, colleges of teacher education, schools providing school internship programme to student-teachers and other stakeholders are in a fix. Most of

the self-financed/private colleges are unable to fill even their seats. Due to low revenue through low admission, the colleges are compelled to run B.Ed. course in under staffed conditions. In some cases, it is observed, that only two teachers are teaching all the papers, and the number of B.Ed. students admitted is just 19. This situation is not uncommon.

Theory Components: Past and Present

In previous teacher education curriculum there were core papers to build and develop the understanding of prospective teachers in the three main roots of education-the educational psychology, the educational philosophy and the educational sociology. In the present curriculum, the core papers have been diluted. No any core paper is purely based on the psychological, philosophical or sociological foundations. All have been mixed together; opening the way for teacher educators without the specific background in these areas to be appointed for teaching these papers. Foundations in education must be taken into account. The core papers should be kept intact and should have strong base in the above three disciplines.

Inclusion of 'Language across Curriculum':

In the new two year B.Ed. curriculum implemented since 2015 a core theory paper introduced is 'Language across Curriculum'. The philosophy behind introducing this paper, as envisaged by NCTE Curriculum Framework and Curriculum Design Committee, 2014, is to make pupil teachers understand the language in general and language of all school teaching subjects such as language of Science, language of Maths, language of History, etc. This paper is

presently taught by language teachers in almost all the B.Ed./D.El.Ed. Colleges and the teachers teaching this subject are having perception of doing no justice with the subject. They themselves are unable to understand what actually they are supposed to teach. They generally teach language education and other dimensions of language teaching in this paper. The very basic aims of introducing this paper are probably not met.

We have general and specific qualifications for appointment of teachers in all subject areas. What would be the eligibility for teaching this course has not been finalized. Teacher of any one language or one subject probably cannot teach this paper and cannot do justice with it. The situation revealed that the decision was taken in haste and it is leading teacher preparation programmes towards more confusion, proceeds towards weakening them rather strengthening.

Inclusion of Gender and Society

One new paper was introduced in 2015 with the title 'Gender and Society'. The subject matter of this paper was taught in one of the core paper which was named as 'Sociological and Philosophical Foundations of Education' for a long time. Ideally it should be integrated as the basic value with every paper, instead a new paper was carved out which not only made the curriculum loaded, but also opens the scope of overlapping the content in many papers. It should be taught, deliberated and discussed in every paper as a key component.

Internship Components: Past and Present

In one year B.Ed. School Experience Programme (SEP) was of one month. In two year B.Ed., School Internship Programme (SIP) is of twenty weeks

(four months). This increase in duration is probably not rationalized and not planned properly. Previously the ratio of duration of course and duration of SEP was 12:1 (in terms of months). Now in two years B.Ed. this ratio is 24:4 or 6:1, hence the weightage of SIP duration has been increased by 200%. The rationale behind this increase is not clear. In addition the practical issues with regard to the availability of schools for SIP were not taken into consideration. It would be fine if NCTE would have made the DOE (Directorate of Education) of all states as a party to this reform and should have finalized this aspect in consultation with them. It would have simplified the process of getting schools for school internship programme. Schools should also be given clear-cut direction regarding their roles in SIP, which must be looked after by higher authorities in school education system. After all the teachers are being prepared to serve these schools in future. The more they coordinate and provide mentoring to the pupil-teachers, the more better teachers they will get inducted into the system.

There is also no uniformity in conduction of school internship programme. Some do it in the second semester, some in third; some prefer to do it in the last semester, perhaps there is not core philosophy behind the internship programme and how and when during the course it should be conducted. The variation also lies in the nature of internship programme like number of lessons to be delivered by each pupil-teacher in each teaching subject and in totality.

In all other such courses where internship is done by the trainees like medical, engineering, law etc. it is done mainly at the end of the course. In all such courses the onus of providing internship is on the organization

where trainee is doing internship. It is absolutely reverse in teacher education. Here teacher educators as supervisors become more important and are given more responsibilities of guiding and assessing the interns. This mechanism needs to be addressed properly and the role of school teacher/mentor needs to be raised. In fact the roles and responsibilities of teacher educator as supervisor and school teacher as mentor may be reversed during school internship programme.

Novel Idea regarding School Internship Programme (SIP)

Taking into consideration the need of creating well-trained teachers who have all the experiences of school activities which are done by regular teachers on daily basis, the prospective teachers should be provided the experience of entire session i.e. from admission to declaration of final results. This needs training of pupil teachers for the whole session. It may be suggested that 1st year should be entirely theory based. In the second year they should be placed in school for SIP by the DOE as per their needs and vacancy in schools. These pupil teachers should also be given some amount in the form of stipend. This move may help DOE in fulfilling the needs of teachers in schools and also low down their financial burden that they make on guest teachers, as this approach will reduce the requirement of guest teachers in schools. Hence this can be helpful for DOE, Pupil-teachers, Schools as well as Teacher Education Colleges. The other modalities of SIP may be finalized by NCTE in consultation with DOE of all states and Education Departments of Universities.

Enhancing Professional Capacities

The commendable part of the 2-year B.Ed. curriculum as per the regulation

2014 is the inclusion of courses on EPC (Enhancing Professional Capacities) like 'Understanding the Self', 'Reading and Reflection on Texts' etc. As far as the CEPC (Courses on Enhancing Professional Capacities) is concerned, there also seem to be some confusion. Some universities put some of these papers into core courses, some under optional papers and some treat them as independent entities. The idea of inclusion of these courses has long lasting positive impact provided they are transacted in right manner and spirit, which probably is lacking everywhere.

Implementation of 4-year Integrated B.Ed. across India

In response to the NCTE Curriculum Framework (1998), RIE Ajmer, Bhubaneswar, Bhopal and Mysore commenced a two year B.Ed. Programme in 2001, on pilot basis. The designed curriculum was projected as a Content-cum-Methodology/Pedagogy course. As it was run on a pilot basis, a study should have been conducted to find whether two year B.Ed. is better than one year B.Ed. If yes, in what respects, if no then, why to think about two year B.Ed. which became operational in 2015 throughout the country. Neither the impact of 4-year integrated B.Ed. of RIEs have been properly researched and studied nor the recently introduced 2-year B.Ed. impact is well comprehended; the country is probably ready to switch over to integrated B.Ed. and M.Ed. programme very shortly. National level consultation-cum-workshops are being conducted in this regard.

It is heard from media sources that the Govt. of India, through NCTE, is planning to implement 4-year B.Ed. Course from 2019 across the country. In this way, it is going to eliminate 2-year B.Ed. from the next session within just four years of its implementation (2015).

In other way, it may be comprehended that the 2-year B.Ed. Course, which was implemented in haste, has proved to be discardable, hence being discarded. It seems that the again introducing 4-year B.Ed. programme abruptly will increase confusion. It would be fine and commendable, if it would be announced three year before its actual implementation and would be implemented with full preparation i.e. after finalizing every detail and modality regarding its execution on the ground.

In the initial three years after launch of 4-year integrated programmes in teacher education, the two year B.Ed. and M.Ed. programmes should also be continued to serve the aspirations of those who have already completed or are in process of completing their undergraduate and postgraduate courses. In the other words, for those who have already got admitted in three years B.Sc., B.A. or B.Com programmes and want to pursue B.Ed. after completing their graduation, the doors for them to B.Ed. should always be open.

After-effects of the implementation of 4-year integrated B.Ed. Programme must be thought out in advance from all perspectives. All B.Ed. departments of the universities and colleges will have to provide teaching facilities in Science, Humanities, and Arts discipline with all its subjects. They will have to develop laboratory and library facilities accordingly. They will also need a large number of faculties to teach all the theory papers in the three disciplines. Is the UGC going to provide grants to develop these facilities? and Are the colleges and university department of education going to be sanctioned with huge number of teachers positions to cater to the needs of all discipline in B. Sc. Ed, B. A. Ed programmes? If the answer is in affirmative, then it may be

be on the right track, but if the answer is in negative, then it is going to prove as a great disaster in teacher education. The UGC and the NCTE must come out with clear-cut guidelines as to how to go about it. It should not be just opened up in vacuum.

Eligibility criteria for Assistant Professor in Methodology Courses in Teacher Education

Discussion: As per NCTE norms the qualification for the pedagogy or methodology courses includes M.Ed. as the essential criteria. Pedagogy papers were not taught in M.Ed. and there was no internship in M.Ed. when it was a one year programme. Now it has been introduced in two year M.Ed. programme. As known to everyone that two Pedagogy Papers are taught in B.Ed. Hence B.Ed. should be made compulsory for Pedagogy papers. It seems that the qualification for Asst. Professor in pedagogy courses needs to be rationalized. It may be done in the following way:

For Foundation Courses: Post graduate degree in any school subject with M.A. in Education or M.Ed. with other condition remaining the same as per UGC and NCTE.

For Methodology/Pedagogy Courses: Post graduate degree in the relevant subject with M.Ed. or Post graduate degree and B.Ed. in the relevant subject with M.A. in Education; with other conditions remaining the same as per UGC and NCTE.

Eligibility criteria for Associate Professor in Teacher Education

Discussion: Here in this case the required qualification among others includes a minimum of three years of teaching at M.Ed. Level. The question arises-why? Why NCTE wants to exclude lakhs of assistant professors who are teaching in B.Ed. Colleges

where there is no M.Ed. Similarly there may be an Asst. Professor in a university department of teacher education, who may not be given opportunity to teach M.Ed. classes. What is the fault of these Asst. Professors? There may be good, dynamic, knowledgeable and research oriented Assistant Professors teaching at B.Ed. or D.Ed. level. They must not be ignored. The opportunity of vertical mobility must be equally provided to all. Let them face the selection committees and see their potential. Opening gate for these people will boost their morale and mobility in higher education in general and teacher education in particular will be possible which will bring new life to them and the institution.

Drawing Best Talent to Teaching: A challenge for the system and a service to the nation and the humanity

A well designed mechanism is required to draw best talents towards teaching. Teaching should be made a lucrative job for those who are high achievers have passion for teaching and like to join teaching by choice not by chance or compulsion. Following provisions may be thought out and tested:

1. Only freshers (with not more than one year's gap) should be allowed to enter into the course of teacher education after getting their minimum eligibility (qualification).
2. There should be multi-level screening and entrance tests to select candidates for induction into the teacher education courses like:
 - A predetermined criterion of having 60% or more marks in aggregate as well as in the relevant subjects in the qualifying exams.
 - A criterion of scoring 60% or more in the entrance test.
 - Interview along with the presentation to judge the candidates

on verbal communication, written communication (writing skills in relevant languages).

- Overall behaviour of the aspirants which especially includes values and ethics, morality, conduct in the previous institutions as indicated in their score cards at school levels (X and XII). 'A' grade should be given preference, followed by 'B'. Other graded candidates on morality should be made ineligible to apply, as the job of teacher requires very high levels of the abovementioned behavioural components.
1. Teacher education colleges' inspections should be conducted on random basis, without informing the college, so that the actual status of teaching-learning/training and available infrastructure may be observed. For this a dedicated, experienced and honest team of observers should be created by the NCTE.
 2. For non-performing and Norms-ignoring colleges of teacher education strict actions may be taken.
 3. During the school internship programme there should be the provision of stipend to the pupil-teachers.
 4. Ensuring guarantee of appointment/placement after rigorous selection and training process of bright candidates can lift the morale of the candidates and may ensure quality in school education.

Conclusion

Teacher education owns the responsibility of preparing quality teachers to shape the future of the young generation which in turn shapes the destiny of the nation. It is a kind of chain reaction, if teacher educators are good; they will prepare quality school teachers and these will ultimately shape the young minds to build the future of the country. There is no question of lapse and compromise at any level, if it is allowed, nation will have to pay its price. The current educational scenario of the country in general and teacher education in particular reflects the trends of continuous decline in quality education. There are various issues and challenges faced by teacher education as well as school education which need to be addressed on immediate basis, but in a well-planned manner and with farsightedness. The degrading quality of teacher education, dwindling morality and values among teachers, induction of people of low academic caliber in teaching, absence of passion towards teaching, lack of dedication, sincerity, and essential teaching skills among teachers are some pertinent issues and challenges we are facing today. These challenges required to be addressed properly on urgent basis to fix these issues. NCTE should take appropriate steps to root out all the anomalies and to bring maximum possible and desired level of quality, stability and uniformity in teacher education curriculum at all levels.

References & Bibliography

- Government of India Resolution of 1904, quoted in Kuldip Kaur (ed.), Education in India (1781-1985)-Policies, Planning and Implementations, Centre for Research in Rural and Industrial Development, Chandigarh, 1985, p. 301.
- MHRD (1998), National Policy on Education 1986 as modified in 1992, New Delhi, GOI

- National Archives of India, Selection from Educational Records, (i) 1960, Vol. I, Educational Reports (1859-71), (ii) 1965, Part 1: Development of Educational Service, 1781-1839.
- *ibid*, Educational Policy Resolution-1913, p. 301-2.
- *ibid*, Moira, Minute 1815, p.50
- *ibid*, Sir Thomas Munro's Proposal, Point 5, March 10, 1826, p.74.
- *ibid*, Wood's Despatch, 1854, p.49.
- NCERT (1988), National Curriculum for Teacher Education: A Framework, Department of Teacher Education, NCERT, New Delhi.
- NCTE (1998), Curriculum Framework for Quality Teacher Education, National Council for Teacher Education, New Delhi.
- NCTE (1998), Policy Perspectives in Teacher Education: Critique & Documentation, National Council for Teacher Education, New Delhi.
- NCTE (2009), National Curriculum Framework for Teacher Education-Towards Preparing Professional and Humane Teacher, National Council for Teacher Education, Wing-II, Hans Bhavan, Bahadur Shah Zafar Marg, New Delhi
- Nurullah, S. & Naik, J.P. (1964), A students' history of education in India, 1800-1965, Macmillan, Bombay
- Sharma, N.K. (1976), Linguistics and Educational Aspiration Under a Colonial System: A Study of Sanskrit Education during British Rule in India, Concept Publishing Company, Delhi
- Siddiqui, M.A., Sharma, A.K, and Arora, G.L. (2009), Teacher Education-Reflection Towards Policy Formulation, National Council for Teacher Education, New Delhi.
- Singh, L.C. (2015), NCTE Regulation 2014-A few reflections on their Impact and Prospects, University News, Vol. 53, No. 40, (October 5-11).
- Singh, L.C. & Neha (2016), Two-year B.Ed. Curriculum Framework of National Council for Teacher Education: Some Persisting Confusions, University News, Vol. 54, No. 14, (April 4-10).
- The Indian Education Commission, 1882, quoted in Nurullah and Naik, Students' Handbook of Education, 1964, p.231.

Framework of Teacher's Knowledge: Concerns for Teacher Preparation Courses

Abstract

Teachers are the most important factor in the educational outcomes and learning levels achieved by any child, class or school. The paper presents a framework for teacher's knowledge and is based on the analysis of a small study assessing the knowledge of the teacher's from a few schools of Udaipur, Rajasthan. The findings of the study raise some pertinent recommendations and areas of concerns to be included while planning pre-service and in-service teacher capacity building programmes.

Teacher knowledge is characterised as a multidimensional construct, consisting of a variety of interacting components, such as general pedagogical heuristics, content specific pedagogical strategies and knowledge of the domain itself.

(Fennema & Frank, 1992)

In the case of mathematics, many previous studies (Ma, 1999 and Dewan & kumar , 2005) have reported about teachers' inability at solving mathematical questions and also that those who are able to solve the question are often unable to explain their solutions. For teachers, it is important to be able to articulate the process and thinking in solving a particular problem. These articulations provide students with an opportunity to become aware of problem solving strategies which are different from the algorithm of a particular kind of question. This forms an important part of the pedagogic role of the teacher. A simple question in this regard is the difference between multiplication and division. In the standard algorithm of multiplication, the digits are multiplied from the right whereas in division it happens from left. Teachers who can confidently apply the algorithm and get the answer are often not able to discuss why there is a difference in the algorithm. (Dewan & Kumar, 2005)

The connection between content and pedagogic knowledge is in a way quiet obvious as one cannot give suitable examples without knowing the subject well. But, there are other aspects of pedagogic knowledge like belief in the learning potential of the child or how children learn, which are independent of the subject knowledge.

It is organised in three sections. In the first section the important terms have been operationalised. The second section presents the understanding of teachers knowledge that I started with as a practitioner and the third section presents the findings from the study.

An Attempt Towards Defining Teacher's Knowledge

Teacher's knowledge can be seen as having there broad components: Content knowledge, Cognitive abilities and pedagogic knowledge. These are further sub-divided in Figure 1

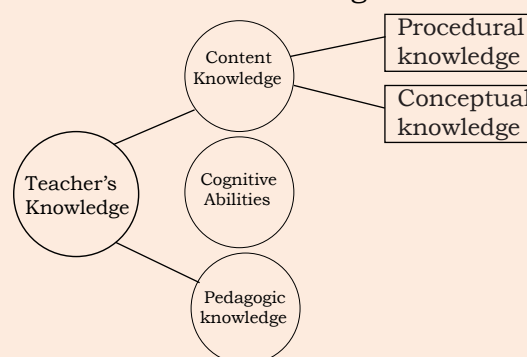


Figure 1. Framework of Teacher's Knowledge

There is a close connection between content knowledge and pedagogic knowledge as the latter is very much dependent on how well one understands the subject that is to be taught, our awareness of the structure of the subject, its underlying principles, its cognitive demands etc.

To make a valid comment about the knowledge package of the teachers, it is important to analyse how they understand and explain a particular topic. We shall now operationalize the most important and frequently used terms in this study, i.e. Content Knowledge (Procedural and Conceptual Knowledge), Cognitive abilities and Pedagogic Knowledge.

Component 1

Content Knowledge: Content knowledge refers to the knowledge of the subject to be taught. Content knowledge available with an individual can be broadly divided into two categories: Procedural and Conceptual knowledge (Ma, 1999 & IGNOU, 2000). Ma used the phrase “knowledge package” to represent how the mathematical knowledge is stored in a teacher’s mind. She points out that the elements contained in a knowledge package are usually the same in both cases whether teachers have procedural or conceptual knowledge with difference in the way they are organized and the relationships that the teacher is able to make explicit in the process of explanation. The difference also lies in how conscious the teachers are of the elements and organization of the elements in their knowledge package.

(a) Procedural Knowledge: As the term suggests, procedural knowledge involves knowledge of the procedures or standard process of doing something. An example of this is the knowledge of algorithm to add 2 two digit numbers. Knowing that we need to start from the units column, carry over if the total

is more than 10 and so on is being in possession of the procedural knowledge of addition of two-digit numbers.

This includes knowledge and explanation of the procedures or algorithms of doing a mathematical problem. The important point that Ma emphasized is that the process of teaching calls for some kind of explanation being given by the teacher. The two points that help us conclude that whether this explanation is an indicator of procedural knowledge or not are:

- Explanations may not really be mathematical or mathematically correct

Liping Ma gives the example of U.S. teachers explanation of regrouping while subtracting 9 from 21, where the subtrahends ones digit number is bigger than the minuends ones digit number.

“You can’t subtract a bigger number from a smaller number... You must borrow from the next column because the next column has more in it. (Ms. Fay)

But if you do not have enough ones, you go over to your friend here who has plenty. (Tr. Brady)

“We can’t subtract a bigger number from a smaller one” is a false mathematical statement. Although second graders are not learning how to subtract a bigger number from a smaller number, it does not mean that in mathematical operations one cannot subtract a bigger number from a smaller number. In fact, young students will learn how to subtract a bigger number from a smaller number in the future. Although this advanced skill is not taught in second grade, a student’s future learning should not be confused by emphasizing a misconception.

To treat the two digits of the minuend as two friends, or two neighbors living next door to one another, is mathematically misleading in another way. It suggests that the two digits of the minuend are two independent numbers rather than two parts of one number (Ma, 1999).

- Making connections is an important process of both teaching and learning. In the case of only procedural knowledge based explanations, the connections are to procedural aspects and not to the basic principles of mathematics.

(b) Conceptual Knowledge: This on the other hand, implies a conscious packaging of the elements in the knowledge package and entails connections between different topics. A deeper understanding of any subject implies both extensive and well connected knowledge base. This complex interconnection implies that different knowledge items do not stand alone and the possessor of these knowledge items is aware of the connections.

The teachers who are conceptually more assured of their mathematical understanding are aware of the connections between different concepts, how a particular concept develops and thus are able to make the connections between different topics explicit to their students, able to solve and make new problems, and able to see the reason behind errors and alternative frameworks of their students. In their teaching, they do not easily resort to mechanical memory based explanations but rely on mathematical arguments. Another important aspect of conceptual understanding is the knowledge of basic principles. E.g., in the understanding of number systems: the important basic principle involved is the rate of composing a higher value unit.

In the case of teaching, it is important to be able to make these connections explicit. It will also have implications on the pedagogic approach of the teachers. A teacher who believes the above mentioned point will give students opportunities to present their own understanding of a question and different ways of solving it.

Component 2:

Cognitive Abilities: Cognitive abilities include abilities needed to construct knowledge in a subject. These can further be divided into general i.e., those needed to learn any subject and mathematical, i.e., those that are specific to mathematical learning. The examples of general cognitive abilities includes classification, observation, following logical argument, abstraction, pattern recognition, generalisation etc. Examples of mathematical cognitive abilities include estimation, spatial and quantitative visualisation etc. Needless to say all the general cognitive abilities are needed in the learning of mathematics as well.

Component 3:

Pedagogic Knowledge: The knowledge or understanding about how to teach is not an area in itself but is affected by content knowledge, perception about why a particular subject should be taught, perceptions about learner and learning process and social biases. It includes the attitude of teacher towards the subject to be learnt as well as the learner. Views on learning process include how individuals learn, how mathematical concepts are formed, what strategies or material support it and how to plan the process, etc.

There is also need to understand human development and child development to have faith in the intrinsic ability of a child to construct one's own knowledge. This also is important to have faith that all children can learn

mathematics. Pedagogic knowledge also includes knowledge about instructional material, about ways of assessment, ability to come up with useful examples and representations, ability to differentiate between what work needs support and supervision and what can be done independently, ability to analyse the source of error (Ball et.al., 2005)

Understanding the Terms:

To understand the content and pedagogical knowledge, let's take an example of number system. Number system involves understanding numbers; knowing how to write and represent numbers in different ways; recognizing the quantity represented by numbers, discovering how a number relates to another number or group of numbers and different number sets and their properties.

Content Knowledge

In the primary and intermediate grades, number sense includes skills such as counting; understanding place value in the context of base 10 number system; writing and recognizing numbers in different forms such as expanded, word, and standard; and expressing a number in different ways—5 is “4 + 1” as well as “7 - 2,” and 100 is 10 tens as well as 1 hundred. Number system also includes the ability to compare and order numbers—whole numbers, fractions, decimals, and integers—and the ability to identify a whole number by an attribute—such as odd or even, prime or composite—or as a multiple or factor of another number or classify numbers into natural number, rational number, etc. with knowledge about the defining property of each. It thus, includes the relationship between different sets i.e. how the set of natural numbers is subsumed within the set of rational numbers or the set of real numbers subsumes all the others.

Pedagogical Knowledge

Pedagogical knowledge for teaching number systems includes knowing that to learn counting, children initially need concrete materials but to really develop the concept of numbers they need to move away from the concrete. And this is true for all other devices as well. The aids are like crutches to be used if and when needed and not essential part of the mathematics classrooms. It includes knowing that to master a concept children need to engage with it in different contexts and need opportunity to use it in natural situations. It includes the awareness of how abstract the notion of numbers and number sets is.

What do we know about Teachers' understanding?

In the earlier section, we have discussed how the study has defined the phrase teacher's knowledge. In this section, an attempt has been made to articulate what we understand about teacher's knowledge based on our interactions with them in classrooms and workshops.

From 2009 to 2014, Vidya Bhawan Education Resource Centre (VBERC)¹ was engaged in working with government and Low Fee charging Private (LFP) schools of the city. The team was also engaged in conducting workshops for teachers and providing them support in the classrooms. We also participated in the Sarva Shiksha Abhiyaan workshops. This section is based on the reflections on these interactions

Content Knowledge

Procedural Knowledge: Most of

¹ VBERC is a voluntary organization working with many state governments. As part of the team I had the opportunity to work with teachers and teacher educators of several states and intensely interact with government and private school teachers in Udaipur, Rajasthan.

the teachers who had been teaching mathematics in school were fairly comfortable with the procedural knowledge aspect of the subject, implying that they could solve the questions given in the textbook. If a new textbook was introduced or a new class was added to their timetable, they could in a year's time learn how to solve the questions in that book. But, this did not lead to the ability to explain why a particular method worked to provide the answer which in other words meant that they knew the algorithm but do not always knew the reason behind it. As a result even during workshops when there was discussion around the conceptual part of a topic, they usually started by using some phrases related to the topic but were unable to articulate a comprehensive picture. Also, in a setting where discussions about the underlying principles were made explicit, they were both amazed and interested and also felt that if this was shared with their students, it would help them in understanding and would probably lead to better retention. In spite of teaching a topic for many years, it was rarely seen that the teachers abstracted something from it or dug the reason behind it and therefore they in turn did not expect their students to be able to learn anything (more than taught) on their own.

Conceptual Knowledge: One can also confidently say that teachers were aware of the nature of mathematics as a hierarchical subject as they repeatedly said that to understand (or learn) a topic in mathematics, it was important that students knew the prior concepts. They also seemed to understand that the topics in the textbook were arranged in a hierarchical manner and the later chapters built on the initial chapters. As a result they did not skip the chapters and usually follow the sequence of chapters.

Cognitive Abilities: Based on the experience of attending the workshops as a facilitator, I can say that almost half of the teachers showed a grasp of many of the cognitive abilities in a general sense. But they rarely seem to apply them while working with mathematical problems. As soon as confronted with mathematical problems whether from the textbook or otherwise, there is an over reliance on known algorithms.

Let us take the example of knowledge and learning of quadrilaterals. Different kinds of quadrilaterals are introduced to students in different classes and also with the definition, similarities and variations between other quadrilaterals. Most teachers are able to identify a particular quadrilateral or on being told the specifications place it into a particular type of quadrilateral. This is a demonstration of procedural knowledge. But they can also categorise the quadrilaterals into mutually exclusive groups. Conceptual knowledge would be demonstrated in being able to see the relationships between them and realise that a square is a special type of rectangle or rhombus or parallelogram etc. and hence is also in those categories, this is recognised by only about half of the teachers.

Pedagogic Knowledge: Learning in Mathematics like other subjects was considered a matter of memorising and practicing the same or similar question again and again. Teaching was to aid this process of memorising and practicing. Teachers' perspective of mathematics learning is knowing the correct methods and solving the questions. As a result classroom pedagogy is mainly about solving the questions given in the exercises i.e., the classroom interaction in mathematics class is dominated by the question of how and not why. The procedural knowledge of solving questions can be seen at three levels:

- Ability to solve a particular question
- Ability to solve similar questions when a cue to identify the type is known. E.g. When you see “kul” in a question you are supposed to add.
- Ability to solve questions of a particular topic.

The pedagogy is heavily dependent on the textbook and moves from exercise to exercise. The pages in between the exercises (especially in the NCERT textbooks) try and introduce the concept, help children understand the origin/ logical explanation of an algorithm or formulae. But the mathematics pedagogy of the teachers makes no allowance for reading the chapters in the class. Reading is not considered a skill important for mathematical learning; this may explain why children are unable to solve word problems. Also, the classrooms are dominated by the teacher and her monologue and rarely have legitimacy for students speaking anything. The dominant teacher speech is an indication of the understanding of learning process which focuses on the teacher telling and students listening. The learner is perceived as a passive recipient of the knowledge being given by the teacher. They do not see the possibility or worthiness of children exploring their surrounding and constructing their own mathematical knowledge. As discussed earlier, the teachers do seem to understand that mathematical topics are linked to each other and are in a hierarchy; but, at the same time the classroom transaction is very much linear. Most classes have students who do not know many topics from the previous classes, but the teaching plans of teachers do not ever go back to build on the base concepts and then move forward. Another important thing is the ability to make new questions. Teachers in schools are never seen as designing new questions

(to pose realistic problems, stimulate thinking etc.) for the students, the only visible practice is of changing the numbers in the already given questions in the textbooks. The kind of pedagogic practice we see in most of the classes is very easily replaceable by a guidebook and that is exactly what we see happening. If a child misses some classes, she is expected to complete it by copying either from a friend’s notebook or from the guidebook. In some cases, even the most regular children are seen copying from the guidebook and as a result they are much ahead from what the teacher in the class is doing.

Another important aspect of pedagogical knowledge is the understanding of a teacher and learner’s role in the classroom and how do children learn. Teachers saw a very limited role for both. Teachers were limited to transacting what was given in the books. In the case of mathematics this implies presenting to the students the correct way of solving the questions. Learners were seen as those who would develop the ability to imitate the process and then be able to transfer this process/algorithm to similar questions. I call this ‘limiting’ as these roles trap both the learner and the teacher in roles which inhibit creativity, make the process of learning and teaching boring and ultimately alienates both the learner and the teacher from the wonders of the subject.

Understanding of a learner’s role includes how much and what to expect from them. There are studies (Rosenthal and Jacobson, 1968) showing that the teacher’s expectation of what students are capable of learning impacts their potential to learn immensely. Teachers that we were interacting with had very fixed ideas about mathematics learning and their students. They seemed to hold a fastidious belief that not all

children can learn mathematics. They also felt that mathematics is a difficult subject and thus can be mastered only by intelligent children. This tells us that teachers also categorise their class into intelligent, average and below average students. Teachers often also feel that a subject like mathematics is difficult for children coming from disadvantaged backgrounds. As a result, the pedagogy of mathematics teachers seems to be very limiting and not expecting much from their students; thus, the possibility of the students abstracting their own patterns, forming rules, tackling new mathematical problems understanding on their own, logically proving something is very low.

A study to explore teacher's knowledge was initiated with dual motivation. On one hand it would provide empirical basis to assess the and ground the reflective understanding of the practitioners, like myself. And on the other hand a detailed analysis would provide direction to plan interventions in school and further work with teachers. The findings of the study have been presented in the following section.

About the Study

VBERC undertook a study to sketch a picture of teachers' knowledge in language and mathematics. This paper is based on the mathematics section of the study. The study sample included 49 teachers of whom 41 were women and 8 were men. The other important variable in the data was the management pattern of the school in which the teachers work: 18 teachers were from private schools and 31 teachers were from

government schools. All the teachers were given a background questionnaire and a subject paper. Among those who scored high in the paper eight teachers were selected, four each engaged in the teaching of mathematics and language.

All the teachers were required to undertake Mathematics and Hindi competency test which contained various open-ended questions on nature & abilities of subject and related concepts. They were also asked to fill up questionnaire, gathering information on background of the teachers and their responses to pedagogical issues, process of learning, views about learner & learning material.

The mathematics paper explored three types of knowledge. The mathematics question paper used for the study included 16 questions. The questions were taken from the upper primary mathematics textbooks. 50% of the mathematics paper was based on conceptual; 24% on procedural and 26 % on cognitive abilities. Areas explored in the paper were number sense, geometry, data handling, fractions, mensuration, probability and unitary method.

Findings

The performance in the mathematics paper presented a very disappointing picture where the average percentage score was 39.7%. The mean score in questions assessing the conceptual knowledge was 23% and that of procedural knowledge was 47%. Both the scores are abysmally low. 59 % teachers scored 50 % or more in the procedural questions whereas only 11% teachers scored 50 % in conceptual questions.

Examples of questions

Procedural	पाँच मजदूर एक काम को 40 दिन में करते हैं तो 8 मजदूर उस काम को कितने दिन में करेंगे?
Conceptual	अभाज्य संख्या के विषय में 3 सही वाक्य छाँटकर लिखे। (a) 0 अभाज्य संख्या नहीं है। (b) 1 सबसे छोटी अभाज्य संख्या है। (c) 17×11 से बनी संख्या अभाज्य संख्या होगी। (d) 2 सबसे छोटी अभाज्य संख्या है। (e) प्रत्येक प्राकृत संख्या को 1 व अभाज्य संख्याओं के गुणनखण्डों के रूप में लिखा जा सकता।

The following question was not considered as part of any category but was placed in either of the two based on the response:

संख्या 5378 में कितनी दहाइयाँ हैं? नीचे दिए गये सही विकल्पों पर सही का निशान लगाइए। ध्यान रखिए एक से ज्यादा विकल्प भी सही हो सकते हैं।

- (a) 7 दहाइयाँ (b) 37 इकाइयाँ
(c) 53 दहाइयाँ (d) 537 इकाइयाँ

If the teacher selected three options (a, b and d) then the answer was considered as evidence of conceptual knowledge and when only one option was chosen (a) then the answer was considered as evidence of procedural knowledge.

Table 1*

Mean score Math	Mean score in procedural knowledge related questions	Mean score in conceptual knowledge related questions
39.7	47	23.4

(* the scores are in percentages)

The background data collected from the teachers informed us that the Govt. school teachers were more experienced and had more opportunity to attend workshops. This reflected in their performance in questions related to attitude (classroom process and pedagogy) and mathematics as compare to private schools (18 private school and 31 Govt. school). There was a significant correlation seen in the experience and teacher training workshops attended by teachers and

their score in attitude related questions, questions assessing number sense and the overall mathematics score.

The other significant correlation was seen in the performance of teachers in topics like algebra and data handling with more years of education. Higher the education a teacher has had, better was her performance in the above mentioned areas.

Similarly, teachers who gave positive responses to reading habit related questions also performed better in attitude related questions. Reading habit was assessed through questions about reading newspaper, magazines and books. Attitude scale included 24 questions exploring the views about learning, multilinguality, nature of mathematics and nature of language, classroom processes, multigrade teaching, new textbooks and teaching-learning material. Significant correlation implies that those teachers who reported that they read more gave more positive or progressive responses on the above questions.

Similarly, high correlation was seen in content knowledge of mathematics and pedagogical knowledge needed for teaching mathematics. As discussed earlier content knowledge is essential for part of the pedagogic knowledge. But as seen above the correlation with general pedagogy was also seen. Thus showing an overall correlation between general pedagogy and content knowledge of mathematics.

To conclude, one can say that both the kinds of teacher's knowledge were correlated amongst each other and were directly correlated with education level of the teacher, opportunity to attend workshops and reading habit.

What does it say about Teacher Education?

The above analysis and reflections on workshops shows us that content knowledge is an important aspect of teachers' knowledge. On one hand it forms the basis of what is taught to the children but as discussed above it also affects the pedagogic knowledge and implies that it decides how the subject is taught. How a teacher views a particular subject decides how she will teach it. When a teacher is confident of her content knowledge she is able to set new questions and is not restricted to the ones given in the textbook. She is also confident of solving any question thus would allow children to ask questions. In contrast a teacher who can only solve questions of a type would not allow students to freely ask questions. Similarly a confident teacher with conceptual clarity would be able to analyse the errors and also guess where a child is going by seeing her work and listening to her queries.

And yet, most teacher preparation programs assume the content knowledge, i.e. the students coming to the course already possess it as a result of their school and graduate education. The Bachelor of Elementary Education Program, in Delhi University makes an attempt at breaking away from the assumption and introduces papers like core mathematics, core natural science and core social science. The other example of integrated program dealing with both content and pedagogic knowledge is the Certificate program in teaching of primary school mathematics. The course provides

reading material in easy language discussing how children learn and also important areas of elementary mathematics. There is a need for other teacher education program to be reviewed in this light and more discipline related content to be added to the course.

The second important learning from the research is regarding the reading habits. The teacher education programs need to ensure that the one or two years that the learners spend with them provides them ample opportunity to explore good quality literature and helps fire the reading interest. This requires a well stocked-curated library. There is also need to introduce original writings instead of always providing "notes" or "course material". At the same time assessment reforms that focus on assessing sustained learning and capture the change in thinking of the trainees are needed. Perhaps projects, practicums and detailed term papers would provide opportunity to assess the learning of the students better than the end of term examination.

The NCERT textbooks make an attempt at interacting with both the learner and the educator. The note to the teacher in the initial pages of the textbook discusses the expected way of using the book. "There should be space for children to discuss ideas amongst themselves and make presentations as a group regarding what they have understood from the textbooks and present examples from the contexts of their own experiences. They should be encouraged to read the book in groups and formulate and express what they understand from it"(NCERT, 2006). The note emphasizes both the need to read text, discuss ideas and relate mathematics learning to real life situations, which are beyond the book. The life experiences and contexts of both the learners and the teachers

are much richer than the contexts presented in the book. The note also emphasizes the need to encourage group work and learning from peers. Teachers can structure interesting tasks and problems to be worked out collectively and in small groups.

The third recommendation is about inservice teacher education programs. One sees the need for ongoing refresher programs or workshops to be conducted both for government school teachers and private school teachers. The design and content in these workshops need to be planned with utmost care.

The teachers often complain about the facilities at the training centres, the preparation and knowledge of the resource person and the content of the workshop. Another aspect of inservice education programs should be to encourage and facilitate peer learning.

There is a need to ensure good education to all children irrespective of whether they study in government schools or private schools. Thus there is need for state inservice teacher education programs to cover the teachers from both government and private schools.

References

- Fennema, E., & Frank, M.L. (1992). Teachers' Knowledge and Its Impact. Handbook of Research on Mathematics Teaching and Learning. USA: National Council of Teacher of Mathematics.
- Shulman, L. (1987). Knowledge and Teaching: Foundations of the New Reform. Harvard Educational Review: April 1987, Vol. 57, No. 1, pp. 1-23.
- Ma, L. (1999). Knowing and teaching elementary mathematics teachers' understanding of fundamental mathematics in China and the United States. New York. Routledge.
- Ball, D.L., Hill, H. C, & Bass, H. (2005). Knowing mathematics for teaching: Who knows mathematics well enough to teach third grade, and how can we decide? American Educator, 30(3), p. 14-17, 20-22, 43-46.
- Rosenthal, R. and Jacobson, L. (1968). Pygmalion in the classroom: Teacher expectation and pupil's intellectual development. New York: Holt, Rinehart and Winston.
- Indira Gandhi National Open University. (2000). Certification in teaching of Primary Mathematics. New Delhi.
- Dewan, H.K. and Kumar, A. (2005). About Learning Mathematics. In Agnihotri, R. and Bagchi, T. (Ed). Proceedings of Seminar on Construction of Knowledge. Udaipur. Vidya Bhawan Education Resource Centre.
- National Council of Educational Research and Training. (2006). Note to the Teacher. Mathematics: Textbook for Class VI. New Delhi

Indira Vijaysimha
indira@apu.edu.in

Literacy Workers or Competent Professionals

(A Case Study)

Abstract

The paper presents a case study of how a well thought out teacher develop program can contribute positively towards innovative education of tribal children. The paper draws upon classroom observation of teacher's practices, children's reading writing and comprehension (pre, mid and post) in project schools and control schools and qualitative data from teacher and student interviews. By enabling teachers as professionals through professional development and not just training, it was possible to create an ecosystem where all stakeholders were invested in the education process. This study indicates that the successful implementation of the new practice results in improved reading ability, visible increase in student attendance and greater student interest towards school.

Introduction

The title of the paper states the question of whether we should be training or educating teachers. In a general sense, the term **training** implies the act of imparting a special set of skills or behaviour to a person, in order to improve performance at the operational level. It is not exactly same as **education**, which is a process of systematic learning in an institution that develops a sense of judgment and reasoning. Much of our teacher preparation models follow a training approach that is stapled on to a theoretical component consisting subjects like educational psychology and philosophy. Perhaps the expectation is that teachers will be able to make the connections between theory and practice and develop the required understanding and expertise to deal with the everyday classroom situations in competent and effective ways. The somewhat depressing situation of learners in our rural and tribal schools indicates that even trained and qualified teachers are failing

to respond adequately to the learning needs of children. There are of course systemic failures that also contribute to this undesirable situation, however the focus in this paper will be on how a different approach towards teacher development can offer a possible route to better learning outcomes for all children – particularly those from rural and tribal communities. This approach was tried out in the context of work done by Agrabamee, an NGO that runs a free primary school for girls in a remote rural corner of Odisha. Agrabamee undertook an intervention project – Creative Language Development Efforts (CLDE)- to improve children's reading in 18 government schools in rural Odisha.

Tribal children's' education

The Sixth All India Educational Survey of the National Council of Educational Research and Training (NCERT 1999) shows that, out of 41 languages used in schools (grades 1–10) as languages of

teaching or the Medium of Instruction (MoI) and as school subjects, only 13 are tribal languages, all but one (Nicobaree) from the North-Eastern States. Further, only three to four of these 13 tribal languages are used regularly as MoI (Jhingran 2005), whereas the others are taught as school subjects or used as MoI in occasional special programmes. Less than 1% of the tribal children have any real opportunity for education in the medium of their mother tongues (Mahanty, Mishra, Reddy & Gumidyala 2009). Mismatch between home language and the language of formal instruction is primarily related to educational failure (Mahanty, Mishra, Reddy & Gumidyala 2009). This issue has been discussed in the literature on minority education (Skutnabb-Kangas 2000, Skutnabb-Kangas & Cummins 1988, Cummins 2009, Jhingran 2009).

State and national level initiatives have tried to address the problems faced by children who study through an unfamiliar language. Most of these efforts suffered from severe limitations (Jhingran 2009). NCERT, Central Institute of Indian Languages (CIIL) and Tribal Research Institutes produced a large number of primers in several tribal languages for the initial primary grades based on the 'bilingual transfer model'. In most cases the approach was limited to the publication of these textbooks or readers and components of teacher training, regular academic follow-up and evaluation were not included. Further, many schools, where these books were introduced did not have 100% tribal children with the same first language. Without adequate grounding in theoretical perspectives of language and literacy learning and with no teacher preparation these experiments were bound to fail. Such efforts also "queered the pitch for any further effort at introducing more comprehensive bilingual education

programmes." (Jhingran 2009, p.263). Some other efforts such as the use of bilingual language inventories for teachers or word and alphabet cards for children in the initial months of grade 1 were inadequately supported in terms of teacher preparation and follow up. Since 2006 some multilingual education (MLE) initiatives have been taken up in Orissa.

Despite the above mentioned efforts, in all the 18 project schools, teachers typically followed conventional teaching methods, as this excerpt from classroom observation indicates, *"He didn't care to know if children understand the meaning of some difficult words or they are ready to learn in the class without any pre-texting of teaching. Then continued to explaining little on lines. He was not sure what he was teaching. It was difficult to relate what exactly he wanted to start and finish. Finished the topic in 10 minutes."*

Typically in the classrooms, spent most of their time reciting or copying. These activities provided no scope to start understanding the unfamiliar language being taught to them. The text was read aloud by the teacher followed by chorus repetition by the students. The children do not ask questions or say anything on their own. Overall, the stress was entirely on rote memorization of the answers. Moreover, it was observed that many children were frightened of teachers and school and preferred to keep away as much as possible. This in turn led many teachers to conclude that tribal children were incapable of formal learning. The hostile and in-conducive school atmosphere leads to dropping-out and discontinuation of most of the students from school. The situation in the project schools was not any different from that described by Jhingran (2009) and the Orissa Review, 2004.

The Agramee Effort

Agramee teachers, guided by Vidhya Das had begun to try out an approach to literacy education – an adaptation of Warner’s “organic method”. Children were familiarized with whole words that they could relate to from their own context. Later they learnt the alphabets. In order to facilitate the teachers’ work, a primer ‘Kau dake ka’ had been developed for classroom use. Teachers were also counselled not to punish or threaten children in any way. They were helped to develop classroom practices that utilized games and activities to hold children’s attention. This new approach resulted in a marked increase in children’s reading and writing abilities. With a view to expand the work into government schools, Agramee embarked on a pilot project to try out the method in 18 government schools.

Agramee’s experience indicated that teachers with B.Ed. or Certificate in Teaching (CT) qualifications were unable to move out of formulaic styles of teaching and come up with adaptive and innovative solutions that could improve children’s reading levels. Therefore, it was decided to implement the method in government schools by hiring youth from the rural communities and training them as teacher helpers – Shiksha Sathies. The selection process required applicants with higher secondary or higher qualification to take a written test through which they were assessed for writing proficiency. Only candidates who had a good writing skills were selected for the interview. There was a conscious decision to include more women and also to find suitably qualified Shiksha Sathies who belonged to tribal communities. Of the 18 Shiksha Sathies selected, 7 were women, 6 had college degrees and 9 belonged to tribal communities.

Approach to Teacher Development

Key principles:

- Developing conceptual understanding through discussion and interactive sessions
- Observing children and classroom teaching
- Provision of well-designed curricular resources for the CLDE program
- Providing opportunities to experience teaching– learning activities
- Planning and teaching in the presence of observers followed by group mediated reflection on teaching – lesson
- Sustained follow up interactions including on-site visits and support
- Periodic assessment of student learning

Conceptual Understanding: Literacy means being able to think independently, to make meaning of what one sees, hears or reads and being able to communicate ideas, thoughts or feelings through spoken, pictorial, written or other forms.

During the first training workshop, conceptual understanding about the nature of language as a sound symbol system was developed. Attention was then drawn to the way in which children naturally acquire their home language. It was pointed out that by the time a child enters formal schooling at the age of five or six years they know at least one language. Research on cognitive linguistics indicates that a child at the age of five has a good vocabulary of as well as knowledge of grammar. When participants expressed surprise at children having knowledge of grammar it was explained that native speakers of a language have a set of internalized rules for using that language. These rules constitute grammar, and a child

learns them not by conscious study or instruction, but in the normal course of interaction with various family members.

Participants were helped to understand that language is expression and exchange of thought, feelings, experiences and instructions through symbols. The confusion about words, symbols and letters was cleared through discussions that helped participants understand that spoken language consisted of sound symbols. Each word of a language can be thought of as a sound symbol. These sound symbols mean the same thing for all those who speak a language. A word as a sound symbol has to be contextualized and embedded in its root language. Without this contextual embedding, the sound does not symbolize anything, and thus does not have any meaning. An alphabet also symbolises sound. But it is a different kind of symbolism. An alphabet represents a constant sound (phoneme), quite apart from its language context and is used for written language. Though scripts do relate to specific languages, a set of alphabets can be used to write any language. Tribal languages that do not have a body of written texts can make use of an existing script to develop written texts in the language. During the workshop there was a lively debate over whether it was possible to write Kui (a tribal language) using Odiya script. A live exercise for doing this was tried out during the workshop. There were some problems while doing this, as the language has some phonemes that are not represented in the Odiya script. However, participants were able to agree that much of Kui language could be written out in Odiya script. All participants came to the understanding that a script is a set of visual symbols representing spoken sounds and that these symbols could be used to express any language.

The second set of concepts related to naturalistic acquisition of language by children and how the inherent tendency of children to make meaning of the world and words around them can be used to develop literacy. There was considerable discussion about why the CLDE approach to literacy teaching started with whole words rather than beginning with alphabets in the traditional way. Participants were able to realize that children are interested in meaning. Isolated alphabets do not convey any meaning and children have to struggle to learn all the alphabets without understanding how the alphabets can be combined to make meaningful words. Secondly, children who do not speak Odiya are unable to make sense of the words and instruction of their teachers. By introducing whole words supported by pictures, children are able to connect the written with the spoken word. Similarly, they are enthused about learning to write out their own names and the names of their parents, family members and friends. Thus, writing in the form of whole words becomes meaningful to the child who then develops the ability to recognize whole words and also write these down. The next step is to facilitate the child to recognize the alphabets/phonemes that constitute each word.

Observing Children: In previous site visits it was noted that teachers were not much focused on individual children and had a tendency to use teaching methods that did not specifically check for engagement, understanding and performance of individual children. In order to build a sensitive and empathetic approach towards children, specific observation tasks were designed for the Sathies to observe and take notes of children's play/ activities/ talk/ responses. Each period of observation was followed with a debrief session where the observations were discussed

and implications for pedagogy were drawn out. Sathies were able to see how children responded in various situations and could conclude that fear inhibits the natural tendency of a child to be inquisitive and exploratory. They could also observe how children were attracted by songs and games and were bored and distracted when teachers resorted to extended monologues in the classroom. Sathies were able to observe the change in Kui language speakers when Odiya songs from the CLDE primer were translated into Kui.

Curricular Resource Development:

Appropriate supportive material for early grade reading plays a very important role in classroom teaching. Two children's workbooks were developed specifically for CLDE. These served to provide teachers with the day-to-day content for classroom teaching. Each workbook also has a note for the teacher, explaining key concepts and guidelines for using the workbook. The note includes ideas on literacy teaching for Grades I and II, especially in the case of first generation school goers. The note is meant to help teachers plan their daily lessons and to accommodate individual differences among the learners. In addition to this, the note deals in a concise way about how the teacher should plan for a classroom where children speak different languages. Teaching Aids such as picture cards, flip charts, poem and story sheets were also provided.

Experiencing Teaching-Learning Activities:

The workshop design allowed Sathies to experience teaching learning activities at two levels. At the first level, the Sathies themselves participated in the learning activity to get first-hand experience of the same. After experiencing the activity the Sathies would discuss about learning outcomes that could result from the activity. Learning outcomes were not

narrowly defined in terms of testable abilities but included aspects like motivation, generation of curiosity, joyful participation by all children etc. Participants had to plan how the activity could be integrated into their teaching.

At the second level Sathies were able to observe an experienced teacher use the activity during classroom teaching and note down the way the teacher used the activity to teach and note how children responded to the lesson.

Lesson Study: Inspired by descriptions of the Japanese Lesson Study process, Sathies were facilitated to collaboratively develop lesson plans and teach in the presence of observers followed by group mediated reflection on the observed classroom. This took place as a part of the training workshops.

Sathies worked in collaborative groups to develop a teaching plan. Some of them would then volunteer to actually conduct the class based on the teaching plan while other members of the group worked as observers and took notes about the children's responses to the lesson. Since the training workshops were held at Agramee campus that had a well-functioning school, it greatly facilitated the adoption of the lesson study model to the workshop situation.

After the lesson, the participants would meet for an extended discussion on the classroom processes. These discussions would focus on multiple aspects of the lesson like the way in which the activity was conducted, the various responses observed by the children, adaptations made by the Sathi conducting the lesson, factors that facilitated learning or impeded learning, etc. The largely peer led but moderated discussion set the ground for discussing the practice of education in a grounded and professional way. Individual challenges, school specific challenges could be brought to the

surface and solutions suggested in non-threatening atmosphere aimed at improving children's educational outcome. It was made abundantly clear that the aim of the lesson studies was not to point fingers at individual shortcomings, but to evolve collectively as a set of committed professionals. The key principle of respecting every individual was emphasized during the post-lesson discussions.

The Sathi who volunteered to conduct the lesson would first give his own analysis before hearing from the observers. Observers were guided to focus more on children's responses to the lesson as indications of the extent to which the lesson's stated objectives were achieved. These observations provided valuable insights to the Sathies. They could then reflect on how their teaching could best meet the learning needs of various children.

On-site support and follow up: All 18 schools were visited at least once a month by project personnel. Sathies were observed and supportive feedback provided to them. After the two initial training workshops, three review workshops were held where experiences were shared and observations reports discussed with the Shiksha Sathies. The emphasis was on improving practices and not on finding shortcomings of individuals.

Periodic Student Assessments: After the baseline test at the start of the program, two written tests were conducted to check the children's progress in reading. These tests were conducted by observers and not by the Shiksha Sathies and therefore provided a fairly reliable indication of children's progress in reading levels. Findings of the workshop were discussed with the Sathies.

Findings

Impact on Students

Removal of Fear: The fact that children are no longer afraid of school and are showing more and more interest in coming to school and learning to read has been mentioned many times by the Shiksha Sathies, other observers and children's parents. This is not a trivial achievement, given that Sathies themselves had experienced harsh and authoritarian schooling as pupils. Children in the project schools were more confident and able to converse freely with visitors. Children themselves reported how they now liked coming to school because the teacher was friendly and learning became fun. Sathies interacted informally with parents to develop a better understanding of children and be more empathetic. They were able to provide both emotional and educational support to their students. Knowing children individually had some interesting consequences as this statement from a Sathi indicated "... earlier there were no attendance records maintained but now children tell us during attendance that who is present and who is not."

Better Attendance: Children became much more regular in attending school. They were coming to school early and not just for the sake of the mid-day meal. Sathies themselves felt enthused to come to school early when they saw the children eagerly waiting to walk with them to school. Children who were enrolled in ashram schools but had come back home since they didn't want to stay in the hostel, now regularly started attending the village school.

Improved Reading: One clear indicator of the Sathi's efforts was the progress in children's reading levels as shown by the mid-line evaluation. Initially, only 11 % of the children were able to score 70% on the reading assessment tests. After about 7 months of work done by the Shiksha Sathies, there was a jump to 46% children scoring 70 %.

Impact on Teaching

Focus on the Individual Learner:

Teachers have developed acute awareness and sensitivity towards each individual child. They no longer talked in general terms about their pupils and were able to track the progress of each child. In an interview a Shiksha Sathi said, *“In class observation, I see who’s giving attention and who is lagging behind or getting disturbed. The children who is lagging behind, we will ask them question. If we’re teaching them a story, then after the story ends, we ask them one question at least.”*

Although, this may seem like something that should be the norm with all teachers, it was not the case as evidenced from the classroom observations preceding this study. Teachers delivered lessons standing in front of the children and did not seem to observe children except for the purposes of curbing what they perceived as undesirable behaviours on the part of children. The shift towards more learner-centric teaching involves in part, the ability to see learners as unique individuals. It also requires the teacher to have the willingness and capability to adapt and modify her pedagogy to meet the learning needs of each child. The classroom interactions of the Satues indicate that they have both. Shiksha Sathies are now less inclined to blame children or circumstances for gaps in expected learning and are able to see themselves as empowered professionals who are capable of solving pedagogical problems.

Using Child Friendly Teaching Materials and Methods

“Before CLDE Teacher training we could not engage the children. Training helped us understand what interests children and they started grasping my lessons quicker.” (Shiksha Sathi during an interview)

The CLDE program is premised on the notion that every child is inherently engaged in the process of making sense of the world around her and true education should build upon this natural tendency. Further, the program recognizes that play has a significant place in cognitive development. These two key insights were thoroughly discussed with teachers involved in the program since we wanted the Shiksha Sathies to critically engage with the CLDE process and not mechanically carry out a set of classroom procedures/ techniques. The training focus was not merely to familiarize teachers with the resources and procedures, but to involve them in thinking about the ideas behind the material. This training approach has resulted in two key developments: a) Shiksha Sathies are able to use and improvise on the resources provided in intelligent ways and can adapt them to the specific needs of their classroom; b) In many cases the Shiksha Sathies have been able to develop their own TLM and use these effectively in their classrooms.

“I know this at least that I’m no more teaching them the same way. I used to teach them in a way I was taught in our primary school. I understood the importance of TLM and class observation...”

I teach with TLM and story chart which helps children to understand easily, in our time we did not have these. Playing with children also helps. In story chart if one child cannot tell the other would help him understand. TLM such as Animals and birds picture card helps. In mathematics I developed my own TLM with sticks and stones.”

Respecting children’s prior knowledge is one of the key principles of CLDE pedagogy and the Shiksha Sathies are successfully doing this. They have become increasingly proficient in teaching through child

friendly methods using songs from the primers. To reinforce learning teachers use games and TLM based activities and are also able to evaluate children's learning using such play-way activities. This is very much liked by the children.

During one of the training workshops, Shiksha Sathies were introduced to the role of stories and 'read-alouds' in the classroom and they have been able to successfully use story based lessons in their classrooms. Children have expressed their enjoyment of these lessons and it seems to have further strengthened the positive teacher- student relationships.

The joyful classroom environment that has been created by the Sathies has inspired quite a few drop outs to be the part of school again.

Addressing Linguistic Differences:

The importance of positively acknowledging the child's linguistic identity has been an important tenet of the CLDE program. This quote from an interview of Sathi well captures the importance of acknowledging the child's language, *"When we went to school initially, we went without training. If I ask pupils their name, their address, their mother's and father's name they won't respond. I tried to talk to them in Odiya language and they would find it really difficult to understand but after training first thing I did was I started talking to them in Desia (Local language) and it really encouraged them for better communication between us."*

The CLDE primers are in Odiya language and the expectation was that the Sathies would act as mediators between the child's home language and Odiya. After initial encouragement to translate the Odiya songs into tribal languages like Kui and Pingo, the Shiksha Sathies are now comfortably doing so. They were sensitized to respect the language spoken by the

children and to freely communicate with the children in any language that was understood by the children. During a sharing workshop with government officers, teachers and SMC members at Naurangpur, the Sathi explained how Kui speaking children could be helped to learn through the CLDE primer Kau dake ka. *"In the first stage, children should be asked to identify the pictures using words from their own language. After this the children are made aware that the Odiya word for the same picture. The Odiya word is written below the picture. The child then says both the Kui word, and follows it with Odiya word. After this, the teacher encourages the child to write the Odiya words in her note book."*

Rising up to meet systemic challenges:

One major surprise that emerged in the initial phase of the CLDE project was the prevalence of multi-grade situations. The CLDE project had not specifically envisaged this while developing the primers and other TLM. However, once it became apparent that Shiksha Sathies had to work in multi-grade classrooms, there was a fairly intense discussion about how this could be handled. They discussed problems and also shared strategies that they had tried to overcome the problem. The focus was on problem-solving rather than on analysing the causes for the observed situation. The Sathies have been able to adapt to the situations they found themselves in and came up with a range of solutions which they freely shared with each other. It is to be noted that during subsequent review/training meetings, the problem of handling multi-grade classes did not feature indicating that the Sathies had figured out ways to manage the situation and continue their work of teaching children to read with comprehension.

Impact on other Stake Holders

Government School teachers became more regularly as they were conscious about the regular presence of Sathies in their schools. Many of them have been motivated to become better teachers after observing the work of the Sathies. They have requested that the CLDE primers be made available to them. With the help of Sathies they have started to teach using games, activities and other have decreased beating children.

Sathies were able to demonstrate to stakeholders how Kui speakers could be effectively taught using the textbook. During a block level interaction, one Shiksha Sathi used Kui and immediately caught the attention of the SMC members who were Kui speakers. They cheerfully took on the role of children for the duration of the demonstration which became very lively. The session proceeded with the Sathi explaining how bi-lingual songs were used in the classroom and how children were helped to transition gradually from Kui to Odiya. When songs are sung in a language not understood by the children, there was low enthusiasm. When the same song is sung in the children's own language, their faces lit up and they participated with much greater energy and evident enjoyment. The BEO observing this demonstration appreciated the effort and pointed out that this method helped children to easily move towards bi-lingual understanding and he recommended that it should be practised in all schools in Kui villages.

Reflections

Guskey (2002) pointed out, that successful educational improvement programs have a well-conceived and adequately supported professional development component. There is widespread acceptance for education reform to be backed up by appropriate

teacher training. The sad fact is that trainings have become routinized and often meaningless for many teachers.

Typically trainings focus on pedagogical skills and don't attempt to build teachers' conceptual understanding about a particular teaching technique or method. More often than not teachers are given lectures about the new method without providing them opportunities to try the method out themselves. In some cases the method is demonstrated and although this is a step towards building better teaching skills, teachers do not feel confident to try out the new method or technique on their own and there is no follow up support for a teacher wishing to adopt the new method. Often there is little evidence to support a particular method by way of carefully conducted research about its efficacy. When a particular method that has been advocated fails to yield the desired outcomes in terms of student learning one of two things typically likely to happen:

- a. the method is immediately discarded without inquiring into the causes of its failure and another method is suggested as the panacea
- b. teachers are blamed for lacking the motivation to take the method and its proper implementation

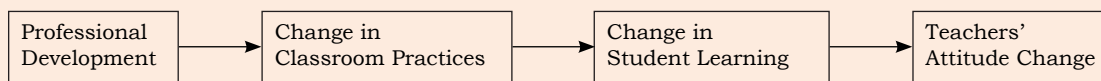
This results in a bewildering carnival like procession of new methods which are serially pushed onto teachers without proper study about their efficacy and the required support for implementation. Teachers are rarely consulted before the implementation of one or another method and they in turn become apathetic and lose motivation to try anything new and ultimately there is low learning levels and high drop-out rates in our schools. It has been suggested that the majority of programs fail because they do not take into account two crucial factors: (1)

what motivates teachers to engage in professional development, and (2) the process by which change in teachers typically occurs (Guskey, 1986).

An Insightful Model of Teacher Development

If we see teachers as literacy workers then we will train them in a narrow set of skills. If we see them as professionals then we will build their capacities through Professional Development programs. Guskey's model offers an interesting insight, showing that teachers' attitudes change as a result of professional development and improved student learning. This is important for us, as it helps us to work constructively without the requiring teachers to come with favourable teacher attitudes.

Guskey's model



According to the model, significant change in teachers' attitudes and beliefs occurs primarily after they gain evidence of improvements in student learning. These improvements typically result from changes teachers have made in their classroom practices - a new instructional approach, the use of new materials or curricula, or simply a modification in teaching procedures or classroom format. The crucial point is that it is not the professional development per se, but the experience of successful implementation that changes teachers' attitudes and beliefs. They believe it works because they have seen it work, and that experience shapes their attitudes and beliefs. Some key aspects of Guskey's model are as follows:

- Successful implementation of new practice lead to teacher motivation that will sustain better teaching

practices over time.

- Changes in teaching practices are mainly based on experiential learning.
- Practices that work are retained and repeated and those that do not work are abandoned. Demonstrable results in terms of student outcomes are the key to endurance of any change in teaching.
- Teachers attitude about students are also to a great extent derived from experiences.
- If teachers are consistently unsuccessful in helping disadvantaged students they are likely to believe these students have poor abilities. If a new method/

practice leads to better outcome, teachers' attitudes towards these students will change for the better.

Guskey's model also suggests the need to acknowledge that change is a gradual and difficult process for teachers and they will need on-site support and opportunities to share experiences. Teachers must get regular feedback about students. This can include attendance, learning outcomes and observations about improved student behavior. Since the model indicates that attitudes are shaped by perceived effectiveness of teaching, it is important for teachers to get relevant information about students, both through their own observations and through other stakeholders. Teachers also require continued follow-up, support and pressure.

Evidence from the initial study indicates that the Shiksha Sathies

trained under the Creative Language Development Effort (CLDE) project are doing remarkably well under trying circumstances. Seeing the enthusiasm of the children towards CLDE methods, most Shiksha Sathies remained enthusiastic and motivated and were able to creatively adapt and innovate to suit the school environment that they found themselves in. If trainings were based on mechanical acquisition of a particular pedagogical skill, they would not have been able to adapt

Observer reports have indicated that Shiksha Sathies have been able to carry out and put into practice many of the teaching ideas that form the basis of CLDE. One can surmise that their good practices are being sustained and strengthened by the visible improvement in student attendance, interest and reading abilities after they started teaching

Conclusion

Among other things, this case study highlights the importance of a lab-school in a teacher development program. Teacher development institutions like DIETs (District Institute of Education and Training) are expected to have lab-schools attached and this case study shows how these have a great potential for serving the needs to teacher professional development.

The overall plan of Agramee's CLDE project has proved to synergize well with effective teacher development. The development of the reading primer based on several years' work was able to support the Shiksha Sathies classroom teaching. The workshops helped them understand the concepts behind the CLDE program and also to observe it in practice. In addition to observing experienced teachers at work, the Sathies could also gain some first-hand experience of working with children in an innovative reading program. Regular onsite visits ensured that the Sathies

experienced both support and pressure to carry out their work in the expected manner. The second workshop allowed contextual issues to be foregrounded and several solutions to classroom management in a multi-grade situation emerged. More work needs to be done to better understand what the implication of multi-grade situation may have on CLDE process. There have been some drop-outs from the initial cohort of Shiksha Sathies and there is yet no systematic response to the entry of new individuals into the program cycle.

The twin questions of long term sustainability and scalability loom large in the horizon and there has to be a carefully thought through plan to address both these questions. It would be a pity if the enthusiastic young men and women who are part of the CLDE project at present will have to move out of the field of education once the project ends. How can these efforts feed cumulatively into the education of tribal children is probably the most significant question that needs to be addressed.

As far as teacher professional development is concerned, it is important to remember that it is a continuing process, not a onetime event. Once teachers taste the fruits of their efforts they begin their journey of lifelong learning. To sustain the process and take it forward we need to think of the following:

- Build and support a community of teachers
- Evolve platforms for teachers to exchange notes and share solutions and innovations
- Make available useful resources like articles, teaching journals, books, videos and TLM
- Provide ongoing support and feedback to teachers
- Nurture teacher leaders

References

- www.orissa.gov.in/e-magazine/Orissareview/.../tribaleducation.pdf (7.2.2016)
- <http://rayagada.nic.in/TRIBAL.htm> (7.2.2016)
- Burridge, P., & Carpenter, C. (2013). Expanding Pedagogical Horizons: A case study of teacher professional development. *Australian Journal of Teacher Education*, 38(9).
- Cummins, J. (2009). 'Fundamental psychological and sociological principles underlying educational success for linguistic minority students'. In Ajit K. Mohanty, Minati Panda, Robert Phillipson & Tove Skutnabb-Kangas (eds.), *Multilingual Education for Social Justice: Globalising the local*. New Delhi: Orient Longman
- Guskey, T. R. (2002). Professional Development and Teacher Change, *Teachers and Teaching*, 8:3, 381-391
- Guskey, T. R. (1986) Staff development and the process of teacher change, *Educational Researcher*, 15(5), pp. 5± 12.
- Jhingran D (2005). Language Disadvantage: *The Learning Challenge in Primary Education*. Delhi: APH Publishers
- Jhingran, D. (2009). Hundreds of home languages in the country and many in most classrooms – coping with diversity in primary education in India. In Ajit K. Mohanty, Minati Panda, Robert Phillipson & Tove Skutnabb-Kangas (eds.), *Multilingual Education for Social Justice: Globalising the Local*. New Delhi: Orient Longman
- Kandiah, T. (2001). "Whose meanings? Probing the dialectics of English as a global language". In Robbie Goh et al (eds) *Ariels-Departures and Returns: a Festschrift for Edwin Thumboo*. Singapore Oxford University Press.
- Kanungo, A.K. & Mahapatra, H. (2004). Tribal Education in Rayagada: A review of Language, Textbook and Medium of Instruction. *Orissa Review*, September 2004
- Mohanty, A.K., Mishra MK, Reddy, N.U. & Gumidyala, R. (2009). Overcoming the language barrier for tribal children: MLE in Andhra Pradesh and Orissa, India. In Ajit K. Mohanty, Minati Panda, Robert Phillipson & Tove Skutnabb-Kangas (eds.), *Multilingual Education for Social Justice: Globalising the Local*. New Delhi: Orient Longman
- Ono, Y., & Ferreira, J. (2010). A case study of continuing teacher professional development through lesson study in South Africa. *South African Journal of Education*, 30(1), 59-74.
- Pasayat, C. (2008). Language and Identity with Special Reference to the Tribal People in Orissa. *Orissa Review*, April 2008
- Singh, K.S. (2002). *People of India* New Delhi : Oxford University Press
- Skutnabb-Kangas, T & Cummins, J. (1998). *Minority Education: From Shame to Struggle*. UK: Multilingual Matters, Clevedons.
- Skutnabb-Kangas, T. (2000), *Linguistic genocide in education – or worldwide diversity and Human Rights ?* Mahwah, NJ; Lawrence Erlbaum.

अमृत पाल सिंह,
pal3amrit@gmail.com,

डा०(श्रीमति) पूजा गुप्ता
pooja.gupta@niu.edu.in

पाओलो फ्रेरे के शैक्षिक विचारों के संदर्भ में समकालीन भारतीय शिक्षक शिक्षा की स्थिति : एक विश्लेषण

सारांश

भारत में शिक्षक शिक्षा की स्थिति इन दिनों अनुचिंतन व परिवर्तन के दौर से गुजर रही है। चूंकि, शिक्षक शिक्षा के दो वर्षीय प्रारूप की पाठ्यचर्या को तीन साल से पहले बदला या बंद नहीं किया जा सकता था, इसलिए तीन वर्ष पूरा होने के पश्चात् अब पुनः बी० एड० कार्यक्रम की पाठ्यचर्या बदलाव के विभिन्न आयामों में परिलक्षित की जा रही है। ऐसे में, पुनः यह प्रश्न उभरकर सामने आ रहा है कि कहीं दुबारा से शिक्षक शिक्षा सम्बन्धी नवीन कार्यक्रम यथार्थ से तालमेल बिठा पायेंगे अथवा नहीं? यह ध्यान रखना होगा कि पूर्व की पाठ्यचर्याओं को लागू करने की जल्दबाजी से जो उलझने और समस्याएँ उभरकर सामने आई थीं, उनसे सीख ली जाए। पाओलो फ्रेरे के शिक्षा सम्बन्धी विचार इन समस्याओं के उपजने के वास्तविक कारणों को समझने में सहायक हो सकते हैं; और अनुचिंतन व विश्लेषण से ही शिक्षक शिक्षा सम्बन्धी नवीन पाठ्यचर्याओं को समयानुकूल और बेहतर बनाया जा सकता है।

भूमिका

शिक्षा वैचारिकी में शिक्षक शिक्षा को सदैव ही एक गंभीर अनुचिंतन का विषय माना जाता रहा है। यह देखा गया है कि यदि, शिक्षकों का प्रशिक्षण सही तरीके से न हो, तो इसका सीधा व प्रत्यक्ष असर विद्यालयी शिक्षा की स्थिति पर पड़ता है। ऐसा इसलिए, क्योंकि यदि शिक्षकों के प्रशिक्षण में अनुचिंतन, नवाचारों व ज्ञान के क्षेत्र में होने वाली अद्यतन खोजों का ध्यान नहीं रखा जाएगा, तो तथाकथित प्रशिक्षित शिक्षक कक्षा-कक्ष में विद्यार्थियों के बीच शिक्षा के वास्तविक लक्ष्यों का प्रसार ठीक से नहीं कर सकेंगे; और इससे जो भी भावी पीढ़ी तैयार होगी, वह ज्ञान के आविष्कार व पुनराविष्कार से न जुड़कर ज्ञान को एक ऐसी वस्तु मानने को ही अपना कर्म समझने लगेगी, जिसका क्रय-विक्रय किया जा सकता हो। पाओलो फ्रेरे के अनुसार ज्ञान होता है - आविष्कार और पुनराविष्कार करने से, उस बेचैन, अधीर, सतत और आशायुक्त जिज्ञासा से, जिसकी पूर्ति के लिए मनुष्य विश्व के साथ और एक-दूसरे के साथ सक्रिय होते हैं।¹

1. पाओलो फ्रेरे (1997), उत्पीड़ितों का शिक्षाशास्त्र (अनुवाद: रमेश उपाध्याय), ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली, पृ०-34.

भारत में जब से शिक्षा को अधिकार का दर्जा दिलाने की मुहिम ने जोर पकड़ा है, तभी से शिक्षा की दृष्टि से उदारता का आचरण करने वाले व मिथ्या उदारता की अभिव्यक्ति करने वाले, दोनों तरह के व्यक्तियों की अभिव्यक्ति का प्रकटीकरण बढ़ा है। प्रथमतः, उदारता की दृष्टि का वैधानिक प्रकटीकरण संवैधानिक संशोधनों के रूप में नज़र आया, परंतु शीघ्र ही विभिन्न अनुच्छेदों में हुए संशोधनों ने उदारता के दृष्टिकोण के पीछे छिपी मिथ्या उदारता को प्रकट कर दिया। अनेक प्रतिवेदनों व अध्ययनों से यह प्रकट हुआ है कि सरकारें शिक्षा को सामाजिक कल्याण के रूप में मानने की सोच से पीछे हट रही हैं। फलस्वरूप, शिक्षा में मिथ्या उदारता का प्रकटीकरण वाले व्यक्तियों व संस्थाओं की संख्या में वृद्धि हो रही है। इस वृद्धि में कहीं-न-कहीं अच्छी समझी जाने वाली शिक्षा के मानकों से समझौता करना सन्निहित रहा है। इस विषय पर चर्चा करते कई शोधों और प्रतिवेदनों का अध्ययन शिक्षक-शिक्षा से संबंधित कुछ ऐसे सरोकार सामने रखता है जो आज गहन चिंतन का विषय बन गये हैं। कुछ ऐसे ही

सरोकारों को इस लेख में व्यक्त करने का प्रयास किया गया है जिस पर हम एक सामूहिक समझ बना सकें और तदनुसार सुधार की योजनाओं में पूरा योगदान दे सकें।

यह देखा जा सकता है कि जैसे ही शिक्षा के अधिकार कानून को अमल में लाने के प्रयास में तेजी आई, यह आवश्यकता महसूस की जाने लगी कि यदि, विद्यालयों में प्रवेश के योग्य सभी बच्चों की विद्यालय में पहुँच को सुनिश्चित किया जाये, तो नवीन विद्यालयों और विद्यालयों में नवीन शिक्षकों की आवश्यकता पड़ेगी। इस आवश्यकता को पूरा करने के लिए नवीन शिक्षक-प्रशिक्षण संस्थानों की आवश्यकता भी होगी। इससे उदारता व मिथ्या उदारता का प्रकटीकरण करने वाले संस्थानों की संख्या में तीव्र वृद्धि दर्ज की गई। इन संस्थानों की संरचनात्मक व पाठ्यचर्यात्मक गुणवत्ता का प्रत्यक्षतः व अप्रत्यक्षतः मूल्यांकन करने का काम कई वैधानिक निकायों के अंतर्गत है; जैसे – एन.ए.ए.सी., सी.बी.एस.ई., एन.सी.टी.ई., ए.आई.सी.टी.ई., डी.ई.सी. व सम्बद्ध विश्वविद्यालयों के संबद्धता विभाग इत्यादि। ये उपर्युक्त निकाय या तो विभिन्न पाठ्यक्रमों की गुणवत्ता की जांच करते हैं या विभिन्न संस्थानों की अधिसंरचना व क्रियाकलापों (शैक्षणिक व गैर शैक्षणिक) की गुणवत्ता की जांच-परख करते हैं या गुणवत्तापूर्ण शिक्षा हेतु अनुसंधान एवम् सर्वेक्षण का कार्य करते हैं।

भारत में पूर्व में यह देखा गया गया कि ऐसे शिक्षक-प्रशिक्षण संस्थानों को भी एन.सी.टी.ई. व सम्बद्ध विश्वविद्यालयों से मान्यता मिल गई थी, जो कि पूर्व निर्धारित मानकों पर खरे नहीं उतरते थे। यह सदैव से ही अनुचिंतन का विषय रहा है कि मानकों पर खरे न उतरने वाले इन शिक्षक-प्रशिक्षण संस्थानों को एन.सी.टी.ई. व सम्बद्ध विश्वविद्यालयों से मान्यता कैसे प्राप्त हो गई थी? इसके मूल में अधोलिखित कारण देखने में आए –

- निरीक्षण से पूर्व ही इन संस्थानों को यह पता चल जाना कि निरीक्षण किस दिन होगा। परिणामस्वरूप, ऐसे संस्थानों द्वारा एक या दो दिनों के लिए किसी संस्था की 'बिल्डिंग' या स्वयं की 'बिल्डिंग' में मूलभूत सुविधाओं की व्यवस्था दिखा देना।

- निरीक्षण दस्ते के सभी सदस्यों का प्रतिनियुक्ति पर होना।
- निरीक्षण दस्ते के सदस्यों का गैर अनुभवी होना।
- निरीक्षण दस्ते के सदस्यों का गुणवत्ता के मानकों की बजाय अन्य बिन्दुओं पर 'फोकस' करना।
- एक-दो दिनों के लिए संस्थान द्वारा शिक्षकों व कर्मचारियों की उपस्थिति को दिखा देना; व उपस्थिति 'रजिस्टर' व अन्य दस्तावेजों को सही से बना लेना।
- अनुपस्थित शिक्षकों को अध्ययन अवकाश, मातृ अवकाश या पितृ अवकाश पर दर्शा देना।
- संबन्धित शिक्षक प्रशिक्षण संस्थान द्वारा निरीक्षण दस्ते के सदस्य या सदस्यों को अन्य अवांछनीय व्यक्तिगत लाभ प्रदान करना, इत्यादि।
- उपर्युक्त संस्थानों के प्रति जैसे-जैसे जागरूकता बढ़ी, वैसे-वैसे एन.सी.टी.ई. व सम्बद्ध विश्वविद्यालयों ने अन्य प्रबंध करने आरम्भ कर दिए, ताकि ऐसे संस्थानों की वृद्धि व उत्पत्ति को रोका जा सके। इसके लिए अग्रलिखित उपाय किए गए –
- एक वर्षीय बी.एड. पाठ्यक्रम में किसी संस्थान द्वारा अतिरिक्त 'सीटें' प्राप्त करने के लिए एन.ए.ए.सी. से 'ए' या 'बी' 'ग्रेड' प्राप्त करना अनिवार्य कर दिया गया।
- निरीक्षण हेतु अनुभवी लोगों की सेवाओं को लिया जाने लगा।
- संबद्धित विश्वविद्यालयों द्वारा निरीक्षण दस्ते का भेजना सुनिश्चित किया गया।
- एन.सी.टी.ई. द्वारा बी.एड. और अन्य शिक्षा-पाठ्यक्रम सम्बन्धी संस्थानों के आंकड़ों की 'ऑनलाइन' उपलब्धी सुनिश्चित की गई।
- शिक्षा कार्यक्रम की पाठ्यचर्या में व्यापक बदलाव किए गए।
- वर्ष में एक से अधिक बार शिक्षक प्रशिक्षण संस्थानों का निरीक्षण किया जाने लगा, इत्यादि।

उपर्युक्त उपायों ने यद्यपि, मिथ्या शिक्षक-प्रशिक्षण

संस्थानों की खरपतवार को खत्म किया, परंतु यह देखा जा सकता है कि इन उपायों ने शिक्षक-प्रशिक्षण संस्थानों में अध्ययनरत विद्यार्थियों में उन मूलभूत कौशलों का विकास नहीं के बराबर ही किया, जिससे उनके स्तर में गुणात्मक सुधार होता। इसके पीछे छिपे कारणों को अग्रलिखित विवेचन-विश्लेषण से समझा जा सकता है -

शिक्षक शिक्षा कार्यक्रम की पाठ्यचर्या में बदलाव से पहले किए गए अनुसंधान

बी.एड. पाठ्यचर्या में बदलाव से पहले ऐसे संस्थानों का दौरा किया गया, जहाँ दो वर्ष या चार वर्ष का शिक्षा पाठ्यक्रम चल रहा था। यह पाया गया है कि वहाँ अनमने ढंग से ही एक-दो दिनों का दौरा किया गया। यह भी देखा गया कि दो या चार वर्ष के पाठ्यक्रम में विद्यार्थियों व शिक्षकों को क्या समस्याएँ आ रही हैं, इसका ठीक प्रकार से विश्लेषण किए बिना ही शिक्षा कार्यक्रम की पाठ्यचर्या में बदलाव करने की अनुशंसा कर दी गई। उपर्युक्त संस्थानों की पाठ्यक्रम संचालन संबंधी प्रमुख दिक्कतें इस प्रकार से थीं -

- दो वर्षीय शिक्षा कार्यक्रमों में विद्यालयी विषयों के शिक्षण का कार्य शिक्षा विभाग से जुड़े व्यक्ति नहीं कर रहे थे, बल्कि इन विषयों को कला व मानविकी और गणित व विज्ञान विभाग से जुड़े व्यक्ति पढ़ा रहे थे, जो कि स्वयं शिक्षा उपाधि धारक नहीं थे।
- इन संस्थानों में वही बच्चे पढ़ने को आ रहे थे, जिनका प्रवेश या तो एक वर्ष वाले बी.एड. 'कोर्स' में नहीं हो सका था या जो विज्ञान, कला व प्रबंधन के अन्य विषयों में प्रवेश नहीं ले पाए थे।
- दो व चार वर्षीय शिक्षा कार्यक्रमों की पाठ्यचर्याओं का अद्यतन न होना, इत्यादि।

यह स्पष्ट है कि यदि उपर्युक्त समस्याओं को ध्यान में रखे बिना ही शिक्षा कार्यक्रम में नवीन पाठ्यचर्याओं की अनुशंसा की जाएगी, तो इससे गुणात्मकता संबंधी व्यवहारगत समस्याएँ पैदा हो जाएँगी, जिनसे बचने के लिए संस्थान आसान रास्ता तलाश करने लगते हैं। अब यह भी स्पष्ट होने लगा है कि निजी संस्थानों का इन

उपर्युक्त पाठ्यचर्याओं को जारी रखने का अपना स्वार्थ भी पदों के पीछे कार्य कर रहा है; और कई संस्थान नवीन पाठ्यचर्याओं में आने वाली समस्याओं का समुचित हल तलाश न कर समझौतावादी प्रवृत्ति की ओर अग्रसर होने लगे हैं। इस प्रकार की प्रवृत्ति की निम्नांकित विशेषताएँ उभरकर सामने आई हैं -

- बी.एड. पाठ्यक्रम में 'विद्यालयी अनुभव' प्राप्त करने के दिनों की संख्या बढ़ने से संस्थानों को विद्यालयों के साथ सामंजस्य स्थापित करने में दिक्कतें आ रही हैं। या तो विद्यालय अपने यहाँ प्रशिक्षण व अनुभव प्राप्ति की अनुमति देने से हिचकिचाने लगे हैं या बी.एड. प्रशिक्षुओं से अन्य गैर शैक्षणिक कार्य करवाने की शर्त रखने लगे हैं।
- यह भी देखा गया है कि शिक्षण अभ्यास के दौरान बी.एड. प्रशिक्षु विद्यालय जाकर एक भी कक्षा में शिक्षण अभ्यास नहीं करते और सारा समय बी.एड. से जुड़े या विद्यालय से जुड़े अभिहस्तांकन ही करते रहते हैं।
- संबन्धित विश्वविद्यालयों द्वारा 'विद्यालयी अनुभव कार्यक्रम' हेतु विभिन्न सम्बद्ध संस्थानों की औचक जांच-परख करने के लिए 'टीम' की व्यवस्था करने के सम्बन्ध में अनदेखी का भाव रखना।
- अनावश्यक अभिहस्तांकनों में वृद्धि।
- संस्थानों की दो वर्षीय पाठ्यक्रमों की बजाय तीन, चार या पाँच वर्षीय एकीकृत पाठ्यक्रमों को पाने की लालसा में वृद्धि होना, ताकि उन्हें बी.एड. दो वर्षीय कार्यक्रम के दोनों वर्षों के 200 विद्यार्थियों की बजाय क्रमशः 300, 400 या 500 विद्यार्थियों को अपने यहाँ दाखिल करने का मौका मिल जाए और फलस्वरूप, उनका लाभ अर्जन और भी बढ़ जाए।
- शिक्षा पाठ्यक्रमों की समयावधि बढ़ने से 'नेट' धारक शिक्षकों की कमी में वृद्धि होना।
- संस्थानों में पहले से पढ़ा रहे शिक्षकों का नवीन पाठ्यचर्या से तालमेल न बिठा पाना।
- ललित कलाओं, अभिनय कलाओं और शारीरिक

शिक्षा से जुड़े शिक्षकों को अल्पावधि के लिए नियुक्त करना, इत्यादि।

उपर्युक्त समस्याओं को व्यवस्थापकों में यथार्थबोध की कमी के रूप में समझा जा सकता है। फ्रेरे का यह स्पष्ट मानना था कि – मुक्ति के लिए संघर्ष शुरू करने में समर्थ होने के लिए यथार्थवादी होना पड़ेगा², अर्थात् वस्तुस्थिति के ज्ञान के बिना कोई भी नवीन कार्य हाथ में लेना या पर्याप्त विचार-विमर्श के बिना किसी बात या सोच को थोपने से शिक्षा को रूढ़िवादी सोच से मुक्त नहीं किया जा सकता। यदि, शिक्षा को व्यक्ति में ‘विवेकीकरण’ जागृति का प्रमुख औजार बनाना है, तो व्यवस्थापकों को यथार्थवादी होना होगा, यानि उन्हें अपनी पूर्वधारणाओं या पूर्वमान्यताओं को छोड़ने के लिए सदैव तैयार रहना होगा। पाओलो फ्रेरे विवेकीकरण की प्रक्रिया में ही शिक्षकों की भूमिका खोजते हैं। इसमें आलोचनात्मक चेतना अथवा समीक्षायी चेतना की महत्वपूर्ण भूमिका होती है। वस्तुतः, तभी शिक्षक शिक्षा के क्षेत्र में गुणात्मक विकास की ओर अग्रसर होना संभव हो सकेगा।

इसके अतिरिक्त, भारत में शिक्षक प्रशिक्षण संस्थानों के संदर्भ में अधोवर्णित समस्याओं का उपस्थित होना चिंता का विषय है –

शिक्षक प्रशिक्षण संस्थानों में आंतरिक मूल्यांकन व पक्षपात

आंतरिक मूल्यांकन शिक्षक शिक्षा में एक अनिवार्य तत्त्व के रूप में उभरकर सामने आया है। यह माना गया है कि पारंपरिक शिक्षा-प्रणाली में, जिसमें केवल साल में एक या दो बार परीक्षा कराकर बच्चे की सम्पूर्ण योग्यताओं का मूल्यांकन कर लिया जाता था, शिक्षा प्रशिक्षुओं की सभी योग्यताओं का मूल्यांकन नहीं हो पाता था। इसीलिए, समग्रता को ध्यान में रखकर पाठ्यसहगामी गतिविधियों और क्रियाकलापों से विद्यार्थियों के व्यक्तित्व विकास को लक्ष्य बनाया गया। इससे विद्यार्थियों के आत्मविश्वास में वृद्धि हुई, जिसे शिक्षक शिक्षा में गुणात्मकता की अवधारणा या समुचित विकास से जोड़ा जा सकता है। वस्तुतः, यह कभी भी विवाद का विषय नहीं रहा है कि

² फ्रेरे, वही, पृ०-12.

पाठ्यसहगामी क्रियाओं के समावेशन से शिक्षक प्रशिक्षण संस्थानों में शिक्षार्थियों का ठीक प्रकार से व्यक्तित्व विकास हो पाता है। इन क्रियाओं के जरिए विद्यार्थी अनेक उपयोगी सामाजिक कौशलों को सीखते हैं। परंतु, देखा जा सकता है कि इन क्रियाओं हेतु संस्थानों में योग्य शिक्षकों को रखे जाने से बचा जाता है या उन्हें अल्पावधि के लिए रखकर संस्थान अपनी जिम्मेदारियों से विमुक्त हो जाते हैं। यह भी अब एक प्रचलन-सा बन गया है कि मूल विषय पढ़ाने वाले शिक्षक ही कला और शारीरिक गतिविधियों से जुड़ी पाठ्यचर्याओं को निष्पादित कर दें। इससे नीति निर्माताओं द्वारा विद्यार्थियों में गुणात्मकता के आलोक में जिस समग्र व्यक्तित्व विकास को लक्षित करने का मंतव्य बनाया गया था, वह अधूरा ही रह जाता है। इसे फ्रेरे द्वारा प्रतिपादित ‘आचरण’ की अवधारणा के अंतर्गत रखकर समझा जा सकता है। ‘आचरण’ का अभिप्राय है – कर्म व चिंतन में पूरकता। यानि, जो सोचा गया है, उसके अनुरूप कार्य कर व्यवस्था की जाए और यदि, व्यवस्था करने में कोई समस्या आड़े आ रही है, तो पुनः चिंतन या विचार-विमर्श से उस समस्या का समाधान तलाशा जाए, न कि तात्कालिक आसान रास्तों को अपना लिया जाए।

इसके अतिरिक्त, आंतरिक मूल्यांकन में विद्यार्थियों को जाति व लैंगिकता आधारित भेदभाव का सामना भी करना पड़ता है। इसे भी शिक्षक शिक्षा में गुणात्मकता के आलोक में विश्लेषित-विवेचित किए जाने की आवश्यकता है। असल में, वह मूल्यांकन कभी भी गुणात्मक नहीं हो सकता, जिसमें मूल्यांकन करने वाला जाति या लैंगिकता के आधार पर भेदभाव करे। आंतरिक मूल्यांकन में चूँकि, विद्यार्थी की जाति और लैंगिकता का, उसके नाम को जानकर व विद्यार्थी को देखकर पता चल जाता है, इसलिए इस तरह के मूल्यांकन में सदैव ही भेदभाव किए जाने की गुंजाईश बनी रहती है, जो कि संविधानिक प्रावधानों के अनुरूप नहीं है। अतः, यह मानना होगा कि शिक्षक शिक्षा में गुणात्मकता की अवधारणा उपर्युक्त तथ्यों से इतर जाकर परिपूर्णता नहीं पा सकती। स्थिति तब और भी विकट हो जाती है, जब शिक्षक प्रशिक्षण संस्थान प्रायोगिक घटकों के मूल्यांकन

हेतु होने वाली मौखिक परीक्षाओं में बाह्य मूल्यांकन के लिए अन्य शिक्षक प्रशिक्षण संस्थानों से अपने यहाँ आने वाले शिक्षकों के द्वारा किए जाने वाले मूल्यांकन को दबाव डालकर या अन्य तरीकों से अपने अनुरूप बदलने की कोशिश करने लगते हैं; और मनमाने तरीके से मौखिक परीक्षाओं के आंतरिक मूल्यांकन के अंक विद्यार्थियों की मौखिक परीक्षा लिए बिना ही अपनी मर्जी से पक्षपाती तरीकों से लगा देते हैं। इस प्रकार दिए जाने वाले अंकों पर संबन्धित विश्वविद्यालयों का कोई नियंत्रण नहीं होता है। यह बात समानता व सामाजिक न्याय के संवैधानिक सिद्धान्त के विरुद्ध है।

शिक्षक-प्रशिक्षण संस्थानों में शिक्षकों की स्थिति

भारत में अक्सर यह देखा गया है कि शिक्षक प्रशिक्षण संस्थानों में जहाँ कहीं भी शिक्षक की नियुक्ति स्थाई है, वहाँ प्रबन्धकों द्वारा उनसे मनमाने ढंग से कार्य लेना आसान नहीं होता। ऐसे में जो शिक्षक अपना कार्य ईमानदारी से कर रहे होते हैं, उन्हें अपना कार्य करने में अवरोधकों का सामना नहीं करना पड़ता, परंतु जो शिक्षक अपना कार्य ठीक प्रकार से नहीं कर रहे होते हैं, उनसे कार्य लेना प्रबन्धकों के लिए चुनौती बन जाता है। इस स्थिति के उलट जहाँ शिक्षकों की नियुक्ति अस्थायी है, वहाँ इस बात की संभावना बनी रहती है कि शिक्षकों को प्रबन्धकों की मनमानी का शिकार होना पड़ सकता है। इस मनमानी में अग्रलिखित बिन्दु सन्निहित हो सकते हैं –

- शिक्षकों को संविदा अवधि पूरी होने से पहले ही नौकरी से निकाल देना।
- शिक्षकों को अधिक वेतन पर हस्ताक्षर करवाकर कम वेतन देना।
- शिक्षकों से अनावश्यक गैर शैक्षणिक कार्य करवाना।
- शिक्षकों के कार्यभार में अनावश्यक वृद्धि होना।
- शिक्षकों द्वारा दूसरों के सामने प्रबन्धकों की ओर से अपमानजनक व्यवहार का सामना करना, इत्यादि।

उपर्युक्त तथ्यों व बिन्दुओं के संदर्भ में यह समझा जा सकता है कि जब तक शिक्षकों और प्रबन्धकों को 'विवेकीकरण' प्रक्रिया का हिस्सा नहीं बनाया जाएगा,

और कार्य स्थितियों में स्थाई सुधार नहीं किया जाएगा, तब तक व्यवस्थापकों द्वारा उचित प्रबंध करने की अनुशंसा करने के बाद भी शिक्षार्थियों के लिए गुणात्मक शिक्षक शिक्षा की प्राप्ति सदैव ही दिवास्वप्न बनी रहेगी। शिक्षक प्रशिक्षण संस्थानों में काम करने वाले शिक्षक भी अपनी उत्पीड़नकारी स्थितियों में बदलाव के वास्ते इसलिए प्रयास नहीं करते, क्योंकि वे सभी 'स्वतन्त्रता के भय' से पीड़ित होते हैं। अर्थात्, उन्हें यह भय होता है कि कहीं सुधार हेतु आवाज़ उठाने से उनकी स्थितियाँ और भी बदतर न हो जाएँ। पाओलो फ्रेरे के अनुसार 'स्वतंत्रता का भय' अपनी वर्तमान परिस्थितियों से और अधिक जटिल अथवा विकट परिस्थितियों में फसने का भय है। असल में, यह भय 'संभावित विकृत भविष्य' के प्रकट होने के प्रति है। इस संबंध में फ्रेरे का यह भी मानना था कि जो शिक्षा उत्पीड़कों में 'आत्मलीनता' का व उत्पीड़ितों में 'आत्महीनता' का प्रसार कर रही हो, वह सच्ची शिक्षा नहीं हो सकती।

स्पष्टतः, यदि शिक्षक शिक्षा को गुणात्मक बनाना है, तो 'आत्मलीनता' व 'आत्महीनता' की स्थितियों से बचाव के लिए संवाद के माध्यम से समाधान तलाशना होगा; साथ ही मिथ्या संवाद या प्रतिक्रियावाद से भी बचना होगा, जो केवल आक्रोश प्रतिस्थापन के रूप में प्रयोग किया जाता है, न कि व्यवस्था में सुधार के लिए। फ्रेरे ने अपने शिक्षा संबंधी चिंतन में इसे संकीर्णतावादियों³ (मतान्ध, रूढ़ आत्मपरकतावादी, वैचारिक अलगाववाद के पक्षकार) से बचाव के रूप में विवेचित किया है।

शिक्षक प्रशिक्षण संस्थानों में निहित मिथ्या अभ्यास व असंगतियाँ

भारत में बी.एड. व अन्य पाठ्यक्रम सम्बन्धी शिक्षक-प्रशिक्षण संस्थानों में कई विश्वविद्यालय शिक्षकों का चयन करने से पहले यह अनिवार्यता रखते हैं कि शिक्षकों के चयन के लिए चयन समिति का गठन तभी किया जाएगा, जब कुछ पूर्व निश्चित संख्या में खाली पद/ पदों के लिए आवेदकों ने आवेदन कर दिया हो। इस संबंध में, यह पाया गया है कि उपर्युक्त वांछनीय प्रक्रिया को कई

³ फ्रेरे, वही, पृ० 4-3-.

बी.एड. शिक्षक-प्रशिक्षण संस्थान इस रूप में पूरा कर देते हैं कि वे अपने पास रखे पुराने आवेदनों को ही आवेदकों की ओर से झूठे हस्ताक्षर कर संबन्धित विश्वविद्यालय को प्रेषित कर देते हैं। फलस्वरूप, विश्वविद्यालय संबन्धित बी.एड. शिक्षक-प्रशिक्षण संस्थान के लिए चयन समिति का गठन करने की स्वीकृति दे देते हैं। कई विश्वविद्यालयों में तो ऐसी उपर्युक्त व्यवस्था भी नहीं है। ऐसे में संबन्धित बी.एड. संस्थान किसी राष्ट्रीय अखबार में खाली पदों का विज्ञापन निकालकर वर्ष में जब चाहें अपने यहाँ शिक्षकों की नियुक्ति कर लेते हैं।

इसी प्रकार, यह भी देखा गया है कि निजी बी.एड. संस्थान जिन भी शिक्षकों को अपने यहाँ चयनित करते हैं, उनके साथ वे पहले से ही वेतन सम्बन्धी मौखिक और लिखित समझौते कर लेते हैं। कई दफ़ा तो, वे चयनित शिक्षक विशेष को मूल कुल वेतन का एक-तिहाई या एक-चौथाई वेतन ही प्रदान करते हैं, परंतु कागजी कार्रवाही को इस तरह पूरा करते हैं कि कानूनी तौर पर वे जाँच में पकड़े न जाएँ। यह भी होने लगा है कि चयनित शिक्षक विशेष को चयन पत्र की मूल प्रति पर हस्ताक्षर करवा मूल प्रतिलिपि दी ही नहीं जाती। असल में, भारत में किसी सरकारी संस्थान में पढ़ाने वाले शिक्षकों के समान वेतन व भत्ते प्राप्त करना आज भी निजी बी.एड. संस्थानों में पढ़ाने वाले अधिकतर शिक्षकों को मयस्सर नहीं है। जिन निजी बी.एड. संस्थानों में यह कहा जाता है कि हम अपने यहाँ शिक्षकों को पूरा वेतन व भत्ते देते हैं, उनमें से भी अधिकतर संस्थान असल में शिक्षकों से पूरे वेतन पर हस्ताक्षर करा या 'ब्लैंक चैक बुक' पर हस्ताक्षर करवा उनको कम वेतन देते हैं या उनसे एक निश्चित मात्रा में वेतन वापिस करने को कह देते हैं। कई दफ़ा तो इन शिक्षकों को संस्थान द्वारा उनके नाम पर खोले गए खाते की संख्या और बैंक का नाम तक पता नहीं होता, क्योंकि संस्थान से जुड़ा बैंक इन शिक्षकों से पहले ही लिखवा लेता है कि उनके खाते का सारा लेन-देन संस्थान के अधिकारी ही करेंगे। ऐसे में बैंक शिक्षकों की पास बुक, चैक बुक व डेबिट कार्ड इत्यादि भी शिक्षकों को देने की बजाय संस्थान को ही दे देता है। इसके अलावा शिक्षकों के

खातों में कितने पैसे डाले गए या निकाले गए, इसका रिकार्ड भी बैंक एस.एम.एस. के ज़रिए शिक्षकों के मोबाइल नंबर पर न भेजकर संस्थान के मोबाइल नंबर पर भेजते हैं। कई संस्थान तो संबन्धित विश्वविद्यालय की ओर से होने वाले निरीक्षण से एक या दो दिन पहले ही शिक्षकों को यह बताते हैं कि उनका कुल वास्तविक वेतन कितना है। असल में यह वास्तविक वेतन शिक्षकों को मिलने वाले वेतन का लगभग तीन या चार गुना होता है।

यह एक विडंबनीय स्थिति है कि संबन्धित विश्वविद्यालय, एन.सी.टी.ई. व एन.ए.ए.सी. इत्यादि निकायों और उनके द्वारा प्रतिनियुक्ति पर भेजे जाने वाले निरीक्षण दल के शिक्षक व अधिकारी यह मानकर चल रहे हैं कि निजी बी.एड. संस्थानों में शिक्षक यदि कुल अपेक्षित वेतन का एक-तिहाई या एक-चौथाई भी प्राप्त कर लें, तो भी वह बी.एड. प्रशिक्षुओं को गुणवत्तापूर्ण शिक्षा प्रदान कर सकते हैं; और उनको विद्यालयों में गुणवत्तापूर्ण शिक्षा देने के लिए मना भी सकते हैं। इसके अतिरिक्त, ये निरीक्षण दस्ते चूँकि, औचक निरीक्षण दस्ते नहीं होते, इसलिए यह पाया गया है कि संबन्धित संस्थान इनके आने से पहले ही उपस्थिति 'रजिस्टर' को झूठे हस्ताक्षरों से पूरा कर लेते हैं; और संबन्धित शिक्षकों को दर्शा देते हैं। वस्तुतः, संस्थान द्वारा अधिसंरचना सम्बन्धी वांछनीय मानकों पर खरा उतरने के पश्चात् निरीक्षण दस्ते द्वारा पूछे जाने वाले सवाल भी मात्र औपचारिकताभर बनकर रह जाते हैं। स्पष्टतः, इन औपचारिकताओं की अभिपूर्ति करने वाले बी.एड. संस्थानों से गुणवत्तापूर्ण शिक्षा की समझ की उम्मीद रखना निरर्थक है। ऐसे संस्थानों में करवाए जाने वाली गोष्ठियाँ, सम्मेलन व 'संकाय विकास कार्यक्रम' भी सदैव ही प्रश्न के घेरे में बने रहते हैं। इसके अलावा, विश्वविद्यालयों में भी अब इस बात का प्रचलन बढ़ता देखा जा सकता है कि वे बी.एड. जैसे पाठ्यक्रमों को अपने परिसर में न कराकर उपर्युक्त संस्थानों में कराने को महत्त्व देने लगे हैं। निश्चित तौर पर, यदि ऐसे संस्थानों से शिक्षक तैयार होकर विद्यालयी शिक्षा में प्रवेश करेंगे तो शिक्षा में गुणात्मकता की अवधारणा अत्याधिक गंभीर रूप से प्रभावित होगी। इस गंभीर विसंगति को फ्रे

द्वारा प्रतिपादित 'मानुषीकरण और अमानुषीकरण' की अवधारणा के अंतर्गत रखकर विवेचित किया जा सकता है। फ्रेरे की दृष्टि में मानुषीकरण से तात्पर्य मनुष्य बनने की प्रक्रिया से है। दूसरे शब्दों में, यह उन परिस्थितियों से विमुक्ति की प्रक्रिया है, जो मनुष्य को अमानुष बनाती हैं। अमानुष होने का अर्थ है – मनुष्यों का वस्तुओं में बदल जाना अर्थात् अपने व अन्यो के प्रति संवेदनारहित होते जाना। इस संबंध में 'उत्पीड़ितों का शिक्षाशास्त्र' पुस्तक की विशेषता बताते हुए रमेश उपाध्याय लिखते हैं कि इसका आधारभूत विचार यह है कि जिस समाज में प्रभुत्वशाली अभिजनों का एक अल्पतन्त्र बहुसंख्यक जनता पर शासन करता है, वह अन्यायपूर्ण तथा उत्पीड़नकारी समाज होता है। ऐसे समाज की व्यवस्था मनुष्यों को वस्तुओं में बदलकर उन्हें अमानुषिक बनाती है, जबकि मनुष्यों का ऐतिहासिक और अस्तित्वमूलक कर्तव्य पूर्णतर मनुष्य बनना है।⁴ मनुष्य और अमनुष्य होने की स्थिति को निम्नांकित बिन्दुओं के अंतर्गत समझा जा सकता है –

मनुष्य होने की पहचान	अमनुष्य होने की पहचान
<ul style="list-style-type: none"> कर्त्ता बनना आचरण करना आलोचनात्मक रूप से सतत चेतनशील होना स्वावलंबन उत्तरदायित्व संवेदनशीलता प्रेमविहीनता की स्थिति के विरुद्ध संघर्षशील होना 	<ul style="list-style-type: none"> मनुष्य का – वस्तु में बदल जाना मतान्ध होना प्रेमविहीन होना

उपर्युक्त तालिका के विश्लेषण से यह समझा जा सकता है कि शिक्षक शिक्षा में गुणात्मकता का सरोकार मानुषीकरण की प्रक्रिया से गहरे तौर पर जुड़ा हुआ है।

शिक्षक-प्रशिक्षण संस्थानों में गोष्ठियों, सम्मेलनों, कार्यशालाओं, कार्यक्रमों इत्यादि की अनिवार्यताएँ

भारत में किसी भी शिक्षक-प्रशिक्षण संस्थान की गुणवत्ता

इस बात से भी मापी जाती है कि वह संस्थान शैक्षिक सत्र में कितनी गोष्ठियों, सम्मेलनों, कार्यशालाओं, कार्यक्रमों इत्यादि का आयोजन करता है। यह विदित है कि केवल आयोजन करवाना मात्र ही गुणवत्ता का परिचायक नहीं हो सकता। गोष्ठियों, सम्मेलनों, कार्यशालाओं, कार्यक्रमों इत्यादि के आयोजन में इस बात का सदैव ही ध्यान रखना पड़ता है कि इनमें शोध पर्चा प्रस्तुतीकरण संबंधी गुणवत्ता के एक निश्चित स्तर को बनाए रखा जाए। वर्तमान समय में शोध पर्चा प्रस्तुतीकरण के संबंध में गुणवत्ता अधोलिखित बिन्दुओं से प्रभावित हो रही है –

- शोध पर्चों का वांछित मानक स्तर के अनुरूप न होना।
- मिथ्या प्रतिभागियों द्वारा पर्चा प्रस्तुतीकरण संबंधी प्रमाणपत्र प्राप्त कर लेना।
- संस्थान द्वारा संबन्धित सरकारी या गैर सरकारी संस्था से आर्थिक सहायता प्राप्त करने हेतु कागजी कार्रवाही को मिथ्या गतिविधियों से पूरा करना।
- नौकरियों में यू.जी.सी. द्वारा वांछित अंक प्राप्त करने हेतु व्यक्तियों द्वारा पर्चा प्रस्तुतीकरण करना।
- संस्थान का निरीक्षण करने हेतु आने वाले दस्ते से सम्बन्ध रखने वाले व्यक्तियों को गोष्ठियों, सम्मेलनों, कार्यशालाओं, कार्यक्रमों इत्यादि में मुख्य वक्ता या अतिथि बनाकर उन्हें इस बात का पारितोषिक प्रदान करना कि उन्होंने संस्थान के पूर्व में किए गए निरीक्षण में संस्थान को 'क्लीन चिट' प्रदान कर दी थी।

स्पष्टतः, किसी भी गोष्ठी, सम्मेलन, कार्यशाला, कार्यक्रम इत्यादि में उपर्युक्त बिन्दुओं की उपस्थिति इस प्रकार की गतिविधियों की गुणवत्ता को मिथ्या गुणवत्ता में परिवर्तित कर देती है, जिससे संस्थानों को बचने की आवश्यकता है। अन्य शब्दों में, संस्थानों को स्थितियों को ज्यों-का-त्यों बनाए रखने वाली 'चुप्पी की संस्कृति' को छोड़कर 'दखलअंदाजी की संस्कृति' में खुद को प्रवृत्त करना होगा। इससे शिक्षा संबंधी विभिन्न सरोकारों को समझकर गुणवत्तापूर्ण शिक्षक शिक्षा को लक्षित किया जा सकना संभव हो सकेगा।

4 फ्रेरे, वही, पृ. XVIII.

सारबद्ध निष्कर्ष

यद्यपि, वर्तमान समय में भारत में शिक्षक शिक्षा के विभिन्न स्तरों पर गुणात्मकता संबंधी सरोकारों को संवाद प्रक्रिया में पर्याप्त स्थान मिल रहा है; और व्यवस्थापक, शिक्षक, प्रबन्धक, शिक्षाविद् इत्यादि शिक्षक शिक्षा के विभिन्न आयामों व पक्षों के प्रति पहले से अधिक सजग भी हुए हैं, तथापि यह समझना होगा कि शिक्षक शिक्षा सदैव ही सामाजिक कल्याण और निजी लाभ के बीच साम्य बिन्दु के रूप में विवेचित-विश्लेषित की जाती रही है। जहाँ एक ओर नीति निर्धारकों के कंधों पर शिक्षा से वंचित तबके तक गुणात्मक शिक्षा की पहुँच सुनिश्चित करने की जिम्मेदारी है, तो वहीं दूसरी ओर तेजी से बदल रही विश्व-व्यवस्था के अंतर्गत भारत में शैक्षिक विकास को पटरी पर बनाए रखने की जिम्मेदारी भी है।

ऐसे में भारत सरकार के समक्ष सामाजिक कल्याण हेतु शिक्षक शिक्षा के विभिन्न महत्त्वपूर्ण लक्ष्य नवीन चुनौतियों से लगातार प्रभावित हो रहे हैं। इस सबके बीच सुधिजनों को यह भी देखना होगा कि शिक्षक शिक्षा में गुणात्मक नवाचारों को प्रतियोगितापूर्ण बढ़ावा मिलता रहे; और शिक्षा का वस्तुकरण भी न होने पाए।

तथ्यपरक व अनुचितनात्मक विवेचन-विश्लेषण से यह स्पष्ट होता है कि उद्देश्यों की अभिपूर्ति में पाओलो फ्रेरे के शिक्षा सम्बन्धी विचारों; जैसे – संवाद, विवेकीकरण, शिक्षा की बैकीय अवधारणा, समीक्षाई चेतना, चुप्पी की संस्कृति, दखलअंदाजी की संस्कृति, आत्मलीनता व आत्महीनता, मानुषीकरण व अमानुषीकरण, पालतूकरण इत्यादि की समझ भारतीय शिक्षक शिक्षा के संदर्भ में गुणात्मक संभावनाओं के नए द्वार खोल सकती है।

संदर्भ ग्रंथ-सूची

- एन.आई.ई.पी.ए. (1994), जनशिक्षा आंदोलन और पाओलो फ्रेरे (पाओलो फ्रेरे से ओम्नी पत्रिका की बातचीत), परिप्रेक्ष्य, वर्ष 1, अंक 1, अप्रैल, पृ०-173-184.
- किरण, चाँद (1995), शिक्षा के आधारभूत सिद्धांत, विवेक प्रकाशन, दिल्ली।
- कुमार, कृष्ण (1998), शैक्षिक ज्ञान और वर्चस्व, ग्रंथ शिल्पी, लक्ष्मी नगर, दिल्ली।
- कृष्णमूर्ति, जे. (1998), शिक्षा संवाद : विद्यार्थियों और शिक्षकों से (अनुवाद : डी. एस. वर्मा), कृष्णमूर्ति 'फाउंडेशन', वाराणसी।
- जोशी, रामशरण (1996), आदिवासी समाज और शिक्षा (अनुवाद : अरुण प्रकाश), ग्रंथ शिल्पी, नई दिल्ली।
- दूबे, श्यामाचरण (2000), शिक्षा समाज और भविष्य, राधाकृष्ण प्रकाशन, नई दिल्ली।
- नाईक, जे. पी. (1998), शिक्षा आयोग और उसके बाद (अनुवाद : सरला मोहनलाल), वाग्देवी प्रकाशन, बीकानेर, राजस्थान।
- नाईक, जे. पी. (1998), समानता, गुणवत्ता और संख्यात्मक विस्तार : भारतीय शिक्षा का दुर्ग्राह्य त्रिकोण (अनुवाद : सरला मोहनलाल), वाग्देवी प्रकाशन, बीकानेर, राजस्थान।
- पाण्डेय, रामशक्ल (2005), पाओलो फ्रेरे, विश्व के श्रेष्ठ शिक्षाशास्त्री, विनोद पुस्तक मंदिर, आगरा, पृ०-163-169.
- फ्रेरे, पाओलो (1997), उत्पीड़ितों का शिक्षाशास्त्र (अनुवाद : रमेश उपाध्याय), ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली।
- फ्रेरे, पाओलो (1997), प्रौढ़ साक्षरता: मुक्ति की सांस्कृतिक कार्यवाही (अनुवाद : जवरीमल्ल पारख), ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली।
- फ्रेरे, पाओलो (2010), उम्मीदों का शिक्षाशास्त्र (अनुवाद : विपिन), ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली।
- भारत सरकार (1968), शिक्षा और राष्ट्रीय विकास (शिक्षा आयोग का प्रतिवेदन, 1964-66), शिक्षा मंत्रालय, नई दिल्ली।
- भारत सरकार (1993), शिक्षा बिना बोझ के (यशपाल समिति), राष्ट्रीय सलाहकार समिति का प्रतिवेदन (अनुवाद : राज्य शैक्षिक अनुसंधान और प्रशिक्षण परिषद्, नई दिल्ली), शिक्षा विभाग, मानव संसाधन विकास मंत्रालय, नई दिल्ली।
- रज़ा, मुनिस (1996), शिक्षा और विकास के सामाजिक आयाम (अनुवाद : सुजाता राय), ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली।

- राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् (2000), विद्यालयी शिक्षा के लिए राष्ट्रीय पाठ्यचर्या की रूपरेखा, मानव संसाधन विकास मंत्रालय, भारत सरकार, नई दिल्ली।
- राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् (2006), राष्ट्रीय पाठ्यचर्या की रूपरेखा 2005, मानव संसाधन विकास मंत्रालय, भारत सरकार, नई दिल्ली।
- विश्वंभर (2006), शिक्षा में निजीकरण का सवाल; प्रतिश्रुति, शिक्षा विमर्श, वर्ष 7, अंक 3, मई-जून।
- सदगोपाल, अनिल (2000), शिक्षा में बदलाव का सवाल – सामाजिक अनुभवों से नीति तक, ग्रंथ शिल्पी, लक्ष्मी नगर, नई दिल्ली।
- Freire, Ana Maria Araujo & Macedo, Donaldo (Ed.) (1998), The Paulo Freire Reader, The Continuum Publishing Company, New York, USA.
- Govt. of India (2009), The Right of Children to Free and Compulsory Education Act, 2009, The Gazette of India, Extraordinary, 27th Aug., 2009.

शिक्षक प्रशिक्षण जो थोड़े अलग से थे

सार

यह लेख एक शिक्षक-प्रशिक्षण कार्यक्रम के अनुभवों पर आधारित है और रेखांकित करता है कि सुव्यवस्थित, संवेदनशील प्रशिक्षण शिक्षक को विचारशील बना सकते हैं। इसके लिए प्रशिक्षकों की कार्यशाला से पूर्व व उसके दौरान तैयारी चाहिए व प्रशिक्षुओं के प्रति आदर का व्यवहार।

लगभग तीस वर्षीय लम्बी मेरी शिक्षकीय यात्रा में कितने ही शिक्षक प्रशिक्षणों में मैंने भागीदारी की है पर इनमें कुछ काबिले जिक्र याद नहीं पड़ता। वहीं इस यात्रा के शुरुआती वर्षों में बच्चों के सीखने की प्रक्रिया को समझने तथा उसे क्रियाशील करने के एक ऐसे कार्यक्रम से मैं जुड़ सका था जो आज भी मुझे याद है और वह मुझे विचारशील एवं प्रयोगधर्मी शिक्षक के रूप में काम करने में मदद करता है।

मध्यप्रदेश में एक स्वयंसेवी संस्था एकलव्य है। इस संस्था ने आज से दो दशक पूर्व हरदा और बैतूल के कुछ सरकारी प्राथमिक शालाओं में एक कार्यक्रम चलाया जिसका नाम था प्राथमिक शिक्षा कार्यक्रम (प्राशिका)। इस कार्यक्रम में इन शालाओं के शिक्षकों की तैयारी, बच्चों के लिए कक्षा-शिक्षक प्रक्रिया एवं शैक्षिक सामग्री में बुनियादी हस्तक्षेप किया गया और यह हस्तक्षेप शिक्षकों के साथ मिलकर किए गए। यहां मैं इस कार्यक्रम के दौरान होने वाले शिक्षक प्रशिक्षण की कुछ बातें साझा करना चाहता हूँ। इन प्रशिक्षणों की विवेचना करना मेरे लिए मुश्किल है पर पीछे लौटकर देखने से जो मुझे समझ में और याद में आता है उसे ही बयान कर रहा हूँ।

प्रशिक्षण का माहौल— ये प्रशिक्षण काफी खुशगवार माहौल का निर्माण करते थे। प्रतिभागियों के लिए इसमें भाग लेना एक उत्साह और स्फूर्ति से भर जाने की बात होती। इस दौरान उन्हें एक महत्वपूर्ण व्यक्ति होने के सम्मान के साथ अपनी भूमिका को पहचानने और उसके निर्वाह के कई मौके मिलते। प्रशिक्षण सत्रों के

दौरान सम्बन्धित विषय पर उनके अनुभव और विचारों को अभिव्यक्ति देने से उनमें आत्मविश्वास उभरता। (प्रायः शिक्षक जब अपनी बात रखते तो उनके मन की बात उनके इस्तेमाल किये गये शब्दों से ठीक से संप्रेषित नहीं होती तो उनके अभिप्राय को समझकर व्यक्त करना और कहना कि शायद आप ऐसा कह रहे हैं) चूंकि अधिकांश चर्चाएं सीखने की प्रक्रियाओं और बच्चों को समझने तथा प्रारंभिक विषयों के सीखने के बुनियादी कौशलों पर केंद्रित होती और ज्ञान और जानकारीयों के बजाय वहीं किन्हीं गतिविधियों के जरिए ही उत्पादित होती थी, अतः उस समय सभी के पास अपने विचार और अनुभव होते थे। इन अभिव्यक्तियों में पूर्वाग्रह, मिथक और धारणाओं का खूब समावेश होता। और यह तर्कों प्रतिप्रश्नों और नए अनुभव के साक्ष्यों से टूटता धीरे-धीरे और नया अर्थ बनाता। उदाहरण के लिए कहानियों के सत्र में प्रतिभागियों को पांच या छह समूह में अनूठे तरीके से बाँटा जाता। हर समूह में छोटी चित्र कहानियों की चार पांच किताबें दी जाती। समूहों में इन कहानियों को पढ़कर बच्चों के लिए अच्छी कहानी पर विचार विमर्श होता और फिर सामूहिक चर्चा में तर्क वितर्क होते। शिक्षा और शिक्षाप्रद कहानी का मसला भी आता और फिर बात आती बच्चों को समझने की। किसी कहानी से मिलने वाले स्वाभाविक अर्थ और थोपे हुए अर्थों की। पढ़ना सीखने और विचारों को बनाने में कहानियों की भूमिका की। इस तरह यहां किसी विषय विशेष पर एक नई तरह की समझ प्रस्फुटित

और विकसित हो रही होती जो आगे कक्षा में या जीवन में इस्तेमाल करने की लालसा जगाती।

प्रशिक्षण कक्ष के बाहर का माहौल भी सीखने के लिए काफी उर्वर होता था। स्रोत व्यक्तियों को देर रात तक सत्रों की तैयारी करते हुए देखना, साथ ही रहने, खाने, साफ सफाई, कक्ष तैयारी आदि में खुद काम करना। बाहर से आए आगन्तुक साथियों का (यह बात इस कार्यक्रम को समझने और सीखने सिखाने में मदद करने के लिए देश के विभिन्न कॉलेज के विद्यार्थी, शिक्षक तथा अन्य संस्थाओं से आए लोगों के संदर्भ में है) इसमें दोस्ताना व्यवहार, बातचीत तथा कामों में आगे हो कर शामिल होने, हम शिक्षकों के मन में भी आगे आने का और अपना व अपने लिए खुद काम करने का भाव जगाता। प्रशिक्षण में खाना खाने के बाद अपनी थाली खुद साफ करने का नियम था। इस प्रशिक्षण में किसी दिन शिरकत करने वाले जिलाधिकारी, शिक्षा सचिव भी जब इस नियम का पालन करने में नहीं हिचकते तो हमें केवल अपनी थाली साफ करने का संदेश ही नहीं मिलता बल्कि काम के आधार पर व्यक्ति को छोटा-बड़ा आंकने के नज़रिए में भी फर्क पड़ता। यह प्रशिक्षण न केवल हमारे शैक्षिक चिन्तन में असर डालता परन्तु साथ ही हमारी जीवन शैली और व्यवहार को बदलता।

प्रशिक्षण का तरीका— प्रशिक्षण के हर दिन और प्रत्येक सत्र की शुरुआत बालगीत, कविता, खेल, लोकगीत, जनवादी गीत, अभिनय आदि से होती। कक्ष में सभी प्रतिभागी फर्श पर बिछी दरी पर गोल घेरे में बैठते। प्रत्येक सत्र की योजना में गतिविधि, बनने वाले समूह और उसमें लगाने वाली सामग्री की तैयारी पहले से स्रोत समूह द्वारा की गयी होती। अतः हर सत्र में प्रतिभागियों के कुछ (सात आठ) समूह बनते। ये समूह सामग्री के साथ (कभी वैचारिक सामग्री भी हो सकती है) निर्देश अनुसार गतिविधि और चर्चा करते। अपने समूह के निष्कर्षों और विचारों को लिखते तथा इन आधारों पर सामूहिक चर्चा में भागीदारी करते। कुछ सत्रों में सामग्री जुटाने कक्ष से बाहर भी जाना होता। परिभ्रमण या आसपास से जानकारी जुटाने या समझने वाले सत्रों में भी समूह में काम करने की

अनिवार्यता होती। कई सत्र व्यक्तिगत भागीदारी के भी होते जैसे कहानी आगे बढ़ाना, चित्र बनाना, अनुमान एवं मापन, कल्पनाशीलता और अन्य तरह रचनात्मकता को प्रदर्शित करने वाले।

प्रशिक्षकों की भूमिकाएँ— प्रशिक्षक यानी स्रोत समूह। इस स्रोत समूह में प्राथमिक शिक्षा और बच्चों के सीखने के बारे में समझ रखने वाले कुछ अध्येता तथा इन प्रायोगिक प्राथमिक शालाओं में पढ़ाने वाले कुछ ऐसे शिक्षक होते थे जो पिछले प्रशिक्षणों में अपनी क्रियाशीलता के आधार पर पहचाने गए होते।

इन प्रशिक्षणों के प्रशिक्षण कक्ष में किसी प्रशिक्षक विशेष की कोई विशेष केन्द्रीय भूमिका नहीं होती थी। किसी गतिविधि की शुरुआत करने के लिए एक या दो स्रोत समूह के व्यक्ति निर्देश देने के साथ स्वयं भी गतिविधियों में भागीदारी करते। गतिविधियों के दौरान स्रोत समूह के सभी व्यक्तियों की भूमिका अहम होती जोकि प्रतिभागियों के अलग-अलग समूह में बैठकर, उस प्रक्रिया को समझने में उनकी सहायता की ओर स्वयं भी सीखने की होती थी। गतिविधियों से समूह के अन्दर उभरने वाले सवालों या विचारों पर सामूहिक चर्चा होती, जिसे स्रोत समूह का कोई सदस्य अथवा प्रशिक्षु शिक्षक संग्रहित तथा व्यवस्थित करता व प्रस्तुत करता।

कभी कभी स्रोत व्यक्ति द्वारा इस तरह के प्रश्नों, समस्याओं और अनुभवों को भी सामने लाया जाता जिससे जड़ हो चुकी धारणाओं को फिर से खंगालने की जरूरत महसूस हो। जैसे मिट्टी से खिलौने बनाकर देखना और इसमें लगने वाले कौशल की पहचान करना या कागज मोड़कर या फाड़कर दो भिन्न संख्याओं को निरूपित करना और फिर इन्हें जोड़ कर बनने वाली भिन्न को दोनों हर के लघुतम समापवर्तक के रूप में दिखाना।

इस स्रोत समूह की बड़ी भूमिका सत्र की तैयारी और सत्रों के बाद के आपसी फीडबैक सत्र के दौरान होती। तैयारी के दौरान पूरे सत्र संचालन की योजना बनाना, सामग्री जुटाना, सत्र के दौरान आने वाली संभावित जिज्ञासाओं तथा प्रश्नों के बारे में सोचना, संदर्भ साहित्य पढ़ना, सत्र के बारे में अन्य साथियों से सलाह मशविरा करना यह सब काम में शामिल था।

फीडबैक सत्र असल में स्रोत समूह का स्व:प्रशिक्षण सत्र होता जो उनकी तैयारी की कमियों को, योजना की व्यवहारिकता तथा उद्देश्य पर सवाल उठाता। ये फीड बैक सत्र प्रशिक्षण सत्र के बराबर या कभी कभी उससे भी बड़े होते। दरअसल इस तरह निरन्तर सीखने के उद्यम में अपने को बनाए रखना ही स्रोत शिक्षक की भूमिका का प्रमुख हिस्सा होता।

इन प्रशिक्षणों का एक भाग स्रोत व्यक्ति का शाला में जाकर शिक्षक के साथ बच्चों के बीच मिलकर सीखना-सिखाना होता। शिक्षक के साथ सहयोग और विश्वास से बना यह रिश्ता बच्चों की अंगुली पकड़ दूर तक चला।

इस तरह की इन यादों का सफ़र थोड़ा लम्बा है पर वह सीखने का सफर बहुत छोटा था ।

Latha K and Padma M. Sarangapani
 psarangpani@tiss.edu

Collegiality in Teaching: Perceptions and Experiences of Beginning Teachers in India

Abstract

The collegiality refers to cooperation among colleagues. Studies indicate the concept of collegiality is complex and has different facets. In practice especially in the context of beginner teachers, collegiality is not just limited to, but goes beyond cooperation to include overcoming solitude, seeing support from fellow teachers, dealing with workplace issues including developing a sense of belonging and dealing with conflict, authority and bureaucracy. The Indian discourse on teachers is dominated by the idea of an isolated, meek dictator, enmeshed in administrative hierarchy but professionally alone. There is a tacit assumption that given the low status of the profession and poor quality of professional education, that workplace relationships will be casual or friendships. This paper presents findings relating to perceptions and experiences of collegiality of beginning teachers in India, based on an interview based qualitative study of 25 beginner teachers in the state of Karnataka, India. Collegiality is found to be a major theme in beginning teachers' narratives of their workplace experience, playing a significant role in both personal and professional matters. Differences on account of age of the teacher and context of management are found. The teachers' narratives provide a nuanced understanding of the workplace in relation to peers, seniors and the school head and contribute to a more holistic understanding of teacher development and of the Indian school as a workplace.

Introduction

"the role of colleagues in enabling a teacher to work efficiently is immense. In any school if functioning has to be efficient and get expected results, collegiality and support are a must. ... Here as we are newly appointed, we are all same, and we have full understanding and are friends"(NT_14)¹

Collegiality refers to cooperation among colleagues. Studies indicate

the concept of collegiality is complex and has different facets. Overcoming solitude and developing ability to seek support from fellow teachers (Fullan and Hargreaves, 1992; Hargreaves and Dawe, 1990), dealing with conflict among the staff members (Veenman, 1984); seeking a sense of belonging (Gehrke, 1981; Bush, 1987); dealing with authority and bureaucracy (Lortie, 1975; Gehrke, 1981) are some of the aspects of work life where collegiality is found to play an important role. In more recent literature, the conception of the

1 Note: NT_n provides the unique reference code for each respondent New Teacher (NT) within n taking values from 1 to 25. NT_14 refers to 14th respondent.

'community of practice' for professional learning of teachers (Lave and Wenger, 1991) is also gaining importance. In practice especially in the context of beginner teachers, collegiality is not just limited to, but goes beyond cooperation. It is found to be central in enabling beginning teachers to overcome the tendency to remain aloof (Veenman, 1984) and instead to interact with co-workers in order to learn from their experiences (Zeichner, 2010; Clandinin and Connelly, 1996). It also mediates changes in the perceptions of beginner teachers of the ideal versus the real school situation (Veenman, 1984). 'Consensus and cooperation among teachers' has been recognised as being among the most important school factors impacting school effectiveness and teacher development (Creemers and Reezigt, 1996; Shah, 2012). However, acceptance into the existing group in school and asking or seeking academic support are found to be difficult (Gehrke, 1981).

It is commonsensical to note that, as the school is an organisation which involves several teachers, their interactions and inter-relationships as a peer group are bound to be an important part of the organisational culture and ethos. In our use of the term 'collegiality', we wish to draw attention specifically to the potential of this community to become a source of mutual support and collaboration. In our work with beginner teachers in Indian schools we found that such an experience of collegiality is among the central facilitating factors that support a range of needs experienced by beginner teachers, and this was found to be a recurring theme in their narratives. Among the most commonly noted reasons for novices to seek support from colleagues is to learn about the rules and routines of the workplace. It may seem at the

outset to a lay observer that teaching is a simple solitary, self-centered activity revolving around the teacher and her assigned group of children. Having experienced teaching activity during one's school days, it is possible that for a beginner teacher also to believe that the business of teaching is a self-centered one (Lortie, 1975). Laymen as well as the prospective teachers think that with fairly adequate subject knowledge the "tricks of trade" (Darling-Hammond, 2006, P:301) are easily learnt. Commenting on the importance of induction of novice teachers into the culture of teaching of their new school, Feiman-Nemser notes:

"Beginning teachers have legitimate learning needs that cannot be grasped in advance or outside the contexts of teaching. ...Whether the early years of teaching are a time of constructive learning or a period of coping, adjustment, and survival depends largely on the working conditions and culture of teaching that new teachers encounter" (Feiman-Nemser, 2003 Page 27).

At the same time, it has been noted that however,

"(n)ovice teachers, in particular, are reluctant to seek colleagues' advice lest they appear less qualified or less competent" (Clement and Vandenberghe, 1997, p: 1).

In the Indian context, the teacher wrapped up with her assigned group of children in a classroom as 'meek-dictator' (Kumar, 2005) and of being an 'isolated' teacher (Batra, 2014) dominate the imagery of and discourse about mainstream teachers in mainstream government or private schools. Teachers are seen as having limited or no professional community either within their school or outside, and largely interacting for administrative purposes, in hierarchical relationships in a bureaucratic ladder of which they

occupy the lowest rung. Widely seen to have received very shallow preservice teacher preparation, resulting in poorly or weakly formed professional identities, with limited professional knowledge and skills, they are believed to approach their profession largely through a folk pedagogy that is informed by every day or cultural beliefs and personal experiences (Sarangapani, 2003; Majumdar and Mooij, 2011). There is thus limited professional recognition of, or expectation from their peers at school. The intra-school teacher community as well as any extended outside school professional peer community are significantly absent in the research literature that documents and describes teachers and their work, in the Indian context (see for example Majumdar & Mooji 2011; Kingdon, (2007); Mukhopadhyay, 2011; Sriprakash, 2009; Ramachandran et al, 2005), except to suggest connivance in covering dereliction from duty of government school teachers (see for example Muralidharan and Kremer, 2006). An exception is Thapan's study of the professional community of teachers in an elite private residential school (Thapan, 2006).

In this paper we present and discuss collegiality. We examine the forms and variations in collegiality, in relation to the contexts of work, and the diverse

needs of beginner teachers that come to be addressed through this form of support and professional learning. The experience of collegiality as articulated by the teachers who participated in this study contributes a unique, rich and novel understanding beginning teachers in their school context--their perceptions, apprehensions, expectations and interactions. It also provides a rich understanding of ordinary Indian Government and private schools as a professional space for teachers and an understanding of the internal dynamics of the school as a workplace.

The Study

This paper presents the importance of collegiality for beginner teachers working in Indian government and private schools. It draws from a qualitative exploratory study of trained beginner teachers working in Urban and Rural school around Bangalore, in Karnataka, South India. 25 teachers, with less than five years of total experience of teaching participated in this study. They were working in different school managements settings--government, private and religious/missionary/philanthropic schools, offering either or both Kannada or English as medium of instruction, in urban, semi-urban or rural locations around the city of Bangalore.

		age range			professional qualification		location		Management		level	
		19-29	30-39	≥40	BEd	DEd	urban	periurban /rural	Govt	Private	high	primary
male	8	3	4	1	2	6	3	5	5	3	1	7
female	17	10	4	3	6	9*	13	4	6	11	1	16
		13	8	4	8	15	16	9	11	14	2	23

Table 1: characteristics of the teacher respondents. Among the women teachers, One had a nursery training and one had a bachelor degree in visual arts.

Source: Researcher's data

The participants included both eight men and seventeen women, and an age range of 19 to 43. The teachers were initially identified through colleges of teacher education in the city and the roster of teacher appointments of the Department of Education, and later through a snowballing process. Data were gathered through in depth semi-structured interviews with these teachers spread over the period of a year, along with a few interviews with senior teachers and schools heads. The teachers were interviewed over a few sittings, spread in the school and more often in their homes. The data comprising 700 pages of interviews in Kannada, were transcribed and selectively translated by the researcher. The data was thematically analysed and coded, using MAXQDA.

This paper draws on the analysis to discuss 'collegiality' which was a recurrent theme among all the respondents, coming up in different contexts, drawing attention to a range of different struggles of beginner-teachers, and most importantly, the existence of, or desire for, a *professional* community, both inside and outside their school. Based on the reflections of these teachers' lived experience and their understanding of what constitutes collegiality, perceptions about its value and experiences of collegiality, the contextual variations in terms of what constitutes collegiality from different perspectives became apparent.

Becoming a part of the school

Beginner teachers seemed to be aware that organisational acceptance into the school was as important if not more, than the teaching itself.

"...we (teachers) have to learn ourselves. Our attitude and practices, the care we take in our role, our way to take responsibilities, avoiding talking about others matter...school can't give

these. It is a quality in individuals... must be honed to maintain a healthy environment in school. Teaching is not the first thing. First is creating a conducive atmosphere. Once it is created, learning happens automatically. The way we are, others are. If I speak well, others speak well. If you don't speak, I will think maybe he doesn't like. I will keep quiet."(NT_014)

The words of this teacher reflect his keensensitivity to being found acceptable in the schools' existing community, and taking care personally to establish his acceptability. Some such tensions reported by teachers were expectations to conform to extant established habits and practices, unlearn and relearn teaching techniques to match with the way senior teachers are doing, 'adjust' even when authorities openly insult the teacher/HM before colleagues and the community and expectations from the school heads from beginners to be 'obedient', expectations from seniors that the the beginners take on full fledged responsibility from day one and complete the task with minimal faults, maintain integrity by not revealing the inside story of the school with any individual outside the school.

Their words suggested a strong comparison to the tensions that accompanied a new bride trying to find acceptance in the eyes of their mothers-in-law especially in terms of learning and getting acclimatized to the new context that is very different from the daughter-in-law's roots. Eight teachers observed that their problems and challenges had no fixed common solution that can be shared across as a general guide but they had realized that it was better to keep the children in mind and not to pay heed to such adult issues and insults. One of them had also realized that good rapport with all stakeholders was the best way. He said "*I make sure to develop good relation*

with staff, parents and be cooperative. Make good adjustment with children and environment. Once this happens rest of teaching will follow."(NT_14) Beginner teachers had expectations regarding their senior teachers and heads, and also their peers. They expected their colleagues to be humble, be collaborative, ready to help, respond to all kinds of queries and requests however mundane they may be. They hoped for encouragement in their work, openness to new ideas rather than being disregarded as wasteful. They were anxious that seniors may make fun of teachers who are not up to the mark, or gossip about others. They wanted senior teachers to spread and provide positive thinking and motivation, and to be or supportive and most of all to be willing to share.

"Sharing means...suppose if it is about school...for example Nali-Kali is new to me. Last year I used to take HPS-567... Next they sent me here (to LPS)... they wanted teachers rotation...not to allow us to stay in same level. One (has) to go there and one (has) to come here. So they sent me here last year. For me I had no training in Nali-Kali...I am not trained to teach in lower class. I did not know how to do in lower level. I learnt and learnt and did. Here only Kaveri madam...was trained. I used to ask her and try". (NT_16)

This sharing related to government based programmes that were introduced into schools, the details of which were to be got only from other teachers who had already received this training. Willingness to share by the experienced teacher was essential to enable the new teacher to meet her responsibilities.

The beginner teachers wanted to be 'helped for everything' ranging from administrative to academic matters by the senior teachers. They expected that seniors should be able to guide them with all knowledge about school

rules and routines. A range of 'how-tos' including how to manage the class, how to cover portions on time, how to give notes, how and when to correct notebooks, how to use TLMs, how to prepare various records, how to prepare question papers, how to deal with diverse learners with diverse abilities and where to source resources. They sought guidance on administrative how-tos including fee collection, stock taking and distributing incentives, taking care of supervision classes when other teachers were absent, conducting meetings, and managing other non-teaching activities.

Beginners expected the experienced teachers to encourage, motivate, guide, teach and assure them with gentle words such as "don't worry, it's easy", "You may watch what I do and do the same" and provide individual advice 'gently and affectionately as a parent'. They were grateful when they received this support from their seniors.

"I am new to this place, I was scared. I used to think how this person is? How to interact with them, this and that. ...Such encouragement is important madam. Then if I need to do any preparation for next day, they she will give idea on how to prepare. Because of the encouragement I have gradually overcome the fear."(NT_01)

"I had thought that seniors may be rude and dominating...but they treat me as a child, they teach me...so it was not difficult". (NT_13)

Most of them expected the seniors to acknowledge the fact that the beginners are not fully aware of the schools' rules. They looked forward to the seniors to instruct and guide them systematically, and to give them leeway and time to learn rules and regulations in a phased manner.

From their peers, beginner teachers generally looked for and expected moral support and emotional solace to be able

to adapt to the school context and its demands. A few of them observed that with their own peer group they were able to understand each other better and they were able to discuss their problems and feelings more openly and discuss workable ideas. Classroom issues were frequently talked about; some teachers narrated instances of sharing and seeking instant ideas, helping each other and getting moral support to teach using new methods and materials and for class control to manage naughty and unruly behaviour in students. It was always difficult to enter into the existing group of teachers, particularly as schools did not offer any formal induction. Immediate collegial groups were formed when there were more than one beginning teacher joining at the same time.

From the head teachers, beginners expected able leadership. Good HM according to them is a leader who ensures unity among colleagues, helps to solve inter-colleague differences, fair distribution of tasks, instructing seniors to help the newcomers, who teaches how to perform all tasks in school, and encourages the newcomers to accept challenges. The beginning teachers noted however in practice that there were wide variations in the nature of leadership to be found across different schools, ranging from being a 'puppet' in the hands of the management to total autonomy. In private schools the extent of autonomy for school heads depended on the power accorded to them by the management. In some schools the head teachers either mentored the beginners themselves or assigned them to seek help from a particular senior or any experienced person in the school. In Government schools, the teachers reported that the quality of leadership depended on the abilities of the HM and how influential they were in the department and with the community.

In one of the government schools, the HM had left the teachers to figure out what they had to do by themselves.

While beginner teachers expected that expectations should be made from them on account of their unfamiliarity in matters such as rule following, and also expected that seniors would actively guide them, at the same time they also wanted seniors to 'interfere less' and leave them to try out new things. They also expected that seniors should not be favoured over them by head teachers, in matters such as punctuality and being given extracurricular responsibilities or in privileges of the first choice in terms of work allocation of classes and subjects to be taught, leaving beginners with the 'leftovers'.

Dissonance

Not all experiences of beginning teachers with their seniors were positive. A few teachers narrated instances of non-collegiality. A few teachers said they learnt 'what not to do' when they saw negative actions from colleagues but could not discuss this openly with anyone. A few of these 'what not to do' were using abusive language, bossing over colleagues, flouting rules and regulations, blaming others when things go wrong, snubbing proactive teachers and forcing them to conform to old established practices, not being open to share their knowledge for fear of loss of their status, and not only resorting to corporal punishment but also justifying these acts! All these things had left the beginner teachers wondering how such unacceptable practices of older teachers could be just ignored or how they could possibly become 'adjusted' to these things.

However, they also found themselves in situations where their senior colleagues were not helpful and this seemed to directly impact on their

ability to practice what they believed in (and had been taught), which was either in divergence with the view of senior teachers, or did not receive either encouragement or support from them.

"If they (senior colleagues) tell do like this, like that with patience in detail we can learn... must mingle with everyone, whatever we ask (they) should teach. They should not say things—look, she came yesterday but thinks she can do magic here, we are seniors don't we know what works here?' ... and discriminate as newcomers and seniors. It should not be like that." (NT_13)

"...only when there is coordination between teachers, we can use extra ideas and new ideas can be easily implemented. Therefore if there is at least one person with coordination mentality it will be helpful" (NT_01)

"...Even if our HM is happy to give us whatever we want... we keep doing old method if they (colleagues) don't support... we need a cooperative colleague...I feel we need a colleague who can help... now that I have found NT_22, now I am very happy. Both of us will discuss and will bring some new ideas to the children" (NT_23)

Negative views, taunts and barbs affected them deeply and impacted on their willingness and ability to 'be different' or do things differently. As NT_23 said (episode), in spite of the support from the HM of the school, the micro climate created by the judgments of their senior colleagues affected them deeply. The presence of another beginner teacher in the school with whom she could talk and discuss things gave her enormous support to reflect and develop her practice.

One of the teachers, also the youngest of my respondents, spoke of experiencing caste discrimination in her school. She talked about how a few senior upper caste colleagues isolated

her, and imputed lack of academic competence to her on account of her lower caste. She said not only did they visibly exhibited their annoyance whenever she approached them from clarifications, one of them even practiced untouchability!

"Some teachers don't like my presence. They try to avoid me. One of them keeps telling caste-caste caste-caste...tells me 'stand away, don't touch'. By chance if we touch, she makes some kind of face...If I do small mistake also they comment saying that if I was not able to do why I had to come here. At such times I feel why at all I am continuing in this school...I feel somewhat hurt. I never go and ask them any help." (NT_001)

Most teachers had to adjust to their colleagues and found the experience tough—filled with tension and frustration. One young teacher advised her peer saying: "*Attegondu kaala...sosegondu kaala andahaage*", the era of mother-in-law is followed by the reign of the daughter-in-law, one of them advised her peers. This popular idiom hinted at the tensions that new teachers experience in their relationship with their older peers—like mothers-in-law these older teachers shaped the space and culture of the school, had established practices of how things are done and exerted an invisible power. "if we listen to them, understand them, in about 6 to 12 months they will stop bossing and think she is listening. So... better to listen." Another, who compared the school HM to god saying "Our HM is *devaranthavru* (like God)... we are all here like a family", drew attention to the psychological relief experienced by having a supportive and mentoring school head.

Differences of Younger and Older Beginning Teachers

There were differences in nature of

expectations of younger beginner teachers between 17 and 25 years, and the older women beginners who had joined teaching after a gap of five to ten years of having completed their initial teacher training, and currently settled in family life. The younger teachers said they expected their senior teachers to be role models. But the absence of peer support, the sight of seniors who argued and quarrelled among themselves or those who resorted to discrimination based on merit and experience in the school had left them disappointed. Older beginner teachers on the other hand expected professional academic support. They spoke more often of cooperation and 'adjustment' with senior colleagues. Their belief was that positive interaction and communication to share knowledge without prejudices would automatically lead to learning. They also spoke more often of trustworthy companionship in whom they could confide their professional problems and successes.

"Colleagues must be able to share their "kashTa-sukha"(to confide) without any hesitation. What I mean by kashTa-sukha it is not their family issues which I have seen teachers do all the time in our school. Not that. As soon as they come inside school, to the extent possible, they must speak only about school matters during working hours."(NT_21)

Academically, the older beginner teachers expected the colleagues to discuss on how to perform teaching tasks in a better way to achieve desired results, intellectual discussion and cross learning across subjects rather than demanding to teach only one subject or class of their choice all through their career. On the same lines of thought a few teachers suggested the need for friendly environment during training sessions where they could open up without any sort of fear with all including senior officials.

"For a teacher, good relation with children alone is not enough. We need to understand that our relation with colleagues, parents and community is important. Only then will we know their expectation. This can happen only after we are appointed. So I feel during in-service training this can be discussed I feel. One more thing I felt was during department training, if teachers are of our age, if we feel free we share freely. Instead if resource persons I think even CRP or BRP helps all teachers to speak freely it will be useful. But rarely senior teachers and junior teachers of other schools become so close that they can discuss freely".(NT_16)

Most of them wished that their colleagues were always open to receive innovative ideas from all quarters, try to implement novel strategies, and reflect upon it as a team to arrive at conclusions. A few of them said that, even if they do not believe in making changes in their practice they should not snub the ones who want to try and instead have to encourage and give them their full cooperation.

Differences of School Management Context

The nature of collegiality varied in government managed and privately management schools. In government schools, time for informal meeting with colleagues and visitors and leisure time to chat with colleagues even during working hours were common. As far as abiding by rules and regulations were concerned, the beginner teachers in government schools were aware that there would be no relaxation in terms of responsibility between beginners and veterans. Whatever was stated in the departmental rules, they had to remain updated and follow the rules. Soon after placements following recruitment, they were provided with a month long one time induction during which all the

government programs were introduced. However there were no specific academic inputs during induction. The beginner often sought non-academic support from colleagues on how to communicate with officers, visitors, parents and community, document in various registers and interpreting the message in department circulars.

In terms of collegiality the main differences they experienced seemed to be on account of the school leadership. On the encouraging side, some of the head teachers were themselves conscientious and role models. They guided the beginners based on their experience on a number of administrative and academic matters. These heads guided the beginning teachers on how to be responsible towards children's safety, unbiased to all children, impartial in the distribution of incentives and ways to reduce absenteeism. On the academic side, they had suggestions on how to meaningfully engage all classes when they had to substitute for absent teachers and on inculcating peer learning skills among children especially when they could not wait for the department to provide training at times when there were transfers across the levels – from lower primary to higher primary or vice versa. Some school heads supported beginners, narrating to them their own learning from the beginner stage to their current veteran stage. Some school heads according to beginner teachers demonstrated good practices by themselves being punctual, being considerate, transparent and supported teachers on a case to case basis in a democratic manner. In such schools the seniors volunteered to guide beginner teachers after making informal observation of the teacher or based on their experience about needs of beginner teachers.

“Teacher: Rama Miss, on her own she gave ideas.

Me: Didn't you ask her for help?

Teacher: No when she observed me, she gave the idea

Me: So she used to observe you. Is it?

Teacher: No not like sitting and watching. Generally while walking across my classroom she might have noticed. Simply whenever she saw me she used give ideas. She must have had 10-15 years' experience I think. All children liked her.”

On the discouraging side the head teachers and senior teachers in some schools promoted cliques. They isolated the beginner teachers, gossiped, quarreled amongst themselves, were corrupt and favoured some teachers and their delirict absence from work or covered for them during inspection. They, allowed teachers to eat, sleep, talk personal matters over mobile phones or chat with other teachers during class time, while children whiled away their learning time. They permitted their favourites to skip assembly, or come late, were unfair in allocating responsibilities, and expected BT to conform to traditional practices. The beginners who resisted these were considered treated as outcaste while those who adjusted had better chances of receiving similar favours.

Overall most private school teachers reported tight schedules and hardly free time to interact with colleagues. Either they had occasional, periodic staff meeting or very brief corridor talk. Every teacher said that they were supposed to follow the head teacher's instructions. In all the schools soon after their appointment they were assigned to one senior teacher or a supervisor to whom they had to report to. Beginners took help to clarify rules and regulations. In almost all schools each teacher was assigned one class per year and taught all subjects in lower primary and in higher primary they were assigned one subject per year to teach

in all sections and all classes. Rarely did teachers report seeking academic support. But they learnt other tasks such as marking attendance, recording in attendance register, marks register, writing report cards, contributing to various functions and programs, ways to interact with parent, etc. in school. The teachers who had brief experience of teaching in both private and government schools expressed to have experienced greater work satisfaction in private schools though government schools was favoured for providing them better salary and an assured job.

Informal Communities of Practice

One of the interesting observations during the course of this study was that in seven different situations, in spite of the absence of endorsed structures and institutions that promoted and fostered formal communities of practice, the beginner teachers had created for themselves their own informal communities and professional groups.

In one case teachers from a private school had difficulty to teach from the recently revised textbooks. They sought the support of teachers from the neighbourhood government school, who had undergone an inservice content enrichment training offered by the Block Resource Centre. Similar support was received by municipal corporation teachers from government school teachers to learn about CCE. The municipal corporation teachers shared that their training was inadequate when compared to the government school teachers and hence after school hours they visited the government school teachers. In a third instance, these were groups formed by beginner teachers from different schools who knew each other either because they were roommates living in the same paying guest house, or were commuting together by train or bus,

or were government teachers meeting each other in the cluster center to which their schools belonged. Such occasions they said that they used to interact with each to share their professional ideas, clarify about new circulars or orders, exchange resources or provide emotional support to each other. In one case, there was cooperation between beginning teachers belonging to two different schools run by the same management. The ones who were in the vernacular medium school benefited from Government trainings and they shared these experiences with their colleagues from the English medium school who did not receive these trainings. In turn the teachers from the English medium school provided the vernacular medium teachers with guidance on writing simple lesson plans and on teaching English. There was also an instance of government school teachers located in a peri-urban area, who received support and inputs from a religious missionary school particularly for sports, hygiene and safety.

From the two cases of particularly proactive beginning teachers' informally and self initiated professional activity was one in which they volunteered to teach each other's classes as a way of learning through cooperative teaching and observing each other. And the other of a community group formed by the alumni of a college who stayed in touch with each other and discussed challenges of their workplace and working with diverse learners and mutual motivation and support. The teacher in this group spoke of the support they received as this was a non judgmental group in which they could discuss their failures and struggles without any fear.

Discussion

By and large all beginner teachers were inducted informally into the routines

and practices of their new school by senior colleagues, and enabled to adapt to the organisations requirements. To a greater extent collegial support and time for collegial interactions were available to government school teachers. Private school teachers in contrast had little time or opportunity for such support and were largely left to figure things out on their own. Active school heads proactively support new teachers in their school, but in many cases, new teachers had to support. All beginner teachers expected and benefited from collegial support of seniors, but were also wary of negativity, of being made fun of, or being discouraged from trying out new things. Younger teachers were more anxious about these matters while older beginning teachers were more conscious of the need to be accepted by their colleagues. There were all conscious of benefitting from such support both emotionally as well as professionally. In addition to colleagues at school, they also formed collegial relationships with other teachers whom they met in spaces such as the guesthouses in which they lived together or while using public transport. The presence of other young/beginner teacher colleagues in the school made it easier for them to remain positive and handle dissonance.

When the beginner teachers had neither supportive seniors nor trustworthy peers, they have found initial stages of teaching to be quite challenging. The beginner teachers saw value in the support and guidance from seniors. The beginner teachers expected nurturing, respectful and enlightening kind of support. One of the teachers presented a comparative picture of a situation where a lone beginner had to learn the nuances of work in the new place while working with four veterans, with her own situation where with the exception of the head teacher rest of

others were beginners wondered that,

“...suppose one or two were seniors here, may be either because of fear or imagining not doing something we would have not been this free. But all of us were new, all young.”(NT_16)

In NT_016's situation where all were beginners, the head teacher had managed to lead the young teachers to build a team. In situations where there were lone beginners, the comfort with which they established rapport with other colleagues to learn nuances of the profession depended on multiple factors- beginner teacher's level of readiness to seek support themselves, their ability to convince experienced teachers, openness of veterans to accept the beginner into their group and so on.

The transition from being a student to facilitators as teachers has also been a challenge for the beginner teachers. My observation of the teacher educators has shown that the teacher educators treat the student teachers as children. Beginner teachers have not experienced using their autonomy and discretion in making choices, taking decisions on their own. They are trained to be conformers, obedient and accept orders without questioning. Such an attitude of 'cultural subordination' is considered as 'being obedient' by most beginners and several senior teachers.

So beginner teachers who never experienced "being colleagues" with senior teachers who are older and more experienced than themselves tended to look upon senior colleagues as guides and mentors who need to instruct them which they are ready to obey. These same beginner teachers after two or three years also felt seniors to be a nuisance and interfering in their autonomy.

As long as beginner teachers conformed to the extant practice in school there were no problems. In places

where beginners had tried to try out their unconventional understanding of pedagogy, cases of tension between the beginners and the veterans were reported. The following excerpt from the narrations of veterans and the beginner teacher on the same day of my school visit illustrates the nature of such tensions. Senior teachers too spoke about dissonance in beliefs and practices and their apprehensions regarding adding novel things to their established teaching. In the episode that follows, the contrasting views of senior and new teachers on the same issue were heard, regarding the introduction of child-centric, interactive classrooms:

Senior teacher: *“these youngsters (to mean the beginner teacher) do not know how to keep a distance between a teacher and a student...they behave like friends. One fine day these children, that too from the kind of background they come from, will sit on his head that’s all. Teacher should behave like a teacher with children... In his class I wonder how they will understand. Everyone talks, talks, talks. He has no idea of class control... What is shikshaNa? shikshaNa means to teach Shistu (discipline) ... including teaching about how to behave with whom. Here if this boy allows all their monkey tricks then?? ...It seems in D.Ed they have taught him the same...As it is teachers are no longer respected, and if this boy allows them to sit on his head, don’t know what will happen”.* (Senior teacher)

Beginner Teacher: *“They (senior teachers) advise me not to be close with children. Here teachers come into my class and shout at the children in my class and say, “Keep quiet, don’t you know that he is your teacher? Learn to give respect to teacher”. But as soon as they leave, children say, “Sir they never allow us to speak. Please let us speak at least in your class”. This beginner*

teacher elaborated on the nature of speech that he encourages in his class. “...speak means we don’t speak nonsense. It is just that I don’t read and explain like others. What we do is without using text book, we discuss concepts, we do many activities and then write...so it might seem noisy to senior teachers”. (Beginner Teacher)

The senior teacher favoured a more culturally rooted notion of learning involving discipline/disciplining and was against free and unfettered talk of children. She favoured keeping a distance between teachers and children. Neither of these were favoured by the younger teacher who seemed to value both talk and the closeness with children. There was little chance of any support to this BT from the seniors in that school.

Conclusion

Collegiality is neither a new idea, a new concept nor a new phenomenon. It is a new realization to consciously nurture it in a professional manner especially in the school as an organization. The study revealed that the concept of collegiality takes different forms, meanings and the kind of support sought in different school contexts and is dependent on variables such as professional support, personal and emotional needs, prior experience, gender. Even the ease with which beginner teachers make a choice of personnel for support varies across contexts and circumstances whether they choose peers, contemporary colleagues, senior veterans, the school head or someone from the management. All these influence the personal and professional factors that impact teacher development.

The dominant motif found in Indian research literature is of isolated image of teacher for providing the support mechanisms for individual teacher or at the most improving school

leadership and management. It follows from the beginner teacher's reports in this study that collegiality is an inevitable requirement for continuous professional development of teachers. In the absence of its formal practice, beginner teachers anxiously seek collegiality in an informal manner. While informal collegiality is commendable, in the absence of mutual consent among colleagues, this study has revealed how beginners learn to conform to the situation as a survival mechanism. Such an attitude poses serious threat to introduction of novelty and innovation in pedagogic practices. As a phenomenon, collegiality needs to be inculcated in every school to reap the benefits of seamless blending of experiential knowledge of the veterans and the

novel aspirations of the beginners. Collegiality in this sense would counter the ill effects of irrational competition among colleagues and replace it with rational team spirit and collaboration across all levels of an organization so that a culture of collegiality and a CoP is established. The beginner teachers will then get opportunity to learn the nuances of the profession in an anxiety free atmosphere. We conclude with a quote by one of the beginner teachers, who said,

"...in teaching I feel there should not be who teaches better than others... everyone will have to teach well... (It is) not a secret about what and how they do or we do... I think we should share ideas on what works and what does not"(NT_012)

References & Bibliography

- Agrifoglio, R. (2015). Community of practice. In *Knowledge Preservation Through Community of Practice Theoretical Issues and Empirical Evidence* (pp. 25-46). Cham: Springer International Publishing.
- Batra, P. (2014). Problematising teacher education practice in India: Developing a research agenda. *Education as Change*, 18(Sup1).
- Bush, R. N. (1987). Teacher Education Reform: Lessons from the Past Half Century. *Journal of Teacher Education*, 38(3), 13-19.
- Clandinin, D. J., & Connelly, F. M. (1996). Teachers' Professional Knowledge Landscapes: Teacher Stories—Stories of Teachers—School Stories—Stories of Schools. *Educational researcher*, 25(3), 24-30.
- Clement, M., & Vandenberghe, R. (2000). Teachers' professional development: A solitary or collegial (ad)venture? *Teaching and Teacher Education*, 16(1), 81-101.
- Creemers, B. P., & Reezigt, G. J. (1996). School level conditions affecting the effectiveness of instruction. *School effectiveness and school Improvement*, 7(3), 197-228.
- Darling-Hammond, L. (2006). Constructing 21st-Century Teacher Education. *Journal of Teacher Education*, 57(3), 300-314.
- Gehrke, N. J. (1981). A Grounded Theory Study of Beginning Teachers Role Personalization Through Reference Group Relations. *Journal of Teacher Education*, 32(6), 34-38.
- Feiman-Nemser, S. (2001). Helping Novices Learn to Teach. *Journal of Teacher Education*, 52(1), 17-30.
- Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational leadership*, 60(8), 25-29.
- Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. *Teaching and teacher education*, 6(3), 227-241.

- Kelchtermans, G., & Ballet, K. (2002). The micropolitics of teacher induction. A narrative-biographical study on teacher socialisation. *Teaching and teacher education*, 18(1), 105-120.
- Hargreaves, A. & Fullan, M.G. (1992). Understanding teacher development. Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027.
- Clandinin, D. J. & Connelly, F. M. (1996). Teachers' Professional Knowledge Landscapes: Teacher Stories—Stories of Teachers—School Stories—Stories of Schools. *Educational researcher*, 25(3), 24-30.
- Clement, M. & Vandenberghe, R. (1997). Teachers' Professional Development: A Solitary or Collegial (Ad) venture?., Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, March 24-28, 1997)
- Majumdar, M. & Mooij, J. (2011). Education and Inequality in India: A Classroom View. Routledge Contemporary South Asia Series. Routledge, Taylor & Francis Group.
- Kingdon, G. G. (2007). The progress of school education in India. *Oxford Review of Economic Policy*, 23(2), 168-195.
- Kingdon, G. G. (2007). The progress of school education in India. *Oxford Review of Economic Policy*, 23(2), 168-195.
- Kumar, K. (2005). The Meek Dictator: The Paradox of Teacher's Personality, in K. Kumar (ed.), *Political Agenda of Education: A study of Colonialist and Nationalist ideas*, 2nd edition, pp. 73-94. New Delhi: Sage Publications.
- Kuzmic, J. (1994). A beginning teacher's search for meaning: Teacher socialization, organizational literacy, and empowerment. *Teaching and teacher education*, 10(1), 15-27.
- Lave, J., & Wenger, E. (1991). Legitimate Peripheral Participation in Communities of Practice. In *Situated Learning: Legitimate Peripheral Participation* (Learning in Doing: Social, Cognitive and Computational Perspectives, pp. 89-118). Cambridge: Cambridge University Press.
- Lortie, D. C. (1975). School-teacher: A sociological study. University of Chicago Press.
- Mukhopadhyay, R. (2011). *Anthropology of the Education bureaucracy* (Unpublished doctoral dissertation). National Institute of Advanced Studies, Bangalore, India.
- Muralidharan, K., & Kremer, M. (2006). *Public and Private schools in rural India*. Cambridge, MA: Harvard University, Department of Economics.
- Ramachandran, V., Pal, M., Jain, S., Shekar, S., & Sharma, J. (2005). Teacher motivation in India (pp. 96-103). Discussion Paper, (Azim Premji Foundation, Bangalore, 2005).
- Rust, F. O. C. (1994). The first year of teaching: It's not what they expected. *Teaching and teacher education*, 10(2), 205-217.
- Sarangapani, P. M. (2003). *Constructing school knowledge: An ethnography of learning in an Indian village*. Sage Publications Pvt. Ltd.
- Shah, M. (2012). The importance and benefits of teacher collegiality in schools—A literature review. *Procedia-Social and Behavioral Sciences*, 46, 1242-1246.
- Smith, K. M. (2003). Communities of Practice. In *The Encyclopedia of informal education*.
- Sriprakash, A. (2009). 'Joyful Learning' in rural Indian primary schools: An analysis of social control in the context of child centred discourses. *Compare-A Journal of Comparative and International Education*, 39(5), 629-641.

- Thapan, M. (2006). *Life at school an ethnographic study*. New Delhi: Oxford University Press.
- Veenman, S. (1984). Perceived problems of beginning teachers. *Review of educational research*, 54(2), 143-178.
- Wenger, E. (2011). *Communities of practice: A brief introduction*.
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business Press.
- Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college-and university-based teacher education. *Journal of teacher education*, 61(1-2), 89-99.

शिक्षक शिक्षा में पढ़ना सीखने की जगह

सार

यह लेख कुछ अहम दस्तावेजों में भाषा व भाषा शिक्षण को लेकर कहे गए कुछ मुख्य बिन्दुओं को रेखांकित करते हुये इनके निहितार्थों की चर्चा करता है। लेख यह भी दर्शाता है कि गुजरे कुछ वर्षों में भाषा की समझ में विस्तार हुआ है लेकिन साथ ही कुछ ऐसी भी बातें हैं जो महत्वपूर्ण होते हुये भी भाषा पर होने वाले संवाद का हिस्सा नहीं बन पायीं। लेख यह कहता है कि इस संवाद को आगे बढ़ाने की जरूरत है और इस हेतु इन बिन्दुओं पर लगातार और अलग अलग परिप्रेक्ष्य से संवाद करने और समझने की जरूरत है।

परिचय

शिक्षक तैयारी शिक्षा में एक अहम मुद्दा है। हमारे देश में शिक्षक तैयारी के लिए सेवा पूर्व प्रशिक्षण और सेवारत प्रशिक्षणों की व्यवस्था है। सेवापूर्व प्रशिक्षण एक लंबी अवधि का पाठ्यक्रम है जो भावी शिक्षकों को शिक्षण के पेशे के लिए तैयार करता है। सेवारत प्रशिक्षण का उद्देश्य यह है कि शिक्षकों के क्षमता विकास में निरंतरता बनी रहे और शिक्षक ज्ञान मंथन की प्रक्रिया से जुड़े रहें।

सेवापूर्व शिक्षक प्रशिक्षण के लिए पाठ्यचर्या भी है और एक निश्चित पाठ्यक्रम भी लेकिन सेवारत शिक्षक प्रशिक्षण के लिए नहीं। सेवारत प्रशिक्षण के लिए कोई निश्चित पाठ्यक्रम हो नहीं सकता लेकिन कोई ऐसे दस्तावेज भी नहीं हैं जिनमें इनकी रूप रेखा, अथवा मार्गदर्शक सिद्धान्तों के बारे में विस्तार से चर्चा हो जो सेवारत शिक्षण प्रशिक्षण का एक रेखाचित्र बना सकें। एक महत्वपूर्ण अवलोकन इन दोनों ही प्रशिक्षणों के संदर्भ में यह है कि दोनों में ही पढ़ने पर, समझ कर पढ़ने पर और शिक्षकों को पढ़ने का चस्का लगाने और इस तरह सीखने में उन्हें एक हद तक आत्मनिर्भर बनाने के संदर्भ में कोई सायास कोशिश नहीं की जाती।

पढ़ना सीखना कोई एकांगी प्रक्रिया नहीं है। पढ़ना सीखने में, भाषा बोलने, सुनने, लिखने, उसमें सोच पाने, अर्थ गढ़ पाने आदि की भी खास भूमिका होती है। इस

लेख में इन सभी बिन्दुओं पर चर्चा नहीं है, यह मुख्यतः शिक्षकों की सीखने-सिखाने की तैयारी के दौरान, पढ़ना सीखने को कितनी जगह दी जाती है इस पर केन्द्रित है। पहले पढ़ने की संस्कृति, और पढ़ने की जरूरत पर बात है। आगे इस स्तर पर पढ़ना क्या है? पढ़ने से क्या अपेक्षा है? और फिर शिक्षक शिक्षा में पढ़ने की जगह के संदर्भ में शिक्षक तैयारी के मेरे कुछ अनुभव हैं। ये अनुभव मूलतः शिक्षक प्रशिक्षणों और शिक्षक शिक्षा के डी एड पाठ्यक्रम विकसित करने की कार्यशालाओं और डी एड की कक्षाओं के हैं इस चर्चा में यह भी शामिल है कि इस दिशा में क्या प्रयास किए गए हैं। मानना है की शायद ये प्रयास आगे क्या किया जा सकता है यह सोचने में मददगार होंगे।

पढ़ने की संस्कृति

यह एक त्रासदी ही है कि हमारे अधिकांश शिक्षण संस्थानों में; चाहे वह स्कूल हो अथवा कॉलेज, पढ़ना सीखने को कोई खास तवज्जो नहीं दी जाती। स्कूली शिक्षा हो अथवा उच्चा शिक्षा ज़ोर सिर्फ और सिर्फ पाठ्यपुस्तकों में दी गयी सामग्री को बच्चों को समझाने, फिर उसे याद करवाने पर होता है ताकि वे परीक्षाएँ उत्तीर्ण कर सकें। परीक्षा उत्तीर्ण करने का यह दबाव इस विश्वास को भी बढ़ावा देता है कि अन्य किताबों को पढ़ने में लगाया गया

समय एक तरह से व्यर्थ ही है क्योंकि उनमें से परीक्षाओं में कुछ नहीं आता और इस तरह वे परीक्षा उत्तीर्ण करने में मददगार नहीं होती। यह नहीं सोचा जाता कि अलग अलग किताबों को पढ़ना, उनसे अंतःक्रिया करना पढ़ना सीखने में सहायक होता है और एक बार यदि बच्चा समझकर पढ़ना सीख जाए तो वह अपनी पाठ्यपुस्तकों को भी स्वयं पढ़कर समझ पाएगा।

पाठ्यपुस्तक केन्द्रित इस तरीके का परिणाम यह होता है कि बच्चों में किसी भी पाठ्य सामग्री को स्वतंत्र रूप से चयन करने, पढ़ने, और उससे जुड़ने की आदत ही विकसित नहीं हो पाती। अतः पाठ्यपुस्तक को पढ़ना व समझ पाना भी आसान नहीं होता। कई कक्षाओं के अवलोकनों के दौरान यह पाया कि बच्चे पाठ्यपुस्तक और उसके विभिन्न अध्यायों को पढ़ने के लिए अध्यापक पर इतने आश्रित हो जाते हैं कि वे पूरी पुस्तक को टटोलकर देखना तो दूर, जो पाठ नहीं पढ़ाया गया है उसे हाथ भी नहीं लगाते।

यह भी सच है कि स्कूलों में पढ़ने के लिए स्तरवार उपयुक्त, विविध प्रकार की सामग्री उपलब्ध ही नहीं है। जिन कुछ स्कूलों में यह सामग्री उपलब्ध है भी, वहाँ इस सोच की कमी है कि इस सामग्री के साथ क्या काम किया जाय, कैसे किया जाय यानि इसका कैसे इस्तेमाल हो ताकि बच्चों में पढ़ने के प्रति रुझान पैदा हो सके। महाविद्यालयों की भी कमोबेश यही स्थिति है। इन्हीं के चलते विद्यार्थियों को किताबों से दोस्ती करने के अवसर ही नहीं उपलब्ध हो पाते हैं। बच्चे जिनमें से कुछ भावी शिक्षक भी होते हैं वे न तो अपने स्कूली पढ़ाई के दौरान और ना ही शिक्षकीय तैयारी के दौरान ऐसे अनुभवों से गुजरते हैं जो उन्हें किताबों से दोस्ती करने, वे पढ़ सकते हैं समझ सकते हैं यह आत्मिश्वास विकसित करने और सीखने में पढ़ने का महत्व महसूस करने में मददगार हो।

परीक्षा पद्धति का तरीका, पाठ्यपुस्तक केन्द्रित पढ़ाई, पढ़ने लायक पुस्तकों की गैर उपलब्धता आदि वजहों के चलते धीरे-धीरे वे इस मुकाम पर पहुँच जाते हैं कि जहाँ उन्हें भी लगने लगता है कि पुस्तकों के मुक़ाबले पास बुक्स और कुंजिया ही अधिक महत्वपूर्ण हैं।

पढ़ने की जरूरत

कुछ राज्यों में, विकसित किए गए डी.एड. पाठ्यक्रम के उन्मुखीकरण के लिए आयोजित कार्यशालाओं, व जिला संस्थानों के अवलोकन व अवलोकन के दौरान संकाय सदस्यों व विद्यार्थियों के साथ हुई चर्चाओं में यह महसूस हुआ कि अधिकांश लोगों को पढ़ने की आदत ही नहीं है। यह केवल संदर्भ पुस्तकों को पढ़ने को लेकर ही नहीं बल्कि शिक्षा से संबन्धित विभिन्न दस्तावेजों और यहाँ तक कि नोटिसों व सर्क्युलर आदि को पढ़ने के संदर्भ में भी सही है, उदाहरण के लिए आए हुये किसी नोटिस को पढ़ना, किसी नए नियम या नीति को पढ़कर समझना और उसे लागू करने के संदर्भ में दिये गए निर्देश को समझना आदि सभी को लेकर ज्यादातर शिक्षकों की अपेक्षा यही होती है कि कोई बता दे, समझा दे। ऐसे महत्वपूर्ण दस्तावेज जिनका लक्ष्य स्कूली शिक्षा के संपूर्ण परिदृश्य को बदलना है और जिसमें शिक्षकों की महती भूमिका है जैसे राज्य की पाठ्यचर्या और एन. सी. एफ. के बारे में कई स्कूलों के अवलोकन के दौरान और कई कार्यशालाओं में पूछने पर: आपने एन सी एफ तो पढ़ा ही होगा तो ऐसे जवाब मिले... हाँ सुना तो है लेकिन अभी तक कोई प्रशिक्षण ही नहीं हुआ जो बताए कि उसमें क्या है? ऐसी ही अपेक्षा किसी भी अन्य दस्तावेज के संदर्भ में भी लागू होती है अक्सर शिक्षकों को लगता है कि कोई बता दें तो बेहतर है बनिस्बत कि उनको पढ़ने के लिए कहा जाए।

शिक्षकों के लिए विशेषकर आरंभिक कक्षाओं के शिक्षकों के लिए, शिक्षक-शिक्षकों के लिए पढ़ना जरूरी है। यह माना जाता है और ऐसी अपेक्षा भी की जाती है कि यदि शिक्षक कुशल पाठक होंगे तो वे सीखने में आत्मनिर्भर बनेंगे। यानि वे यह समझ पाएंगे कि उन्हें कब, क्या सीखने की जरूरत है, और सीखने की यह जरूरत क्यों है? वे इस दिशा में सोच पाएंगे कि जो वह सीखना चाहते हैं उसके लिए उन्हें किस तरह की सामग्री की जरूरत होगी, वह कहाँ उपलब्ध हो पाएगी और फिर अपने उद्देश्यों के मद्देनजर उपलब्ध सामग्री में से सबसे उपयुक्त क्या है? सीखने में यह आत्मनिर्भरता, सीखने की निरंतरता के लिए भी आवश्यक है।

समझ के दायरे के विस्तृत करने के लिए भी पढ़ना जरूरी है; समझ में बहुत सी बातें शामिल होती हैं; यदि हम विषय की समझ की बात करें तो नए शब्दों को जानना, अपने शब्द भंडार में पहले से मौजूद शब्दों के नए अर्थों को समझना, नए संदर्भों में उनका उपयोग कर पाना, अवधारणा को समझना, किन्हीं दो अवधारणाओं के बीच संबंध को समझना, विषय की प्रकृति को समझना आदि। शिक्षकों से अपेक्षा होती है कि विषय की उनकी समझ में गहराई व पैनापन हो और यह तभी हो सकता है जब वे विषय से संबन्धित सामग्री को पढ़ें और टेक्स्ट के साथ मानसिक रूप से जुड़े हों। विषय की इस समझ में विश्लेषण की प्रक्रिया भी शामिल है, पढ़ना, न केवल जो पढ़ा गया है उसका विश्लेषण करने की क्षमता विकसित करता है बल्कि सीखने सिखाने के कार्य के विश्लेषण की क्षमता, सृजित ज्ञान को परखने और संशोधित करने की क्षमता भी विकसित करता है।

पढ़ने की आदत विकसित हो इसके लिए पढ़ना जरूरी है। स्मिथ का कहना है कि “आप पढ़कर ही पढ़ना सीख सकते हैं”। शिक्षक न केवल पढ़ना सीखें बल्कि पढ़ने की अपनी इस क्षमता को निरंतर निखार पाएँ, पढ़कर पढ़ने को सराह पायें, वे स्वयं पढ़ने के विभिन्न उद्देश्यों को समझ पायें, अपने स्वयं के लिए पढ़ने के विभिन्न उद्देश्यों को गढ़ पायें, इसलिए भी उनका पढ़ना जरूरी है।

पढ़ना क्या है ?

पढ़ना क्या है इसकी कोई एक परिभाषा नहीं दी जा सकती। पढ़ते-पढ़ते, पढ़ने की प्रक्रिया में भी बदलाव होता रहता है जैसे यह जाहिर सी बात है कि व्यस्कों अथवा शिक्षकों की पढ़ना सीखने की प्रक्रिया शुरुआती स्तर पर बच्चों के पढ़ने की प्रक्रिया से अलग है। शुरुआती स्तर पर जब बच्चे पढ़ना सीख रहे होते हैं तब उनमें समझकर पढ़ना सीखने की प्रक्रिया में कुछ डीकोडिंग के पहलू भी होते हैं और कुछ यांत्रिक बातें जैसे किस ओर से पढ़ना शुरू करें आदि। लेकिन जब हम शिक्षकों के संदर्भ में पढ़ना सीखने की बात करते हैं तो उसमें ये बातें शामिल नहीं होती। यहाँ समझकर पढ़ना महत्वपूर्ण है। शिक्षकों के संदर्भ में पढ़ने की बात करें तो उसमें कुछ ये बातें शामिल होंगी: शीर्षक/

उपशीर्षक पढ़कर यह अनुमान लगा पाने की क्षमता कि लेख किस बारे में है; किसी टेक्स्ट, लेख को प्रवाहपूर्वक पढ़ पाने की क्षमता; लेख में दिये गए मुख्य बिन्दुओं को समझ पाना; दिये गए बिन्दुओं में जुड़ाव देख पाना: कहे गए बिन्दुओं को संपूर्णता में समझना (ना की छोटे छोटे वाक्यों में तोड़कर), अपने विश्वासों, अपनी समझ को अलग रख पहले यह समझना कि लेखक क्या कह रहा है, लेख का विश्लेषण कर पाने की क्षमता यथा दिये गए तर्कों, उदाहरणों को समझना, वैसी ही और परिस्थितियों व उदाहरणों के बारे में सोच पाना, प्रति उदाहरण सोच पाना: एक टेक्स्ट को दूसरे से संबन्धित कर पाना और यदि कोई नयी समझ उससे उपजती है तो उसके बारे में सोच पाना, पढ़े हुये पर यदि कोई सवाल हैं तो उन्हें पहचान पाना; अलग अलग तरह के टेक्स्ट से वाकफ होना, और अपनी जरूरतों के अनुसार उन्हें ढूँढ पाना और अपने उद्देश्यों को ध्यान में रखते हुये उन्हें पढ़कर उपयोग कर पाना।

अलग-अलग तरह के टेक्स्ट पढ़ने की इच्छा होना और अपने आप पर यह विश्वास होना कि किसी भी नए टेक्स्ट से जुड़ने और उसे पढ़कर समझने की क्षमता है और इसे बेहतर किया जा सकता है, यह भी महत्वपूर्ण है और पढ़ने की समझ में शामिल है।

जब हम शिक्षकों के पढ़ना सीखने के बारे में बात करते हैं तब वास्तव में उनसे यह सब सीखने की अपेक्षा है। यह सब सीखना यकायक नहीं हो सकता। इसके लिए समय और सोचे समझे प्रयासों की जरूरत है।

शिक्षक शिक्षा और पढ़ना

यह हिस्सा सेवापूर्व शिक्षक तैयारी (विभिन्न राज्यों के लिए शिक्षक शिक्षा (डी.एड., बी.एड.) के पाठ्यक्रम निर्माण की प्रक्रिया के दौरान हुयी कई कार्यशालाओं, तैयार पाठ्यवस्तु के लिए संदर्भ व्यक्तियों का उन्मुखीकरण और डी एड कक्षाओं के अवलोकन व उस दौरान छात्र अध्यापकों से बातचीत) व सेवारत शिक्षकों के लिए आयोजित कार्यशालाओं में पढ़ना सीखने के मसले से संबन्धित हुये कुछ अनुभवों पर आधारित है।

सेवापूर्व शिक्षक तैयारी

शिक्षक-शिक्षा का पाठ्यक्रम सभी राज्यों में है लेकिन

वस्तुस्थिति यह है कि कुछेक को छोड़कर अधिकांश संस्थानों में इस पाठ्यक्रम के अध्ययन के लिए संदर्भ पुस्तकों की बात तो दूर, उपयुक्त और पर्याप्त संख्या में पाठ्यपुस्तकें भी उपलब्ध नहीं हैं। एक राज्य में डी.एड. पाठ्यक्रम के विकसित करने के शुरुआती चरण में तय किया गया कि पहले डी.एड. के मौजूदा पाठ्यक्रम और पाठ्यपुस्तकों को देखा जाय, उनमें क्या महत्वपूर्ण है, क्या रिक्तताएं हैं, उन्हें पहचाना जाये। इस उद्देश्य से पाठ्यक्रम व पाठ्यपुस्तकों की खोज करने पर पाया गया कि ना कोई पाठ्यक्रम मौजूद है, ना ही कोई पुस्तक। सिर्फ पासबुकस उपलब्ध थी और पिछले कुछ सालों के पर्चों के जवाबों को संकलित कर लिखी गयीं कुंजिया ही उपलब्ध थीं। ऐसी ही स्थिति देश के अधिकांश भागों में हो सकती हैं।

डी.एड. पाठ्यक्रम विकसित करने की इस प्रक्रिया के दौरान, पाठ्यक्रम को लेकर शिक्षकों व संकाय सदस्यों से बातचीत के लिए हमें कई जिला शिक्षण संस्थानों में जाने का अवसर मिला। इन विजिट के दौरान हमने इन संस्थानों के पुस्तकालयों में भी समय बिताया। वहाँ हमने यह तो पाया ही कि पुस्तकालयों में विद्यार्थियों, संकाय सदस्यों का आना जाना, वहाँ बैठकर पढ़ना अथवा पुस्तकों का इश्यू करवाना न के बराबर था। इन पुस्तकालयों में किताबों को टटोलते वक्त हमें अचरज भी हुआ कि इतनी अच्छी सामग्री इन पुस्तकालयों में उपलब्ध है। अंग्रेजी और हिन्दी में ऐसी बहुत सी पुस्तकें इन पुस्तकालयों में थी जो महत्वपूर्ण हैं खासकर के शिक्षकों के लिए जैसे गिजुभाई, रबिन्द्रनाथ टैगोर, गांधी के शिक्षा पर विचार, 60, 70 के दशक में विकसित किए गए पाठ्यक्रम, शिक्षा आयोग और शिक्षा नीति के दस्तावेज आदि। लेकिन पुस्तकालय में ये पुस्तकें उपलब्ध है यह जानकारी ना तो व्याख्याताओं को थी, ना ही उनके विद्यार्थियों को। शिक्षक विद्यार्थियों के साथ कक्षाओं में कार्य करते हुये पाठ्यपुस्तकों के अतिरिक्त पुस्तकों का उपयोग महत्वपूर्ण है अतः उनका उपयोग किया जाना चाहिए यह सोच ही नदारद थी।

विभिन्न कार्यशालाओं में यह भी महसूस हुआ कि अधिकांश शिक्षकों के लिए समझकर पढ़ना मुश्किल

कार्य है। कार्यशालाओं में लेखों के पढ़ने का काम करने के दौरान बहुत से ऐसे अनुभव हुये जैसे: शिक्षकों द्वारा लेख पर अपना ध्यान ही केन्द्रित न कर पाना, लेख की मुख्य बातों को ना पकड़ पाना, लेख में जो कहा गया है उसे ना समझते हुये वही कहना जो वे पहले से मानते हैं और कहते आये हैं। तब भी जब लेख उनकी समझ से बिलकुल ही अलग बात कर रहा है। साथ ही अलग अलग हिस्सों में दी गयी सामग्री में संबंध ना जोड़ पाना, दूसरे शब्दों में लेखों को संपूर्णता में ना समझकर उसे टुकड़ों टुकड़ों में समझना। ये सभी अनुभव इस आवश्यकता को रेखांकित करते हैं कि पढ़ने की तैयारी को लेकर शिक्षकों के साथ बहुत काम करने की जरूरत है।

पढ़ना सिखाने के लिए क्या क्या किया जा सकता है इस संदर्भ में, भावी शिक्षकों के लिए बनाए गए एक पाठ्यक्रम जिसमें शिक्षकों की पढ़ने की तैयारी पर जोर था, उसके कुछ मुख्य बिन्दु यहाँ साझा करना चाहूँगी। पाठ्यक्रम में शामिल सभी विषयों की सामग्री के चयन, प्रस्तुतीकरण, अभ्यास बनाने के दौरान कुछ मुख्य बिन्दुओं का ध्यान रखा गया, ये बिन्दु थे:

सामग्री यानि चयनित लेख ऐसे हो जो शिक्षकों को अपने कार्य को समझने में मदद करें, यह शिक्षकों के द्वारा स्कूल व कक्षा में किए जाने वाले कार्यों, आने वाली चुनौतियों, उलझनों को संबोधित करे। भाषा, गणित, पर्यावरण जैसे विषयों में विषय की प्रकृति से संबन्धित बुनियादी लेख हों, प्राथमिक स्तर पर पढ़ाई जाने वाली विषय की कुछ महत्वपूर्ण अवधारणायें, प्रकरण हों व उनको पढ़ाने के तरीके, पढ़ाने के दौरान अक्सर आने वाली कठिनाईयों, बच्चों की प्रतिक्रियाएँ आदि से संबन्धित सामग्री हो और राज्य की पाठ्यपुस्तकों में दिये गए कुछ पाठ भी हों। सैद्धांतिक विषयों की भाषा सरल व सहज हो। सिद्धांतों की सिर्फ व्याख्या ही न हो बल्कि साथ उपयुक्त उदाहरण भी हो जो कही गयी बात को समझने में मदद करे।

राज्य के सामाजिक व सांस्कृतिक परिवेश का संदर्भ हो, विशेषकर भाषा, पर्यावरण व समाजशास्त्र जैसे विषयों में। लेख ऐसे न हों जो बहुत ही जटिल व तकनीकी हों

बल्कि ऐसे हो जिन्हें एक आम शिक्षक पढ़ सके, समझ सके: यानि वह उस बारे में सोच सके, उस पर प्रश्न कर सके, अपनी सहमति व असहमति बता सके।

जो भी सामग्री चयनित की जाय उसकी भाषा सहज हो, ऐसे शब्द हो जो प्रचलन में हैं। जहाँ आवश्यकता है वहाँ तकनीकी शब्दावली का प्रयोग किया जा सकता है, लेकिन तब वहाँ उसकी उपयुक्त उदाहरणों के साथ व्याख्या भी हो ताकि पाठक (शिक्षक) को अर्थ समझने में कठिनाई ना हो।

लेखों के विभिन्न हिस्सों को पहचाना जाय, उनमें शीर्षक व उपशीर्षक दिये जाएँ। मुख्य बातों को टेक्स्ट बॉक्स में दिया जायें। पढ़कर समझने में मदद मिले इस हेतु हर हिस्से के अंत में, हिस्से का सारांश, मुख्य बिन्दु, जिनका दोहराना आवश्यक है, अथवा जो पढ़ा है उस संदर्भ में कुछ प्रश्न दिये जायें। व्यक्तिगत व सामूहिक रूप से पढ़ने व उस पर चर्चा करने व चर्चा को प्रस्तुत करने के अवसर भी गढ़े जायें।

हालांकि इसमें कितनी सफलता मिली इसको जानने के लिए कोई व्यवस्थित शोध तो नहीं किए गए। लेकिन विभिन्न जिलों में डी.एड. कक्षाओं के अवलोकन में और विद्यार्थी-शिक्षकों से बातचीत में समझ आया कि अभी भी कुछ विषयों में कुछ लेखों को पढ़ने में उन्हें दुविधा आती है लेकिन फिर भी अधिकांश सामग्री ऐसी है जिन्हें वे पढ़कर समझ सकते हैं।

सेवारत प्रशिक्षण

विभिन्न उद्देश्यों के मद्देनजर विभिन्न संस्थाओं द्वारा अलग-अलग तरह के प्रशिक्षण आयोजित किए जाते हैं। पाठ्यपुस्तक उन्मुखीकरण प्रशिक्षण, नीति संबन्धित सूचना देने वाले प्रशिक्षण, राष्ट्रीय पाठ्यचर्या की रूपरेखा, शिक्षा का अधिकार जैसे दस्तावेजों व उनके निहितार्थों जैसे सतत एवं व्यापक मूल्यांकन, नयी पाठ्यपुस्तकें, पढ़ने की नयी विधियाँ आदि को समझने के लिए प्रशिक्षण, माहवार होने वाली बैठकें, अथवा साल में एक दो बार होने वाले छोटी व लंबी अवधि के प्रशिक्षण आदि सभी शामिल हैं। ये प्रशिक्षण शिक्षकों के शैक्षिक-विकास का हिस्सा हैं। अलग अलग जगहों और अलग-अलग समय

पर इन प्रशिक्षणों में भाग लेने के, पढ़ने-पढ़ाने से संबन्धित कुछ अनुभव यहाँ दिये गए हैं। इनमें मूलतः साल में एक बार होने वाले लंबी अवधि के प्रशिक्षणों की ही बात है। जो देश भर में जिला प्राथमिक शिक्षा परियोजना के समय से चले आ रहे हैं।

सेवारत प्रशिक्षणों में भी पढ़ने से संबन्धित कोई कार्य नहीं होता। प्रशिक्षण के लिए तैयार मॉड्यूल संदर्भ व्यक्तियों के लिए होते हैं। उन्हीं के पास उसकी एक प्रति होती है और कई बार तो पूरे स्रोत समूह के पास एक प्रति ही होती है। अधिकांश मॉड्यूल निर्देशात्मक होते हैं, दिये गए निर्देशों को पढ़कर उनका अनुसरण कर, प्रतिभागियों को प्रशिक्षण देना होता है। प्रतिभागियों को पढ़ने के लिए न तो प्रशिक्षण के दौरान कोई उपयुक्त सामग्री उपलब्ध कराई जाती है, ना प्रशिक्षण पूरा होने पर। अतः न तो प्रशिक्षण के दौरान पढ़ना-पढ़ाना होता है, ना ही यह अपेक्षा होती है कि वे बाद में पढ़ें, क्यों कि ऐसे प्रयास भी नहीं होते कि प्रशिक्षण में हुयी चर्चा पर फिर से सोचने के लिए, जो समझ बनी है उसको बेहतर, और पुख्ता करने के लिए कोई सामग्री शिक्षकों को उपलब्ध कराई जाये।

ऐसा नहीं है कि इन प्रशिक्षणों का विकल्प संभव नहीं है। आगे चर्चा कुछ ऐसे प्रशिक्षणों की है जो इन प्रशिक्षणों से हटकर थे। इनकी तैयारी में कुछ गैर सरकारी संस्थाओं की भागीदारी थी। कई संस्थाओं ने मिलकर सोचविचार कर इन प्रशिक्षणों का स्वरूप तय किया था। प्रशिक्षण की एक रूपरेखा थी: प्रशिक्षण के उद्देश्य, सत्र व प्रत्येक सत्र के उद्देश्य, सत्र में दिये जाने वाले टास्क, गतिविधियाँ और उनका स्वरूप, सत्र की समय सीमा, आदि। इस रूपरेखा में लचीलापन भी था— इस उद्देश्य के मद्देनजर कि जो भी चर्चा हो वह प्रशिक्षुओं को समझ आए बनिस्पत इसके कि सभी सत्रों को यांत्रिक ढंग से पूरा करके काम की इतिश्री कर ली जाय।

रूपरेखा के आधार पर बनाए गए मॉड्यूल में सत्रों के प्रकरण, उद्देश्यों व सत्र प्रक्रिया के साथ साथ हर सत्र के लिए उपयुक्त पठन सामग्री का चयन भी किया गया। सामग्री चयन के कुछ मानदंड थे: ऐसी सामग्री जो पढ़ने में सहज हो, ज्यादा लंबी नहीं हो, शिक्षक सीखने-

सीखने की प्रक्रिया के दौरान जिन अवधारणाओं, तथ्यों, स्थितियों से झूझते हैं उनसे संबन्धित विविध प्रकार की बुनियादी सामग्री- जैसे बच्चे कैसे सीखते हैं? बच्चे भाषा कैसे सीखते हैं? घर की भाषा और स्कूल की भाषा, कहानी सुनाने की जरूरत, गणित क्या है, गिनना क्या है, जोड़ बाकी, विज्ञान सीखने में क्या क्या शामिल हैं तथा विभिन्न प्रकरणों, अवधारणाओं पर कक्षा में काम करने से संबंधित शिक्षकों के अनुभव आधारित सामग्री।

इस सामग्री में पाठ्यपुस्तकों के अध्याय और साथ ही वे टास्क भी होते थे जो कार्यशाला में किए जाने होते। यह सुनिश्चित किया गया कि सभी सत्रों के लिए आवश्यक पढ़ने की सामग्री, संकलन के रूप में सभी शिक्षकों को पहले ही दिन उपलब्ध करा दी जाय। ताकि शिक्षक महसूस करें यह उनकी अपनी सामग्री है, वे उससे परिचित हो सके और सत्र के दौरान ही नहीं बल्कि जब उनकी इच्छा हो उसे पढ़ सकें।

इस स्तर पर पढ़ने की समझ और कार्यशाला के उद्देश्यों को ध्यान में रखते हुये सामग्री पर अलग अलग तरह के टास्क बनाए गए, कुछ टास्क सत्र के दौरान के लिए थे और कुछ सत्र के बाद के लिए और कुछ पूरा दिन हो जाने के बाद के लिए। ऐसे कुछ टास्क के उदाहरण नीचे दिये गए हैं।

- सत्र के दौरान हुयी चर्चा के मूल बिन्दुओं को रेखांकित करना और उसके बाद संबन्धित सामग्री को पढ़ना।
- सामग्री को साथ साथ पढ़ना और हर हिस्से पर बातचीत करते जाना।
- लेख को पढ़ना और उस पर बनाए गए प्रश्नों के जवाब देना। प्रश्न का प्रकार सामग्री के प्रकार पर निर्भर होता था। अधिकांश प्रश्न ऐसे होते जो सामग्री को पढ़ने में मददगार होते जैसे: लेख किस बारे में है। लेख की किन्हीं दो मुख्य बातों को बताए। 250 शब्दों में लेख का सारांश लिखें। लेख में दिये गए उदाहरण के जैसे दो और उदाहरण सोचें आदि।
- पाठ्यपुस्तकों के अध्यायों पर कार्य करना। पाठ को ध्यान से पढ़ना, उसमें दिये गए सभी सवालों/ प्रश्नों को हल करना, इस प्रक्रिया के दौरान उन सभी प्रश्नों

को लिखते जाना जो जहन में आए। और फिर इस प्रश्न पर भी सोचना कि बच्चों के साथ जब इस अध्याय पर काम करते हैं तो उन्हें क्या क्या चुनौतिया आती होंगी।

- सभी (सत्र के बाद) चयनित लेख पढ़ें। लेख को दो-दो के समूह में अथवा व्यक्तिगत तौर पर पढ़ सकते हैं। सभी के द्वारा लेख पढ़ लेने के बाद, समूह में इस पर चर्चा करना और लेख के मुख्य बिन्दुओं को पहचानना, उन्हें लिखना। अगले दिन किसी एक समूह द्वारा लेख का प्रस्तुतीकरण। प्रस्तुतीकरण के बाद उस पर चर्चा; प्रस्तुत बिन्दुओं पर सहमति, असहमति रखना, प्रश्न पूछना, कोई बिन्दु छूट गया हो तो उसे प्रस्तुत करना, किस खास बिन्दु को रेखांकित करना आदि। चर्चा के सार को लिखना।

पढ़ने की रणनीतियाँ व अन्य महत्वपूर्ण बिन्दु

पढ़ने में मदद के लिए भी कुछ ढांचे सुझावित किए गए जैसे पढ़ना शुरू करने से पहले एक बार पूरी सामग्री को सरसरी तौर पर देख लें, एक जायजा ले लें, कितने पृष्ठ हैं, क्या शीर्षक है, क्या उपशीर्षक है, ताकि अंदाज़ा हो जाय की लेख किस बारे में है। साथ ही लेखों पर सवाल बनाये जायें जो महत्वपूर्ण बिन्दुओं को पहचानने में मदद करें।

यदि सामग्री ऐसी है जिसे अधिकांश लोग पढ़कर नहीं समझ पाएंगे तब समूह में से उन लोगों को पहचानना जो उसे पढ़कर समझ सकते थे और फिर समूहों को ऐसे बनाना कि हर समूह में एक दो ऐसे व्यक्ति हो जो उस सामग्री को पढ़ सकें व अन्य को पढ़कर समझा सकें।

यदि कोई पठन सामग्री को पढ़ना जरूरी है लेकिन वह लंबी है और सत्र दौरान उसे पढ़ा जाना है लेकिन इतना समय नहीं है कि उसे पूरा पढ़ा जा सके तो सामग्री के विभिन्न हिस्से विभिन्न समूहों द्वारा पढ़ना और फिर उनका प्रस्तुतीकरण व चर्चा।

शिक्षकों को स्वतन्त्रता थी कि वे पूछ सकते थे कि फलां शब्द का अर्थ स्पष्ट नहीं है, क्या आप उदाहरण दे कर बता सकते हैं। या ये बात जो सामग्री में कही गयी है यह कक्षा में नहीं हो सकती क्योंकि हमारी कक्षाएं तो बहुत बड़ी है, या इसे कक्षा में करने के लिए फला फला परिवर्तन

करने होंगे। साथ ही उन्हें यह कहने की भी स्वतन्त्रता थी कि पठन सामग्री तय समय में पूरी नहीं पढ़ी जा सकती, अथवा इसके साथ कुछ और सामग्री होती तो पढ़ने में मदद मिलती या अन्य कोई जरूरी बात।

सभी के लिए एक समय सीमा निर्धारित थी लेकिन उसमें लचीलापन भी था। इन प्रशिक्षणों में शुरुआत में ऐसा महसूस हुआ कि अधिकांश शिक्षक पढ़ने से कतराते हैं। लेकिन उनके साथ काम करते हुये यह समझ आया कि वे पढ़ना चाहते हैं, समझना चाहते हैं। वे यह एहसास नहीं चाहते कि वे पढ़ नहीं सकते, कुछ कर नहीं सकते जो उन्हें हमेशा दिलाया जाता है।

निष्कर्ष

पर्याप्त शोध हैं जो इस बात को रेखांकित करते हैं कि बच्चों को सीखने में आत्मनिर्भर बनाने की दिशा में उन्हें पढ़ना सीखाना एक आवश्यक कदम है। यह बात बच्चों पर नहीं बल्कि किसी भी सीखने वाले पर लागू होती है। शिक्षकों के लिए भी समझकर पढ़ना सीखना जरूरी है ताकि ना केवल वे ज्ञान के विभिन्न संसाधनों तक पहुँच सकें बल्कि अपने बच्चों को भी यह सीखने में मदद कर सकें। लेकिन शिक्षक शिक्षा के मौजूदा पाठ्यक्रम चाहे वे सेवारत प्रशिक्षण हो या सेवापूर्व प्रशिक्षण, इस दिशा में उनकी कोई तैयारी नहीं करवाते।

हमारा अनुभव यह कहता है कि पढ़कर ही पढ़ना सीखा जा सकता है।” यानि जितना अधिक आप पढ़ते हैं पढ़ने के बारे में आपकी समझ गहरी होती चली जाती

है: पढ़ने की क्षमता भी बढ़ती है और पढ़ना क्या है इसकी समझ भी। होता यह भी है कि कई बार यह महसूस ही नहीं होता (इसलिए शायद कि हम इन्सानों के लिए सीखने की प्रक्रिया इतनी सहज है कि लगातार कुछ सीखते रहने से वह दिमाग के अचेतन हिस्से में चला जाता है और फिर उसके बारे में सोचने के लिए हमें सचेत हिस्से को सक्रिय करना पड़ता है) कि समझ बढ़ रही है लेकिन विभिन्न कामों में यह झलकने लगती है। और फिर जब बैठकर सोचते हैं कि यह फर्क क्यों आया तब आपको उसका जवाब मिलता है कि अन्य बातों के साथ साथ पढ़ने का भी बहुत फायदा हुआ है। पढ़ने की यह प्रक्रिया सेवापूर्व और सेवारत प्रशिक्षण का हिस्सा बने इसके लिए कई स्तर पर कई तरह के प्रयास जरूरी है। सबसे पहले तो यह विश्वास पैदा कर पाना कि पढ़ना अहम है और किसी भी स्तर पर पढ़ना सीखा जा सकता है, उसे निरंतर और बेहतर किया जा सकता है। पढ़ना सीखने –सिखाने के लिए उपयुक्त सामग्री का चयन भी महत्वपूर्ण है। ऐसे सामग्री जो पढ़ने में रूझान पैदा कर सके और साथ ही यह भी एहसास दिलाये कि कुछ सीखना हो रहा है।

मेरा मानना है कि शिक्षक पढ़ना सीखेंगे तो आपसी अंतःक्रियाओं की आवश्यकता बढ़ेगी, शिक्षक सीखेंगे, स्रोत व्यक्ति भी सीखने की दिशा में आगे बढ़ेंगे और प्रशिक्षणों की अंतःक्रिया समृद्ध होगी। यही नहीं ऐसे शिक्षक अपने विद्यार्थियों की भी बेहतर सीखने में मदद कर पाएंगे।

Hriday Kant Dewan

hardy@azimpremjifoundation.org

In-Service Capacity Building of Teachers

Abstract

The paper considers the mechanism for In-Service Capacity Building of Teachers and points out the need for systems that have participation of teachers with a sense for their need, choice and purpose. It suggests that mechanism for large scale training through cascade needs to be reimaged as different from replication of the previous stage of the cascade in a manner that the participant teachers feel respected, stimulated and excited about work.

Teacher education in the last four decades has been drawing attention for many reasons. From the late sixties emphasis has been laid on it. Starting with the Kothari commission 1966 and then in the National Education Policy of 1986 and the Program of Action of 1992, teacher capacity building has been taken up at an unprecedented scale and in many-many different ways. In the early nineties there was a great enthusiasm generated for capacity building and orientation of teachers. These efforts involved besides the state education structure and the people in it, many other organisations as well. Prior to this, the NCERT and the SCERT had already started training programs that were organised at scale and reached many teachers. As the government institutions were seriously engaged with developing their own model of training there were educational institutions outside the government fold who were working with the government system also and evolving ways to make teacher training effective and meaningful. The interaction between these sets of institutions had started generating ideas about the nature, content, method and logistics of training.

The SSA and the RMSA set up systematic processes of training on scale and many of these were done

through independent bodies created specifically for this purpose and many were co-ordinated by the SCERT. There were however, commonalities in these. These included a multi-tiered model of training. Starting with the State team to the District (often including and located in the DIET) and then the block and/or the cluster. Many training and stay facilities of mixed quality were created to make this possible. There were many variations used for this with the key requirement of scale in a 'reasonable' time frame. In this sense these further expanded the range and area and accelerated the speed of the reach of the training processes involving many more people. We examine here the mechanism for a large scale process and the key elements that may be kept in mind for such an effort to be meaningful. This analysis in the light of the recognition that teachers' need to refresh and learn continuously. The question apart from considering how best can that be done is also what does it mean to be refreshed and continue to learn. As we will see this question is often overlooked in the desire to quickly reach more teachers.

Massive in-Service teacher training started with the MOST program after the New Education Policy of the 1986. This was followed by the SOPT in the

year 1993-94. These programs were organised in a cascade manner and reached a few million teachers. These trainings were happening at a time when alternative ways of in-service training were being explored both for the public school teachers and for others by organisations working in education. Some of these were small scale and located at the institution that was delivering it, but others of which the Hoshnagabad Science Teaching Program is a prime example were also in large numbers and located at public institution sites. Unlike the MOST and the SOPT trainings these were not cascade trainings. The HSTP in particular involved university and college faculty to directly train teachers and these faculty members worked alongside elementary school teachers as trainers. The idea of college teachers training school teachers was also seen in the earlier extension model of training for the secondary school teachers. Run through the extension departments of the teacher training colleges these formal training programs were broadly of two categories. The refresher courses and the short term intensive courses.

The refresher courses as described by Vedanayagam E.G. 1966 suggests that these courses were weekend courses at that time and were focussed at bringing to the teachers ideas of methods, materials and models that they could not access otherwise. The short term intensive programs were longer, could be up to 3 weeks in duration and were content focussed. They were also to help teachers to start teaching a subject that they had not learnt during graduation. Apart from this there were other possibilities where teachers worked together. These included seminars, study circles, action researches and demonstration lessons at the school site.

The programs of the extension departments were very different from the subsequent massive large scale programs. The earlier programs were slow in outreach and had a broad common framework but were very differently focussed and directed. The resource persons were mostly college teachers and the focus of the trainings was largely content. The MOST and the SOPT trainings on the other hand were comparatively expanded far more rapidly. The module was developed centrally and repeated in the same way through a series of steps to the teachers. The trainers at these levels comprising persons with a largely different background. The first training was of the people who would then train other teachers. This was perhaps the first example of a cascade model training in India and was organised in a hierarchical format. These have been followed by the trainings under the Lok Jumbish, Bihar Education Programme, Education For all project of UP and then the DPEP, SSA and the RMSA subsequently. Most programs under these were in the cascade mode. The manner of training, the period of training, the content, the context, the materials, arrangements and even the purposes all kept on changing.

The rationale and reasons for in-service training in the education policy statement of Lord Curzon in 1904 suggests its need to build a relationship between the training college and the school and try to ensure that the methods taught in the college are used by the teacher in the school. The 1913 policy document suggests that the periodic trainings are a must to prevent the teacher from deteriorating. In 1929 the Hartog committee suggests in-service training to combat the isolation felt by the teacher and to give her motivation and encouragement. It suggests publications for teachers in

regional languages, refresher courses, teacher conferences and meetings and teacher associations. The subsequent commissions on education also underlined the need for teachers to undergo periodic training and updating. As we have said the first centralised effort for providing in-service training was focussed on making the teacher aware of the thrust ideas of the National Policy on Education 1986. It aimed to sensitise teachers to the then major concerns in education. These included the commitment to universalisation of elementary education, encouraging the learner-centered approach and enrichment of their content knowledge. The subsequent Special Orientation Programme for Primary School Teachers (SOPT) from 1993-94 was to implement the ideas of the MLL based approach to the classrooms and use of the Operation Black Board materials to improve quality of class-rooms. It aimed to continue the effort towards UEE and adoption of the child-centered approach to teaching. (Vedanayagam E. G. 1966)

The Lok Jumbish program and similar programs in the other states were made possible through the support of external grants and subsequently through loans. Based on some analysis of the earlier macro efforts they made some radical departures to make training with quality at scale possible. In the conceptualisations and implementation of the training many non-governmental organisations were involved. In some cases a few non-government educational organisations expanded their team in order to fulfill the role of delivering training at the massive scale. The initial trainings showed a reluctance to use the cascade model and instead created a system where a large number of resource persons worked with groups of teachers in small teams. The aim of the effort in this training

was to make them feel empowered and feel more capable, motivated and purposeful. The recognition for alternative ways of interact with the experienced teachers being trained and the importance of hearing their voices and their articulations led to a different model of resource team constitution and their preparation. The training at scale meant apart from the larger number of resource persons, required many centers where such workshops could be held parallelly as well and then back to back also. The multiple levels of cascade were somewhat reduced by ensuring that the pace of the training was not too rapid and the preparation time for the resource group reasonably large. The teachers training itself was for longer time and focussed around content and method praxis. There were sessions on educational principles as well but they were un-linked to any theoretical grounding for the teachers. The interaction was instead at the level of feeling and sharing of life experience and wisdom. We would come back to the challenges of this subsequently but at the moment the other important point that needs to be stated is that these trainings were designed and implemented with the participation of and based on the experiences of other organisations that had been working in education. These did not have the same set of principles in details, but had overall common understanding of education and of training. The result was thus a blend of these but in implementation it evolved its own independence both due to the number of people involved and the nature of the situation they were working in.

The pace of these efforts even though much more than the efforts of the non-governmental effort was not enough for the large system and hence under the DPEP faster and rapid scale up was envisaged and the trainings went to

the cascade model. The cascade model is less resource intensive in terms of time and cost also in some sense can be more participative. It however, at risk of becoming mechanical, repetitive, meaningless, diluted, distorted and may become one way transmission. The initial exercises of cascade model were sensitive to some of the criticisms of the cascade model and tried to build possibilities that were somewhat free of that. In fact the Lok Jumbish and other projects also had elements of going to scale, but at a pace that they thought was reasonable to go to school. In Lok Jumbish the training was conceptualised by a large group through discussions, trials and then reflection on the trial. The conceptualisation group was to be diffused through the interactions with teachers present there. This was important as the training sessions may have to accommodate to the participants and also help the team delivering the training understand the reason behind what was visualised in the sessions and in the training as a whole. Clearly this required a long effort at preparing the flexible module and developing a collective understanding of the main purposes of the training as well as the non-negotiables.

They DPEP effort in many states tried to fulfil the need for reaching all teachers in a reasonable time frame and address the challenges of the cascade model. The programs were created around carefully structured modules and supplementary materials. In fact this started with Lok Jumbish and the BEP, having modules with clear focus and detailed outlines of what had to be done. The initial modules allowed the facilitators to consolidate the session based on the group discussions in the training session and allowed the views emerging from the group tasks to dominate. The attempt to make uniform the outcomes and homogenise

the learnings alongwith the lack of confidence in the facilitators due to the rapid pace led to the modules containing the expected outcomes of discussions and the entire session in to the summary. This meant the training was no longer experiential or reflective, but became an attempt to transmit what was pre-conceived. This made the entire exercise meaningless and with the module being widely available alongwith no space for alternative ideas to be included in the summary, the exercise became just of reading the module and that to prefuntorily. The exercise was not to analyse, debate and construct on what was being said in the module, but to accept it as given as facts.

This worsened as the pace of training increased as 'facilitator' word lost its meaning entirely and in many cases could not respond to the issues being raised by teachers. The modules stopped being created through trialing and a wider involvement of stakeholders. The Lok Jumbish had the teachers and the cluster team members as a part of the process and the academic leads of the development process were people who had interacted with the community in many cases and were atleast sensitive to the need for awareness to their aspirations but the subsequent efforts did not have the time or involvement of people who had this background or even the awareness of the importance of these components. The process became an effort to transmit ideas to teachers in a hurry.

The underlying sensibilities in these were of filling up gaps in the knowledge and abilities of teachers. The major belief of those designing and impementing the effort was that teachers do not know and are indifferent to their role. There are a few exceptions who are great teachers and they can be used as fellow trainers, but

the rest need to be nudged, coaxed and forced to follow what was 'proper and appropriate'. The follow up trainings and other meetings were similar as they could not reflect on the experiences of the teachers in the class-rooms. There were other challenges in the organisation of this massive training at this scale. The logistics were not easy to manage and the sensitivity to the needs of teachers coming from outside could not be maintained. Unlike Lok Jumbish not enough effort was made to improve the conditions in all States. The construction of the facilities for training came too late and were also not perhaps adequate. The trainings therefore did not go down well with the teachers and led to a huge outcry.

There is a need to analyse this failure and the possible way forward given the fact that there is a need for teachers to have the opportunity to take a break and think about what they are doing and feel they are continuing to learn. They should not feel lonely and isolated in their jobs when located in small schools in rural areas. There is also a need for them to need to refresh content and clarify the doubts they have in their work. The criticism of the way these massive trainings were taken up and the way teachers reacted to it has led to major re-thinking about the training. The problem has been identified mainly in terms of the fact that the trainings were not as per the needs of the teachers and also that the logistics of taking them out to a different place and have residential training. It was also concluded that the teachers do not like to be disturbed in their holidays and hence the trainings should be a part of the work schedule and not outside it and in any case they do not like to have long workshops and trainings. Since, the interactions are now organised during the session implies that it can not ever have

teachers from the same school sharing their experience as a group or construct the way forward ahead. The monthly or bi-monthly meetings can also only be of the same nature making the possibility of school as a structure reflecting on its work impossible. The belief that teacher needs have to be addressed led to a lot of effort to ask them what they need and construct trainings on that. These efforts however, also do not seem to have changed the quality of participation and attitude to training.

In order to see the way forward it is important to recognise that teachers do participate in processes where they benefit. Most of these are not developed by asking them for their needs, but are rather developed based on an understanding of what would be useful for them. The examples of these are too wide-spread to all be mentioned but the trainings under the Hoshangabad science teaching program involving large number of government and private teachers and the recent efforts of the learning centers for teachers of Azim Premji Foundation are two examples that have worked in partnership with the govt for sustained capacity building of teachers. These efforts have some common features such as they have invoked a certain spirit of voluntarism and personal stake. The teams leading them are able to and willing to listen, understand and learn. They keep open minds are willing to admit, they do not know something and it is alright not to know something and not to hide it but to make the effort to learn it. The effort is to include teachers in the process of learning and relating it to what they need and can use. Attempt is to increase the role and responsibilities that the teachers can take with constant support and guidance.

The programs are structured such that the experiences of teachers are considered relevant and their

questions of merit. Specific responses and materials can be curated for the specific issues that arise with mutual support and referring to existing literature and expertise in that area. The key points are the nature of the processes and the actual expertise and the attitude of the facilitators/trainers/experts. These three terms are all needed as they are essential for the sessions and the program to be meaningful. The atmosphere of learning and discourse where questions and alternate thoughts are valued, respected and talked about. All this is essential for their participation, their desire and their ability to learn. These examples are possible on some kind of scale and in fact at times even in the

large systems under the Lok Jumbish, The BEP and in DPEP effort in some States, the trainings had a certain attraction and energy for the teachers and they felt they learnt from it. They felt valued, respected and therefore felt it was important for them to participate in the training. The teacher education policy has all the basic elements that are necessary for making the effort at refreshing the teachers and maintaining their motivation possible, the difficulty is implementing that. There is now enough knowledge about what does not work and evidence of what may work. The point is to see how to construct and mould programs such that all this may happen.

References & Bibliography

- HSTP (1977), Science Today, The Hoshangabad Vigyan Project.
- Joshi, S. (2004), Jashne Talim, Chapter 15. Eklvaya.
- Dewan, H.K. ; Kishore, L. and Kulhari, O P. Eds. (1995), VidyaBhawan Society. Report of the Seminar on Environmental studies.
- Dewan, H.K. (2018), Notes from interview on HSTP, -unpublished.
- Radhika, B. (1990), Impact of in-service teacher training programme under Sarva Siksha Abhiyan in classroom interaction— A study in Visakhapatnam, Chapter 1.
- Vedanayagam, E.G. (1966), Thesis in Education, presented May 9, 1966- An Analysis of the in-service teacher education program for secondary schools in India.
- Dichaba, M.M. and Mokhele, M.L. (2012), Does the Cascade Model Work for Teacher Training? Analysis of Teachers' Experiences, Int J Edu Sci, 4(3): 249-254. <http://www.krepublishers.com/02-Journals/IJES/IJES-04-0-000-12-Web/IJES-04-3-000-12-Abst-PDF/IJES-04-3-249-12-210-Dichaba-M-M/IJES-04-3-249-12-210-Dichaba-M-M-Tt.pdf>
- Bett, H.K. (2016), Boylan, M. (Reviewing Editor) The cascade model of teachers' continuing professional development in Kenya: A time for change?, Cogent Education, Volume 3 Issue 1. <https://www.tandfonline.com/doi/abs/10.1080/2331186X.2016.1139439>
- Burns, M. (2014), Five models of teacher-centered professional development, Beyond Workshops and trainings Blog -November 26, 2014.
- Suzuki, T., The Effectiveness of the Cascade Model for In-service Teacher Training in Nepal <https://pdfs.semanticscholar.org/80b0/aa96e35f2e8dd175969c0f1a047144381101.pdf>

Indumathi.S

indumathi.s@iamteacher.in

Sameera Sood

sameera.sood@iamateacher.in

School Based Teacher Preparation- Possibilities and Challenges

Abstract

This article discusses the school-based teacher preparation model run by a not-for profit organisation called I Am A Teacher (IAAT), Gurgaon. This is a one-year Post-Graduate Diploma in Learning and Teaching (PGDLT) programme. This course prepares teachers through a model where Student-Teachers spend minimum three days practicing in a host-school. This article describes the mentoring model and highlights how teachers are prepared through a blend of theory and practice. The voices of the Student- Teachers are presented through reflections and narration of their learning experiences. It briefly highlights the challenges of such a school-based model.

Introduction

Teaching is a complex profession. Teachers are expected to foster learning environment in the class, identify learning goals in synchronisation with national standards, plan and deliver lessons that help children achieve these goals through experiential learning, observe children, assess learning, maintain records and be responsible for each child's physical and emotional well being.

Learning to teach requires the Student-Teachers (STs) to learn about and understand how children learn and the relationship between teaching and learning. While learning to teach, STs need to reflect on one's own assumptions and beliefs about children, teaching and learning, their own self and so on. Certain skills and dispositions such as willingness to learn and being open to feedback need to be developed among teachers. Every teacher who is given independent charge of a class is expected to be "profession-ready" and equipped with skills, knowledge, and dispositions needed for effective

classroom practice from day one. Thus, an effective teacher education program should be well thought through, should encompass the above-mentioned knowledge, skills and dispositions and help develop professional, humane and reflective practitioners. A teacher education program needs to be a good blend of theory and practice in order to build the knowledge and skills and help novice teachers reflect on their practices.

There has been lot of deliberation in the Indian context on developing effective teacher education programs and the need to improve the quality of teacher preparation. The National Curriculum Framework for Teacher Education, NCFTE (2009) has pointed out the larger systemic concerns of the education system and how teaching as a profession is viewed. The Kothari Commission as well as the Verma Commission has identified problems and issues of the curriculum and pedagogy of the teacher education programs. These policy documents

and NCFTE have also suggested alternatives and reform agenda for teacher preparation. It is time that some of these are implemented and practiced. One of the key reforms and suggestion is to strengthen the practice teaching and helping teachers spend longer duration in schools through internships. Hammond suggests that,

“Good teacher education programs have students in the classroom working constantly with expert master teachers while they are also teaching students about how students learn, about how to assess their learning, about effective teaching strategies that will allow them to build a repertoire” (Hammond, 2001).

A practice-based model for teacher preparation will provide STs with opportunities to apply the pedagogical constructs and practice skills in authentic contexts. Theoretical ideas on education and its implications for classroom can be explored well. Similarly, classroom experiences can inform theory. This back and forth model of the theory and the practice would help STs develop deeper understanding of classrooms and children and gain professional knowledge base. According to Hammond (2001), this is to be done under the guidance of an expert teacher who mentors the STs. This will ensure that STs receive focussed feedback from experienced teacher mentors.

The practice teaching in schools through a partnership model would help developing teachers by providing opportunities to,

- Observe children and classroom practices
- Co-plan and co-teach
- Experience teaching and reflecting on teaching
- Make connections between theory and practice
- Conceptualize what good practice might look like

The need for such a practice-model based has been recognised by NCFTE and been tried across many countries such as Finland, United States and many European countries. Just as medical school has attached hospitals, teacher education institutes being attached to a school could serve as a site for practice.

The Practice Based model provided a vision for Post Graduate Diploma in Teaching and Learning¹ (PGDLT) offered by ‘I Am A Teacher’ (IAAT), Gurgaon, a not for profit organisation. The Heritage Experiential Learning school, Gurgaon and the American School of Bombay, Mumbai are the host schools where experienced teachers already working in these schools’ mentor STs intensively. The model and the structure of this one -year teacher preparation course is shared in the next section. This model has prepared 75 teachers over the last three years and is intaking 60 student teachers this year across both the centres.

School Practice Based Model for Teacher Preparation- The PGDLT Programme

Taking cue from the medical residency model, the PGDLT programme is designed to ensure a seamless blend between educational theories and principles, and teaching practiced inside the classroom. A ST may observe and experience how children learn to communicate, express their thoughts in the classroom and then share these experiences in the theory sessions with expert pedagogics. This then becomes a springboard for examining the theories of language acquisition. On the other hand, a ST may have explored and discussed contemporary issues such as gender and inclusion in education; during practice she/he will have the opportunity to examine it in the context of classrooms.

¹ It is not recognised by NCTE

The three key principles that inform the design, principles and processes of the PGDLT are:

1. Programme is rooted in **practice** and provides a strong connection between **theory and practice**.
2. Conscious attempt at helping student teachers build a **reflective disposition**. The STs are encouraged to deeply introspect about their notions about themselves, life and education. As a result, they would question their existing ideas about teaching and learning, become curious about children and their learning and gain key insights about themselves and others.
3. Providing extensive support to student teachers through close **mentoring** by experienced, practicing teachers in the field.

School Based Mentoring System

Each ST is placed in one class for an academic year where she/he works closely with an experienced teacher. The experienced teacher, referred to as the Collaborating Teacher (CT), demonstrates best practices inside the real classroom for ST to learn from. ST practices inside the classroom for 3-4 days per week while also participating in classroom teaching, planning, reflection, assessments, interaction with parent, school events, etc. Through a yearlong collaboration, the CT helps the ST placed in her/his classroom learn about effective teaching through modelling, supporting, challenging, having critical conversations based in observations of practice and analysis of data around student engagement and learning.

Beyond the classroom, the school acts as an ecosystem for STs to get acquainted with routines and procedures and understand the width and depth of a teacher's roles

and responsibilities. Furthermore, this mentoring framework provides opportunity for the host school to develop their CTs as mentors and institutionalize a culture of learning and mentoring.

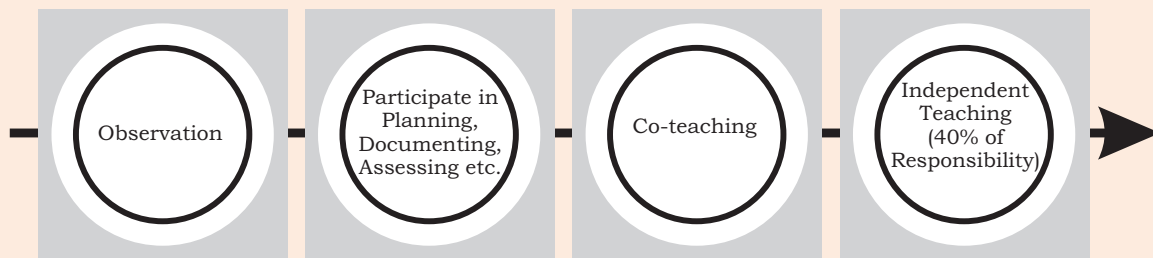
A Teacher Educator (TE) is attached to a group of STs and closely monitors their learning. The CTs and TEs work together as a team to drive significant learning of each ST. The TE supports and guides STs by helping them reflect on their practice; in analysing and making sense of student data, thereby ensuring that they experience a coherent, robust and a focused teaching and learning programme.

The ST-CT-TE triad work towards:

- building relationship with adults and children
- providing access to content and learning together with children
- setting norms and practices for a better learning environment.
- critically examining the practice
- reflecting on the plan and practice, and learning from it

Gradual Release of Teaching Responsibilities (GRTR)* Model

The PGDLT mentoring model is based on the concept of gradual release of teaching responsibilities for STs through the school year. They begin by observing the classroom teaching and then go on to participating in planning, documentation, and assessments, etc., start co-teaching along with the CTs and then take up independent teaching responsibility. Collaborating teachers support STs as they move towards the goal of assuming approximately 20-40 % of the teaching load by the end of the school year. The TE and CT together monitor the residents' graduated responsibility trajectory.



*-Adapted from Boston Teacher Residency Model

Coaching Cycle

The coaching cycle is a three-step process. As a first step, the lesson plan prepared by the ST is discussed before the actual teaching. This is done to help the ST understand and map the objectives of the lesson to the assessment goals. The resources used in the plan and the approaches to teaching are discussed during this process. This might give the opportunity to ST to rethink and re plan if need be. This is done by the CT and TE together.

The actual lesson is then observed by the CT and TE, and flow of the lesson is captured. In the final step, the lesson taught by the ST is discussed which would provide opportunity for the ST to reflect on the plan, the actual process of teaching and learning, whether the resources and the chosen approaches were effective, the responses of the students and the engagement in learning. During the GRTR, a minimum of six such cycles are encouraged. The debriefing is also done together by the CT and TE. After the debriefing, the ST is encouraged to write a reflective note which would help her/him understand what did and didn't work during the lesson and steps to improve the teaching practice.

Possibilities of a School-based Model

Experiential learning involves learning by exploring, experimenting, observing,

constructing and deconstructing through collaboration and interaction. Meaningful learning can happen in an environment where students feel safe to take intellectual risks and make mistakes. They also need to feel valued and accepted by the teacher as well as their peers. This section discusses the examples, narratives/voices of a few STs on how school-based model/practice teaching has helped them learn and develop their practice. This is discussed under five elements: **Rigour, Relevance, Responsiveness, Reflection and Relationship** in teaching.

Rigour in Teaching

Rigour in classrooms help students think deeply as lessons planned are challenging and develop higher order thinking skills. This requires that teachers are well prepared, have deep understanding of content, pedagogy as well as children and are passionate about the subject. Unlike the common paradigm that 'teaching is easy' and 'anyone can teach with little or no preparation'; a truly child centred classroom requires enormous commitment and work from the teacher. The real challenge is to prepare teachers who would find it meaningful to put that kind of an effort. Teachers need to experience the joy in this rigour and only then they can transmit it to

their children. The practice teaching model helps STs of IAAT to establish a culture for learning. One of them, Sunita² of the batch 2017-2018, shared the process of unit planning during the lead teach week said,

“I was preparing a unit plan on ‘Forms of Government’ for grade 7. I shared the third draft with my collaborating teacher and mentor. After her feedback I revised it multiple times. I would say this lesson plan was approved after seven drafts. To choose a case study I would take like 4 hours... It has to be appropriate for grade 7, it has to be relevant to our context. I found many case studies and new paper articles, but some of them are not appropriate for students of grade 7. So, I had to rewrite or adapt them. I had to add glossary in some materials that I adapted. It was a struggle. I think I would have slept for four hours in a day while preparing that unit plan. I am also unfamiliar with the topic so I had to read and prepare myself first. I used to do lot of research on the internet and read them up. The process was painful. When my mentor would ask a question or give a suggestion, I would be like.... I can’t revisit my lesson plan any more. My mentor’s classrooms are highly engaging, so I was sure I need to keep that going. I would accept the changes that needs to be made. However, I am happy I did that. The students were really engaged with the lesson. I made a mini-lesson plan for myself based on everyday tasks. I would make a list of a few questions, I would plan a transition, I would teach it to my daughter or ask her to go through the resources and try out everything with her. I would make a list of possible questions that students might ask. Now, I have sense of fulfilment, I am happy and confident that I can prepare a highly engaging lesson plan”.

² Pseudonyms have been used

Relevance in Teaching

Teaching has to be relevant to students at different levels. It has to be relevant and age appropriate and it has to be located in the context of the students. Teaching and planning has to consider how and whether it relates to students’ cultural experiences, dreams as well as larger socio-political context. Varadh of the batch 2016-2017, shares how learning at IAAT and his experiences of classroom has helped him to think about the context of his students seriously. He now teaches at a South Delhi Municipal Corporation (SDMC) school, “In my classroom, there are mix of children from native villages of Bengal, Bihar and Uttar Pradesh. Sometimes, as a teacher I am really worried whether I would be able to create a classroom for them, where they feel belonged, they can relate and have opportunities to showcase their natural, organic talent without any inhibition. This corresponds to the principle of Sri Aurobindo’s “Near to Far” in education. Only in such environment, the child’s engagement and learning is possible. As a teacher, I need to look more into it and try to utilize it for better learning environment”. He shares how he made an attempt to understand their context, “In SDMC, when I first interacted with children, it seemed to me that they felt alienated in school environment. While working with them, I found that when they got opportunities and encouragement to speak out their experiences and stories of their life, then they felt connection with the school and school became part of their life. I learnt that only way to teach and learn with them is to be organic, contextual to their emotions, needs, family and life. Any activity in the school - play, literacy or numeracy or hands on, it must link or relate with their surroundings. Where it reminds them of something which is familiar,

meaningful and they can extrapolate it to their own learning. Regular visits to their families, communities and celebrating the local festivals helped us to make the connection, bonding stronger and trustable. While providing different types of opportunities and exposures, I learnt that new experiences may or may not extrapolate into learning because that kind of experiences are sometimes stand alone. It could be due to early years deficit and sometimes it does not relate to their previous knowledge”.

Responsiveness in Teaching

Responsiveness involves promoting respectful interactions and adapting the learning programme to accommodate the diverse skills, experiences, interests and learning styles that students bring to the classroom so as to maximize student learning. The teachers need to be aware of the cultural and linguistic diversity in the classroom, the development levels and different learning styles of the students in order to respond effectively. Smita of the batch 2016-17, was teaching a lesson on National Symbols in Grade 2. This anecdote highlights the challenges of teaching abstract concepts such as nationalism and how she dealt with one such challenge.

Smita had planned to introduce the children to the National Flag, the National Emblem and the National Anthem. However, the discussion suddenly veered to the symbolic representation of ‘Bharat Mata’ which a child insisted was a national symbol as it was a goddess that represented India. This was indeed a tricky situation that emerged out of classroom discussion and the ST had not planned for or even anticipated this. During the post lesson debrief, Smita shared that for a moment she was taken aback as she wanted to be sensitive to the child’s religious

sentiments yet she wanted address the misconception.

Smita responded to the situation by appreciating the child for sharing. She then posed the following question to her class “In IPL we support different teams. Yet, when India plays a match with Australia we all come together and support India; and we recognise our team by their uniform. Similarly, in our country different people believe in different Gods; but what is it that we respect and how do we recognise or represent our country?”

Reflection in Teaching

Reflection is the key to learning. It helps to examine one’s own beliefs and assumption about students, their learning and as well as the approaches to teaching and learning. Reflection can be promoted while in-action and on-action of teaching according to Schon (1983). During Practice STs are encouraged to reflect on action after the actual event of teaching. Amita of the batch 2017-2018, reflects on ‘managing and engaging’ children,

One of the key learnings for me during the first semester of practice days would definitely be handling the kids in the classroom. I lost a lot of sleep over this issue initially, what if the kids don’t listen? And I realise now, it’s never teachers *versus* the kids. It’s always teachers *and* the kids. They listen to you if you listen to them. It’s important to understand that they are just kids and will behave so. There’s no need to get so agitated about them fidgeting, or chatting, or raising a ruckus in class. It’s perfectly normal. And once I gave up this insane need to control, I felt a better sense of connect. The class need not be hushed all the time. What really needs to be hushed is my own ego. The rest will follow. And I also feel that this is really the first and the most important step before I can

even think about my lesson plans, and my teaching techniques”.

Relationship in Teaching

The PGDLT programme recognises that having a sense of community in the workplace is essential for ensuring that all stakeholders have the opportunity and support to grow and flourish. Therefore, relationship is the fifth core element of the programme and it encompasses relationship with self, with peers, with children and with the society. To help STs develop the disposition and skills for this, they are guided to tune inwards and connect with their inner self. They are encouraged to deeply introspect on their notions about self, people, education and purpose of their life. As STs re-visit their key life experiences, they become aware of their conditioning and patterns of behaviour, question their existing assumptions and beliefs, become curious about the world outside and develop fresh perspectives about work, life, self and others. This understanding helps to them recognise and appreciate their own strengths as well as those of the others thereby building a community where everyone feels empowered and responsible towards realizing the desired goals. This will help them evolve into teacher leaders and lead change effectively in classrooms and schools.

This is how Sonia of the batch 2015-2016, captures her journey of becoming a more mindful person with a greater understanding of essential principles of group learning.

“A very precious take-away from the program is that it has put me on a path of self-reflection. The journey inwards has been a tumultuous journey which I resisted initially. I remember that, there were many reflections that I was unable to do to my satisfaction because subconsciously I was closing myself

out. There were walls that I had built around myself and I wasn’t yet aware of them.

At that juncture what inspired me were some of my fellow IAATians who shared their stories of courage, hardships and determination. These were people who were trusting me with their stories and I felt the need to reciprocate. This is how I took the first step of breaking the walls around me and this was just a baby-step. I have been able to take many courageous steps since then with the help of this community. Today as we all move forward on our own respective paths, I hope that each one of us is able to make such small communities around us where we not only continue to break barriers for ourselves but help others around us to reach this level of self-realization”.

Another aspect of the element of relationship is about building STs’ relationship with the society at large so as to understand the social, economic and cultural perspectives that influence education. Apart from theory sessions, this is done through field visits to schools that provide alternative education or those that are for children from marginalised background. As a part of one such visit, the STs spend time observing children in the classroom and then visit the community the children belong to. They interact with the parents and community members to understand the social and economic background as well as their hopes and aspirations. The purpose of this community interface is two pronged- to help STs reflect on their privilege and learn the process of an inquiry-based approach.

For many STs, it is a rare opportunity to examine their notions of ‘we’ versus ‘they’ and reflect on how this impacts their interactions with children who come from a socio-

economic background that is different from theirs.

Huma of the batch (2015-16) shared on how visit to an urban village and her interactions with the community forced her to examine the assumptions that she had.

“I had always imagined villagers to be loud, rash and uneducated. I was intimidated when I was asked to converse with them. But as we started visiting one household after another I realised how wrong I had been. The villagers were so warm and welcoming. I was deeply touched by their hospitality. We were welcomed with smiles and served ‘welcome drinks’- aerated drinks/ chaach/ chai, in almost every house we visited. The women were really friendly and answered most of our questions frankly and patiently after seating us comfortably on charpais or chairs. I really wondered if I deserved the love and respect I got from each one of them after what I had believed them to be. Today I am embarrassed about how I had perceived the villagers. I have thought hard but I am still unable to trace how and why I had developed this perception”.

Challenges of a School-based Model

This model requires the mentors to open their classrooms, be vulnerable and critical of their own practice. This presents few challenges as well,

- Being open to learning, allowing the other person to sit and observe the

classroom

- Time availability of mentors, as the CTs have a full teaching responsibility
- Working as a team and collaboration
- Feasibility of replication of this model, as many schools do not facilitate structures for collaboration and mentoring.

Trust and relationship is at the centre of this model and practicing teachers and mentors take time to build a relationship and trust each other. A culture of learning has to be created and systems and structures for collaboration and feedback are required in a school.

This being the fourth year of this PGDLT, it appears that this model is feasible though it presents some challenges. If one were to ask, can practice based model be an answer for reform in classrooms, we would say with some conviction that it works. Can it fill the gap between teacher preparation and school reform? Teachers prepared can be placed in schools and be a critical mass in few years to reform school and classroom practice. Then these schools/classrooms can be used for new teachers where they can learn from. This can help reform both school and teacher preparation and bring in positive changes in the education system and serve as a model for change and transformation.

References:

- Hammond (2001), Thoughts on Teacher Preparation. <https://www.edutopia.org/linda-darling-hammond-teacher-preparation>
- NCFTE (2009), National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher, NCTE, New Delhi
- Schön, D. (1983), The Reflective Practitioner: How Professionals Think in Action. London: Temple Smith

Umashanker Periodi

periodi@azimpremjifoundation.org

Rudresh S

rudresh@azimpremjifoundation.org

Guru Chethana - A Unique Initiative of Government of Karnataka in Teacher Professional Development

Abstract

All of us aspire for a good society that is just, equitable, humane, and sustainable. It is assumed that school education provides the foundation for it. It is believed that Education could bring such a society through non-violent and sustained manner. Both central and state govt. have put their best efforts to ensure easy access of school for all the children and have successfully promoted regular attendance through various govt. programmes. India did achieve quite a lot in terms of enrolment, and attendance of students in primary schools. Many popular large scale reports such as ASER, NAS have identified gaps in learning levels of students across the subjects. Among all the factors like infrastructure, PTR (Pupil Teacher Ratio), socio-economic condition of the parents, the culture of the larger community which impact education, the quality of the teacher has a major impact on the quality of education in school. The quality of education is considerably determined by the quality of the teachers and their engagements in the classroom. Teachers professional abilities eventually contribute to the quality education in schools.

There has been a lot of attempts in teacher education. But, most of it has not been effective in addressing the needs of the teachers. The issues in teacher development programs are known - lack of perspective, dealing only the techniques without any conceptual understanding, centrally designed programs with top down approach completely neglecting the context and needs of the teachers, One-time program by untrained and sub-optimum facilitators. The subject dealt are the same old topics without any rethinking and innovations. The life styles, the livelihood, the technological intrusions all have changed the basic structure of the society. but the training that is provided to the teachers have remained unchanged all these years.

Expectations of the school system change from time to time, corresponding to the broader social, economic and political changes taking place in the society. It necessitates revamping teacher education for enhancing professional abilities among the teacher community to meet the desired aims of education and the present need of the larger community.

The teachers have consistently expressed dissatisfaction and disappointment regarding the training that is provided. The complain by the teachers across the state would be very similar, like , the subject was a repetition, the resource person not being resourceful, sessions being boring, topics selected without any rationale or theoretical base. Touching

upon only few techniques and avoiding conceptual clarity. Short duration pre-service programs which does not provide the needed perspectives and with no connections to in-service teacher education fails in developing critical professional needs of the school teachers. The interlinkage between theory and practice in both pre-service and in-service program is very weak. Current in-service professional development programs are often inadequately designed to provide an individual with the much needed pedagogic understanding or abilities and dispositions to become an effective teacher. In-service program mostly focuses on addressing issues of text books, hard spots in the subject rather than building conceptual and deeper understanding among the teachers and does not provide enough space for developing teachers as reflective Practitioners. Non availability of adequately trained resource persons in the district and block levels to reach teachers at the expected quality is a major constrain. Huge transmission loss by having multiple levels of cascading strategy and centrally designed programs/modules without taking in to consideration teachers' needs and interest have been the main problem in the teacher education program at present.

Continuing professional development of the teacher becomes paramount for effective transaction of the curriculum and to bridge these gaps. The rigor, focus and importance required to address this gap in the in-service and pre-service is missing completely. This necessitates a long term vision and framework that attempts to address the above issues.

Based on the insights from last decade, keeping the national documents such as National Curriculum Framework 2005 and National

Curriculum Framework for Teachers Education 2009 in mind, the state has envisioned a professional development plan for in-service teachers. The trust of this program is to help the teacher become a reflective practitioner, capable to questioning the curriculum, syllabus and establishing interlinkage between theory and practice. In this situation, Department of Public Instruction, Government of Karnataka (GoK) has taken up the challenging task of overhauling the in-service teacher education program in the State in the name of GURU CHETHANA.

A lot of thoughts went in to the designing of the program. The plan should be of long-term, helping teachers in their journey of professional development. In-service Teacher Education is a continuous process which should be coherent-not sporadic one-off sessions which don't hold together; a long term plan of teacher development allows individual teachers to develop holistically. It must offer a combination of learning modes- expert-driven, decentralized self-sustained learning spaces to foster self-learning and peer learning is crucial. It must respond to issues, teachers face in their schools, relevant to all classes and subjects; the comprehensiveness in curriculum will have long term engagement of teachers which builds continued and connected learning opportunities. It must offer options for teachers to choose so that they can access what is relevant to them through multiple forms, e.g., workshops, seminars, study groups, individual assignments. Materials used for teacher development should be comprehensive in its scope by including education perspective, subject perspective, and pedagogy. All the engagement should be guided by a consistent set of educational ideas (role of a school in Indian society, how children learn,

nature and pedagogy of each subject, why physical, psychological, social, ethical development of the child is important) and reflect in all forms of teacher education programs.

The core group of senior functionaries of education department were committed to address the gaps in the teacher education. The involvement of officers from Additional Chief Secretary for Primary and Secondary Education to School Teachers ensured the ownership of entire department at all levels. . It was sustained effort for two years. The program was designed in four phases from conceiving to execution - a. curriculum development, b. modules development, c. resource person development, d. program roll out. Each phase was a consolidated effort by all the people involved.

a. Curriculum Development

The curriculum has been developed collaboratively by identified teachers, teacher educators and subject experts from across the State including members from Azim Premji Foundation. The curriculum describes the context of teachers' development, principles, approaches, themes, practicality, classroom applications, teacher engagement modes and assessments; Considerable effort has gone into visualizing the multiple and diverse needs of teachers to develop the courses and modules. This is a comprehensive curriculum which includes issues around child development (e.g. how children learn language; the social context of learning); understanding key concepts in school subjects and methods of teaching. It suggests around 250 themes for teacher development, proposes different modes of teacher engagement, modular orientation on each theme (a module/concept/theme can be taken up from 1 to 5 days as per their interest and requirement). This group has gone through a careful

process of preparation by considering needs of teachers and expectations from teachers articulated in national documents. The curriculum framework for teachers' development was evolved as a first step to plan the long-term approach in this regard – enabling a strong and continuous professional development program for the teachers.

b. Module Development The modules were developed by adopting the principles of curriculum. Group of identified 90 state resource persons from education department and Azim Premji Foundation under the guidance of mentors developed the modules through a rigorous process. Each group of 10 to 12 members worked for 5 months continuously. The working included reading, discussing, presenting, reviewing, critiquing improving, piloting ...till it was accepted and passed by the quality group. These modules are graded so that they cater to different levels of teachers' understanding and needs. In the long-term, the plan is to have around 250 modules available for teachers to choose. Education perspective, subject perspective, key concepts, pedagogy and assessment, are integrated with one another and not looked at in isolation. Initially there are 28 modules spread across Kannada, Hindi, Science, Mathematics, Social Science, Education Perspective offered to teachers in the year 2017-18. In the coming years more modules will be developed covering the curriculum. Each of the modules was piloted, reviewed and fine-tuned by State Resource Persons and the Review Committee Members.

c. Resource Person Development

In order to execute the program at mass scale and to address the issue of non-availability of trained resources in the districts, four master resource persons for each module from each district were selected through the process

of written and oral tests. Total 112 Master Resource Persons(MRPs) were identified in each district. Each MRP has undergone 10 days program where 5 days on module content and 5 days of additional input so that MRPs are capable to engage 5 days with teachers. It prepared MRPs in perspective, content and pedagogy. The program involved in developing education perspective (understanding society, education, children and teaching), deeper understanding beyond the module's content and proposing illustrative pedagogy of the sessions. The training had the components of demonstration and actual facilitation. In the process, around 3500 MRPs were trained

d. Roll out of the Program The program was launched by Chief Minister of Karnataka on the eve of Teacher's Day, September 5, 2017. Teachers gave their choices on the 28 modules available for the years 2017-18 by logging in Teacher Training Management System (TTMS). The system was available both in desktop and mobile where mostly teachers used the mobile app to manage their choices and tracking of workshop schedule. Whole process of teachers' choices, batch formation, inviting teachers, scheduling trainings and feedback from teachers was done through TTMS. The processes at the state level was managed by DSERT and implementation was done by respective DIET (District Institute of Education and Training). Around 2000 batches of training was conducted in 4 month time spread across 34 districts covering 28 modules. In the process, 75000 teachers were trained. It reduced the cascade mode as trained MRPs directly facilitated trainings for teachers in the district. It was also important to ensure the quality of logistics such as basic facilities-functional toilets, safe drinking water, quality food, venue with sufficient light and air, uninterrupted

power supply, etc. It was ensured by respective DIET in the district which contributed significantly to enhance the quality of the modules. A director was placed to oversee the training in each location. A review committee visited the venues and set right all the shortcomings both academic and logistics, in the training program,.

The teachers felt that the program was unique since they had the freedom to choose. And they were choosing with knowledge of all the modules which was freely available in the net. It was conveyed to the teachers to think in a long term basis and plan for their development across the next 5 years. They were informed that there will be nearly 250 modules from which they can choose. The scope of the subjects was very vast. It covered Perspective, content, pedagogy and practice. The training and engagement was interesting since there were combination of different learning modes. It covered three main learning modes-self learning, peer learning and expert facilitated. The processes of workshop was multi-folded. There was workshops, seminars, study groups, video and on line materials. With the earlier experiences of the dearth of good quality resource persons and the training getting diluted with cascade effect, here the core team ensured that the Master Resource Persons were chosen from each districts and so that the trainers were available in the districts whenever there is a need for training and resource persons. The most important thing was that the master resource persons trained by the state resource persons who developed the madules were available in each of the districts.

90 state resource persons developed the modules and trained 3808 Master Resource Persons. All 28 modules were piloted across 7

venues over 10 days; each module piloting was attended by 30 teachers who provided critical feedback that was incorporated and the modules re-worked. Through the Teacher Training Management System the data of 1.34 lakh was uploaded out of 1.65 lakh teachers as base information. Teachers gave their choices by registering in TTMS. TTMS managed the information sharing through SMS – invitation, choice confirmation, training schedule and invitation. All the modules were available in TTMS in advance for the teachers to give informed choices.

Regular monthly meeting set a rigor for the program with Additional chief secretary, commissioner, State Program Director SSA, directors from department and Foundation participating in the meetings and leading it. Having core team at state level for planning, reviewing and monitoring helped. Govt. announcement of financial support through the state budget made a huge difference. The development of State Resource Group was very crucial; the initial resistance came down when they saw the resourcefulness, quality and contribution. Ensuring that good quality Resource persons got selected in the first place was very important and in this process we had to redo the selection process to ensure selection of quality resource persons.

There were many challenges we faced in this journey of Guruchethana. At the Govt. level there were issues like the change in leadership and managing the priorities which change with leadership. The formalities, bureaucracy was also a challenge to get the approval at the right time for releasing of the budgets. There was high level commitment and ownership at the state level, but, this had not percolated till the district and block evenly. Hence different teams had to encounter difficulties at the block and district level. Getting quality

resource persons was a major problem. The resource persons selected had to be cancelled and re-done by developing criteria and a strict process and lot of scrutiny. Building the capacity of the selected trainers needed a lot sustained effort. Logistic issues had to be responded and solved in a fire fighting mode. Difficulty in ensuring quality logistics as per expectations as there is no such ready venue districts when rolling out, e.g., electricity, LCD projector, toilet, fans, sufficient space. Having better residential facility would have helped. Getting large number of teachers registered on the TTMS proved to be a huge challenge (e.g., mobile numbers not updated, high load on system, teachers not able to use IT system properly). The printed modules were not available to all teachers when the workshop was happening. The modules got printed towards the end of the process.

Ensuring the quality from curriculum development to execution of the program was a huge challenge. Sustaining interest and patience among the State Resource Persons for 2 years in the module development and MRPs development processes was difficult which led to a lot of fluctuations in multiple ways. Some good resource persons were discontinued, some resource persons with less interest stayed back which created some slack in the developed momentum. Another challenge was to develop the shared understanding on the concept of program across the levels of stakeholders and maintain same spirit across the levels of govt. system. It was also challenging in the beginning to convince people involved on the paradigm shift in the nature of materials and processes as they naturally carried baggage of many decades.

It was unique experience in the continuous Professional Teacher

Development domain of Karnataka. The team felt that a major mile stone in the area of providing good quality teacher education to large number of teachers in the stake has been achieved. The program had the strength to slowly involve all the state holders in a very positive manner. It created a positive vibration in the entire state. Other states are keen to understand the

Karnataka experience. The concept of long term engagement with continuity, connectedness, based on the choice of the teachers needs to be spread across the county. The team strongly feels that this will lead to teachers becoming more reflective and contribute towards a just, humane and equitable society as envisaged in the Constitution of India.

Jyoti Sethi

jyotiseti@gmail.com

Learning to Teach Mathematics for Social Justice: a Dialogic Reflection

Abstract

This study explores the entailments of learning to teach mathematics for social justice by actively engaging six elementary school teachers in a critical research process. Where in the researcher who is an elementary teacher herself collaborates with the other teachers to explore critical mathematics education through a task based programme. The goal is to blur the distinction between research, learning, and action by providing the researcher and the participants opportunities to collectively engage in a reflective dialogue towards social justice and in the process enabling each one to actualise their ways of knowing and growing to sustain their growth throughout their careers.

Introduction

As teachers of mathematics, we have always taught our students to solve the pseudo problems that exist in the textbooks but not the real problems which exist in their lives (Fasheh, 2015). These are the problems which are part of their existence; which are rooted in their culture, caste, gender, socio- economic background causing social injustice. Learning to understand and solve these problems would mean attaining critical literacy (Friere, et al. 1997). Creating space for these problems in a mathematics classroom by mediating it with everyday mathematics (Rampal, 2015) is the new approach towards mathematics education being proposed by educators like Frankstein, Gutstein, Skovsmose. It challenges the traditional value free mathematics and utilises mathematics as the most powerful venues for working towards the goal of critical pedagogy (Freire, 1997). In the most general sense, critical pedagogy enacted in the mathematics classroom adopts

the pedagogical theories and practices of critical pedagogy, while explicitly using mathematics as an analytical tool for examining and challenging social injustices. Or said more directly, critical mathematics pedagogy is most often framed as teaching mathematics for social justice (TMFSJ).

Teachers' commitment to social justice and to their students is what teaching for social justice and teaching to change the world is about. This approach seeks to deepen students' understanding of society and to prepare them to be critical, active participants in a democracy (Gutstein & Peterson, 2005). An additional characteristic of teaching math for social justice involves students posing their own problems (Gutstein, 2006; Gutstein & Peterson, 2005). Through problem posing, students learn how to formulate questions that make sense given certain mathematical information while also enhancing their mathematical attainment

(Frankenstein, 2005). Furthermore, real world problems emphasize the fact that clear-cut, neat solutions are commonplace only in mathematics textbooks, “real life is messy, with many problems intersecting and interacting” (Frankenstein, 2005, p. 21). Students need to understand that not all problems have solutions or that there may be multiple and sometimes varied solutions to the same problem. The recognition that the world is textured and that mathematical answers are not “truth,” but rather options and opportunities, is an important lesson in critical mathematics education. If school mathematics introduces students to questions of limited depth that only acknowledge superficial ideas, then students only understand mathematics to be a simplistic tool. But in the hands of an aware teacher, who recognizes how critical thinking can transform mathematical answers into evident seeking instrument, students begin to acknowledge their own agency in transforming themselves and their community (Gay, 2009). Mathematics teachers who teach for social justice encourage their students to solve the same problem from the perspective of different members of the class, school and community. These teachers embrace multiple solutions and methods and focus on questioning as part of a critical understanding of the world through mathematics. Furthermore, collaboration and exploration is valued. When teachers introduce students to the ethical consequences of mathematically-based decision-making, students learn to use the most important tool available to create change in their lives and their world: understanding social justice through the lens of mathematical evidence.

The critical mathematics education requires specific ideological orientation

of the teachers, this is conflicting to the ‘traditional image’ of mathematics held popularly (Ernest, 2001). Research indicates strong connections between the teachers’ beliefs about mathematics philosophy and their teaching practices (Thompson, 1992). This new orientation of school mathematics not only challenges teachers’ ongoing classroom practices but their personal beliefs about mathematics teaching and their image of mathematics as well. Many teachers have the same conception of mathematics that their previous teachers and texts presented. Ernest (2004), explains that most of the beliefs about mathematics are developed in the school and especially the mathematics classroom, he suggests that negative image of mathematics largely comes from school experiences. They internalize the “reified typification of mathematics” and it’s difficult to learn and succeed image (Frankenstein, 1990). By the time the aspirant is admitted to a teacher education programme, these beliefs about how to teach and learn are deeply embedded in the individual, and very often are reinforced by the traditional nature of some teacher education institutions which may not have positive effects on preservice teachers’ mathematical beliefs (Kagan, 1992). There is evidence that, in some cases, teacher education programmes are so busy concentrating on imparting pedagogical knowledge that little consideration is given to modifying these beliefs (Tillema, 1995 as cited in Handal & Herrington 2003). Most of the in-service programs are based on lecture method and are not aligned to the needs of the teachers’ (NCERT, 2006). Ironically, even the approaches like activity based learning are delivered as lectures, leaving no space for reflection and inquiry. Consequently, teacher education programmes might have little effect

in producing teachers with beliefs consistent with curriculum innovation and research (Kennedy, 1991 as cited in Handal & Herrington, 2003). Therefore, teachers need to be assisted by the mathematics teacher educators and programmes in learning to become critical mathematics teachers (Bartell, 2006)

Despite the potential, teaching math for social justice has in addressing issues of social justice in mathematics education, little research exists that examines mathematics teachers learning to teach for social justice, a necessary step in beginning to understand the entailments of teaching mathematics for social justice (Gau Bartell, 2005, p. 3). This study recognises the dearth of research in this field and therefore, attempts to contribute in this area by inviting teachers to participate in a task based programme designed to learn mathematics for social justice.

Theoretical Foundation

The critical mathematics pedagogy has its roots in critical theory; therefore it was believed that the teacher preparation also needs to be done in the critical paradigm such that teachers get to live what critical pedagogy may mean to her own teaching. In this regard, this study has been profoundly influenced by the work of Paulo Freire (et al. 1997). Freire modelled critical theoretical research throughout his career as he was concerned with human suffering and the pedagogical and knowledge work that helped expose the genesis of it. In his writings about research, Freire maintained that there were no traditionally defined objects of his research—he insisted on involving the people he studied as *partners* in the research process. He immersed himself in their ways of thinking and modes of perception, encouraging

them to begin thinking about their own thinking. Everyone involved in Freire's critical research, not just the researcher, joined in the process of investigation, examination, criticism, and reinvestigation—all participants and researchers learned to see more critically, think at a more critical level, and to recognize the forces that subtly shape their lives. Freire, suggests development of teachers' critical consciousness—which he maintains can emerge only through dialogical, problem posing education that moves past reflection towards action. Thus the goal of Freirian research is to blur the distinction between research, learning, and action by providing the researcher and the participants opportunities to collectively engage in the struggle toward social justice; it encourages researcher-participant reciprocity, turning participants into co-researchers while providing the means for researcher and participants' self empowerment (Kincheloe, 2012).

Overview of the Study

Teachers are a critical part of mathematics education research and should have access to the outcomes of that research, a methodology that intimately involves teachers as participants are essential. The study thus employed Freirian participatory research; where, the participants were the co researchers of the study. As part of the study, a formal group was created, where in six elementary school mathematics teachers and I (elementary teacher myself) critically analysed my beliefs about self, student, society and school (Darling-Hammond, 2002) with respect to the teaching of mathematics. We worked around the issues and prospects of teaching math for social justice. Analysis in this critical tradition took the form of self-conscious criticism—self-conscious in the sense

that researchers try to become aware of the ideological imperatives and epistemological presuppositions that inform their research as well as their own subjective, intersubjective, and normative reference claims (Kincheloe, 2012).

I entered into this research with the hope that by working with teachers around issues of teaching math for social justice, they too would see the value in such work and introduce these practices in their classrooms. Therefore, I looked for the participants who were keen to explore mathematics in a more liberatory form. All the participants expressed interest in the study, a desire to work for a more socially just society, and strong emotions of love and hatred towards mathematics in their initial interactions with me. Teacher's intellectual isolation and lack of network is widely accepted in the field of teacher education and the ineffectiveness of in-service programmes is also agreed upon. In such a scenario, participants' willingness to be a part of this study was my only reason to have them as my co-researchers.

The teachers and I initially engaged ourselves in an introspective exercise, where through personal stories we took a journey into our pasts and attempted to position our beliefs about self, student, school, society and mathematics for a collective critical inquiry. Telling stories is a dialogic process, within the self and with others (Holland et al, 1998). The storyteller makes meaning of herself in a space within the self and with others. Bakhtin (1981 as cited in Moen, 2006) uses the term internally persuasive discourse to call attention to the dialogical process of personal story telling. Teachers' narratives thus position them and give them open opportunities to understand how their experiences lead to reflections, insights and queries about

their beliefs about mathematics and its teaching and learning. This process helped each of us involved in this study to reflect on the teaching practices and explore queries about the professional decisions. It led us to ask questions like: What do stories about experiences with mathematics tell me about my fears and anxiety and how they provide a window into the way my teaching practices are affected? How do my beliefs about the learner's background and her position in the fabric of society affect my aims of teaching?

We then engaged in discussions and worked with content-specific resources such as academic articles, lessons, projects, videos and activities focused on the teaching of math for social justice. Through readings and discussions, teachers explored the meanings behind teaching math for social justice, what it means to be an agent of change, what our own position in society is, and how our positions and histories might influence our pedagogy. The most important component of each session was to raise our consciousness towards the social and political issues. We discussed our political orientations and its relevance in our teaching careers to achieve the goal of social justice. It was not easy for the teachers to extend their roles to incorporate the issues of inequities and unfairness in the practice. They resisted as their belief about their role as a teacher was that of neutrality and not that of revealing political alliances.

The data collected for this study included autobiographical writings, discussions, and open interviews with the participants. Multiple data sources were relied upon. These included narratives-written and oral, semi-structured initial and exit interviews of each participant. Participants also wrote written reflections in and at the end of group meetings. Additionally,

I wrote written reflections at the end of each group meeting and kept a running journal of thoughts and ideas throughout the study aimed to keep a track of my own subjectivity. The teachers wrote reflective essays on their personal image of mathematics and were involved in group discussions by being part of designed tasks. By exploring stories on multiple occasions, both participant and researcher made sense of the experience. Therefore, data was not merely meant to be analysed by the researcher but was of greater significance where it formed the thrust of inquiry for each of the participants. It was used for igniting discussions and for engaging teachers in the process of problematization (as conceptualised by Freire). This ultimately led us into a process of dialogic reflection; where we did the task, share experiences, reflect collectively, write the narratives, and discuss our stories with agreements-disagreements, supplementing or complementing each other's ideas and perspectives. Each session was the site of further nodes of inquiry taking the dialogue ahead. The nature of the tasks was such that they engaged teachers in dialogue about the role, culture, language, class hold in mathematics learning and teaching with the explicit emphasis on social justice that utilizes mathematics as a tool to challenge and change social inequities.

We revisited the primary mathematics textbooks with the newly acquired orientation and attempted to create units of study keeping our own students and their backgrounds in mind. This task was preceded by exposing the group to the resources presently available that could serve as exemplars for the unit of study we later created. What was important here was the process and not the product, the discussions which went around various issues made it worth an experience.

These discussions had a new language, where we were using the phrases like, 'will it interest the students', 'will they relate to it', 'how will they collaborate, has anybody thought about it', 'will this help them understand the critical issues'. These phrases were suggestive of our objective of making units of study which were meaningful and engaging to our students. Some of the units were parallel to the units we discussed and studied in various existing and available resources. However, these units had their very own contexts and were related to the student's life in their own distinct manner.

Reflections

The 'participatory action research' nature of the study, which invites people to participate in the co-creation of knowledge about themselves, proved to be instrumental in changing the power relations (Pajares, 1992; Skott, 2014). We proceeded collaboratively and ensured that research is owned and controlled by research participants as well as the researcher. The aim was to reflect, explore and disseminate the views, concerns, feelings and experiences of research participants from their own perspectives making the dialogue more local and contextualised, which is the basic tenet to teach mathematics for social justice. Participatory research also provided a voice for the participants; teacher's voices which often get lost when they are studied objectively in the positivist academic research (Kincheloe, 2012) were recognised in this study by raising their consciousness by advancing an agenda for change (Creswell, 2005, pg 9).

Teachers gradually recognised their beliefs and myths related to mathematics and become aware that their teaching required a change. In one of the narratives, a teacher mentioned that she had always believed that "doing

mathematics requires high IQ and only talented children can perform well in mathematics” and now realised that she has been neglecting many of her students only because of this belief. They realised that they were also lowering their expectations as they felt that the children from the marginalised groups should know the basic mathematics which is more than enough for them. Lowering the standards of pedagogy and learning outcomes is a very common response of teachers teaching the children from marginalised group (Villegas & Lucas, 2002; Gay, 2009). We teachers were harnessing many such negative dispositions; denying respect and equitable opportunities to those who are already deprived was one such negative disposition.

We learnt how mathematics play a central role in its politicized position and status in relation to knowledge and intelligence (Gutstein, 2006; Skovsmo, 1994). Thus, to deny others the opportunity to engage in the process of mathematizing the world- to utilize mathematics to make meaning, connect to other forms and knowledge and inform decisions-is an act of dehumanization. But, the teachers learnt that our policies are very clear on this note. NCF 2005, proposes ‘mathematics for all’, it stands for quality mathematics education which is for everybody irrespective of their class, caste, gender and access to quality mathematics education is every child’s right.

Once many such beliefs were recognised by the group, they became confident to shed them and were more open to learn about new orientations. This study helped them become more sensitive towards their students and their lives, by helping them recognise that their privilege identity act as a blindfold to recognise the problems their students are dealing every day. The

study not only gave them a new language but also a legitimization to transform their pedagogical philosophies and practices away from the “traditional” and toward a mathematics for social justice.

Though they expressed both support for and concern about teaching mathematics for social justice, the teachers began to envision their classrooms as places where social injustices could be examined through mathematics. They identified many issues they wanted to intervene through mathematics like body imaging through the concept of proportion, water conservation through the concept of ratio, menstrual health and hygiene through the concept of Time and Calendar and the concept of Profit and Loss. They actively started seeking critical connections with other disciplines. They were able to see the connections in the curricula especially the mathematics textbook and classroom environment. They were establishing channels of communication with me, students and colleagues. By providing stories of their own experiences as learners as well as through their contributions to our discussions, the teachers led me to a deeper and distinct understanding of what schooling is like for students from marginalized communities.

Our awareness of certain social issues increased and we found ourselves getting involved in the social causes we as group cared for. They also helped me improve in organising sessions by providing constructive feedback after every session. Time management, complexity of readings were some of the concerns they raised for me to improve on. In general, we were able to see ourselves as stronger facilitators.

They responded positively to the professional development experience and expressed their interest in the

topic, the usefulness of the work and the supportive environment of the group. The findings report that the teachers believed that the study provided them the confidence to regain their academic strengths. Many of the teachers were themselves struggling from 'Maths phobia' which they were able to shed as they engaged themselves in the process of learning to teach mathematics. They realised it was their 'traditional beliefs' such as mathematics is all about 'speed and accuracy' that they feared mathematics. They also reported that they are now confident to read the literature on education which they were not reading ever since they had come out of their teacher preparation programmes. They compared this journey to the other in-service programmes and reflected on how the two processes differ. One of the teacher said "we were able to address things or issues that meant something to us as opposed to people telling us what, exactly, we had to do". This programme allowed them to go back to their classes and come back with the queries unlike the in service programmes where they never get the opportunity to return to the

group for further discussions. Through this inquiry there was recognition of the consequences of beliefs, knowledge and experiences on what and how one teaches. They recognised better who their students are, where they have come from, what they themselves know and what their students need to know. They framed and reframed the issues and problems they face. The exposure to the outer world, to new research perspectives and studies, newer approaches and the process of self and group inquiry is what they now take as part of their professional development. One of the teachers acknowledged in her narrative that, "for the first time in my career, I have realised that I was like a 'frog in the pond', who had no idea of what is going on in the world". We all found ourselves moving out of the boundaries of our practice, be it the physical boundary or cognitive. This process of stepping back, description and reflection became a kind of articulation or process through which we clarified our tensions, making us more free, thoughtful and mindful of actions.

References

- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry*. San Francisco: John Wiley & Sons.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, NJ: Pearson Education
- Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14.
- Darling-Hammond, L. (2002). Educating a profession for equitable practice. In L. Darling-Hammond, J. French, & S. P. Garcia-Lopez (Eds.), *Learning to teach for social justice* (pp. 201–212). New York, NY: Teachers College Press.
- Ernest, P. (2004). What is the philosophy of mathematics education? [Electronic Version], *Philosophy of Mathematics Education Journal*, 18. Retrieved January 4, 2013, from: http://www.people.ex.ac.uk/PErnest/pome18/PhoM_%20for_ICME_04.htm
- Fasheh, M. (2015). "Over 68 Years with Mathematics: My story of healing from modern superstitions and reclaiming my sense of being and well being". Plenary paper at the 8th Mathematics Education and Society International Conference, Oregon.

- Frankenstein, M. (1990). Incorporating race, gender, and class issues into a critical mathematical literacy curriculum. *Journal of Negro Education*, 59, 336–347.
- Frankenstein, M. (2005). The critical mathematics educators group (CMEG): attempting to connect anticapitalist work with mathematics education.
- Freire, P., D'Ambrosio, U., & Mendonca, M. D. C. (1997). A conversation with Paulo Freire. *For the Learning of Mathematics*, 17(3), 7–10.
- Gay, G. (2009). Preparing culturally responsive mathematics teachers. *Culturally responsive mathematics education*, 189–205.
- Gau Bartell, T. R. (2005). Learning to teach for social justice. Unpublished doctoral dissertation, University of Wisconsin-Madison.
- Gau Bartell, T. R. (2006). Striving for equity in mathematics education: Learning to teach mathematics for social justice. In S. Albatorre, J. L. Cortina, M. Saiz, & A Méndez (Eds.), *Proceedings of the 28th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Universidad Pedagógica Nacional, Mérida, México.
- Gutstein, E., & Peterson, B. (Eds.). (2005). *Rethinking mathematics: Teaching social justice by the numbers*. Rethinking Schools.
- Gutstein, E. (2006). *Reading and writing the world with mathematics: Toward a pedagogy for social justice*. New York: Routledge.
- Handel, B., & Herrington, A. (2003). Mathematics teachers' beliefs and curriculum reform. *Mathematics Education Research Journal*, 15(1), 59–69.
- Holland, Dorothy, William Lachicotte Jr, Debra Skinner and Carole Cain (1998) *Identity and Agency in Cultural Worlds*. Cambridge, MA: Harvard University Press.
- Kagan, D. M. (1992). Implication of research on teacher belief. *Educational psychologist*, 27(1), 65–90.
- Kincheloe, J. L. (2012). *Teachers as researchers (classic edition): Qualitative inquiry as a path to empowerment*. Routledge.
- Moen, T. (2006). Reflections on the narrative research approach. *International Journal of Qualitative Methods*, 5(4), Article 5. Retrieved from http://www.ualberta.ca/~iiqm/backissues/5_4/pdf/moen/pdf
- National Council for Educational Research and Training (2006). Position paper 2.4 of the National Focus Group on Teacher Education and Curriculum Renewal. New Delhi: NCERT.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62, 307–332.
- Rampal, A. (2015). "Curriculum and Critical Agency: Mediating Everyday Mathematics". Plenary paper at the 8th Mathematics Education and Society International Conference, Oregon.
- Skott, J. (2014). The Promises, Problems and Prospects of research on Teacher's beliefs. *International Handbook of Research on Teacher Beliefs* (pp.13–30). Routledge.
- Skovsmose, O. (1994). *Towards a philosophy of critical mathematics education*. Dordrecht, the Netherlands: Kluwer.
- Thompson, A.G. (1992). Teachers' beliefs and conceptions: A synthesis of the research. In D. A. Grouws (Ed.), *Handbook of research in mathematics teaching and learning* (pp. 127–146). New York: Macmillan.
- Villegas, A. M., & Lucas, T. (2002). *Educating culturally responsive teachers: A coherent approach*. Albany, NY: SUNY Press.

Exploring Teacher Agency - Design of ICT and Education programs

Abstract

Teacher agency is an indicator of teacher development, it is also a cause for teacher development. The article aims to explore the role digital technologies can play in strengthening or constraining teacher agency in her practice, specifically in her choice and use of curricular resources in teaching.

An important indicator of teacher agency is the extent to which the teacher decides the curriculum for her teaching. In the 'text book' culture, predominant in Indian education, the teacher is expected to transact the text book and ensure that its contents are able to be reproduced by the students, without referring to it, in the examination, with or without understanding. Teachers are not expected to explore multiple sources of learning materials and configure learning experiences for students.

In the era of digital technologies, this problem is threatening to become worse. Earlier the teacher was expected to transmit the content to students. Now Pre-packaged content is being made available to students directly through digital devices like tablets, or broadcast over the internet. This can further reduce the role and possibilities for the teacher in the teaching-learning processes.

On the other hand, digital technologies can be used to further the agency of the teacher in this respect. Building teachers capacities to explore available open educational resources and use them in a relevant manner can broaden their universe of curricular possibilities. Secondly, becoming member of digital networks can enable teachers to share resources accessed, created or adapted by them, increasing the overall pool of contextual resources. The Subject Teacher Forum program of Karnataka attempted these approaches of integrating digital technologies and provided more opportunities for teachers to access and use varied resources in their teaching.

Whether the design of digital technology programs in education furthers or constrain teacher agency can thus be a useful parameter to assess program design and effectiveness.

1 Learning as Meaning-making

..... The second type of education system ties the teacher to the prescribed textbook. She is given no choice in the organization of curriculum, pacing, and the mode of final assessment. Textbooks are prescribed for each subject, and the teacher is expected

to elucidate the text, lesson by lesson in the given order. She must ensure that children are able to write answers to questions based on any lesson in the textbook without seeing the text, for this is what they will have to do in the examination when they face one. The Indian education system is of the second type.

-(p. 452)- Krishna Kumar's (1988) 'Origins of India's "textbook culture".'

The National Curriculum Framework, 2005 (NCF) has emphasized the need to move from a learning system based on memorisation of facts, required by the 'text book culture', to one involving active construction of knowledge in the mind of each learner. Such construction requires curricular resources that are appropriate for each learner. Since the learning needs of heterogeneous learners is likely to be diverse, the teacher will need to use a variety of curricular resources; the text book alone will be insufficient.

The National Curriculum Framework for Teacher Education, 2010 (NCFTE) recommends that teachers should engage with, and critically examine curriculum, and not treat knowledge as a 'given', to be accepted without question. The teacher must have the agency to actively explore and choose from a variety of learning resources, based on her judgement about their relevance to diverse learner contexts, to achieve learning objectives.

The article seeks to explore how the design of programs integrating digital technologies^[1] in school education can affect teacher agency in terms of teachers' capacities to mediate curriculum in teaching.

2 ICT and Education

There is a lot of hype about ICT transforming education, and it is difficult to distinguish between meaningful use of ICT in education and that which may be trivial or even harmful. Clear identification of educational aims and principles as the basis for ICT program design, is essential for meaningful integration.

The article aims to explore how ICT program design can affect agency in mediating curriculum; this can be seen as a spectrum of possibilities, wherein

at one end ICT is used to deliver content directly to students, totally or partially bypassing the teacher, and at the other end, teachers actively determine the design of curriculum. An active role can encourage and even support teachers to integrate ICT in revising their content and pedagogy. Whereas, in the former case, ICT is seen as a 'pipe' which can efficiently transmit content created by 'experts' directly to students in the school.

2.1 ICT as a pipe- 'delivering' Content to the Classroom

One model, becoming increasingly popular in Indian schools, is to provide students with tablets, containing pre-existing content (usually created outside the school by the organization implementing the ICT program, or sourced by this organization from existing web resources). Students are expected to access this content in the classroom, to supplement or complement teachers efforts.

This model seems to assume that the e-content has to be provided to the teacher and that the teacher is unable and or unwilling to create content (or modify available content) for her use; or perhaps, that the time required to prepare the teacher to access, create and adapt content is not worth the investment of time, energies and resources.

It is assumed that the students will directly connect to the e-content in the tablet which is pertaining to the topic taught by the teacher, view the e-content and enrich their learning. Where there is little or no teacher preparation before the digital content is introduced to the classroom, the e-content is unlikely to be a formal part of the teachers' lesson planning. This approach has two limitations:

2.2 Consuming Content v/s Learning

As stated earlier, conceptual

understanding is not the same as merely acquiring or memorising content. The processes of constructing knowledge are complex and need to be actively facilitated by the teacher. Since the teacher herself is unlikely to be familiar with the content being seen by the students, the probability of her being able to help the student 'learn' from the content is quite low. (Students could refer to the tablets outside of the classroom for self-directed learning, however the program design often restricts access to within the school).

In some cases, teachers or students cannot download the content from the tablet to their computers or phones; proprietary content is used, which prohibits sharing and adapting. Some programs allow download of content, but prevent teachers from modifying it or contextualizing to their needs. Here the teachers and students are treated as consumers for the content created or sourced by the implementing organization.

The role of the teacher gets reduced to a process facilitator managing the viewing of content by students on their individual / group tablets, rather than someone actively designing the curricular experience for each learner. It may appear that students are excited to connect to the devices, however such interest is likely to be due to novelty rather than a deeper engagement with learning. An extensive literature search by the Commonwealth of Learning, an organization working in the area of ICT and education, concluded that a majority of tablet initiatives have been driven by hype rather than by educational frameworks or research-based evidence.

A variant of the tablet model disseminates content over a broadcast medium, further reducing the teachers role in the classroom transaction. In the Computer Aided Learning (CAL)

program implemented by the education department in Karnataka, along with IIM Bengaluru, the teacher had no role during the broadcast other than ensuring that students were watching the screen. As per the program design, students 'doubts' were to be answered over phone by 'experts' situated elsewhere.

These models also assume that there are no heterogeneous learner contexts which would make it difficult if not impossible for all students to 'learn' from the same content being synchronously 'consumed' in an unmediated manner. In the process of broadcast, usually, the teacher would usually be viewing the content along with the students, hence it would be quite difficult for the teacher to interpret the content to facilitate student learning.

Mass broadcast media such as radio and television are themselves undergoing a transformation due to the internet (another digital technology invention), with programs being stored on the cloud, and accessed by users when they want to. This approach has already being used by NCERT, its 'National Respository of Open Educational Resources' (NROER) hosts resources that teachers can freely download, view and use.

There is a need to popularize such repositories amongst teachers and encourage them to access these. There is also a need to develop capacities to assess the relevance and educational value of these resources. These teacher capacity development processes could promote agency in including digital resources as a part of her mediating curriculum in teaching.

2.3 Personalised Learning

A second principle being assumed of 'content delivery through tablet' is of learning to be an individual experience. The buzzword is 'personal analytics'

where the ICT device is expected to sense the learners 'learning levels' and provide 'level appropriate content' and design 'individual learning paths'.

Since different students may be watching different content pieces or be in different parts of the same piece of content at a point in time, it is likely that there would be no 'single' or 'unified' content that the entire class would explore at any point of time. This is applicable even if 2-3 students share a device, each such group is on its own, within the classroom. The teacher may have little idea of what the students have learnt from the content being explored, despite 'dashboards' that may be made available to her (in her device) informing her of the actions and responses of all students in her class.

This approach grossly underestimates the complexity of the teaching-learning processes. While accessing content for self-learning can be useful, making this a part of the regular classroom activities can disrupt any coherence in the learning processes and destabilise learning. As Carl Hendrick says "Allowing kids to browse the internet in a lesson and then expecting they will work productively is like bringing them to McDonald's and hoping they'll order the salad".

From the perspective of teacher agency, the role of the teacher in interpreting the curriculum and facilitating learning is compromised when content is provided to the students from external sources, with no participation by the teacher in the selection and curation of such content.

3 Bringing Teacher to the Centre

However, the National ICT Curriculum, 2013, NCERT provides a framework for ICT integration in school education, in which the teacher has an important role in accessing, creating, adapting and publishing digital curricular resources.

While the curriculum is yet to be fully adopted/adapted by governments, two of its six broad 'themes' for ICT integration - '*connecting and learning*' and '*creating and learning*', informed the design of the 'Subject Teacher Forum^[2]' program, an ICT integrated in-service teacher education program of Karnataka education department. In this program, around 20,000 teachers from government high schools across Karnataka (which is roughly half the population), learnt to use ICT applications and digital repositories for accessing, creating and adapting digital resources, for TPD and for subject teaching, between 2011 and 2016.

3.1 Creating and Learning

Teachers learnt digital tools in Subject Teacher Forum program workshops held in ICT labs in teacher education institutions at state and district levels. These included subject-specific software applications for Mathematics ('Geogebra' software), Science (Phet, Kalzium), Maps (Marble, KGeography), and generic^[3] applications including text editors (LibreOffice writer), image editors (Tux Paint, Screenshot), video editors (record-my-desktop) etc. Teachers used these tools to create resources in English and in Kannada. They also learnt to access and adapt (edit) existing resources from the web, and share created and adapted e-content as 'open educational resources' (OER).

Creating and combining resources to develop lessons, helped teachers see ICT applications as TLM sources. Learning to use digital tools contributed to their sense of agency in integrating e-content in their teaching. During the process of creating OER, teachers also reflected on the possibilities and relevance of teaching using these resources; they were sensitive to the need to access, create and adapt OER

relevant to their classroom contexts^[4].

3.2 Connecting and learning

The Subject Teacher Forum program also built capacities of teachers to use ICT for ‘connecting and learning’ by enrolling them into subject-wise, state-wide^[5] virtual forums (mailing-lists^[6]). The state mathematics and science teachers forum for instance has more than 11,000 members. In addition, some teachers also created district-wide (and block-wide) mobile phone communities (using mobile-apps such as Telegram, Whatsapp, Hike) in which teachers of a subject across the district (or block) were enrolled.

These forums are ‘autonomous’ meaning they are not subject to department’s authority and participation is not encouraged or discouraged through administrative fiat. Teachers freely share resources created by them, or accessed from the web and discuss issues of their schools and the larger education system. Teachers also often receive acknowledgements and gratitude of other teachers in response to their sharing of resources. While social media communities themselves may be of no great significance, the conversations in these forums are almost exclusively centered on teachers’ practices and concerns.

The NCFTE recommends that teacher education programmes must build on the principle of creating ‘spaces’ for sharing of experiences of communities of teachers among themselves. OER access, creation and sharing in the virtual ‘spaces’ was an important professional experience encouraged in this program, and practiced by teachers.

4 Design Principles Affecting Teacher Agency

Two principles of the Subject Teacher Forum program supported

strengthening of teacher agency in the processes of learning digital tools to develop, share and use OER.

4.1 Freedom to Explore

Teachers learning a software application may not always be able to access a copy of the software for continuing to use and learn beyond the teacher education program. For instance, in the ‘Academies of Learning’ that Microsoft established in many states in India, teachers were taught to use the Microsoft Office Suite and the Windows operating system. However, the teachers could not get a copy of the proprietary^[7] software, nor did they have the freedom to freely download or share the software. A license to use the software had to be individually procured from the vendor, paying license fees, which were not trivial.

In the Subject Teacher Forum program, teachers learnt to use free and open source (FOSS) Ubuntu GNU/Linux operating system. They could buy a DVD containing this operating system, into which the educational and generic software applications taught in the program were ‘bundled’. Such bundling is possible only with a FOSS operating system, proprietary application vendors forbid it. Teachers were also taught to install the system. Many teachers installed this system on their home and school computers, copied and distributed the DVDs to their colleagues in district workshops.

The program also encouraged teachers to purchase personal laptops, rather than tablets. Laptops provide scope for creating and modifying digital resources, while tablets (in their current avatar) are primarily ‘consumption’ devices. More than a third of the teachers participating in the program purchased personal laptops.

4.2 Learning Processes than Products

The basic approach of the Subject

Teacher Forum program was to build teachers capacities to use a range of software applications, so that they become comfortable exploring the digital environment. The teachers were encouraged to think of software applications as 'resource creation' tools, which teachers could use to create new, or adapt existing digital content for their requirements. The workshop had 'creating text resources' as a session topic rather than 'Learning LibreOffice Writer, likewise 'creating image resources' instead of 'Learning Tux Paint', bringing the focus to the academic activity of making materials, than on learning a specific software application.

In many areas, teachers were purposely exposed to more than one tool in a domain, to disabuse themselves of equating a domain to a single product. For instance while covering web browsing, more than one browser (Mozilla Firefox and Google Chromium) was taught and participants were encouraged to explore additional software applications similar to the ones taught, to emphasize that each tool basically taught a set of processes and no single tool had any greatly unique or monopolistic features which needed teachers to be dependent only on them. Software vendors are eager to encourage such dependencies for their vested interests, and it is necessary for teachers to think of themselves as free agents exploring multiple applications, without being 'locked-in' to any specific application, in any domain,.

Similarly, the emphasis was not on teaching the 'use' of specific digital content, but to encourage teachers to access a wide variety of existing on-line content, as well as creating content using these applications^[9]. The teaching and learning needs of teachers were placed as the starting point for them to explore the use of freely available

applications and content, without privileging any one source.

5 History repeats itself?

"...there is a repetitive cycle of technology in education that goes through hype, investment, poor integration, and lack of educational outcomes. The cycle keeps spinning only because each new technology reinitiates the cycle"

- Kentaro Toyoma. *There Are No Technology Shortcuts to Good Education*

In the 'Computer Aided Learning Program' (CALP) component of the Sarva Shiksha Abhiyaan (SSA) program, many states provided desktop computers to a few hundred to few thousand higher primary schools, sometimes with bundled content. However, in most cases, in the absence of required teacher preparation (including supporting teachers capacities and agency to mediate digital content and processes in their teaching), the digital infrastructure and content was usually not used by teachers in their regular subject teaching^[10]. The cycle of spending huge amounts on ICT hardware, is being repeated now with tablets, under the belief that providing access to tables with e-content to students will help learning. As in the case of the 'text book', e-content can also serve to reinforce the power of the education bureaucracy in determining the classroom transaction. ICT as a 'pipe' can be used to 'monitor' more effectively^[11].

"While computers appear to engage students (which is exactly their appeal), the engagement swings between uselessly fleeting at best and addictively distractive at worst. No technology today or in the foreseeable future can provide the tailored attention, encouragement, inspiration, or even the occasional scolding for students that dedicated adults can, and thus, attempts to use technology as a stand-in for capable

instruction are bound to fail.”

- Kentaro Toyoma. *There Are No Technology Shortcuts to Good Education*

ICT program design should focus on building the capacities of the ‘dedicated adults’ to support subject teaching, develop OER and connect to learning communities for mutual support. These processes enhance agency, encouraging and enabling the teacher

to revise her content and pedagogy, and are foundational to meaningful integration of ICT in school education. Given huge shortage of resources in school education, where even basic infrastructure is not yet available in all schools, investing in ICT programs that limit teacher agency, would not serve any educational purpose.

Bibliography

- Vidya Bhawan Society & Azim Premji Foundation (2008). A Study of the Computer Assisted Learning Program (CALP).
- Cheryl Hodgkinson-Williams & Patricia B. Arinto (2017.) Adoption and Impact of OER in the Global South.
- Challenging the ‘education is broken’ and Silicon Valley narratives by Carl Hendrick, retrieved from <https://researched.org.uk/challenging-the-education-is-broken-and-silicon-valley-narratives>
- COL (2015). Large-Scale, Government- Supported Educational Tablet Initiatives, retrieved from <http://oasis.col.org/handle/11599/809>.
- Kentaro Toyama (2011). There Are No Technology Shortcuts to Good Education, retrieved from <http://edutechdebate.org/ict-in-schools/there-are-no-technology-shortcuts-to-good-education>.
- NCERT (2005). National Curricular Framework.
- NCTE (2010). National Curricular Framework for Teacher Education.
- NCERT (2013). National ICT Curriculum.
- Teachers’ toolkit for creating and re-purposing OER using FOSS. IT for Change, retrieved from https://teacher-network.in/OER/index.php/Teachers'_toolkit_for_creating_and_re-purposing_OER_using_FOSS
- MP schools nod for plans to distribute tabs, retrieved from <https://timesofindia.indiatimes.com/city/bhopal/digital-leap-for-mp-schools-nod-for-plan-to-distribute-tabs-for-teaching/articleshow/64508424.cms>

-
- [1]. popularly known as Information and Communication Technologies or ICT, which term will be used in the rest of the article
 - [2]. Disclaimer - IT for Change collaborated with RMSA and SCERT Karnataka, in the design and implementation of this program
 - [3]. Meaning, relevant to teachers of all subjects
 - [4]. 2017. Cheryl Hodgkinson-Williams & Patricia B. Arinto. Adoption and Impact of OER in the Global South
 - [5]. meaning teachers of a subject across the entire state are enrolled
 - [6]. These lists can be accessed from http://karnatakaeducation.org.in/KOER/en/index.php/See_old_STF_mails
 - [7]. Software, where the ownership is retained by the vendor and only a ‘license to use’ is given to the ‘buyer’

- [8]. For a nominal payment of Rs 50 per DVD
- [9]. Based on these experiences, a toolkit for teachers to develop 'open' educational resources using 'open' source software has been developed, as a part of the program
- [10]. See for instance 'A Study of the Computer Assisted Learning Program (CALP) Vidya Bhawan Society & Azim Premji Foundation 2008'. In many states, the CD-ROM content provided by Azim Premji Foundation was the main academic input in the CALP
- [11]. Such as through the on-line submission of information about classroom transaction to central repositories, or through district and state level 'dashboards' that purport to monitor the teacher in each school.

उच्च माध्यमिक स्तर पर दिव्यांग विद्यार्थियों की शिक्षा के प्रति अध्यापकों की अभिवृत्ति का अध्ययन

(सागर नगर के सन्दर्भ में)

सार

इस शोध पत्र में शोध विषय 'उच्च माध्यमिक स्तर पर दिव्यांग विद्यार्थियों की शिक्षा के प्रति अध्यापकों की अभिवृत्ति का अध्ययन (सागर नगर के सन्दर्भ में)' पर किया गया है। शोध में जीवसंख्या 32 उच्च माध्यमिक स्तर के 316 शिक्षक एवं शिक्षिकाएँ हैं, जिनमें से प्रतिदर्श के रूप में 20 उच्च माध्यमिक विद्यालय के 100 शिक्षकों एवं शिक्षिकाओं का चयन किया गया। प्रतिदर्श का चयन सरल यादृच्छिक प्रतिदर्शन के अंतर्गत लाटरी विधि का उपयोग कर किया गया है। आकड़े के संग्रहण हेतु स्वनिर्मित अध्यापक अभिवृत्ति मापनी (प्रश्नावली) का उपयोग किया गया है। शोध में शोधार्थी द्वारा सांख्यिकी विश्लेषण के रूप में मध्यमान, मानक-विचलन, काई परीक्षण एवं टी-मापनी सांख्यिकी प्रविधियों का प्रयोग किया गया है। आकड़ा विश्लेषण के पश्चात् प्राप्त परिणाम को इंगित करते हैं कि शासकीय विद्यालय के महिला शिक्षिकाओं में 78 प्रतिशत (19 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति सकारात्मक एवं 22 प्रतिशत (6 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति नकारात्मक प्राप्त हुई। शासकीय विद्यालय के पुरुष शिक्षकों में 71 प्रतिशत (18 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 29 प्रतिशत (7 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई। अशासकीय विद्यालय के महिला शिक्षिकाओं में 49 प्रतिशत (12 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति सकारात्मक एवं 51 प्रतिशत (13 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति नकारात्मक प्राप्त हुई। अशासकीय विद्यालय के पुरुष शिक्षकों में 45 प्रतिशत (11 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 55 प्रतिशत (14 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई। सागर नगर के उच्च माध्यमिक स्तर के शिक्षकों एवं शिक्षिकाओं की अभिवृत्ति दिव्यांग विद्यार्थियों के प्रति सामान्य है साथ ही पुरुष शिक्षकों की तुलना में महिला शिक्षिकाओं की अभिवृत्ति दिव्यांग विद्यार्थियों की शिक्षा के प्रति सकारात्मक प्राप्त हुई।

भूमिका

किसी भी समाज की उन्नति में शिक्षा महत्वपूर्ण भूमिका निर्वह करती है। भारत जैसे लोकतंत्रीय देश में शिक्षा की भूमिका और अधिक महत्वपूर्ण हो जाती है जैसा कि इमाइल दुर्खिम ने कहा है कि 'शिक्षा वह साधन है जिसके द्वारा समाज बच्चों में अपने अस्तित्व की अनिवार्य अवस्था को तैयार करता है' शिक्षा और समाज एक दुसरे

से इस प्रकार सम्बन्धित है कि कहा जायेगा कि ये दोनों एक सिक्के के दो पहलू हैं। यह एक सर्वविदित सत्य है कि शिक्षा किसी भी व्यक्ति, समाज और राष्ट्र के विकास की धुरी होती है। शिक्षा का संबंध सिर्फ साक्षरता से ही नहीं है, बल्कि शिक्षा चेतना और उत्तरदायित्व की भावना को जाग्रत करने वाला औजार भी है। शिक्षा को एक मापक

या पैमाने के तौर पर देखा जाता है, जिसके आधार पर व्यक्ति, राज्य या देश का मूल्यांकन किया जाता है।

शिक्षा आज विश्व में अत्यन्त महत्वपूर्ण प्रक्रिया है। यह प्रक्रिया जब से मानव ने समाज में रहना आरंभ किया है, तभी से अब तक चलती आ रही है। वर्तमान समय में शिक्षा इन तीन अर्थों में समझी जाती है, अतः शिक्षा का अर्थ है-विद्यार्थी की छिपी हुई शक्तियों का विकास करना, उसे ज्ञान या प्रशिक्षण देना, उसके ज्ञान और नैतिकता को इस प्रकार विकसित करना जिससे कि वह अपने पर्यावरण और समाज में समायोजन कर सके और मानव जीवन की सभी संभावनाओं को प्राप्त कर सके।

अध्यापक के महत्व के सम्बन्ध में डॉ सर्वपल्ली राधाकृष्णन ने कहा है, कि “अध्यापक का समाज में बहुत महत्वपूर्ण स्थान है, वह एक पीढ़ी से दूसरी पीढ़ी को बौद्धिक संस्कृतियों और तकनीकी कौशल को पहुँचाने में मुख्य भूमिका अदा करता है, और सभ्यता के दीपक को जलाये रखता है”।

अध्यापक शब्द बच्चे के जीवन में बहुत अधिक महत्व रखता है, अध्यापन पेशा या व्यवसाय नहीं बल्कि समाज के प्रति सेवा के लिये समर्पण है, एक शिक्षक ही देश को स्वावलम्बी बनाकर बुलंदी पर पहुँचता है। अध्यापक ही अपने विद्यार्थियों में चरित्र निर्माण, व्यवहार आदि में परिवर्तन करके व्यक्तित्व का निर्माण करता है। विद्यार्थी को सही मार्गदर्शन अध्यापक द्वारा ही सम्भव है, शिक्षा की व्यवस्था की सफलता अध्यापक पर निर्भर करती है, एक अच्छा शिक्षक ही अच्छे समाज का निर्माण करता है।

आज के समाज में दिव्यांगों की शिक्षा महत्वपूर्ण है, क्योंकि दिव्यांगता को वर्तमान परिप्रेक्ष्य में अभिशाप मानना, सहानुभूति-दया आदि की भावना से ग्रसित होकर उनका सर्वांगीण विकास के प्रयास करना उचित नहीं है, जब तक कि इनके बीच कार्य करने वाले व्यक्तियों, अध्यापकों एवं संचालित कार्यक्रमों का विकास इनके प्रति सकारात्मक दृष्टिकोण रखकर न किया जाए इसमें सफलता मिलना मुश्किल है। शिक्षक समाज के सजग प्रहरी, मार्गदर्शक एवं प्रकाश पुंज के रूप में कार्य करता

है, इसलिए शिक्षक की भूमिका दिव्यांग विद्यार्थियों की शिक्षा में अत्यन्त महत्वपूर्ण हो जाती है। जैसा कि एन.सी. एफ. 2005 में बतलाया गया है कि समावेशन की नीति को हर स्कूल और सारी शिक्षा व्यवस्था में व्यापक रूप से लागू किए जाने की ज़रूरत है। बच्चे के जीवन के हर क्षेत्र में वह चाहे स्कूल में हो या बाहर, सभी बच्चों की भागीदारी सुनिश्चित किए जाने की ज़रूरत है। स्कूलों को ऐसे केंद्र बनाए जाने की आवश्यकता है जहाँ बच्चों को जीवन की तैयारी कराई जाए और यह सुनिश्चित किया जाए कि सभी बच्चों, खासकर शारीरिक या मानसिक रूप से असमर्थ बच्चों, समाज के हाशिए पर जीने वाले बच्चों और कठिन परिस्थितियों में जीने वाले बच्चों को शिक्षा के इस महत्वपूर्ण क्षेत्र के सबसे ज्यादा फायदे मिलें।

सम्पूर्ण भारत में दिव्यंगों की जनसंख्या जनगणना 2011 के आधार पर 2.68 करोड़ है जो सम्पूर्ण जनसंख्या 121 करोड़ में 2.21 प्रतिशत है जिनमें दृष्टि बाधित-19 प्रतिशत, श्रवण हास-19 प्रतिशत, वाक् बाधित-7 प्रतिशत, क्रिया-आधारित दिव्यांग 20 प्रतिशत, मानसिक मंद-6 प्रतिशत, मानसिक बीमार-3 प्रतिशत, बहु दिव्यांग-18 प्रतिशत तथा अन्य प्रकार के दिव्यांग की जनसंख्या 18 प्रतिशत है जिसमें से ग्रामीण क्षेत्रों में 69 प्रतिशत तथा शहरी क्षेत्रों में 31 प्रतिशत दिव्यांग निवास करते हैं।

दिव्यांगता की परिभाषा:- (जनगणना 2011 के अनुसार) शारीरिक दिव्यांगता से अभिप्राय वह दिव्यांगता है जो कि शारीरिक रूप से हो अर्थात् कोई व्यक्ति देखने, बोलने, सुनने या चलने में कठिनाई का सामना करता हो। शारीरिक दिव्यांगता को हम चार भागों में बाँटेंगे।

1. दृष्टि दिव्यांगता, 2. वाणी दिव्यांगता, 3. श्रवण दिव्यांगता, 4. चलन क्रिया दिव्यांगता।

दिव्यंगों की साक्षरता स्थिति भारत की साक्षरता दर 73 प्रतिशत के सापेक्ष में मात्र 55 प्रतिशत (1.46 करोड़) है जिसमें से 62 प्रतिशत पुरुष साक्षरता दर एवं 45 प्रतिशत महिला साक्षरता दर राष्ट्रीय साक्षरता दर के अनुपात में निम्नतम स्थिति है जो इनकी दयनीय शैक्षिक स्थिति को इंगित करता है। स्कूल तक पहुँच की बात करे तो 5 से 19 वर्ष के सम्पूर्ण दिव्यंगों में से मात्र 57 प्रतिशत

बालकों एवं 47 प्रतिशत बालिकाओं तक हो पाई है। सम्पूर्ण दिव्यांग जनसंख्या 2.68 करोड़ में से 11 प्रतिशत प्राथमिक से नीचे शिक्षा प्राप्त, 12 प्रतिशत प्राथमिक तक शिक्षा प्राप्त, 9 प्रतिशत माध्यमिक तक शिक्षा प्राप्त तथा मात्र 3 प्रतिशत दिव्यांगों की स्नातक शिक्षा तक पहुंच है (जन गणना 2011 के अनुसार), ये आंकड़े हमें ये इंगित करते हैं कि यह समाज आज भी शैक्षिक रूप से मुख्य समाज से काफी पिछड़ा हुआ है।

एक सामान्य विद्यार्थी को पढ़ाने हेतु प्रशिक्षित अध्यापक शारीरिक दिव्यांग विद्यार्थियों को शिक्षित करने की विशेष कला से अवगत होता है। वह ऊपरी रूप से शारीरिक दिव्यांगों की सेवा कर सकता है और शिक्षा दे सकता है। शारीरिक दिव्यांग विद्यार्थियों को ऐसे अध्यापकों की आवश्यकता है जो उनकी मनोस्थिति को समझते हुए किसी ठोस दर्शन के आधार पर न केवल इनको शिक्षित करे बल्कि इनके सामाजिक, संवेगात्मक और शारीरिक विकास की ओर भी ध्यान दें, क्योंकि अध्यापक का अनुचित व्यवहार उनके मन में, कुंठा की भावना को जन्म देने का कार्य करेगा, जबकि अध्यापक का उचित व्यवहार इस प्रकार के विद्यार्थियों को अभिप्रेरित करने का कार्य करेगा।

दिव्यांग बच्चों की शिक्षा में शिक्षक की भूमिका महत्वपूर्ण होती है, क्योंकि समावेशी शिक्षा की कक्षा प्रक्रिया में शिक्षक के दृष्टिकोण (अभिवृत्ति) एवं व्यवहार महत्वपूर्ण भूमिका का निर्वहन करते हैं। राम (2014) ने अपने शोध कार्य में पाया कि शिक्षकों का दिव्यांग विद्यार्थियों से प्रश्न न पूछना एवं उनके गृह कार्य की जाँच को अन्य विद्यार्थियों के समान न करना, इस प्रकार का व्यवहार इन बच्चों को बहिष्करण की तरफ धकेलता है। इस प्रकार का शिक्षकों का दृष्टिकोण एवं व्यवहार समावेशी शिक्षा के गठन एवं सफल संचालन में कठिनाई उत्पन्न करता है, सामान्यतः शिक्षक का दृष्टिकोण एवं व्यवहार दिव्यांग विद्यार्थियों के प्रति सहानुभूतिपूर्ण होता है, जिससे शिक्षक इस प्रकार के विद्यार्थियों को अन्यो से कमजोर समझता है या कहीं सीखने लायक नहीं समझता है जिससे ये बच्चे कक्षा में होते हुए भी अपने को कक्षा

से अलग पाते हैं। ज्यादातर शिक्षक दिव्यांग एवं अन्य इस प्रकार के विद्यार्थियों के प्रति सहानुभूतिपूर्ण दृष्टिकोण अपनाते हैं। फिर भी सामान्य दृष्टि से देखा जाये तो आज भी दिव्यांगों की उपेक्षा हो रही है। दिव्यांग शारीरिक दृष्टि से भले ही कमजोर होते हैं, लेकिन उनका मस्तिष्क सामान्य व्यक्ति की तरह परिपक्व होता है। इसी कारण अस्थिबाधित दिव्यांगों को सामाजिक आर्थिक समस्या एवं पुनर्वास का अध्ययन कर उनके लिए चलाई जा रही योजनाओं एवं कार्यक्रमों के माध्यम से समाज की मुख्य धारा से जोड़ने का प्रयास किया जाये। जिससे वे अपना जीवन सामान्य व्यक्ति की तरह व्यतीत कर सकें।

शोध अध्ययन की आवश्यकता एवं महत्व

शोध विषय की आवश्यकता इस लिए भी है कि जैसा कि युनेस्को (2009) ने अपने प्रतिवेदन में बतलाया कि दिव्यांग विद्यार्थियों की शिक्षा में शिक्षकों की अभिवृत्ति एक प्रमुख बाधक है, दास (2010) ने अपने शोध में बतलाया कि दिव्यांग विद्यार्थियों का सामान्य कक्षा में शिक्षण हेतु शिक्षकों की अभिवृत्ति प्रमुख बाधक है साथ ही ज्यादातर शिक्षक इन विद्यार्थियों को कक्षा में सम्मिलित करने के पक्ष में नहीं हैं। जैसा कि कलाम (2014) ने अपने शोध में बतलाया कि शिक्षकों को सहानुभूति के बजाय समानुभूति का दृष्टिकोण अपनाना चाहिए जिससे इस प्रकार के विद्यार्थी अपने आप को कक्षा में अन्य विद्यार्थियों से भिन्न नहीं समझेंगे। समानुभूति पूर्ण दृष्टिकोण दिव्यांगों को अन्य विद्यार्थियों के समान मजबूत बनाने में सहायक होता है।

शोध विषय की आवश्यकता इस लिए भी है कि उच्च माध्यमिक स्तर के विद्यार्थी किशोरा अवस्था में होते हैं जो कि जीवन का सबसे महत्वपूर्ण समय होता है इस स्तर पर शिक्षक कार्य केवल शिक्षण तक सीमित नहीं होता है अपितु मार्गदर्शक की भूमिका का निर्वहन करना होता है। उम्र के इस पड़ाव में विद्यार्थियों को व्यवसायिक एवं सामाजिक निर्देशन की आवश्यकता होती है, क्योंकि वे अपने जीवन काल के सबसे कठिन दौर से गुजर रहे होते हैं। जहां अध्यापकों की भूमिका और भी ज्यादा बढ़ जाती है क्योंकि अध्यापक ही वह साधन है जो बच्चों को सही

व्यवसायिक एवं सामाजिक निर्देशन प्रदान करके उनके जीवन को सही दिशा प्रदान कर सकता है।

यह अध्ययन इसलिए भी महत्वपूर्ण है कि दिव्यांगों को सिखाने और भागीदारी में बाधा के रूप में एक अध्यापक का व्यवहार एवं उसकी अभिवृत्ति महत्वपूर्ण होती है। एन.सी.ई.आर.टी.(2009) ने अपनी रिपोर्ट में बतलाया कि प्रकृति मानव जीवन का आधार होती है हमारी प्रवृत्ति हमारे विचारों, भावनाओं और जो भी हम करते हैं, को स्पष्ट रूप से प्रभावित कराती है। वे वास्तव में हमारे सोचने, महसूस करने और कार्य करने को निर्धारित करती है, प्रवृत्ति वास्तव में किसी कार्य को करने के प्रति तत्परता है, परन्तु ये अत्यधिक भावनात्मक होती है, क्योंकि ये हम जिस प्रकार लोगों एवं चीजों का मूल्यांकन करते हैं। उसको प्रतिबिम्बित करती है, ये हमें यह फैसला करने में मार्गदर्शन करती है, कि हम किसको पसंद या नापसंद करें, किससे बचें और किसे अपनायें। सबसे बड़ी बाधा अध्यापक का रवैया होता है, अगर अध्यापक विशिष्ट आवश्यकता वाले बालक के प्रति नकारात्मक और पक्षपातपूर्ण रवैया रखता है, या ऐसे बालकों की शिक्षा के प्रति उसकी नकारात्मक पहुंच होती है तो समावेशन सफल नहीं हो सकता है, अध्यापकों का व्यवहार भी शिक्षिक कार्यक्रमों, कार्यशालाओं और इस क्षेत्र में अन्य लोगों का अनुभव जानकर बदल जाता है।

शोधार्थी द्वारा इस अध्ययन से यह पता लगाने का प्रयास किया गया है, कि शिक्षकों की अभिवृत्ति दिव्यांग विद्यार्थियों की शिक्षा पर किस प्रकार प्रभाव डालती है, सामान्य एवं अस्थि दिव्यांग विद्यार्थियों के समायोजन में विद्यालय की अहम भूमिका रहती है। इसी प्रकार शिक्षक विद्यार्थियों के लिए एक आन्तरिक प्रेरणा का कार्य करते हैं चूंकि समायोजन एक अर्जित कारक है, इसीलिए यह सदैव सभी के लिए एक समान नहीं रहता है क्योंकि प्रत्येक व्यक्ति भिन्न है इसीलिए उसका समायोजन भी अलग-अलग होगा। यदि दिव्यांगता बच्चे को नकारात्मक रूप से प्रभावित करती है, तो उसके व्यवहार एवं विकास में नकारात्मकता का प्रभाव मिलता है। शिक्षकों की अभिवृत्ति में जिम्मेदार उन कारणों का पता लगाकर, जो

उनकी शिक्षा एवं अभिप्रेरणा में बाधा उत्पन्न कर रहे हैं उन्हें दूर किया जा सकता है।

अनुसंधान के उद्देश्य:

- उच्च माध्यमिक स्तर के अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति का अध्ययन।
- उच्च माध्यमिक स्तर के अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति का तुलनात्मक अध्ययन।

परिकल्पनाएँ

- सागर नगर के उच्च माध्यमिक स्तर के शासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।
- सागर नगर के उच्च माध्यमिक स्तर के अशासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।
- सागर नगर के उच्च माध्यमिक विद्यालय स्तर के महिला अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।
- सागर नगर के उच्च माध्यमिक विद्यालय स्तर के पुरुष अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।
- सागर नगर के उच्च माध्यमिक स्तर के अशासकीय एवं शासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।
- सागर नगर के उच्च माध्यमिक विद्यालय स्तर के महिला एवं पुरुष अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।
- सागर नगर के उच्च माध्यमिक विद्यालय स्तर के शासकीय पुरुष एवं अशासकीय पुरुष अध्यापकों का शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।

- सागर नगर के उच्च माध्यमिक विद्यालय स्तर के शासकीय महिला एवं अशासकीय महिला अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।

संबंधित साहित्य का सर्वेक्षण:

एडिन, हरदीप और मैक कार्टिय (2014) ने विषय “दिव्यांग लोगों के प्रति वर्तमान अभिवृत्ति” पर रिपोर्ट प्रस्तुत किया, जिसमें उन्होंने पाया कि ब्रिटिश लोगों में 53 प्रतिशत ने बताया कि वे दिव्यांग लोगों के साथ रहने एवं काम करने में असुविधा महसूस करते हैं, और 47 प्रतिशत लोगों ने बताया कि इनके साथ रहने में असुविधा होती है परन्तु इनके साथ काम करने में असुविधा नहीं होती है। मार्टिन, एल जान्ड्रो एवं एमिलिया आल्बेरेजोर्गुई, (2013) ने “दिव्यांगता के प्रति अभिवृत्ति की पहचान करने के एक पैमाने का विकास एवं सत्यापन उच्च शिक्षा के संदर्भ में” विषय पर किया परिणाम में यह पाया कि शिक्षको एवं विद्यार्थियों की अभिवृत्ति दिव्यांगता के प्रति सामान्य है, साथ ही पाया कि प्रत्येक मानस मिति सम्बन्धी (सैकोमिटिक) गुणवत्ता का प्रमाण प्रदान करते हैं। ग्राम्स, मौली एवं कार्टन लेवर्टज (2010) ने विषय “लोगों की दिव्यांगता के प्रति अभिवृत्ति का अध्ययन चीन एवं अमेरिकन छात्रों का तुलनात्मक रूप में” पर शोध किया, परिणामतः पाया कि सामाजिक दृष्टी कोण दिव्यांगजनों के प्रति नकारात्मक है, साथ ही अमेरिकी छात्रों की चीनी छात्रों की तुलना में दिव्यांगों के प्रति अभिवृत्ति सकारात्मक प्राप्त हुई। फिलडलर, लाइरा (2007) ने “दिव्यांग जन के प्रति बहुआयामी अभिवृत्ति का मापन” विषय पर शोध किया। क्रहे, बरबरा एवं कोलेट आल्वेस्टर, (2006) ने “शारीरिक दिव्यांग लोगों के प्रति नकारात्मक अभिवृत्ति को बदलना. एक प्रायोगिक अध्ययन” विषय पर शोध किया।

शोध अभिकल्प

शोध विधि: प्रस्तुत शोध में शोधार्थी ने वर्णनात्मक अनुसंधान की सर्वेक्षण विधि का प्रयोग किया है।

जनसंख्या: शोध में जीवसंख्या के रूप में

चयनित 32 उच्च माध्यमिक स्तर के 316 अध्यापकों एवं अध्यापिकाओं में से प्रतिदर्श के रूप में 20 उच्च माध्यमिक स्तर के 100 अध्यापकों एवं अध्यापिकाओं का चयन किया गया है।

प्रतिदर्श: प्रस्तुत शोध में प्रतिदर्श चयन की विधि के रूप में सरल यादृच्छिक प्रतिदर्शन के अंतर्गत लाटरी विधि का उपयोग कर प्रतिदर्श चयन किया गया है। क्योंकि यहाँ जीवसंख्या सीमित है, इसलिए प्रतिचयन विधि के रूप में लाटरी विधि का उपयोग किया गया है, साथ ही प्रत्येक प्रतिदर्श के रूप में चयनित विद्यालय के अध्यापकों एवं अध्यापिकाओं का चयन उनकी वरिष्ठता (वरिष्ठ, कम वरिष्ठ) क्रम के आधार पर किया गया है।

शोध उपकरण: प्रस्तुत शोध समस्या के अध्ययन हेतु शोधार्थी द्वारा मापन उपकरण के रूप में “स्वनिर्मित प्रश्नावली” का उपयोग किया गया है। जिसमें कुल प्रश्नों की संख्या 50 है। इन 50 प्रश्नों में 27 ऋणात्मक प्रश्न एवं 23 धनात्मक प्रश्न हैं। यह प्रश्नावली योग निर्धारण विधि (लिकर्ट विधि) के अनुसार निर्मित की गई है। यह विधि अभिवृत्ति मापनी निर्माण के स्केल्ड प्रतिक्रिया विधि के अंतर्गत आती है। प्रश्नावली में प्रतिक्रिया देने के पाँच विकल्प यथा- पूर्णतः सहमत, कुछ सहमत, अनिश्चित, कुछ असहमत, पूर्णतः असहमत का उपयोग किया गया है। प्रस्तुत परीक्षण का विश्वसनीयता गुणांक अर्द्धविच्छेद विश्वसनीयता विधि में प्रथम अर्द्धांश-द्वितीय अर्द्धांश विधि के प्रयोग द्वारा ज्ञात किया गया है। उपर्युक्त परीक्षण का विश्वसनीयता गुणांक 0.52 तथा वैधता गुणांक 0.631 प्राप्त हुआ है।

संख्यिकी विधि: शोध में शोधार्थी द्वारा सांख्यिकी विश्लेषण के रूप में सांख्यिकी प्रविधियों मध्यमान, मानक-विचलन, काई परीक्षण एवं टी-मापनी का प्रयोग किया गया है।

प्रदत्त विश्लेषण एवं परिणामों की प्राप्ति: शोध में परिकल्पना परीक्षण हेतु शोधार्थी ने सार्थकता स्तर 0.01 एवं 0.05 का चयन किया है।

क्रम सं.	परिकल्पनायें	टी-परिक्षण मान या काई परिक्षण मान	सार्थकता स्तर
1	सागर नगर के उच्च माध्यमिक स्तर के शासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग छात्रों की शिक्षा के प्रति अभिवृत्ति सामान्य है।	1-60#	0.05, स्तर पर असार्थक
2	सागर नगर के उच्च माध्यमिक स्तर के अशासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग छात्रों की शिक्षा के प्रति अभिवृत्ति सामान्य है।	6-00#	0-05, स्तर पर सार्थक
3	सागर नगर के उच्च माध्यमिक विद्यालय स्तर के महिला अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।	2-33#	0-05, स्तर पर असार्थक
4	सागर नगर के उच्च माध्यमिक विद्यालय स्तर के पुरुष अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य है।	10-20#	0-01, स्तर पर सार्थक
5	सागर नगर के उच्च माध्यमिक स्तर के अशासकीय एवं शासकीय विद्यालय के अध्यापकों की शारीरिक दिव्यांग छात्रों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।	0-25*	0-05, स्तर पर असार्थक
6-	सागर नगर के उच्च माध्यमिक विद्यालय स्तर के महिला एवं पुरुष अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।	1-15*	0-05, स्तर पर असार्थक
7	सागर नगर के उच्च माध्यमिक विद्यालय स्तर के शासकीय पुरुष एवं अशासकीय पुरुष अध्यापकों का शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।	1-42*	0-05, स्तर पर असार्थक
8	सागर नगर के उच्च माध्यमिक विद्यालय स्तर के शासकीय महिला एवं अशासकीय महिला अध्यापकों की शारीरिक दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति में कोई सार्थक अन्तर नहीं है।	0-33*	0-05, स्तर पर

काई परिक्षण मान, 'टी-परिक्षण मान

परिणामों की व्याख्या:

प्रस्तुत शोध से प्राप्त आकड़ों एवं उनके विश्लेषण के पश्चात् निम्नलिखित परिणाम प्राप्त हुए हैं:-

1. सागर नगर के उच्च माध्यमिक स्तर के शासकीय विद्यालयों के अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य प्राप्त हुई है। जिससे यह प्रदर्शित होता है, कि शासकीय उच्च माध्यमिक स्तर के अध्यापकों
2. सागर नगर के उच्च माध्यमिक स्तर के अशासकीय विद्यालयों के अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य प्राप्त हुई है। जिससे यह प्रदर्शित होता है, कि शासकीय उच्च माध्यमिक स्तर के अध्यापकों

एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों के प्रति अभिवृत्ति सामान्य विद्यार्थियों के समान है।

एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों के प्रति अभिवृत्ति सामान्य विद्यार्थियों के समान है।

3. सागर नगर के उच्च माध्यमिक स्तर के विद्यालयों के महिला अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य प्राप्त हुई है। जिससे यह प्रदर्शित होता है, कि उच्च माध्यमिक स्तर के महिला अध्यापिकाओं की दिव्यांग विद्यार्थियों के प्रति अभिवृत्ति सामान्य विद्यार्थियों के समान ही है।
4. सागर नगर के उच्च माध्यमिक स्तर के विद्यालयों के पुरुष अध्यापकों की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य प्राप्त हुई है। जिससे यह प्रदर्शित होता है, कि उच्च माध्यमिक स्तर के अध्यापकों की दिव्यांग विद्यार्थियों के प्रति अभिवृत्ति सामान्य विद्यार्थियों के समान है, साथ ही अगर अध्यापक प्रशिक्षित हो तो लिंग का प्रभाव दिव्यांगों के प्रति अभिवृत्ति पर नहीं परिलक्षित होता है।
5. सागर नगर के उच्च माध्यमिक स्तर के शासकीय एवं अशासकीय अध्यापकों और अध्यापिकाओं की अभिवृत्ति के बीच कोई अंतर नहीं प्राप्त हुआ है। जिससे यह प्रदर्शित होता है, कि शिक्षक प्रशिक्षित हो तो विद्यालय शासकीय या अशासकीय होने से शिक्षकों की अभिवृत्ति में कोई अंतर नहीं होता है।
6. सागर नगर के उच्च माध्यमिक स्तर के पुरुष अध्यापकों और महिला अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति के बीच कोई अंतर नहीं प्राप्त हुआ है। जिससे यह प्रदर्शित होता है, कि शिक्षक लिंग अलग अलग होने से शिक्षकों की अभिवृत्ति में कोई अंतर नहीं होता है।
7. सागर नगर के उच्च माध्यमिक स्तर के शासकीय पुरुष एवं अशासकीय पुरुष अध्यापकों की अभिवृत्ति के बीच कोई अंतर नहीं प्राप्त हुआ है, जिससे यह प्रदर्शित होता है, कि एक ही तरह के लिंग होने पर विद्यालयों के अलग अलग प्रकार होने से अध्यापकों की अभिवृत्ति में कोई अंतर नहीं होता है।
8. सागर नगर के उच्च माध्यमिक स्तर के शासकीय एवं

अशासकीय महिला अध्यापिकाओं की अभिवृत्ति के बीच कोई अंतर नहीं प्राप्त हुआ है। जिससे यह प्रदर्शित होता है, कि एक ही तरह के लिंग होने पर विद्यालयों के अलग अलग प्रकार होने से अध्यापिकाओं की अभिवृत्ति में कोई अंतर नहीं होता है।

मुख्य परिणामों की प्राप्ति: शोध में आकड़े संग्रहण एवं विश्लेषण के पश्चात निम्नलिखित मुख्य परिणामों की प्राप्ति हुई हैं-

- शोध में परिणामतः पाया गया कि 17 प्रतिशत शिक्षकों के प्रतिक्रिया अंक 200 से अधिक प्राप्त हुए, 53 प्रतिशत शिक्षकों के प्रतिक्रिया अंक 150 एवं 200 के मध्य प्राप्त हुए, 30 प्रतिशत शिक्षकों के प्रतिक्रिया अंक 150 से कम प्राप्त हुए। अर्थात कि 17 प्रतिशत शिक्षकों की अभिवृत्ति उच्च अभिवृत्ति श्रेणी में, 53 प्रतिशत शिक्षकों की अभिवृत्ति सामान्य अभिवृत्ति श्रेणी में, 30 प्रतिशत शिक्षकों की अभिवृत्ति निम्न अभिवृत्ति श्रेणी में पाई गयी।
- शोध में परिणामतः पाया गया कि 68 प्रतिशत (68 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 32 प्रतिशत (32 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई। जिनमें शासकीय विद्यालय के 70 प्रतिशत (35 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 30 प्रतिशत (15 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई। अशासकीय विद्यालय के 32 प्रतिशत (16 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 68 प्रतिशत (34 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई।
- शोध में परिणामतः पाया गया कि महिला शिक्षिकाओं में 75 प्रतिशत (38 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति सकारात्मक एवं 25 प्रतिशत (12 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति नकारात्मक प्राप्त हुई। पुरुष शिक्षकों में 42 प्रतिशत (21 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 58 प्रतिशत (29 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई।

- शोध में परिणामतः पाया गया कि शासकीय विद्यालय के महिला शिक्षिकाओं में 78 प्रतिशत (19 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति सकारात्मक एवं 22 प्रतिशत (6 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति नकारात्मक प्राप्त हुई। शासकीय विद्यालय के पुरुष शिक्षकों में 71 प्रतिशत (18 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 29 प्रतिशत (7 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई। अशासकीय विद्यालय के महिला शिक्षिकाओं में 49 प्रतिशत (12 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति सकारात्मक एवं 51 प्रतिशत (13 शिक्षिकाओं) महिला शिक्षिकाओं की अभिवृत्ति नकारात्मक प्राप्त हुई। अशासकीय विद्यालय के पुरुष शिक्षकों में 45 प्रतिशत (11 शिक्षकों) शिक्षकों की अभिवृत्ति सकारात्मक एवं 55 प्रतिशत (14 शिक्षकों) शिक्षकों की अभिवृत्ति नकारात्मक प्राप्त हुई।

परिणामों पर चर्चा: उपर्युक्त शोध परिणाम प्राप्त हुए हैं इससे सम्बंधित कुछ शोध का विवरण निम्नलिखित है, जैसे- एल. जानड्रो मार्टिन एवं एमिलिया आल्वेरेज़रैगूड (2013) ने अपने शोध परिणाम के रूप में बतलाया कि सामान्य विद्यालय के शिक्षकों एवं विद्यार्थियों की दिव्यांगता के प्रति अभिवृत्ति सामान्य होती है। साथ ही एबिला ओल्लायो (2007) ने अपने शोध परिणाम के द्वारा बतलाया कि महिलाओं की अभिवृत्ति पुरुषों की तुलना में सकारात्मक होती है। जो मेरे द्वारा प्रस्तुत शोध में भी परिलक्षित हुआ है, जब हमने पुरुष अध्यापकों एवं महिला अध्यापिकाओं के मध्यमान ज्ञात किया तो महिला अध्यापिकाओं के मध्यमान पुरुष अध्यापकों के मध्यमान से अधिक प्राप्त हुए जो यह प्रदर्शित करते हैं, कि महिला अध्यापिकाओं की अभिवृत्ति पुरुष अध्यापकों की अभिवृत्ति से अधिक है, और एवांगलेन कर्न (2006) ने अपने शोध परिणाम में बतलाया कि सामान्य कक्षा के शिक्षकों की अभिवृत्ति दिव्यांगों के प्रति सामान्य है। किन्तु उन्हें प्रशिक्षण की आवश्यकता है जिससे उनकी अभिवृत्ति में और परिवर्तन हो सके। इन शोधों से प्राप्त परिणाम मेरे द्वारा किये गए शोध से प्राप्त परिणामों को प्रमाणित करते हैं।

शोध निष्कर्ष: प्रस्तुत शोध में परिणामों की प्राप्ति एवं परिणामों की व्याख्या के पश्चात् निष्कर्षतः यह कहा जायेगा कि विभिन्न उच्च माध्यमिक विद्यालय स्तर के अध्यापकों एवं अध्यापिकाओं की अभिवृत्ति दिव्यांगों की शिक्षा के प्रति सामान्य प्राप्त हुई है, किन्तु परिणामों की प्राप्ति के पश्चात् यह भी कहा जायेगा कि महिला अध्यापिकाओं की अभिवृत्ति पुरुष अध्यापकों की अभिवृत्ति से अधिक सकारात्मक प्राप्त हुई है। शासकीय अध्यापकों एवं अध्यापिकाओं की अभिवृत्ति अशासकीय अध्यापकों एवं अध्यापिकाओं की तुलना में अधिक सकारात्मक प्राप्त हुई है। साथ ही शासकीय पुरुष अध्यापकों की अभिवृत्ति अशासकीय अध्यापकों की अभिवृत्ति की तुलना में कम सकारात्मक प्राप्त हुई है। और शासकीय विद्यालय स्तर की महिला अध्यापिकाओं की अभिवृत्ति अशासकीय विद्यालय स्तर की महिला अध्यापिकाओं से अधिक सकारात्मक प्राप्त हुई है। निष्कर्षतः सभी अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के अभिवृत्ति में एकरूपता पायी गयी।

अंततः हम यही कहेंगे कि शोध में प्रयोज्य के रूप में सम्मिलित सभी अध्यापकों एवं अध्यापिकाओं की दिव्यांग विद्यार्थियों की शिक्षा के प्रति अभिवृत्ति सामान्य प्राप्त हुई है। जिससे निष्कर्ष रूप में हम यही कहेंगे कि सागर नगर में स्थित सभी उच्च माध्यमिक विद्यालय के अध्यापकों एवं अध्यापिकाओं की अभिवृत्ति दिव्यांग विद्यार्थियों के प्रति सामान्य है।

प्रस्तुत अनुसन्धान का शैक्षिक निहितार्थ: स्टीफन हाकिंग महोदय ने दिव्यांगों के संदर्भ में कहा है कि “दिव्यांग लोगों को कई बाधाओं का सामना करने के कारण व्यावहारिक शारीरिक और वित्तीय रूप कमजोर पड़ना पड़ता है इन बाधाओं को दूर करना हमारी पहुँच के भीतर है और ऐसा करना हमारा नैतिक कर्तव्य है, लेकिन सबसे महत्वपूर्ण इन अवरोधों को समाप्त करना होगा इन सारे लोगों की क्षमता को खोला जाए जिससे ये दुनिया में अपना योगदान दे सके प्रत्येक सरकार लाखों करोड़ों लोग जो अक्षमता से ग्रसित हैं उनकी अनदेखी नहीं कर सकती है इस वंचित समाज को स्वास्थ्य पुनर्वास समर्थन शिक्षा

और रोजगार द्वारा कभी चमकाने का मौका नहीं मिला है” जब तक कि इनके बीच कार्य करने वाले व्यक्तियों, अध्यापकों एवं संचालित कार्यक्रमों का विकास इनके प्रति सकारात्मक दृष्टिकोण रखकर न किया जाए। शिक्षक समाज के सजग प्रहरी, मार्गदर्शक एवं प्रकाश पुंज के रूप में कार्य करता है, इसलिए शिक्षक की भूमिका दिव्यांग विद्यार्थियों की शिक्षा में अत्यन्त महत्वपूर्ण हो जाती है। शिक्षक विद्यार्थियों के लिए एक आन्तरिक प्रेरणा का कार्य करते हैं चूँकि समायोजन एक अर्जित कारक है, इसीलिए यह सदैव सभी के लिए एक समान नहीं रहता है क्योंकि प्रत्येक व्यक्ति भिन्न है इसीलिए उसका समायोजन भी अलग-अलग होगा। यदि दिव्यांगता बालक को नकारात्मक रूप से प्रभावित करती है, तो उसके व्यवहार

एवं विकास में नकारात्मकता का प्रभाव मिलता है।

कक्षा का वातावरण भेदभाव रहित सभी सीखने वाले के अनुकूल होना चाहिए जैसा एन.सी.एफ. 2005 में बतलाया गया है कि 'सावर्जनिक स्थल के रूप में स्कूल में समानता, सामाजिक विविधता और बहुलता के प्रति सम्मान का भाव होना चाहिए, साथ ही बच्चों के अधिकारों और उनकी गरिमा के प्रति सजगता का भाव होना चाहिए। इन मूल्यों को सजगतापूर्वक स्कूल के दृष्टिकोण का हिस्सा बनाया जाना चाहिए और उन्हें स्कूली व्यवहार की नींव बनना चाहिए। सीखने की क्षमता देने वाला वातावरण वह होता है जहाँ बच्चे सुरक्षित महसूस करते हैं, जहाँ भय का कोई स्थान नहीं होता और स्कूली रिश्तों में बराबरी और जगह में समता होती है।'

संदर्भ ग्रन्थ सूची:

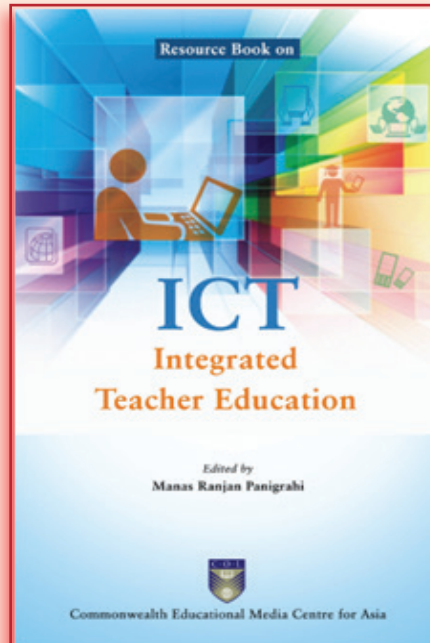
- एन.सी.ई.आर.टी. (2015), “भारत में दिव्यांगों की शिक्षा एक हिस्तोरिकल बैक ग्राउन्ड”, नई दिल्ली, प्राप्ति स्रोत <<http://www.ncert.nic.in>, 19.03.2016 और (<http://www.ncert.nic.in>, 26.01.2017)
- एन.सी. ई. आर.टी (2015), भारत में दिव्यांगों की शिक्षा, ए हिस्तोरिकल बैक ग्राउन्ड, नई दिल्ली, प्रकाशन विभाग एन.सी.आर.टी. प्राप्ति स्रोत: (<http://www.ncert.nic.in>, 26.01.2017)
- कुमार कृष्ण (2013), राज समाज और शिक्षा, इलाहबाद, राजकमल प्रकाशन
- कुमार, पवन (2010). “सामान्य एवं दिव्यांग किशोर/किशोरियों के सांवेगिक परिपक्वता का अध्ययन”, लघु शोध प्रबन्ध, सागर, शिक्षा शास्त्र विभाग, डॉ हरिसिंह गौर विश्वविद्यालय, मध्य प्रदेश, पृष्ठ संख्या-18
- कुमारी, शारदा (2009), इक्ल्यूसिव विद्यालय वातावरण और कोमल की जरूरते-प्रथमिक शिक्षा, दिल्ली, एन.सी.ई.आर.टी, पृष्ठ संख्या. 22, 25
- दास, बी.एन.(2007). विशिष्ट बालकों के लिए शिक्षा, दिल्ली, अंजता प्रकाशन, पृष्ठ संख्या-123,228
- धर्मेन्द्र सिंह (2008), अस्थि बाधित विकलांगों की सामाजिक-आर्थिक समस्याएँ एवं पुनर्वास: एक समाज शास्त्रीय अध्ययन (खण्डवा जिले के विशेष संदर्भ में), वाणिज्य संकाय, इन्दौर, देवी अहिल्या विश्वविद्यालय.
- पचैरी, आर.एस. (2014), “दिव्यांगों की शिक्षा”, जयपुर, राजस्थान हिन्दी ग्रन्थ अकादमी पेज 45,189
- रंजन दीपक (2016), “विकलांगजन: शारीरिक पुनर्वास व संस्थागत प्रयास”, लघु शोध प्रबन्ध, सागर, शिक्षा शास्त्र विभाग, डॉ हरि सिंह गौर विश्वविद्यालय, मध्य प्रदेश, पृष्ठ संख्या-54
- राव इंदु मती (2016), “विकलांग जन शैक्षिक अधिकार व अवसरों का उन्नयन”, नई दिल्ली, योजना पत्रिका प्रकाशन विभाग भारत सरकार, पृष्ठ संख्या -9 12
- रंजन दीपक (2016) ,विकलांग जन शारीरिक पुनर्वास व संस्थागत प्रयास, नई दिल्ली, योजना पत्रिका प्रकाशन विभाग भारत सरकार, पृष्ठ संख्या-41 45

- राम, पी.एस. (1992), जूनियर हाईस्कूल कक्षाओं में अध्ययनरत अंध मूक-बधिर एवं सामान्य बालकों के समायोजन, व्यक्तित्व, स्वास्थ्य एवं समस्याओं का तुलनात्मक अध्ययन, लघु शोध प्रबन्ध, सागर, शिक्षा शास्त्र विभाग, डॉ. हरि सिंह गौर विश्वविद्यालय, मध्य प्रदेश, पृष्ठ संख्या-25
- लाल, मदन (2003), समाकेतिक शिक्षा, दिल्ली अजंता प्रकाशन, पृष्ठ संख्या- 46-68,180-236
- वाला, एम. (1985), ए कम्परेटिव स्टडी ऑफ द मेंटल मेक-अप एण्ड एजुकेशन फैसिलिटी फार फिजिकल हैडीकैप एण्ड नार्मल चिल्ड्रन, पी-एच.डी, एडु. कुर. यूनि. 1985, इन फोर्थ सर्वे आफ रिसर्च इन एजुकेशन, 1983-88, दिल्ली, एन.सी.ई.आर.टी., वाल्यूम-11,
- शर्मा, संदीन (2007), भारत में दिव्यांगों की शिक्षा की एक हिस्टोरिकल बैग्राउंड, रिसर्च एसोशिएट एजुकेशनल सर्वे एण्ड डाटा क्लैक्शन डिपार्टमेंट, नई दिल्ली, एन.सी.ई.आर.टी, पृष्ठ संख्या-18
- UNESCO (2009). टुवर्ड इनक्लुसिव एजुकेशन फार चिल्ड्रेन विथ डिसेबिलिटी गाईड लाईन, बैंकाक।
- कलाम (2003). समावेशी शिक्षा और शिक्षक, खोजे और जानें, उदयपुर विद्या भवन सोसायटी अंक 7
- NCERT (2006). पोजीशन पेपर नेशनल फोकस ग्रुप ऑन एजुकेशन आफ चिल्ड्रेन विथ स्पेशल नीड्स।
- Olaya (2007). Attitude of Students towards peers with disability in an inclusive school in Nigeria. *ile ife, DCIDJ*, volume 23, pp65-75, retrieve from www.dcidj.org.
- Layera, Flinders (2007). The multidimensional attitudes scale towards person with disability (MAS). *London.RCB*, Vol-50, pp-166-176.
- Aiden, Hardeep and A. McCarthy. (2014). Current attitudes towards disabled people, Scope is a registered charity, number 208231. Copyright Scope May 2014, <<http://www.research-information.bristol.ac.uk/current-attitudes-towards-disabled-people>,
- Elias Avramidis & B. Norwich. (2010). Teachers' attitudes towards integration / inclusion:a review of the literature, *European Journal of Special Needs Education*, ISSN: 0885-6257, <<http://dx.doi.org/10.1080/08856250210129056>,21.02.017
- Grames, Molly & C. Leverentz. (2010). Attitudes Toward Persons with Disabilities: A Comparison of Chinese and American Students. *Journal of Undergraduate Research*. <<https://www.uwlax.edu/urc/jur-online/PDF/2010/grames-leverentz.pdf>, 20.11.2016
- Hannon, Frances. (2006). Literature Review on Attitudes towards Disability, NDA, <<https://www.ucd.ie/issda/static/documentation/nda/nda-literature-review.pdf>,29.08.2016
- Kern, Evangeline. (2006), Survey of Teacher Attitude Regarding Inclusive Education Within an Urban School District, *School Psychology Commons*, <http://digitalcommons.pcom.edu/psychology_dissertations,16.06.2016
- Krahe, Barbara and C. Altwasser. (2006). Changing Negative Attitudes Towards Persons with Physical Disabilities: An Experimental Intervention, <<http://onlinelibrary.wiley.com/>,18.06.2016
- Ministry of Human Resource Development. (2016).Educational Statistics At A Glance.New Delhi.Government of India pp-1to56, <<http://www.mhrd.gov.in>, 22.11.2016
- Martin, A. R. and Emilio Á. A. (2013). Development and validation of a scale to identify attitudes towards disability in Higher Education, ISSN: 0214-9915, <<http://www.psicothema.com/>, 28.09.2016
- Mani.M.N.J. (2000).Inclusive Education. koymbtour. Ramkrishna school <http://www.eng.vedanta.ru/library/prabuddha_bharata/September2005_Inclusive_Education.php.

- NCERT (2015), Including Children With Special Needs Upper Primary Stage, New Delhi National Council of Educational Research and Training. Offices of the Publication division, NCERT <http://www.ncert.nic.in/pdf_files/SpecialNeeds.pdf, 12.03.2017
- NCERT. (2014). Including Children With Special Needs Primary Stage, New Delhi National Council of Educational Research and Training. Offices of the Publication division, NCERT <http://www.ncert.nic.in/pdf_files/SpecialNeeds.pdf, 12.03.2017
- NUEPA.(2014).Education for All Toward Quality with Equity India. New Delhi. Government of India.MHRD. <<http://mhrd.gov.in/nep-new>, Pp-2to156
- Oppenheim, A.N.(1966). Questionnaire design, interviewing and attitude .measurement, London and New York, Pinter Publishers, <<https://www.kth.se/social/>.12.04.2017
- Popham, W.J. & R. R.Trimbli. (1960). The Minisota Teacher Attitude Invenry as an Index of General Teaching Competence. Educational and Psychological Measurement. Vol.20, No.3, 1960, <<http://journals.sagepub.com/doi/abs/10.1177/001316446002000307>
- Social statistics Division.(2016).Deseable person of India:At statical profile.New Delhi.GOV. India. <<http://mospi.nic.in/> Pp-1to341
- Yee, Aleberth And B. Fruchter. (1971). Factor Content of the Minnesota Teacher Attitude Inventory, American Educational Research Journal, <<https://www.jstor.org/stable/1161741?seqpagescantabcontents>,25.02.2017

Resource Book on ICT Integrated Teacher Education

The Edited Resource book on ICT education. Understanding the means of Integrated Teacher Education is integration of ICTs in teacher education, published from the banner of Commonwealth Education Media Centre for Asia (CEMCA). The book is edited by Dr. Manas Ranjan Panigrahi of CEMCA. The book has 5 chapters which focus on the various aspects of need of ICT integration in teacher education in terms of providing quality teaching and learning. As mentioned by the editor the chapters of this book are intended to assist informed educational leaders, teacher educators, school teachers and others to implement technology plan and integration of ICTs in teaching and learning. The five chapters in this resource book, covering different aspects of the theme are sequentially analysed as follows:



Chapter 1: Trends and Challenges in ICT Integrated Teacher Education in Commonwealth Asia by Manoj Kumar Dash (pp. 9 – 19)

This chapter discusses different aspects of integration of ICTs in teacher education programmes and also identifies barriers and challenges to technology integration. It highlights criteria of integration of technologies for learning of students and their teachers who desire to integrate ICT in

its strength and function. This chapter focuses elaborately on technology mediated approaches for teaching-learning and their social impact, Open Educational Resources for teacher development, ICTs and Learning Management Systems, further it discusses the issues of technology mediated Teacher Education initiatives, and challenges in ICT-integrated Teacher Education. The sustainability of ICT

culture in Teacher Education is one of the major concerns discussed here in this chapter. The effective integration of ICTs in the curriculum is a must. It is the duty of Teacher Education institutions to make sure that ICT is infused and integrated to the curriculum and should become the integral part of every paper. The chapter concludes with a note that Teacher Education institutions must create an environment for teachers that enable them to create appropriate learning experiences for students in the present learning scenario.

Chapter 2: The Technological Pedagogical Content Knowledge Framework for Teachers and Teacher Educators by Matthew

J. Koehler, Punya Mishra, Mete Akcaoglu and Joshua M. Rosenberg (pp. 20 – 30)

This chapter focuses on teacher educators need to visualise ICT integration in a holistic manner, it presents a very popular framework-Technological Pedagogical Content Knowledge (TPACK) and its importance in teacher education. This chapter argues that good teaching with technology requires shift in existing practices in both pedagogy and content domains. It states that the use of technology in the classroom introduces a new set of variables into the teaching context, and adds complexity due to its rapidly changing nature. Although the author categorically mentions that this chapter/paper provides only a brief summary of the TPACK framework and related ideas. It gives an overview of Technological Knowledge (TK), Content Knowledge (CK) and Pedagogical Knowledge (PK) separately and their combinations in the form of Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK) and Technological Pedagogical Content Knowledge (TPACK). The implications of all these for teachers and teacher educators in terms of their role as the designers of the entire process of teaching learning and giving a progressive shape to curriculum transaction is discussed elaborately. The chapter suggests that effective interplay between technology, pedagogy and content is established through the TPACK framework. Applying this framework to the task of teaching with technology requires a context-bound understanding of technology, where technologies may be chosen and repurposed to fit the very specific pedagogical and content-related needs of diverse educational contexts.

Chapter 3: Using UNESCO's ICT Competency Framework for Teachers in Guyana by Andrew Moore, Neil Butcher and Sarah Hoosen (pp. 31 - 45)

This chapter presents a detailed description of the implementation of the UNESCO's ICT competency framework as a model of teacher professional development in Guyana and highlights the processes involved in the use of OER in developing learning materials in an efficient and cost-effective manner. This chapter surveys the challenges faced by the education system of Guyana, one of them is the low retention of qualified teachers and subsequent employment of untrained and unqualified teachers. It discusses the ICT strategy adopted for teacher education which considers international trends as well as the local environment and ICT in education projects in Guyana. Further this chapter discusses the critical role of the UNESCO ICT Competence Framework for Teachers (CFT), which emphasises the role that ICT can play in supporting six major education areas, namely ICT in education policy and vision; curriculum and assessment issues; pedagogy; ICT; school organisation and administration; and teacher professional development. The mapping of the UNESCO's ICT CFT structure to the Guyana teacher training environment is further detailed. This chapter further puts light on the innovative curriculum and material development processes employed in Guyana which involves mapping the curriculum to ICT opportunities, selection and use of OERs and free resources. facilitated development of guides for selection of simple pathways for resource mapping, evaluation and revision. This chapter gives a ready account of exploiting the 'Release Early, Release Often' (RERO) model of development. In all the initiatives

discussed in this chapter which are designed to build capacities of educators illustrate that digital resources and ICT tools add value to the system. After an initial investment of time and resources ICT will lead to improved productivity, enhanced teaching and learning and more effective administration and communication channels. This chapter very well displays Guyana's ICT Professional Development Strategy for Teachers and illustrates a potential pathway to achieving a transformation.

Chapter 4 Technology, Education and Design: The Sciences of the Artificial by Som Naidu (pp. 46 – 60)

This chapter reflects on the design of effective, efficient and engaging teaching-learning experiences. This is the product of synergies derived from knowledge about the technology, pedagogy and the subject matter.

This chapter starts with mention of Herbert Simon's classic book *The Sciences of the Artificial* where he differentiates between the natural sciences and the sciences of the artificial. It discusses that the science of the artificial include areas such as computing, engineering, architecture and education and these disciplines are concerned with defining how things ought to be. This defining characteristic of the science of the artificial is design. In this chapter there is an exploration of the fields of technology, education and design, and a discussion on their separate as well as combined implications for the the design of learning and teaching experiences.

The chapter proceeds further with providing implications for learning experience design, it provides a relationship between technological knowledge, pedagogical knowledge and subject matter knowledge. It further elaborates instructional theories proposed by different people. This

chapters establishes very well that great teaching is about designing a potent learning experience for the learners where their learning is more effective, efficient, engaging and enjoyable. The teaching of this kind requires a careful thought of what is to be taught and learned in terms of subject matter, the method of transaction or the pedagogical approach and what tools and technologies were being used by teachers and the learners as well as the expected time to be spent on all this. The author suggests through this chapter that 'great teaching happens when students can claim to have learned something', and for this it is required to have an in-depth understanding of the subject matter as well as the pedagogy, the technology and the knowledge that lies at the intersections of these variables. It further explains the importance of technological pedagogical content knowledge (TPCK) in the educational system.

Chapter 5: Teleconference Based Model of Capacity Building for ICT Integration by Saroj Pandey (pp. 61-72)

This chapter describes the use of teleconferencing and videoconferencing models in professional development of teachers. This chapter elaborates how these modes brought proliferation of innovative means for professional development of teachers. The effective and successful use of EDUSAT in training of in-service teachers overcoming the issues of access, quality and transmission loss under Sarva Siksha Abhiyan (SSA) in India, with which the conventional professional development models suffer. The teleconference or videoconference based models address the challenges of providing quality training to the huge number of teachers of the country, most likely in rural, hilly and remote areas where conventional

system has not reached effectively. This chapter provides an elaborate description of 'Use of Teleconferencing for Special Orientation of Primary Teachers (SOPT) by National Council of Educational Research and Training (NCERT). An elaborate outlook on the transformation of teleconferencing to videoconferencing and involvement of various agencies like CIET-NCERT and ISRO has been elaborated. The challenges faced during the transformation from teleconferencing to videoconferencing have been well discussed in this chapter.

The chapter well establishes the superiority of teleconferencing and videoconferencing methods over the traditional face-to-face model

of in-service education of teachers (INSET) which generally follows the multilayered cascade model of training that affects the quality of training from one layer of hierarchy to another due to transmission loss.

Concluding Remarks

The resource book ends with providing the brief profile of the Editor and Authors. As a whole this book provides very important information and useful content related to ICT integration in Teacher Education. The material provided through different chapters in this resource book can be instrumental in knowledge generation in terms of ICT integration especially for Teacher Educator.

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING