TESS India

Baseline Report

Uttar Pradesh, Madhya Pradesh and Bihar

September-November

2013

Baseline study of teacher educators, teacher trainees, head teachers, teachers and students

The Open University

UKaid from the British people

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Abbreviations

B.Ed. – Bachelor in Education
BEIEd – Bachelor in Elementary Education
BRC – Block Resource Centre
BTC – Basic Training Certificate
CRC – Cluster Resource Centre
CTC – Certified Training Course
CTE - Colleges of Teacher Education
CWSN – Children with Special Learning Needs
D.Ed. - Diploma in Education
D.El.Ed – Diploma in Elementary Education
DIET – District Institute for Education and Training
DISE - District Information System for Education
DoE – Department of Education
HT – Head Teacher
HTQ – Head Teacher Questionnaire
IASE – Institutes of Advanced Study in Education
JBT – Junior Basic Training
JRM – Joint Review Mission
LDUs – Leadership Development Units
M&E – Monitoring and Evaluation
M.Ed. – Masters in Education
NCERT – National Council of Educational Research and Training
NCF – National Curriculum Framework
NCFTE – National Curriculum Framework for Teacher Education
NCTE – National Council of Teacher Education
NGO – Non -Government Organisation
OBC – Other Backward Classes
OER - Open Educational Resources
PTEC – Primary Teacher Education College
PTR – Pupil Teacher Ratio
RIE - Regional Institute of Education
RMSA – Rastriya Madhyamik Sikshya Abhiyan
RTE – Right to Education
PC – Principal Checklist

SC – Scheduled Caste
SCERT – State Council of Educational Research and Training
SCR – Student Classroom Ratio
SISE – State Institute of Science Education
SMC – School Management Committee
SSA – Sarva Sikhya Abhiyan
ST – Scheduled Tribes
SQ – Student Questionnaire
TE – Teacher Educator
TEC – Teacher Educator Checklist
TEI – Teacher Education Institution
TDU – Teacher Development Units
TLM – Teaching Learning Material
TPD – Teacher Professional Development
TT – Teacher Trainee
TTQ – Teacher Trainee Questionnaire
TQ – Teacher Questionnaire
TEQ – Teacher Educator Questionnaire

Preface

Teachers are at the heart of a strong education system. It is therefore, imperative that the quality of teachers and teacher education is taken seriously for it is they who mould the future of a society. While innovations in the system like the establishment of the District Institutes of Education and Training (DIETs) in the early 90's and policies like the National Policy of Education of 1986 and Programme of Action, 1992 affirms the commitment of the Indian state towards teachers' education, the paradigm-shift that is envisaged in the philosophy of teaching to student-centred pedagogic practices is yet to be adopted. UNESCO states that the inadequacy in both the quantity and quality of teachers and the teaching profession has in turn had a severe impact on the school education of children. It is in this daunting context of exiguity that the TESS-India (Teacher Education through School-based Support) programme, funded by UKaid from the UK Government's Department for International Development (DFID), and led by The Open University (OU), United Kingdom, in collaboration with the Ministry of Human Resource Development, Government of India; aims to enhance the quality of teachers and teacher education in India.

The OU, a pioneer in the development of Open Educational Resources (OERs), contributes to teachers' education internationally. Based on the philosophy of strengthening the system of teacher education which consequently has an impact on students' learning experience, The OU has successfully implemented teacher education programmes such as the Teacher Education in Sub-Saharan Africa (TESSA) programme (see www.tessafrica.net) which won the Queen's Anniversary Prize, and the English in Action (EIA) programme in Bangladesh (www.eiabd.com) which has reached 25 million people.

This report covers the baseline study conducted in three of the seven TESS-India states: Uttar Pradesh, Bihar, and Madhya Pradesh. Data was collected from students, teachers and head teachers in schools (primary, upper primary and secondary); and teacher trainees, teacher educators, and principals of DIETs between September-November, 2013. The survey tools consisted of questionnaires, classroom observation schedules and checklists; and the sample consisted of 23 DIET principals, 179 teacher educators, 984 teacher trainees from 24 DIETs (8 from each state); and 423 head teachers, 707 teachers, and 4117 students across 423 schools. The study was conducted in adherence to the research ethics of The Open University, UK.

[1] http://www.unesco.org/new/en/education/themes/education-building-blocks/teacher-education/

The TESS-India Research, Monitoring and Evaluation (RME) team comprised Prof. Bob McCormick, Dr. Christopher Walsh and Rhiannon Moore in the UK; and Rohit Kumar Palai and Mayuri Gogoi in India who conceptualised the research study and developed the various tools for data collected. A team of research consultants: Prof. Mamta Agrawal; Dr. R. Meganathan; and Dr. Vir Narayan, under the guidance of Prof. ABL Srivastava, were involved in the writing of the final report. Sunita Singh, Javed Shaikh, and Madhukar Sharma provided field monitoring in their respective states. The initial data entry was tabulated by 'Infinity Solutions Private Limited', Ghaziabad. This was further collated and analysed by team members Dr. Nai Li, Tanvir Ahmed and Puneet Kumar Sharma, led by Rohit Kumar Palai and Rhiannon Moore. The layout of the report and research information card was designed by Rituraj Sharma.

The present study could not have been completed without the active support of the State Council of Educational Research Training (SCERTs) and state agencies including DIETs, State Institutes of Education (SIEs), Institutes of Advanced Study in Education (IASEs), offices of the Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) of Uttar Pradesh, Bihar and Madhya Pradesh. Special thanks are due to Sri Hassan Waris, Sri Sarvendra Vikram Bahadur Singh, Dr. O. P. Sharma and Sri Arvind Dixit for their support and co-operation in conducting the study in their states. I congratulate all the team members of TESS-India and contributors who have been an integral part of the process, from the primary stage of the study to the publication of the report.

Special thanks are also due to Fola Komolafe, Project Director, TESS-India for her endless support and encouragement; and to Prof. David Johnson whose guidance to the team at different stages of technical decisions has been invaluable.

On behalf of the team, I also extend my heartfelt thanks to all the enthusiastic and energetic teachers, students and DIET students who have been the participants and respondents of the study.

As elaborated in the report with facts and figures, we anticipate that this study will engender interest in the teacher education landscape, particularly in exploring the wide disparity between the stated ideals of policies and the existing scenario. We hope that this will evoke questions and generate further discussion amongst the various stakeholders like policy-makers, planners, educators and TESS-India in understanding the issues while paying careful attention to maximising the impact of this programme on the quality of teacher education.

Sushant Verma

(Sushant Verma)
Country Director
TESS – India

New Delhi
Date: 25/02/2014

Executive Summary

INTRODUCTION

TESS-India is a project funded by UK Aid from the Department for International Development (DFID) and led by The Open University, UK. It aims to address the urgent need to improve the classroom practices of teachers and teacher educators as this is essential for successful educational reform. TESS-India seeks to contribute significantly towards the professional development of teacher educators and teachers in the states of Uttar Pradesh, Bihar, Madhya Pradesh, Odisha, Karnataka, Assam and West Bengal.

The project's goal is to encourage student-centric, active teaching and learning pedagogies at both elementary and secondary school levels across India. TESS-India seeks to do this through use of high-quality Teacher Development Units (TDUs) and Leadership Development Units (LDUs) by teachers and school leaders in their everyday work. However, before launching the project and making the interventions it was necessary to establish a baseline to determine the status of teacher education in the states and to learn about the current situation relating to attitudes and practices of teachers and teacher educators about student-focussed participatory pedagogy and professional development in order to provide a base for comparison with similar data to be collected at different stages in the future.

This report presents the findings of the TESS-India Baseline Study conducted on a sample basis in three project states of Uttar Pradesh (UP), Bihar and Madhya Pradesh (MP) in Sep-Nov 2013.

SAMPLE SELECTION

For the Baseline Study, 8 DIETS, 144 government and government aided schools having classes V, VII and X from each state were included in the sample. Thus three types of schools, namely Primary, Upper Primary and Secondary schools, were selected. The sampling plan took note of the following points:

1. An equal numbers of schools and DIET sampled from each state for the study.
2. There were 8 sampled districts selected from each state.
3. An equal number of schools (6) from each level (Primary, Upper Primary and Secondary) were selected randomly using Probability Proportional to Size (PPS) from each sampled district.

4. A proportionate and equal number of students (10) selected at each level of school for the study. Grade 5th, 7th and 10th students were representing primary, upper primary and secondary level respectively for the population of the study.

5. Schools having enrolment less than 5 in classes i.e. 5th, 7th and 10th for primary, upper primary and secondary respectively were deliberately kept out of the sampling procedure.

6. Schools that were selected for pilot study were also excluded from the sampling frame during the selection process.

7. Non-functional DIETs were excluded from the population.

Questionnaires were administered to 23 DIET Principals, 179 Teacher Educators, 984 Teacher trainees from 24 DIETs and 423 Heads of schools, 707 school teachers and 4117 students from 423 schools across UP, Bihar & MP.

INSTRUMENTS USED

All the instruments were developed keeping in mind the basic pedagogic principles of student centred and constructivist approach to teaching-learning (NCF, 2005, & TESS-India Pedagogic Principles-2013).

The following instruments were used for collecting the data from the sampled schools.

- Head Teacher Questionnaire
- Head Teacher Checklist.
- Teacher Attitude Questionnaire for primary teachers and secondary teachers
- Student Questionnaire
- Classroom Observation Schedule

The following instruments were used for collecting the data from the samp'led DIETs.

- DIET Principal Checklist
- Teacher Educator Questionnaire
- Teacher Educator Checklist
- Teacher Trainee Questionnaire

The initial instruments were piloted in different states. Data collected from the pilot study were then analysed and on the basis of this feedback, the instruments were modified. The final instruments were developed and then translated into Hindi for use in data collection.

ADMINISTRATION OF INSTRUMENTS

DIET students in each district acted as field investigators to collect the data. However, before undertaking this activity, they were provided a rigorous training. In each district 6 investigators

were appointed to collect the data from DIETs and schools. A team of two investigators visited the schools and DIET to collect the required data. In schools, the data was collected from the HT (checklist & questionnaire), 2 Teachers and 10 students from each Class 5, 7 or 10 (depending on the classes in school). From each DIET, the Principal, all the teacher educators present on the day of visit and a maximum of 50 teacher trainees (TT Questionnaire) were administered the tools.

ANALYSIS OF DATA

The data was analysed using descriptive statistics like frequencies, averages, percentages separately for each state. For total of all the three states, where the openions are given in terms of 'strongly agree', 'agree', disagree and 'strongly disagree', mean scores were calculated giving weights of 2, 1, –1 and –2 respectively.

PERCEPTION OF TEACHER EDUCATORS AND TEACHER TRAINEES

In these three states of U.P., Bihar and M.P. data showed that the DIETs were mostly understaffed as a large number of posts of teacher educators were vacant. In many DIETs, English teacher educators were not available and in U.P. and Bihar there was a shortage of Maths teacher educators (lecturers).

The teacher educators across the states were well qualified and most of them taught more than one subject. Usually DIETs have an intake of 50 to 100 trainees.

Most of the teacher educators in all the DIETs are not only highly qualified with Master's degree in their subject but are also professionally qualified with at least a B.Ed. degree. Majority of them had taught in schools before shifting to DIETs and almost all are permanent except a few in U.P. and M.P.

The teacher educators expressed similar views across the states when asked about the teaching and how students learn. More than 90% TEs believed that students should be encouraged to ask questions and that they should engage in debate and discussions about the subject. They also felt that students should be assessed through examinations and quizzes and their homework should be returned by the teachers with proper feedback. However, in M.P., the opinions of teacher educators were different regarding examination and quizzes as only 26% agreed with these methods of assessment.

Less than 30% TEs thought that group work, pair work and games are not very productive learning activities. Very few believed that textbook is the only resource for teaching. However,

87% in U.P. and Bihar and 63% in M.P. thought that covering the syllabus was the most important task for teachers. 88% TEs believed in dictating notes to students.

It can be inferred from the above that the TEs across the states are trying to come out of traditional thinking in certain aspects of pedagogy, whereas in some other aspects they are still very traditional.

The TEs were also asked about their classroom practices. Most of them reported using lecture method though they themselves provided training to the trainees on how to organise projects work and to focus on learning by doing in class. 90% of TEs said that they prepared their trainees for organising group work, pair work, and use of role play, drama, storytelling and games as teaching strategies.

In Bihar and M.P. the TEs specially prepared their trainees for handling multigrade classrooms. Nearly 90% TEs in all the states felt that it was important to relate the lessons to students' lives, use local resources for learning and not only text books and not to depend only on rote learning. They also prepared the trainees for assessing learning and providing feedback to students.

When asked whether the TEs got any feedback from the authorities like NCTE or SCERT on their work, 47% in U.P.; 52% in Bihar and 28% in M.P. reported receiving no feedback. A few in each state however got some feedback from DIET Principals. In Madhya Pradesh, the TEs frankly said that the feedback made little change in their classroom practices. 44% TEs accepted making moderate changes in their handling of students with special needs after receiving feedback.

The data was also collected from Teacher Trainees in the DIETs. The Teacher Trainees in U.P. and Bihar were pre-service trainees whereas in M.P. they were in-service trainees. Therefore, majority of trainees in U.P. and Bihar were in the age group of 18-25 years. In M.P., however, they were between 26-30 years. Most of the trainees in U.P. and Bihar were graduates whereas in M.P. most of them had at least Master's degree.

The Teacher Trainees were also asked their opinions on teaching and learning in classroom. Their perception of classroom teaching and learning was similar to that of their teacher educators.

Like their teacher educators, the trainees used dictation of notes to their students. They also asked their students to copy information from blackboard, use textbooks to read lessons, and to memorize information. They informed that they assessed the students' learning by observing and recorded their performance.

It could be easily concluded that the teacher trainees were well aware of the desirable practices but had not come out of the traditional mould when it came to actual practices in the classroom. What they actually did in the classroom can be checked only when their classes are observed systematically.

Most of the trainees were appreciative of their training course and informed that it prepared them well to organise group work, pair work, and games and use other activities in class for teaching. It also prepared them to assess, record and report learner's progress, to use local environment as a learning resource and to handle Children with Special Needs.

When asked whether their teaching practice in schools was supervised, 15% in Bihar and 30% in U.P. and M.P. reported in negative. Those who replied in affirmative mostly had it supervised between 1 and 10 times. They received feedback from their supervisors and many of them found the feedback useful in making some changes in their teaching.

VIEWS OF HEAD TEACHERS ABOUT THE SCHOOL AND ITS TEACHING AND LEARNING

Most of the participating schools were located in rural areas. The management of most of the schools in all three categories (primary, upper primary, secondary) in all the three states was by the Department of Education of the respective states. In M.P., however, where there is a relatively large ST population, almost 16 per cent of the schools were managed by the Tribal Welfare Department. The language of instruction in more than 95 per cent schools at all levels in the three states was Hindi.

At the elementary level, BRC/CRC meetings are held regularly (CRC meetings mostly once a month) and the attendance of teachers from primary and upper primary schools is quite encouraging as reported by School Heads. It is also heartening to note that in more than 90% schools across the three states SMCs exist. However, when it came to performance of these SMCs, there still remains a gap between what is prescribed in the policy and what role these SMCs were actually performing.

Most of the participating schools did not have adequate infrastructure and facilities such as libraries, science labs, computer labs, sports equipment, playground etc. Absence of such basic amenities in the schools affects the learning of students as well as the teachers are disadvantaged due to teaching with limited resources.

More than 75% of the HTs were permanent state government employees. Nearly 70% of these HTs at all levels in the three states were male. A miniscule percentage of HTs across the three levels were less than 30 years of age. Majority of participating HTs in all states were from the OBC and 'Other' category with a very small percentage from SC category. HTs of ST category were present only in M.P. Additionally, majority of HTs were Hindus and in each state more than 90 per cent HTs were married.

Nearly 70% of HTs in primary and upper primary schools were graduates and above and majority of secondary school HTs held a Master's degree. In terms of professional qualification, majority of secondary school HTs from U.P. had B.Ed degree as compared to the other two states. There were also HTs, primarily in Bihar and M.P., who had done their CTC/JBT/BTC as part of their professional qualification. All the HTs had worked as teachers, some of them for as long as 30 years and above and had been in the capacity of Heads, for a duration ranging from less than one year to more than 30 years. A substantial population of HTs also conducted classroom teaching in addition to handling administrative responsibilities.

The HTs' response to statements on learning and teaching reflect increased positivity towards student-centric practices. More than 90% HTs across all levels agreed that students needed to be encouraged to ask questions about their difficulties in learning and during the class students should be engaged in discussion and debates about the subject. They felt that wrong answers to questions put by teachers provided opportunities to help students to learn homework should be returned to students with proper comments and so on. It can be concluded that winds of change have reached the schools of U.P., Bihar and M.P., although in some ways they are still rooted in their traditional orientation as can be gauged from their affirmative responses to statements like, a silent and disciplined classroom is needed for effective learning, that dictating notes to student is an effective teaching strategy, and that completion of syllabus is the most important part of a teacher's role.

In-service training for HTs appears to be not properly streamlined, primarily for secondary school teachers. The Rashtriya Madhyamik Siksha Abhiyan (RMSA) which is responsible for training of secondary school teachers is not well-equipped in terms of training resources and trainers and thus, there exists a gap in the training of secondary school HTs.

The HTs were also asked to indicate their opinion on the range of activities that HTs should have in the school. These included activities such as enforcing government acts and curriculums, observing and appraising teacher performance, facilitating teachers' professional development, improving teaching and learning and promoting student centred learning. Majority of HTs agreed that their role should be to ensure that policies like NCF are properly implemented in the school and teachers' awareness on these policies through professional development training is essential to establish a student-friendly school. Although, most HTs agreed to items on acceptable leadership qualities but at the same time their agreement on a few items which support traditional roles such as 'effective HT enforces teachers to maintain a silent and disciplined classroom' is problematic. This is an indication that HTs are still ignorant of the changing patterns of school leadership as well as the essence of student centred pedagogy. They see their role more

as an administrator rather than as a facilitator or change agent. The conditions of work in most government schools in rural as well as urban areas might also be inhibiting HTs to perform effectively. As is evident from the data in this survey, nearly 50% of secondary schools do not have science labs, and computer labs for students. The situation is worse when it comes to primary and upper primary schools where even basic amenities like drinking water, toilets, and play grounds are not available.

Regarding the plans and activities which HTs are expected to carry out in the school, those activities which they can do independently such as visiting classrooms of teachers, organising staff meetings, and celebrating festivals etc. are reported as being carried out often or mostly. However, activities such as sending teachers for in-service training or attending professional development training themselves are not practiced very frequently by most HTs, since these kinds of activities they are dependent on external agencies like SCERT, SSA, RMSA etc. As far as school based professional development is concerned, the percentage of HTs who reported not doing it or doing it rarely, is very high. This is reasonable because the concept of 'school-based professional development' is a new concept and is not yet very popular in India. This is where TESS-India proposes to make a difference by promoting school based professional development for teachers which will serve the needs of thousands of teachers who do not get opportunities for professional development.

TEACHER AND THEIR CLASSROOM PRACTICES

The teachers in all the states were well qualified. A large percentage of primary teachers had a bachelor's degree in all the three states, and 60% to 68% upper primary teachers had Masters' degree in U.P. and M.P. All the teachers had the required professional qualifications and had teaching experience ranging from 6 to 31 years. More than 50% teachers were permanent and 15% to 35% were Para teachers in all the states at primary and upper primary levels. At secondary level, Bihar had the largest number of Para teachers (49%) whereas U.P. had only 5%.

The teachers across the states expressed almost similar views when asked about student participation in classroom. More than 90% teachers believed that a silent and disciplined classroom was required for effective learning to take place so that students should be encouraged to ask questions to be engaged in discussions and debates. Between 16% to 36% teachers across the states thought that group work; pair work and games are not productive learning activities.

More than 80% in all the states agreed that examinations and quizzes are the best ways to assess the students' performance, homework should be returned with appropriate comments, and students should be asked to try to solve problems themselves before the teachers demonstrates a solution and wrong answers to questions provide learning opportunities to students.

While majority of teachers felt that covering the syllabus is the most important part of a teachers' work and that dictation is an effective teaching strategy, less than 47% across the states agreed that memorization is the best way to learn and that text book is the only resource to teacher.

It can be inferred from the above that while the teachers are still very traditional in certain aspects of classroom practices, they are trying to come out of the traditional mode in some other aspects.

Teachers were also asked to respond about their classroom practices. From their responses, it can be inferred that the classroom is very conventional as a large majority of teachers used traditional methods to teach. They dictate information to the students; ask them to copy from the blackboard, ask the students to memorize information and use textbooks to teach.

About 60% teachers in all the states and at all stages give practical work to students to engage in hands-on-activities, observed their students' performance and record it and they use local materials to assist their teaching. Their responses indicate that teachers are well aware of the new methods, though how far they actually adopt them in the classroom needs systematic observation.

As far as their professional development is concerned the picture of all the three states was not very encouraging as less than half of the teachers had the opportunity to participate in in-service training. Of those who had attended in-service training, 30% to 40% felt it was helpful in improving their teaching.

CLASSROOM PRACTICES

Teachers teaching Class V, VII and X were observed by trained investigators for 20 minutes of a class period. They recorded their observation every two minutes. This was done to understand the process adopted by teachers and to find out how much time they spent on different activities during their lesson.

The findings were that textbook was the major resource for the teachers at all the stages and in all the states. Only 5% to 10% teachers used local resources during the lessons.

Homework was checked in the classroom in about 30% to 50% classes in all the three states. Majority of teachers (58% to 74%) tried to find out what the students already knew about the topic before starting the lesson. 54% to 63% teachers stated the aims of the lesson so as to prepare the students for achieving the objectives.

It was observed that more than 85% time was spent in organising the class. Only 7% time was devoted to individual work by students. Pair work and group work were found to be almost non-existent which is quite contrary to the opinion expressed by the teachers.

Reading from the textbook was commonly seen across the states. The language teachers spent more time talking to the students than the Science and Maths teachers. Hardly any teachers took time to appreciate students on any account.

Teachers rarely (14% to 22%) used games during their teaching. Giving homework seems to be a common practice across the states.

It was observed that more than 60% students had textbooks, and computers were never used for teaching. In M.P. science equipment was used in only 8% classes.

The investigators found that around 50% teachers were disturbed by mobile phones during the class in U.P.

STUDENTS' PERCEPTION ON TEACHING AND LEARNING

It was decided to obtain the views of students on teaching learning activities in the classroom and what they liked or disliked. The student questionnaire prepared for this purpose was responded by students of Class V, VII and X.

More than 70% students belonged to rural areas in all the three states. 55% students were boys and 45% were girls. The largest number (51%) of students belonged to OBC category. 28% students were of 10-11 years, 33% of 12-13 years and 27% were of 14-15 years. Majority of students (87%) took 10 to 20 minutes to reach their schools.

Fathers of 28% students had attended school up to Class V and of another 24% up to Class X. Mothers were mostly (40%) illiterate and only 27% had attended school till Class V. About 37% fathers were farmers and 35% were daily wage labourers whereas 72% mothers were housewives.

The students were asked their perception of classroom activities that the teachers conducted while teaching. More than 60% students across the states and classes did not like when teachers asked questions outside the textbooks as they were afraid of giving wrong answers. The students liked it when their teachers asked them questions in the class. More than 68% students liked to solve problems on their own and more than 85% did not hesitate in asking help of their teachers if they were unable to do so. About 38% children across the states seemed to be caste-conscious.

A very large majority (more than 70%) liked that their teachers write comments on their home assignment. The students liked games as learning activity and working in groups to solve problems. Only half of the students across the states liked working alone on their classwork.

Questions were asked of students relating to classroom practices, both traditional and new. More than 85% students liked reciting what they knew from memory as they mostly memorized information from textbooks. They liked writing answers on blackboard and also completing project work.

Most of the students liked it when teachers used resource materials other than textbooks and when they discussed social issues like politics, caste, religion etc.

It is evident that some views of students were contradictory. They memorized information and felt that it was a good way of learning. At the same time most of them liked project work and their teachers' use of resource material other than textbooks. Thus, their opinions show a mixed view of traditional and new pedagogies.

LIMITATIONS OF THE STUDY

The Baseline Study has been successfully accomplished in the three project states in the stipulated time. The Study, however, had certain limitations which need to be taken into account while planning and conducting future studies in the project. These limitations were:

- The study used DISE 2012-13 data from National University of Educational Planning and Administration (NUEPA) to determine the samples of schools. In the field, significant discrepancies between the DISE data and actual school situations like schools mentioned in the list did not exist or certain schools turned out to be single teacher schools are found.

- Translation of tools from English to Hindi was done in Delhi. Therefore, the language used was of high standard and terminologies might have been different from state to state. Hence there was a possibility of some respondents not understanding the statement in the questionnaire.

In U.P. and Bihar there was a gap of about 10 days between training of investigators and data collection. This might have led to some erosion of information provided to the investigators particularly in conducting the classroom observations.

1
Introduction

1. Introduction

This report presents the findings of the TESS-India Baseline Study conducted in three project states of Uttar Pradesh (U.P.), Bihar and Madhya Pradesh (M.P.) in Sep-Nov 2013. The Teacher Education through School-Based Support-India (TESS-India) project led by The Open University in the UK is working towards improving the quality and quantity of teacher education in India. It seeks to do it by engaging the teacher educators and school teachers on learner-centred and activity based pedagogical approaches through OERs (Open Education Resources) and orientation programmes. Before launching the programme, this baseline study was conducted to find out how teacher training and teaching in schools take place. Also the views and opinions of teacher educators, teachers and students on various aspects of teaching-learning had to be ascertained. The study is based on information gathered through questionnaires and observation schedules administered to a sample comprising 23 DIET heads, 179 teacher educators, 984 teacher trainees from 24 DIETs (8 from each state), and 423 Head Teachers, 707 teachers and 4117 students from 423 schools of the 3 states.

1.1 ABOUT TESS-INDIA

TESS-India is a project funded by the Department for International Development (DFID) of UKAid and led by The Open University, UK which aims to address the urgent need to improve the classroom practices of teachers and teacher educators as it is essential for successful educational reform. TESS-India seeks to contribute significantly towards the professional development of teacher educators and teachers in the states of Uttar Pradesh, Bihar, Madhya Pradesh, Odisha, Karnataka, Assam and West Bengal.

It is expected that this project will contribute to:

Develop a better educated teacher workforce at elementary and secondary level through an enhanced teacher education system that embeds practice-based and school-focussed training and which has increased capacity.

Change teacher educators' and teachers' attitudes and classroom practices, through improving provision of, and access to, high quality practice based teacher education.

The project's goal is to encourage student-centric, active teaching and learning pedagogies at both elementary and secondary school levels across India. TESS-India uses high-quality Teacher Development Units (TDUs) and Leadership Development Units (LDUs) for teachers and school leaders to use them in their everyday work. These flexible, adaptable and modifiable open resources demonstrate active learning pedagogies through practice. TESS-India's TDUs cover topics from elementary and secondary maths, science, english, and languages and literacy. The LDUs cover topics on leadership and school management. The materials were authored and tested by a team of academics from India and the UK and are available as Open Educational Resources (OERs) in multiple formats and modalities (print, online, CDs, on micro SD cards, etc.) which are targeted to reach to 1 million users by 2015.

1.2 TEACHER EDUCATION SCENARIO IN INDIA

India has come a long way in terms of establishing quality teacher education institutions and producing qualified teachers to teach in its growing number of schools. At the time of independence, the country had just 312 primary teacher education institutions and 51 secondary teacher training institutions which have grown to 1319 and 818 respectively in 1998-1999 (Mehrotra, 2000)[1]. Teacher education has received significant attention in the post-independence era with many committees and commissions set up to evaluate the status of teacher education in India and suggest improvements. The establishment of the National Council of Educational Research and Training (NCERT) in 1961 and the National Council for Teacher Education in 1973, the setting up of the Indian Education Commission of 1964 and the National Commission on Teachers in the 1980s, the National Education Policies of 1966-68 and 1986, the National Curriculum Framework of 2005 and the National Curriculum Framework on Teacher Education, 2009 all indicate the importance given to quality of teaching-learning in schools and teacher education.

Despite the advances made in teacher education in the last six decades, the country still faces a serious crisis in terms of having adequate number of professionally trained teachers. It is estimated that there are 5.7 million sanctioned teacher posts at primary and upper primary levels and that of these, 523,000 posts are vacant (Banks and Dheram, 2012)[2]. In addition the

1. Mehrotra, R.N. (2000). In G.L.Arora and P. Panda (E.ds.), Fifty Years of Teacher Education in India: Post Independence Development NCERT:Delhi PP.1-44.
2. Banks, F. and Dheram, P. (2012). India: Committing to New Communication Technologies. In R.E. Moon (Ed.), Teacher Education and the Challenge of Development: A Global Analysis (Education, Poverty and International Development), Routledge, London.

reduction in the pupil: teacher ratio (PTR) as mandated by the Right of Children to Free and Compulsory Education, 2009[3] will entail a requirement of approximately 510,000 additional teachers over and above the existing vacancies. Taking these two figures together implies that nearly 1.33 million trained teachers need to be recruited in India, while many more in-service teachers still require further training and professional development. According to the Bordia Committee Report of 2010, states such as Assam, Bihar, Chhattisgarh, Jammu and Kashmir, Jharkhand, Orissa, Uttar Pradesh, West Bengal and the remaining North-eastern states have been identified as states with 'grossly inadequate teacher education capacity' or states with a 'special situation'- large percentage of untrained teachers, no teacher vacancies and inadequate training capacity (GoI, 2010)[4].

In order to address the shortcoming of teachers on an urgent basis, almost every state in India now has contract teacher or 'Para teachers' who are currently teaching at the elementary level but are not formally a part of the system. These Para teachers have lower educational qualification requirements than government teachers (Kingdon and Banerji, 2009)[5] and do not have the required training to be a teacher. Research, however, indicates that the learning outcomes of pupils taught by para teachers and government teachers did not differ significantly (Kingdon and Sipahimalani-Rao, 2010)[6]. What is important to understand here is that poor performance of teachers is significantly linked to the poor Teacher Professional Development (TPD) schemes offered by the government.

Teacher Education in India is provided at the pre-service level by DIETs, CTEs, IASEs and Universities. At the in-service level, teacher training is provided by SCERT, SSA, RMSA, DIETs, CTEs, IASEs, and NGOs etc. However, both pre and in-service training are plagued by a host of problems such as lack of resources and infrastructure in the teacher training institutes, non-availability of qualified teacher educators, poor standards of training, routine, and monotonous mass training programmes etc. There is also an urgent need to review the curricula of the different courses and training programmes to strengthen these by updating them to become more progressive, and to adopt the right balance between theory and practical skill building.

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3. The Schedule in Part II of the RtE Act, 2009 specifies the PTR to be maintained in primary and elementary schools.
4. GoI. (2010). Report of the Committee on Implementation of The Right of Children to Free & Compulsory Education Act, 2009 And the Resultant Revamp of *SarvaShikshaAbhiyan* by A. Bordia.
5. Kingdon, G.G. and Banerji, R. (2009).Addressing school quality: Some policy pointers from rural north India. Cambridge: Research Consortium on Educational Outcomes and Poverty, Faculty of Education.
6. Kingdon, G.G. and Sipahimalani-Rao, V. (2010). Para-Teachers in India: Status and Impact. Economic and Political Weekly, XIV (12), 9.

1.3 TESS-INDIA'S SCHOOL-BASED TRAINING APPROACH

Teachers are undoubtedly the driving force for all forms of educational activity in the school: it is the teachers' expectations, their enacted curriculum, their classroom talk, their interactions with pupils and their actual ways of inducting students into specific learning activities that most affect learning outcomes. In their study of government and private schools in Punjab, Aslam and Kingdon (2007)[7], state: "the unusually un-measured teaching 'process' variables impact student achievement strongly- lesson planning, involving students by asking questions during class and quizzing them on past material, all substantially benefit pupil learning" (p.23). The number of teachers and the quality of their training, therefore, are critical challenges to be addressed.

However, the traditional centre-based TPD approaches where teachers are required to attend training outside school have some significant concerns and prime among these is that centre based TPD programmes can take new or current teachers away from the classroom for significant amounts of time and removing significant numbers of teachers from the workforce for extended training maybe counterproductive in addressing challenges of PTR and the quality of educational provisions. To counter this, contemporary approaches to TPD have been proposed which can operate at appropriate scale, keep trainee teachers in schools, and bring about changes in classroom practice using new technologies, particularly new forms of communication (Moon, 2007)[8].

The TESS-India project has been designed on the new approach to TPD of keeping the teachers in the schools and enhancing their professional development by providing, "…access to print-based, online and/or mobile resources that provide the unprecedented opportunity to become members of a community of practitioners that can support one another in sharing and bringing effective teaching practices into schools while reducing the time that teachers are away from their pupils" (Banks, 2007)[9]. TESS-India will support state ministries of education (including their local networks of DIETs), teacher training institutions and NGOs, to work together to develop, implement, monitor and evaluate programmes of TPD with increased aspects of school-based TPD.

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7. Aslam, M. and Kingdon, G.G. (2007). What can Teachers do to Raise Pupil Achievement? The Centre for the Study of African Economies Working Paper Series.Working Paper 273.
8. Moon, B. (2007). The global teacher crisis: Meeting the challenge through new technologies and new modes of teaching and learning. Keynote presentation to the 12th Cambridge International Conference on Open and Distance Learning, Cambridge: UK. 28th September 2007.
9. Banks, F. (2007).Online Teacher Professional Development. Prof. S.N. Mukherjee Memorial Lecture, Delhi University, India.

1.4 OBJECTIVES OF TESS-INDIA

The TESS-India project set to run until May 2015 has the following overarching objectives:

(i) Making activity-based OERs available to teachers in various formats (print, online, CD/DVD, SD cards for mobile phones) to promote school-based practice for their own professional development.

(ii) Engaging teacher educators on learner-centred and activity-based pedagogical approaches via OERs and orientation programmes.

(iii) Incorporating the spirit of student-centred and activity-based pedagogical approaches of OERs into existing and new pre- and in-service teacher professional development programs (TPDs) at elementary and secondary school levels.

(iv) Initiating dialogue, followed by forming networks of both public and private teacher education institutions (TEIs), around the philosophy of student-centred teaching and learning practice.

(v) TESS-India has planned to provide a variety of inputs to achieve the above objectives in a phased manner. The Theory of Change document given in Appendix 1 shows the target and expected outcomes at different stages of the project implementation.

1.5 TESS-INDIA BASELINE STUDY

1.5.1 Purpose of the TESS-India Baseline Study

For fulfilling the requirements of evaluating the project's progress at milestone and target stages, it was necessary to establish a baseline to show improvement that can be attributed to the project interventions in the future. Since the purpose of the TESS-India project is to "improve the quality and quantity of teacher education…" there is clearly a need to determine the status of teacher education in the states before the various interventions commence. This will provide a base for comparison with similar data to be collected at several stages in the future. The initial Baseline Study was conducted in three project states.

The purpose of the Baseline Study was to:

(i) Learn about the current situation and attitudes of teachers and teacher educators towards student centred participatory pedagogy and professional development.

(ii) Inform the outputs and activities for the project as a whole, and

(iii) Provide a base against which outputs and activities of the project can be subsequently evaluated.

1.5.2 Areas Covered in TESS-India Baseline Study

The Baseline Study was conducted by the Monitoring and Evaluation (M&E) team of TESS-India and is based on information gathered through questionnaires, checklists and classroom observation schedule administered to teachers, head teachers and students in 403 schools and to DIET principals, lecturers and students in 24 DIETs across all three states. According to the Monitoring and Evaluation (M&E) strategy developed as a guideline for the TESS-India evaluation studies, the Baseline Study was designed to map out the current status of the four major outcome indicators of the project. According to the strategy, the Baseline Study would cover seven areas:

1. **Teacher educators' (TE) attitudes towards and views on pedagogy**

   The first study was planned as a questionnaire study to examine the views of TEs on learning and on teacher training approaches, including how they view the TDUs.

2. **TE practice, with particular focus on how they assess trainees' pedagogy**

   The focus of this part was on how teaching practice in school is assessed. For this purpose, a checklist was developed to measure TE views of assessment of teaching practice, and indeed the whole place of a school focus, combined with questions on TE practices in this area. For example, to see in which periods trainees go to schools, the frequency of visits by TE to schools, the assessment processes and criteria used for assessment.

3. **Teachers' and trainee teachers' (TT) attitudes towards, and views on, pedagogy**

   For the third outcome a questionnaire was designed to assess the attitudes of school teachers and TT in DIETs about participatory and student-centred pedagogy. Additionally, the teacher attitude questionnaire had items on in-service training and school activities while the TT questionnaire had items related to their pre-service training.

4. **Teacher's classroom practice**

   The focus of this study was assessing classroom behaviour of elementary and secondary school teachers using a systematic observation schedule.

5. **Students' attitudes and views on their learning experience**

   This was a short attitudinal survey administered to students of Class V, VII and X to know their views on their experiences in the classroom and their own learning.

6. **Head teachers'(HT) attitude to leadership and school development**

   The Head Teacher Attitude Study focussed primarily on assessing their views on curriculum development plan (national/state curriculum); staff development plan; curriculum change; school improvement data (e.g. retention, attendance, gender, SI); and school development plan. Some generic elements on teaching and learning had also been incorporated in the instrument.

7. **Head teachers' (HT) practices in schools**

   Since the observation of Head Teachers practice using observation schedules posed practical problems, two checklists were developed for this study: one to record Head Teachers' activities in the school as reported by them and the other to simply state if documents related to school development plans or activities that were taking place, exists. This was a simple instrument that did not require a high level of judgement about the quality, that required simply stating whether the documents existed or not.

It needs to be noted here that the first four correspond to the outcome indicators, and are complemented by a fifth that investigates student attitudes to learning in general and in particular that which is encouraged by the TDUs. In addition, there are two more parts which are concerned with head teachers specifically to understand their attitudes and practices about various aspects of school leadership, as this is understood to be central to the implementation of the LDUs.

1.6 STATES COVERED AND THEIR PROFILE

As mentioned previously, the TESS-India Baseline Survey was conducted in the three states of U.P., M.P. and Bihar. The initial focus on these three states emanated out of the project's early implementation in these three states and all the three states are predominantly Hindi-speaking states. As TESS-India TDUs would be initially translated to Hindi followed by other state languages, the decision was taken to start the Baseline with the Hindi-speaking states. U.P.,

M.P. and Bihar were also chosen to accommodate a very definite steer from DFID to initially focus on some states for TESS-India to show impact as quickly as possible.

According to Census 2011, the total population of U.P. is almost 200 million, which accounts for 16 per cent of the country's total population; the total population of M.P. is nearly 70.2 million; and that of Bihar is a little over 100 million. The state of U.P. has a total of 75 districts and covers almost 7 per cent of India's total area. M.P. is another large state of India with 50 districts and Bihar is the smallest among the three states with 38 districts. The literacy rate in the three states is 69.72 per cent in U.P., 70.6 per cent in M.P. and 63.82 per cent in Bihar.

The District Information System for Education (DISE) data of 2012-13, indicates that there are more than 160,000 government elementary schools in U.P. which accounts for 68 per cent of the share of schools in the state. The data also shows that in M.P. the number of government elementary schools is 112,895 which are nearly 79 per cent of the total share of schools and in Bihar the number is 69,911 which are more than 90 per cent of the total schools share. The density of primary and upper primary schools per 10 sq.km in U.P. is 7.02 and 3.58, in M.P. it is 3.61 and 1.66 and in Bihar it is 7.53 and 3.28 respectively. For secondary schools the figure is 0.93 for U.P., 0.42 for M.P. and 0.60 for Bihar (U-DISE, 2012-13). The average Student Classroom Ratio (SCR) in U.P. for elementary schools is 32 and for secondary schools it is 54, in M.P. it is 26 for elementary and 53 for secondary and in Bihar it is 65 and 93 respectively. The Pupil Teacher Ratio (PTR) in government elementary schools is 33 in U.P., 36 in M.P. and 54 in Bihar whereas at the secondary level it is 18 in U.P., 56 in M.P. and 50 in Bihar. The percentage of students in government elementary schools is 50.19 per cent in U.P., 65.80 per cent in M.P. and 97.59 per cent in Bihar. In secondary schools percentage of students in government schools is just 9.66 per cent in U.P., as most of the students enrol in private schools. Comparatively, the percentage of enrolment in government schools is higher in M.P. (46.5 per cent) and Bihar (86.13 per cent).

The DISE data (2012-13) also show that the government elementary schools have an average of 3.4 teachers in U.P., 2.4 teachers in M.P. and 5 teachers in Bihar. At the secondary level the U-DISE data (2012-13) shows that there are 261,392 regular teachers in U.P., 38,587 in M.P. and 48,229 in Bihar. The Joint Review Mission (JRM) on Teacher Education in U.P., 2013, speaks of the shortage of trained teachers in the state. In order to address this shortage, the government is providing BTC training to 1,72,000 untrained Shiksha Mitras through distance mode. Apart from this, the state has established 70 DIETs, 3 Colleges of Teacher Education (CTE) and three Institutes of Advanced Study in Education (IASEs) for providing teacher education in the state. Since 2000 the government of Bihar has taken several concerted policy steps towards re-vitalizing teacher education in the state. It is the first state in India to have its own curriculum framework; Bihar Curriculum Framework has been designed on the lines of the National Curriculum Framework (2005). There

are 24 DIETs, 36 PTECs and six CTEs in Bihar, besides two B.Ed. colleges run by Patna University and around 46 private B.Ed. training institutions. However, majority of the DIETs, PTECs and CTEs are not functional and merely exist in records or in the form of immovable properties (GoI, 2013)[10]. Two IASEs have been sanctioned in the state but these are yet to be established. In M.P. there are 45 DIETs, six CTEs and two IASEs apart from a Regional Institute of Education (RIE) in Bhopal and the State Institute of Science Education (SISE) in Jabalpur. In M.P. there is a huge body of panchayat appointed untrained teachers and the government has initiated efforts to train these teachers in pre-service teacher education through the DIETs.

1.7 ORGANIZATION OF THE REPORT

The Baseline study report contains 7 chapters and 4 appendices.

Chapter 1 - Introduction

It presents information about TEES-India and views on the present Teacher Education scenario in India. It also describes objectives and areas covered under baseline study.

Chapter 2 – Methodology

It presents the methodology used for this Baseline Study. It describes the instruments used in the study, and their development; sampling, administration of tools and the process of data collection.

Chapter 3 – Perception of Teacher Educators and Teacher Trainees

It presents the Profile of the DIETs, teacher educators and teacher trainees. It also describes the views of teacher educators and teacher trainees on teaching and learning and classroom practices.

Chapter 4 - Schools and Head Teachers

It contains the profile of schools and head teachers besides the views of head teachers on classroom process, leadership, and planning for the school improvement.

Chapter 5 - Perception of Teachers and Classroom Practices

It gives the profile of teachers along with their perceptions on classroom practices. It also deals with classroom observations and describes the actual situation in classrooms pertaining to the teacher and student activities.

[10] GoI. (2013). Report of the Joint Review Mission on Teacher Education: Bihar. 17-23 March, 2013. Retrieved from http://www.teindia.nic.in/Files/jrm/JRM_Reports/JRM-TE-BiharMarch7Version8_with_Field_Notes.pdf on 30th Jan 2014.

Chapter 6 - Perception of Students

It describes the students' profile and their attitude towards the classroom activities and their participation in the teaching learning process.

Chapter 7 - Recommendations

It gives recommendations and suggestions to be taken into account during implementation of the project.

The report also contains a number of appendices providing sampling details, analysis tables and the research instruments.

1.8 LIMITATIONS OF THE STUDY

The Baseline Study has been successfully completed in the three project states in the stipulated time. The Study, however, had certain limitations which need to be taken into account while planning and conducting future studies in the project. These limitations were:

- The Study relied on the DISE 2012-13 data to determine the sample of schools. However, when data collection started some discrepancies were noted such as some schools mentioned in the list either did not exist or were single-teacher schools. These had to be excluded. Where schools were not available, data enumerators had to select a new school as replacement, which led to minor deviation from the original list. The single teacher schools were excluded from the requisite number of teachers and classroom observations (two in each school) that did not exist.

- The translation of instruments from English to Hindi was a centralised activity carried out in Delhi with the help of a professional. Hence, some terminologies were not state-specific and the language used was of high standard. This gave rise to a possibility that some respondents did not understand fully the language used in the instruments and the investigators had to clarify what the terms meant.

- In U.P. and Bihar, there was a gap of nearly ten days between training and data collection as the schools were closed on account of Durga Puja and Chath festivals. There is a possibility that the gap led to erosion of some information provided to the data enumerators during training, particularly in conducting the classroom observations which were technical in nature.

2
Methodology

2. Methodology

This chapter describes the processes followed for conducting the Baseline Study and various instruments used for the study. It also includes a description of the development process of research instruments, sampling plan, the strategy adopted for data collection and analysis of data.

2.1 RESEARCH INSTRUMENTS

In this Baseline Study instruments were developed to collect data from various stakeholders to find out what the situation was in respect of teaching-learning in schools and pre-service training of teachers at DIET.

First a pilot study was conducted to find out whether the instruments prepared initially needed modification and to modify them on the basis of feedback from the pilot study.

The pilot study was conducted in Uttar Pradesh (U.P.), Bihar and Madhya Pradesh (M.P.). Instruments included questionnaires and checklists for head teachers, teachers, and students, in schools and for DIETs, DIET Principals, teacher educators and teacher trainees. All the instruments were developed keeping in mind the need to assess whether and to what extent the basic pedagogic principles of student centred approach and constructivist approach (NCF, 2005, and TESS-India Pedagogic Principles-2013) were followed by teachers and teacher educators. Instruments like Teacher Attitude Questionnaire for primary teachers and secondary teachers, Head Teacher Questionnaire, Head Teacher Checklist, Student Questionnaire and Classroom Observation Schedule were administered in the schools whereas Teacher Educator Questionnaire, Teacher Educator Checklist, Teacher Trainee Questionnaire and DIET Principal Checklist were administered in DIETs. For monitoring the data collection process at school and DIET level, the enumerators were requested to write field notes also. Besides, all the data collectors were given guidelines for data collection and management of data.

2.2 DEVELOPMENT INSTRUMENTS

Utmost care was taken at different steps of instrument development such as item writing and piloting instruments. The first step was to procure the key documents like Log frame, Strategic Paper of TESS-India, Pedagogic principles of TESS-India, NCF-2005, NCFTE-2009, Syllabus of Teacher Education and School Education of the three states where the data were to be collected. The instruments were developed keeping in mind student centred approach, constructivists approach, active participatory approach in the classroom in accordance with the pedagogic principles of TESS-India. Before writing the items, a well-considered instrument development strategy was adopted. Based on that the following steps were taken:

- Identification of key areas to be covered in each instrument
- Writing more items to be piloted than were needed
- Providing specific guidelines for item writing based on the above mentioned principles of active participatory approach and student centred approach in learning
- Writing all items of each instrument in English and translating them into Hindi
- Reviewing, checking and proofreading the items
- Matching the Hindi instruments with the English instruments

The instruments were tried out in different states and the data collected from piloting were analysed by TESS-India team and based on the analysis suitable items were selected. The language was further modified and made simple based on the feedback from the training of enumerators and also from the pilot trial. Final instruments were then printed.

2.3 PILOTING THE INSTRUMENTS

Some instruments were tried out in one state and some in others. In Uttar Pradesh (U.P.), the instruments, Classroom Observation Schedule, Head Teacher Checklist and Students Questionnaire were administered. In Bihar, Head Teacher Questionnaire and Teacher Questionnaire were administered and in Madhya Pradesh, all DIET instruments viz. Teacher Educator Questionnaire, Teacher Educator Checklist, and Teacher Trainee Questionnaire were administered. Data collected from these three states were analysed and based on the analysis suitable items were selected. Necessary changes were made based on the feedback from the training of enumerators and also from the pilot trial. Final instruments were then sent for printing.

In U.P. and Bihar 24 schools each sampled for pilot study. In case of U.P., students attitude questionnaire was administered to all students of classes V, VII and X and classroom observation schedule was administered in these classes where students questionnaire was administered.

In Bihar, instruments like– Head Teacher questionnaire, Head Teacher Document Checklist and Teacher questionnaire were administered in 24 sampled schools (8 each from primary, upper-primary and secondary).

The DIET related instruments, Teacher Educator Questionnaire, Teacher Educator Checklist and Teacher Trainee Questionnaire were piloted 4 DIETs in four districts of M.P. Teacher Trainee Questionnaire were administered only to 2nd year DIET students as it was assumed that 1st year students might not have acquired the experiences and formed opinions about items in the instruments. All teacher educators of DIET were administered Teacher Educator Questionnaire and Teacher Educator Checklist. Data collected was analysed by TESS-India RME team.

2.4 INSTRUMENTS USED

For this baseline study, the following schedules and questionnaires were developed on the basis of pilot study to collect data.

Classroom Observation schedule:

This schedule consisted of three parts. Part A related to teacher activities at the start of the classroom. Part B related to 20 minutes observation of the actual teaching in classroom. It again consisted of 3 parts:

1. *Part A, organising:* the way the teacher had organised the class at any particular instant e.g. for pair work, group work or individual work.
2. *Part B, teacher talk*: e.g. reading from the text, asking questions, giving instructions etc.
3. *Part C, other activities*: e.g. writing on the black board, demonstrating something, walking around the class etc.

Part C related to supervision of what students were doing and general observation of the investigator on use of learning materials.

Head Teacher Questionnaire:

Head Teacher Questionnaire comprises five parts. Part A-basic information; Part B- his/her educational and professional information, Part C - views about teaching and how students learn, Part D- professional development and training and Part E - general attitudes on the role and functions of a head teachers in the school.

Head Teacher Checklist:

The Head Teacher Checklist had five parts: Part 1- School's details, Part-2-classwise enrolment, Part 3- Basic School infrastructure, Part -4 School Management Committee, Part-5– Plans and activities taking place in the school,

Head Teacher Document Checklist:

Head Teacher Document Checklist contained two parts. First part is common across all questionnaires as it is about the background information about the school and second part related to documents that a head teacher maintains in a school for its smooth functioning and to be answerable to stake holders.

Students Questionnaire:

The student questionnaire has three basic parts: Part A– demographic data about student; Part B– demographic data about student's family; Part C– student's views on teaching and learning practices.

Teacher Questionnaire:

Teacher Questionnaire was divided into six parts: Part A– Basic information about teacher; Part-B– Teachers educational and professional qualification; Part C– Teacher's views on teaching and learning; Part D– Teaching practice in classroom; Part E– In-service training and Part F– School activities in the school.

Teacher Educator Questionnaire:

Teacher Educator Questionnaire consisted of six sections. Part A– general information, Part B-educational and professional information, Part C– views on teaching and how students learn, Part D– teaching practice and frequency of visits to schools to check during teaching practice of teacher trainees and providing them feedback; Part E– training and professional development and Part F– teacher training appraisal and feedback.

Teacher Educator Checklist:

Teacher Educator Checklist comprised 3 parts– A , B, and C which respectively represent teacher educators views on assessment of pre-service teaching practice, place of school in teacher education, and types of teacher education practice.

Teacher Trainee Questionnaire:

Teacher Trainee Questionnaire consisted of six parts– Parts A, B, C, D, E, and F respectively in which information was sought from teacher trainees about general background, educational qualification and professional qualification, views on teaching and students' learning, teaching practice, pre-service teacher training, and teacher training appraisal and feedback in different sections respectively.

DIET Principal Checklist:

This research instrument comprised two parts– Part 1 and 2. Part 1– DIET details such as total number of sanctioned teachers, male and female teachers, subject wise teachers; Part 2– class wise teacher trainee enrolment information.

2.5 SAMPLING STRATEGY FOR BASELINE

Baseline study was designed to know the present status of teacher education and school education in UP, MP and Bihar. So, the target population was Teacher Educators and Teacher Trainees in DIETs and Teachers, Head Teachers/Principals, and Students in primary, upper primary and secondary schools. Private schools were not included in the study.

The sampling plan took note of the following points:

1. An equal numbers of schools and DIET sampled from each state for the study.
2. There were 8 sampled districts selected from each state.
3. An equal number of schools (6) from each level (Primary, Upper Primary and Secondary) were selected randomly using Probability Proportional to Size (PPS) from each sampled district.
4. A proportionate and equal number of students (10) selected at each level of school for the study. Grade 5th, 7th and 10th students were representing primary, upper primary and secondary level respectively for the population of the study.

5. Schools having enrolment less than 5 in classes i.e. 5th, 7th and 10th for primary, upper primary and secondary respectively were deliberately kept out of the sampling procedure.
6. Schools that were selected for pilot study were also excluded from the sampling frame during the selection process.
7. Non-functional DIETs were excluded from the population.

State wise detail sample list is giving in the following table 2.1 and 2.2 (for more details see table A-2.1 and A-2.2 in appendix A).

Table 2.1: State wise sampled and actual number of participants from whom data was collected

Type of Sample	State Name	No. of Districts and DIETs	No of Schools	No. of Head Teachers	No. of Teachers	No. of Students	No. of Classroom Observed	No. Teacher Educators	No. Teacher Trainees
Purposed Sample	UP, MP, BIHAR	8	144	144	288	1440	288	**	400
Actual Sample	UP	8	137	137	221	1288	257	74	364
	BIHAR	8	143	143	273	1414	278	52	295
	MP	8	143	143	213	1415	237	53	325
	Total	24	423	423	707	4117	772	179	984

** All teacher educators present on the day of data collection at DIET

Table 2.2: State and Level wise total number of participants

State Name	Total No of Districts	Type of School	Total No of School	Total No of Head Teachers	Total No of Teachers	Total No of Students	Total No of Classroom Observed
UP	8	Primary	46	46	78	440	92
		Upper Primary	49	49	78	460	88
		Secondary	42	42	65	388	77
		Total	137	137	221	1288	257

State Name	Total No of Districts	Type of School	Total No of School	Total No of Head Teachers	Total No of Teachers	Total No of Students	Total No of Classroom Observed
Bihar	8	Primary	47	47	89	458	90
		Upper Primary	48	48	95	482	97
		Secondary	48	48	89	474	91
		Total	143	143	273	1414	278
MP	8	Primary	48	48	65	452	78
		Upper Primary	47	47	68	462	78
		Secondary	48	48	80	501	81
		Total	143	143	213	1415	237
		Grand Total	423	423	707	4117	772

2.6 DATA COLLECTION

For data collection teams of 6 investigators and 1 supervisor were formed for each DIET of selected district. They spent 6 days in field for school data collection. Two investigators visited each school to collect all the data in 1 day (work plan given in table 2.3) and all 6 enumerators in each district visited the DIET to collect all the DIET related data in one day. They collected data from each Teacher Educator and 50 trainees of second year from each DIET. Their work plan is shown in Table 2.4.

Table 2.3: Work plan for data collection in schools (2-member team)

Data Collector Team	1st Session		2nd Session		Before Leaving School
Team Member 1	Classroom Observation-1	Teacher Questionnaire-1	Students Questionnaire (10 students from the selected class)1	Head Teacher Questionnaire & Head Teacher Checklist	Field Notes
Team Member 2	Classroom Observation-2	Teacher Questionnaire-2			

In the first week, all the school level data, and in the second week all the DIET level data was collected. The work plan of investigators in each school as shown in Table 2.3 was given in advance so that they could collect the entire data in 1 day in every school. Data collection team of 6 members visited each DIET for one day and collected all the data in one day.

Table 2.4: Work plan for data collection in DIET (6-member team, plus TE)

Data Collector Team	1st Session		2nd Session		Before Leaving DIET
Team Member- 1	TEQ	TEC	TTQ	TEQ	Field Notes
Team Member- 2	TEQ	TEC			
Team Member- 3	TEQ	TEC	TEQ	TEC	
Team Member- 4	TEQ	TEC	TEQ	TEC	
Team Member-5	TEQ	TEC	TEQ	TEC	
Team Member-6	TEQ	TEC	PC		

Note: The number of TEs that the team could collect data from varied. This depended on the number of DIET lecturers present on the day of visit to the selected DIET.

Although DIET students collected data from DIET Principals and Teacher Educators, this was not a limitation since they were not to be interviewed but had to answer the questionnaires on their own.

2.7 ANALYSIS

Instructions for data entry, copies of research instruments and data batching sheet were prepaired and kept ready before analysing the data. Descriptive statistics like mean, percentage and frequency have been calculated to present the profile of schools, DIETs, Head teachers, Teachers, Students, Teacher Educators, and Teacher Trainees. Besides, there were some attitude related items in which respondents were asked to report on a four point scale. On attitude items, apart from percentage of respondents marking 'Agree', `Strongly Agree', 'Disagree' and 'Strongly disagree', calculating mean scores were also calculated. For example, teachers were given four point scale statements about their classrooms, knowledge of pedagogy and about school activities to indicate whether they 'strongly agreed', 'agreed', 'disagreed' or `strongly disagreed'. The percentages reported for 'strongly agree' and 'agree' were combined in reporting. Mean scores were calculated by giving weight of +2 to 'strongly agree', +1 to 'agree', -1 to 'disagree' and -2 to 'strongly disagree'. The higher the value of mean, the stronger is the agreement with the statement while high negative value of mean indicates stronger disagreement.

3

Teacher Educators and Teacher Trainees in DIET

3. Teacher Educators and Teacher Trainees in DIET

3.1 PROFILE OF TEACHER EDUCATORS IN DIETs

A District Institute of Education and Training (DIET) is a district level government institute imparting pre- service and in-service teacher training and also serving as a platform for research and innovation work in the elementary education sector. The vision for the DIETs was articulated in the National Policy on Education, 1986. As an educational institution each DIET has a certain number of sanctioned faculty positions to carry out the academic and training work. The main functions of DIETs as envisaged in the policy are:

(i) To provide Pre-service Training to teachers for teaching at primary and upper primary level.

(ii) To provide In-service Teacher Education Programmes.

(iii) Organizing district level educational researches on issues pertaining to enrolment, retention, achievement, gender parity and drop outs etc.

(iv) Facilitating collaborative action researches to enable practising teachers to address classroom issues.

(v) Organizing periodical district level seminars and releasing news bulletins which carry information on innovative class room processes.

As a project geared towards improving the quality of teacher education in India, TESS-India's interventions are also planned at the DIET level. Hence some focus of the Baseline Study was on DIETs also. The data for the study was collected from 8 DIETs in each state viz. U.P., Bihar and M.P. In U.P., 4 DIETs were rural whereas in M.P. only 1 and in Bihar 2 DIETs were rural. The following DIET profile is based on the information collected from the DIET Principals of 8 DIETs in each state through DIET Principal Checklist.

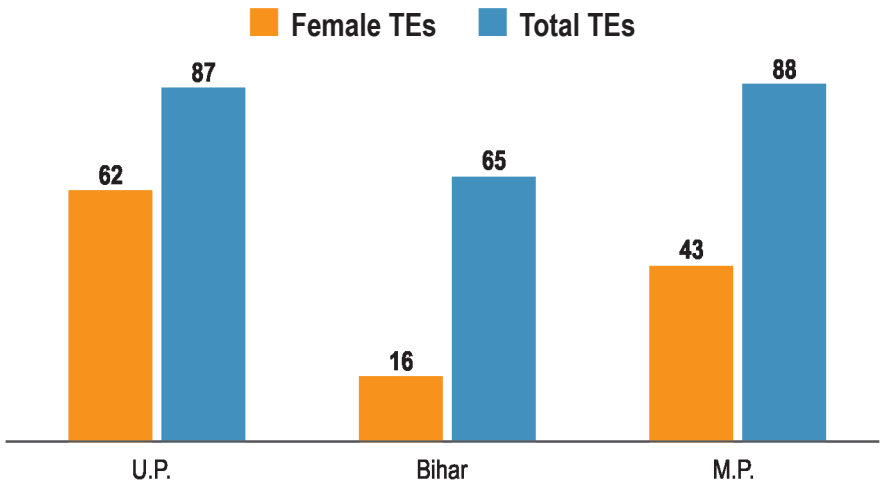
In one DIET of U.P. as many as 20 sanctioned posts are lying vacant at the moment and in each DIET at least one position is vacant. M.P. also has a large number of vacancies in the DIETs and four DIETs reported having 6-7 vacancies each while one DIET had the highest number of

vacancies with 12 unfilled posts. Compared to U.P. and M.P., Bihar fares better in terms of filling sanctioned faculty positions in the DIET with just 16 vacancies in all 8 DIETs. Unfilled posts in the DIETs are a cause of concern as it affects their effective functioning and compromises the quality and quantity of training imparted.

3.1.1 Gender Distribution of Teacher Educators

Figure 3.1 Total TEs and number of female TEs in DIETs

Fig. 3.1: Total TEs and number of female TEs in DIETs



The number of teacher educators (TEs) currently working in 8 DIETs of each state was 87, 65 and 88 in U.P., Bihar and M.P. respectively; out of these TEs, 71.2%, 24.6% and 48.8% respectively were female TEs. In Bihar the percentage of female TEs and in U.P. the percentage of male TEs was much less compared to the other states.

3.1.2 Distribution of TEs by Social Category

The profile of TEs with regard to the social class shows is 1 TE belonging to Scheduled Tribes category in M.P. and 2 to Scheduled Castes category. In Bihar and U.P. there were no ST TEs and 11 SC TEs and 4 SC TEs in these two states respectively.

3.1.3 Subject wise Teacher Educators in DIETS

The number of Science Teacher Educators was highest in DIETs of all the three states. In many DIETs, the teacher educators in English were not available. Similarly there seemed to be a shortage of Maths TEs in U.P. and Bihar. In all the DIETs across the three states, the TEs teach more than one subject. Most of the TEs are well qualified to teach their subjects. However, there are some who have been teaching those subjects on the basis of their long experience, rather than their formal academic qualifications. Normally, there are no contract TEs in DIETs. However, only one DIET in each state has reported having 1 to 6 contract TEs (2 in U.P., 6 in Bihar and 2 in M.P.). In all the states the TEs regularly attend in-service training.

3.1.4 Intake Capacity of Trainees in DIETs

The enrolment of teacher trainees in DIETs in all three states is normally between 50 to 200. Some DIETs are exclusively for girls e.g., like the Hajipur DIET in Vaishali District of Bihar. In all the DIETs there are students of all social categories, namely SC, ST and Backward Classes. There are more OBC students than SC and ST students in the reserved categories, as the percentage of OBC in the population is more than that of SC and ST.

3.2 PROFILE OF TEACHER EDUCATORS

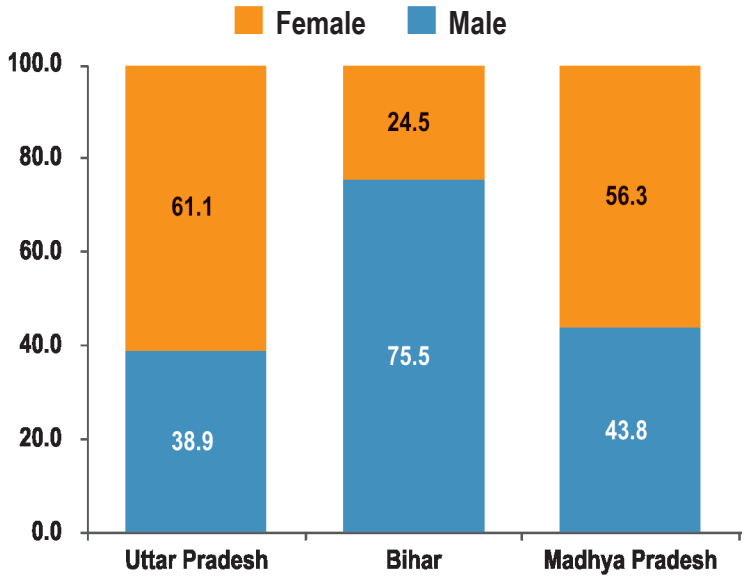
As the TESS India project aims to provide interventions for improving the quality of teacher education at the Primary and Upper Primary levels, it was necessary to know the views and attitudes of the TEs working in DIETs and the trainees being trained towards pedagogy, teaching and learning. Therefore data on these aspects were collected from the TEs and TTs using separate questionnaires.

The data were collected from 165 TEs in the 23 sampled DIETs (8 from each of 3 states). The survey questionnaire was administered to all those TEs who were at the DIET on the day of the survey and to those who consented to be a part of the study. For detail sample set table 2.1 giving in 2nd chapter.

3.2.1 Distribution of TEs by Gender

Fig. 3.2 represents the percentage of male and femlae TEs who participated in each state. The following graph shows that in Bihar less percentage (24.5%) participated in the study as compared to U.P. (61.1%) and M.P. (56.3%).

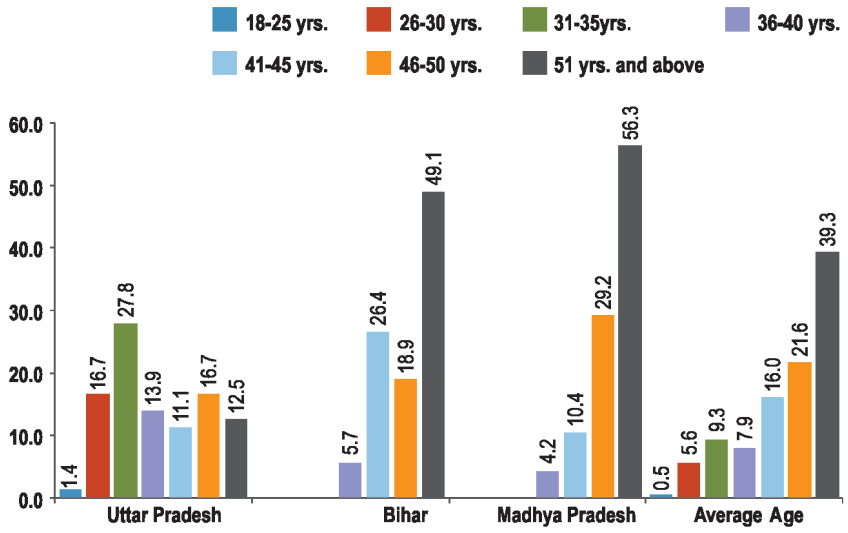
Fig. 3.2 Distribution of TEs by Gender



3.2.2 Distribution of TEs by Age

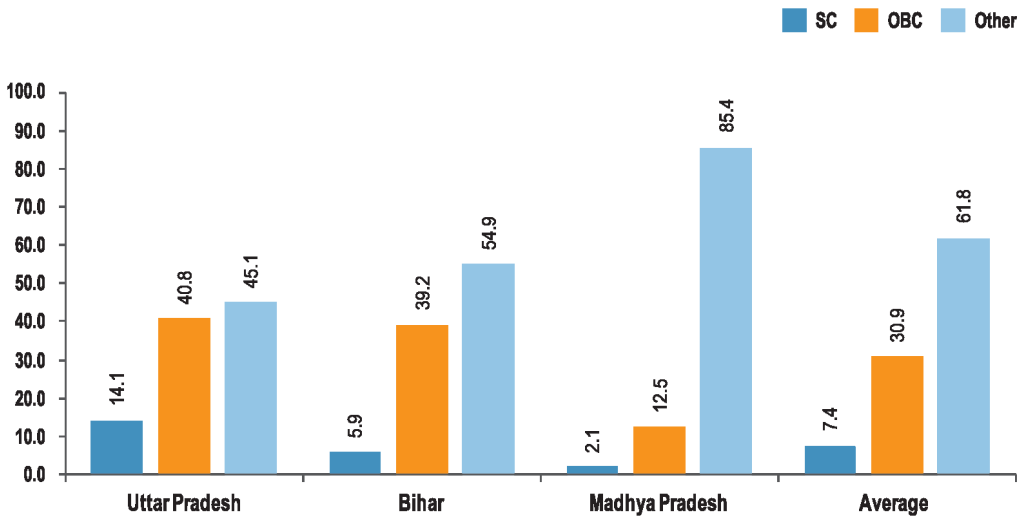
In Bihar and M.P. most of the TEs were in the age group of 49+ (49% in Bihar and 56% in M.P.) and in both the states, there were no TEs less than 35 years of age (Fig.3.3). In U.P., however, there are more young teachers with 45.9% of them being of age 35 years or less and only 12.5% teachers were over 50 years age. It appears that many young TEs were recruited recently in U.P. which would explain the large percentage of young TEs.

Fig. 3.3 Distribution of TEs by Age



3.2.3 Distribution of TEs by Social Category

Fig. 3.4 Distribution of TEs by Social Category



There were no TEs in S.T. category in the selected DIETs of the three states. The largest percentage of TEs of OBC category was in U.P. (41 %) & Bihar (39%) whereas in M.P. only 13% were of OBC

category (Fig. 3.4). M.P had the highest percentage (85%) of TEs in the general (non SC and non ST) category followed by Bihar (55%) and U.P (45%).

3.2.4 Distribution of TEs by Religion

As far as religion is concerned, table no. 3.1 shows the distribution in the 3 states.

Table 3.1 Distribution of TEs by Religion

Religion	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Hindu	93.2	98.1	83.7	91.7
Muslim	4.1	1.9	4.1	3.4
Others	2.0	0.0	12.0	4.7
Total	100.0	100.0	100.0	100.0

Over 90% TEs are Hindus in U.P & Bihar. In Bihar, the percentage is 98%. In each of these two, a small percentage (2% to 4%) were Muslim TEs. In M.P about 12% TEs are Christian or Sikhs; whereas in U.P there are no Sikh TEs and only 1 out of 74 TEs was Christian.

3.2.5 Distribution of TEs by Marital Status

The following table 3.2 shows the distribution of TEs by marital status.

Table 3.2 Distribution of TEs by marital status

Marital Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Single	9.7	1.9	2.0	4.5
Married	90.3	96.2	96.0	94.2
Divorced/Widowed	0.0	1.9	0.0	0.6
Total	100.0	100.0	100.0	100.0

More than 90% teacher educators in all the states were married. Only in U.P, since more teacher educators were young, about 10% teachers were single.

3.2.6 Educational and Professional Qualification of TEs

3.2.6.1 Highest Educational Qualification of TEs

Overall in 3 states, more than 95% of TEs were highly qualified i.e. they had post-graduate degrees or above. In U.P., 24% had obtained their PhD, whereas the percentage of TEs with a PhD was between 8% and 10% in the other 2 states. A small percentage (2.3%) of TEs in all the states were educated only up to the 10th / 12th standard (See table 3.3).

Table 3.3 Distribution of TEs by highest educational qualification

Qualification	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
10th/12th	1.0	2.0	4.0	2.3
Bachelors	2.8	0.0	0.0	0.9
Masters	69.4	3.8	85.7	53.0
M Phil	2.8	84.6	2.0	29.8
Ph.D./EdD	23.6	9.6	8.2	13.8
Total	100.0	100.0	100.0	100.0

3.2.6.2 Professional Qualification of TEs

Table 3.4 Professional qualification of TEs

Course	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
CTC/JBT/BTC	6.8	28.0	5.4	13.4
DElEd/D.Ed./BElEd	13.9	0.0	0.0	4.6
B.Ed.	66.2	32.0	25.5	41.2
M.Ed	13.5	40.0	69.1	40.9

So far as professional qualifications are concerned, majority of TEs in all the 3 states had B.Ed. or M.Ed. degree. In M.P, the percentage of M.Ed. degree holders (69.1%) was more as compared

to the other states while in U.P majority of the TEs (66.2%) had B.Ed. degree. In Bihar however, there were 28% TEs who had acquired only CTC / JBT / BTC qualification (See table 3.4).

3.2.7 Teaching Experience of Teacher Educators

Table 3.5 Teaching experience of TEs

Experience in Years	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)
Less than 1 year	0.0	40.4	0.0
1-5 years	38.4	17.3	8.2
6-10 years	24.7	5.8	22.4
11-20 years	27.4	11.5	38.8
21-30 years	5.5	11.5	16.3
No Response	4.1	13.5	14.3

The experience of the teacher educators' varied from less than 1 year to more than 30 years. In U.P. the largest percentage of TEs (63%) had 1 to 10 years' experience whereas in Bihar 40% had less than 1 year experience. It seems that these TEs in Bihar were earlier teaching in schools and only recently shifted to DIETs (Table 3.2). This was corroborated from the data obtained for the next question.

3.2.8 Previous Experience in Schools

When asked about their experience in teaching in schools, many of the TEs had taught in schools before shifting to DIETs. Table 3.3 shows their experience of teaching in schools.

Table 3.6 Previous experience of working in schools

Experience in Years	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Less than 1 year	10.0	2.0	2.1	4.7
1-5 year	48.3	2.0	8.3	19.6
6-10 year	13.3	10.0	25.0	16.1
11-20 year	18.3	60.0	31.3	36.5
21-30 year	6.7	18.0	20.8	15.2
31year &above	3.3	8.0	12.5	7.9

The data indicated that in U.P. about 60% TEs had worked as school teachers for less than 5 years and then had shifted to DIET. In Bihar, on the other hand, 86% TEs had previously worked in schools for more than 11 years. In M.P also nearly 90% of TEs had more than 6 years of experience as school teacher before coming to DIET (Table 3.6).

3.2.9 Current Employment Status of TEs

Most of the TEs who participated in the study were permanent employees of DIETs. In Bihar 100%, in UP 88% and in MP almost 90% of the teacher educators were permanent government employees. Table 3.7 shows the current employment status of TEs.

Table 3.7 Distribution of TEs by employment status

Employment Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Permanent	87.5	100.0	89.8	92.4
Temporary	9.7	0.0	8.2	6.0
Contract/Others	3.0	0.0	2.0	1.7
Total	100.0	100.0	100.0	100.0

3.3 TYPE OF TRAINING PROVIDED BY TEs

In U.P and Bihar more than 75% TEs provide both pre-service and in-service teacher training. Almost all of them used Hindi as a medium of instruction, and only a negligible percent used the regional language or dialect occasionally to teach (See table 3.8).

Table 3.8 Distribution of TEs by the type of training programme they provide

Type of Training	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
In service	5.7	3.8	18.4	9.3
Pre Service	2.9	21.2	81.6	35.2
Both In Service and Pre service	91.4	75.0	0.0	55.5
Total	100.0	100.0	100.0	100.0

3.4 TEs' VIEWS ABOUT TEACHING AND HOW STUDENTS LEARN

Data were also collected from the TEs about their views on teaching-learning and how students learn. There were 21 statements in the questionnaire and the TEs were asked to express their opinion indicating whether they 'agreed strongly' or 'agreed' or 'disagreed' or 'disagreed strongly' with each of the statements. Table A-3.3 in Appendix B shows the percentage of TEs who agreed or agreed strongly with the given statements. The percentages are given separately for each state and also for the total of all the states. In each case, the percentage of those who disagreed or disagreed strongly can be obtained by subtracting the given percentage from 100. Mean scores are also given for each statement in the table which are derived by giving a score of +2 to 'strongly agree', +1 to 'agree', –1 to 'disagree' and –2 to 'strongly disagree'. The views of TEs of all the 3 states were quite similar. The following discussion is based on the percentages for total TEs of all the three states on most of the items, anyway, there is not much variation across the three states.

3.4.1 Opinions of TEs on Different Teaching Strategies

When asked about different classroom teaching strategies and organising the class, more than 90% TEs believed that a silent and disciplined classroom was required for effective learning to take place, that students need to be encouraged to ask questions about what they are learning and that students should be engaged in class discussions or debates about the subject.

On the bases of pooled-up data of the three states, we can say that– (1) About 26% of TEs felt that strategies of making students work in pairs was not productive; (2) About 14% of TEs were of the view that group work was not productive; and (3) About 17% felt that learning by playing games was not as effective as learning from books.

There is not much variation across states in these percentages. Although these percentages are small, there is clear indication that some TEs were not convinced of the efficacy of group work or learning by playing or working in pairs.

3.4.2 Opinion of TEs on Evaluation of Students

Only 55% TES felt that teachers should ask questions with multiple correct responses and 92% believed that even wrong answers given by students provide learning opportunities to students.

When asked about their opinion on methods of students assessment, 95% TEs in Bihar and U.P thought that examination and quizzes are the best way to assess student learning whereas in M.P only 26% thought so. More than 90% teacher educators felt that homework should be returned to students with proper comments or making corrections in homework in the class is a good practice as it helps students learning.

Only 44% TEs felt that teachers should demonstrate how a problem is to be solved before asking students to try solving it.

3.4.3 Opinion About Giving Students Control Over their Learning

About 85% TEs in all the three states agreed that students should be asked to solve the problems themselves before showing how to solve. About 80% TEs felt that students should be asked about what they want to learn and include that in their lessons.

3.4.4 Opinion on Dealing with Diversity Students in Class

Only 16% TEs believe that students from SC/ST/OBC category find the syllabus difficult. 85% agreed that teachers should discuss social issues like human rights, caste, religion and gender etc. in their classrooms. However 68% TEs felt that only some students have natural ability to learn, this indicates that individual differences exist in the ability to learn.

3.4.5 Opinion About Some Traditional Practices in Teaching

Overall only 20% believed that the textbook is the only resource needed for a teacher to teach the students. The percentage of TEs holding this opinion was, however, only 12.5% in M.P. whereas it was 28.8% in Bihar and 19.2% in U.P. 44% teacher educators in U.P and 38.5% in Bihar and just 18% in M.P. thought that students learn best through memorization. Similarly, 86% in U.P. and Bihar and 63% in M.P. believed that covering the syllabus was most important

for teachers. Also overall, 88% teacher educators believed that giving of notes was an effective teaching strategy.

3.4.6 Summing Up

It can be concluded from the above that the TEs in all the three states are gradually coming out of the traditional mould and their thinking about pedagogy and methodology is changing to some extent. Although there are some areas such as completion of syllabus as an important role of teachers, 'dictation as an effective teaching strategy' where majority of TEs still held to the traditional beliefs. On some items contradictory views could be observed among teacher educators. For example, on one hand they agreed that the classroom should be silent and disciplined whereas on the other they said that students should be engaged in discussion and debates. Similarly, on one hand 90% of TEs agreed that dictating notes is effective teaching strategy while on the other hand almost 85% of TEs opined that students should be allowed to solve problems themselves. The high percentage of positive responses of TEs to items supporting student-centred and constructivist learning is a little overwhelming. Knowing from experience that most of the student-centred practices are rarely practiced in the Indian classroom it can be surmised that the responses have emanated out of social desirability concerns of the TEs rather than their actual beliefs.

3.5 TEACHING PRACTICES OF TEs IN THE CLASSROOM

The TEs were asked to indicate the teaching practices they used in classroom to teach the teacher trainees. Their answers ranged from always, sometimes, rarely and never according to the frequency with which they used the various teaching practices. The teaching practices included both what the TE did in the class and also what he/she expected the teacher trainees to do.

The data indicate that most TEs (85% to 95%) across all the three states use similar practices during their teaching. Since, nowadays there is emphasis on learning by doing and project work in schools, all the TEs reported that they provide their students training on how to organize projects in different subject areas. Majority of TEs, predominantly use lecture method to teach in their classes, however, they also give hands-on activities for practice to

their students. They also assess the trainees on designing activities for their students. (Table A-3.4 in Appendix B).

More than 30% TEs across the 3 states said that they rarely or never set aside any time to discuss course readings.

It is evident from the data that all the TEs expect their trainees to do various activities like completing assignments, integrating games in their instruction, designing teaching learning materials for their subjects of teaching, making the classrooms print-rich and organise group work for their students. They also expect their trainees to participate in debates and discussions and engage on peer-learning activities wherein they read and comment on each other's work and in turn enhance their learning.

3.6 TRAINING AND PROFESSIONAL DEVELOPMENT OF TEs

In order to ensure high quality of teacher education, it is necessary that the TEs engage in professional development activities from time to time. For this they can read professional journals, research papers and engage in discussion with colleagues on various topics to improve their teaching. When asked about this, more than 90% TEs of all the three states stated that they fruitfully engage in discussion with their colleagues from time to time regarding the teaching and learning activities in their classrooms. Nearly 60% TEs in all states claimed to be reading professional literature to enhance their knowledge.

3.7 OPINION OF TEs ON TEACHING AND LEARNING, PLANNING AND ASSESSMENT

The TEs were asked to rate the degree of importance they attached to certain activities while preparing their trainees in their teacher training programme. In terms of preparing TTs to organise students to work in pairs and groups, to use role play, drama, story-telling, games in their teaching and also to organise experiments and projects, nearly 90% of TEs in all three states said that they considered these as very important or important. Table 3.4 gives detailed information on TEs opinion on the importance of various activities in pre-service training.

Similarly, most of the TEs (nearly 90%) in all the three states placed high degree of importance to prepare their trainees to plan their teaching to suit the realities of the classroom such as teaching in conditions where resources (like library, science lab, computer, electricity) are not available in the school . More than 85% TEs in M.P and Bihar also considered it important to prepare the trainees for teaching in large or multi-grade classrooms. As opposed to this, only 30% TEs in U.P said that this was important.

Yet again nearly 90% TEs in all three states also felt that it was important to relate the lessons to students' lives and experiences, to use the local environment as a resource and extension of the classroom, to encourage children to seek out knowledge from places other than the textbook and to plan lessons that are related to students' lives and experiences.

A similar percentage (approx. 90%) of the TEs in M.P and U.P also thought that it was important to prepare the teacher trainees to make sure that the learning is shifted away from rote learning methods. Surprisingly, 25% of TEs in Bihar did not consider it important.

Majority of TEs (above 80%) in the three states also attached great importance to preparation of trainees to carry out assessment in their classes. This includes various ways of assessment and providing feedback to students on their class work and homework and monitoring, recording and reporting the learners' progress.

3.8 FEEDBACK TO TEs ON PERFORMANCE GIVEN BY HIGHER AUTHORITY AND IT's IMPACT

The TEs were asked whether they got feedback from higher authorities such as SCERT personnel or their Principal about their work. Table 3.9 shows the responses of the TEs regarding the frequency of feedback they get.

Table 3.9 Feedback from higher authorities

States	Statements	Three or more times per year	Twice per year	Once per year	Never
Uttar Pradesh (%)	Supervisor (NCTE or SCERT)	13.3	23.3	16.7	46.7
	DIET principal	25.4	14.3	19.0	41.3
Bihar (%)	Supervisor (NCTE or SCERT)	10.0	12.5	25.0	52.5
	DIET principal	35.0	25.0	15.0	25.0
Madhya Pradesh (%)	Supervisor (NCTE or SCERT)	27.8	13.9	30.6	27.8
	DIET principal	55.6	11.1	8.3	25.0
Average (%)	Supervisor (NCTE or SCERT)	17.0	16.6	24.1	42.3
	DIET principal	38.7	16.8	14.1	30.4

Table 3.9 indicates that in U.P 47%, in Bihar 52% and in M.P 28% TEs never got any feedback from NCTE or SCERT about their work.

So far as feedback from DIET Principals is concerned, 25% TEs in U.P, 35% in Bihar and 56% in M.P got feedback three or more than three times a year. On the other hand 41% in U.P and 25% each in Bihar and M.P reported never getting any feedback from their Principals.

In M.P most of the teacher educators felt that the feedback they received made only little change in their classroom management practices, professional development, improving the test scores of trainees (See Table A-3.5 in Appendix B). Almost 44% TEs however reported moderate change in their handling of children with special learning needs (CWSN) after receiving feedback.

The TEs in Bihar and U.P graded the change in their above mentioned teaching practices as moderate or high with an exception in Bihar where more than 40% TEs thought that only a small change has taken place in the professional development and their knowledge and understanding of teaching methodologies.

3.9 TEACHER EDUCATOR'S VIEWS ON PRACTICE TEACHING

3.9.1 Teacher Educator Views on Assessment of Pre-service Practice Teaching

The TEs were asked to give their views on the assessment of pre-service teaching practice of teachers by grading them according to their importance. More than 90% TEs across all the three states thought it was important that the assessment be spread over the duration of the course, that it should be equally based on case studies and project work along with examination and that it should be based on the TE observations during teaching practice.

Most of them also felt that it was important that the Teacher Trainees be evaluated on innovative materials that they develop and use in their teaching practice and on how they interact with their students and also on how well they meet the learning objectives of the lesson plan.

Regarding how the trainees should be evaluated, the opinion was divided on different strategies to be adopted. Only 35% felt that evaluation be primarily based on written examination, 68% gave importance to oral examination based on the curriculum while more than 70% thought it was important to observe the trainees through checklists and use observation schedules. It was also important to record their performance in examinations and other assessments. Details of TEs responses are shown in Table A-3.5 in Appendix B.

3.9.2 Views on the Place of the School in Teacher Education

When asked to give their opinion about the place of teaching practice in a teacher training course, the TEs across all the three states were unanimous in their opinion. They all agreed with the statement that the teaching practice prepares the trainees to understand how children learn (Item-1), to create a classroom environment conducive to learning (Item 2), to address the needs of different children (Item 8) and to use the TLMs as aids to teaching (Item 9). They also felt that it helps them to be sensitive to their surroundings (Item 4), to be receptive and to learn constantly (Item 3), to develop counselling skills and competencies for helping children (Item 7) and to attain a sound knowledge in their subject area (Item 5). They were also unanimous about the classroom teaching practice helping the trainees to view appraisal as a continuous education process (see Table A-3.7 in appendix B).

3.9.3 Supervision of Teacher Education Practices

The TEs were asked about their role in providing teaching practices to the trainees.

When asked about the number of trainees that they supervised, it was found that about 70% TEs supervised more than 20 trainees. In M.P., 24% teacher educators supervised 6-10 trainees. For supervising trainees' teaching practices 40% educators in the total of the three states made more than 20 visits in one academic year while 21% teacher educators in all the states made only 1 to 5 visits. While observing the trainees, 45% spent more than 20 minutes in the class they supervised. In Bihar 25% observed the trainees for 6 to 10 minutes and in M.P., 19% educators observed them for 11 to 15 minutes at a time (see Tables A-3.8, A-3.9, A-3.10 in Appendix B for details).

Regarding the various aspects of teaching practice that the teacher educators assessed in their trainees, Table 3.10 shows the variety of responses. A large number of teacher educators checked the lesson plans presented by the trainees. They also used observation schedules, checklists and grades. They maintained records of the performance of the trainees.

Table 3.10 Percentage of TEs using different methods of assessment during appraisal of TEs

Methods of Assessment	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Observation	48.0	22.6	40.9	37.2
Using Checklists	8.0	15.1	25.0	16.0
Grading	8.0	18.9	11.4	12.8
Checking Records	24.0	20.8	45.5	30.1
Checking Lesson plans	45.3	35.8	68.2	49.8
Peer observation	2.7	7.5	31.8	14.0
Head teachers' observations	5.3	1.9	20.5	9.2

Most of the TEs always or at least sometimes covered different aspects of teaching viz. mastery of subject matter, use of teaching methods, use of TLMs, classroom management, student participation, proper planning and evaluation during teaching practice, while assessing the trainees. Table 3.11 also shows that the percentage of those who rarely evaluated any given aspect was less than 10%. TEs said that they never did it.

Table 3.11 How often do you assess the following during a observation of TTs?

States	Aspect Assessed	Always	Sometimes	Rarely	Never
Uttar Pradesh (%)	Mastery of subject matter	52.1	46.6	1.4	0.0
	Proper use of teaching methods	61.6	32.9	4.1	1.4
	Appropriate use of TLM	68.5	26.0	5.5	0.0
	Extent of students' participation	60.3	38.4	0.0	1.4
	Classroom management	60.3	34.2	5.5	0.0
	Proper planning	51.4	43.1	5.6	0.0
	Evaluation during teaching practice	43.8	42.5	13.7	0.0
Bihar (%)	Mastery of subject matter	52.0	38.0	10.0	0.0
	Proper use of teaching methods	40.0	54.0	6.0	0.0
	Appropriate use of TLM	66.0	34.0	0.0	0.0
	Extent of students' participation	60.0	32.0	8.0	0.0
	Classroom management	64.0	32.0	4.0	0.0
	Proper planning	45.8	47.9	4.2	2.1
	Evaluation during teaching practice	46.0	42.0	10.0	2.0
Madhya Pradesh (%)	Mastery of subject matter	73.8	21.4	4.8	0.0
	Proper use of teaching methods	71.4	23.8	4.8	0.0
	Appropriate use of TLM	68.3	26.8	4.9	0.0
	Extent of students' participation	69.0	31.0	0.0	0.0
	Classroom management	73.8	21.4	4.8	0.0
	Proper planning	81.0	16.7	2.4	0.0
	Evaluation during teaching practice	71.4	23.8	4.8	0.0
Average (%)	Mastery of subject matter	59.3	35.3	5.4	0.0
	Proper use of teaching methods	57.7	36.9	5.0	0.5
	Appropriate use of TLM	67.6	29.0	3.5	0.0
	Extent of students' participation	63.1	33.8	2.7	0.5
	Classroom management	66.0	29.2	4.7	0.0
	Proper planning	59.4	35.9	4.0	0.7
	Evaluation during teaching practice	53.8	36.1	9.5	0.7

According to the TEs, their trainees completed the practice of micro-teaching, simulated teaching, project and case studies at least sometimes. About one third TEs felt that the project work was completed rarely. However, there are variations among the states. In Bihar, the percentage was higher (37%). In M.P. 45% TEs said that simulated teaching and 40% said that case studies were completed rarely (Table 3.12).

Table 3.12 How often do TTs complete the following outside their apprenticeship as part of their pre-service training?

States	Activities/ Method	Always	Sometimes	Rarely	Never
Uttar Pradesh (%)	Micro-teaching	20.5	56.2	21.9	1.4
	Simulated teaching	15.3	48.6	33.3	2.8
	Projects	23.3	46.6	30.1	0.0
	Case studies	19.2	43.8	28.8	8.2
Bihar (%)	Micro-teaching	30.6	24.5	42.9	2.0
	Simulated teaching	12.0	44.9	36.7	6.1
	Projects	20.4	42.9	36.7	0.0
	Case studies	12.0	51.0	34.7	2.0
Madhya Pradesh (%)	Micro-teaching	23.8	45.2	28.6	2.4
	Simulated teaching	11.9	40.5	45.2	2.4
	Projects	28.6	42.9	28.6	0.0
	Case studies	14.3	31.0	40.5	14.3
Average (%)	Micro-teaching	25.0	42.0	31.1	1.9
	Simulated teaching	13.1	44.7	38.4	3.8
	Projects	24.1	44.1	31.8	0.0
	Case studies	15.2	42.0	34.7	8.2

3.10 TEACHER TRAINEES AND THEIR VIEWS

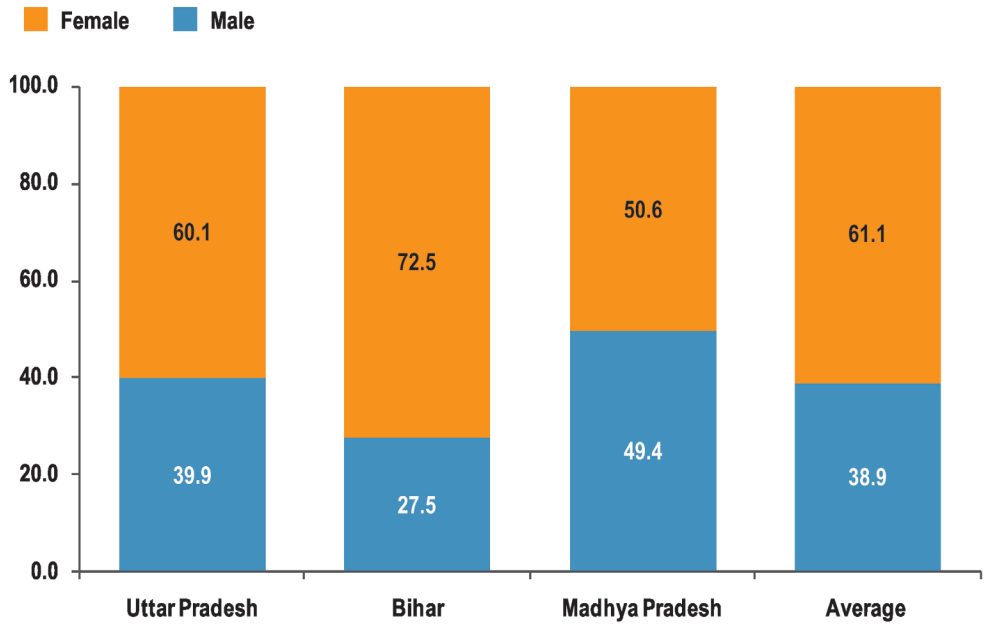
3.10.1 Profile of Teacher Trainees

The data were collected from TTs regarding their views about teaching and how students learn, their teaching practices including planning of lessons, teaching and learning in the classroom

and assessment and the appraisal/feedback the trainees receive from their mentors. In case of U.P. and Bihar the teacher trainees were all pre-service trainees whereas in case of M.P. they were working teachers who were enrolled in pre-service programmes.

3.10.2 Gender Distribution of TTs

Fig. 3.5 Gender distribution of TTs



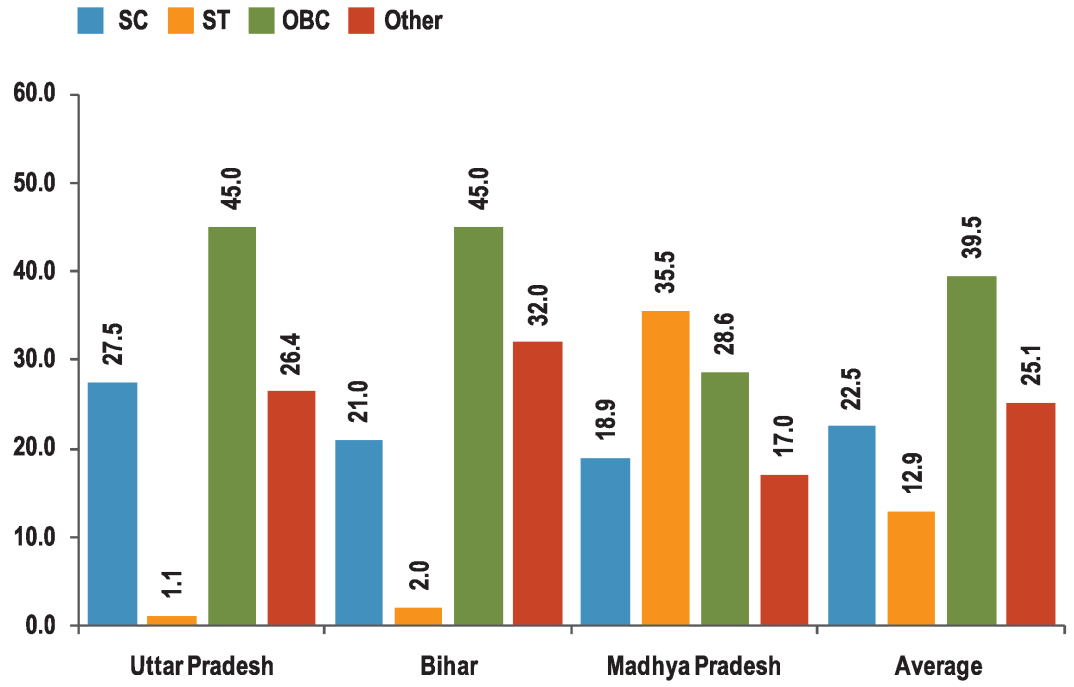
There were about 39% male and 61% female trainees across all the three states. However, in M.P. the division of male and female trainees was almost equal (see Fig.3.5).

Table 3.13 Age distribution of TTs

Age	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
18-25 yrs.	80.5	75.0	19.7	58.4
26 - 30 yrs.	12.4	16.0	30.4	19.6
31 - 35yrs.	3.8	8.0	19.4	10.4
36 - 40 yrs.	1.9	1.0	13.2	5.4
41 - 45 yrs.	1.1	0.0	8.5	3.2
46 - 50 yrs.	0.3	0.0	5.0	1.8
51 yrs. and above	0.0	0.0	3.8	1.3
Total	100.0	100.0	100.0	100.0

Majority of the trainees (75 to 80 %) belonged to the age group of 18-25 years. However in M.P. about one third trainees were of higher age i.e. between 26-30 years. Perhaps because in M.P. these were in-service teacher trainees rather than fresh graduates or post-graduates enrolled in the programme (Details in Table 3.13).

Fig. 3.6 Distribution of TTs by Social Category



Almost 40% trainees came from OBC category and 25% belonged to other (General non-SC, non-ST & non-OBC) categories.

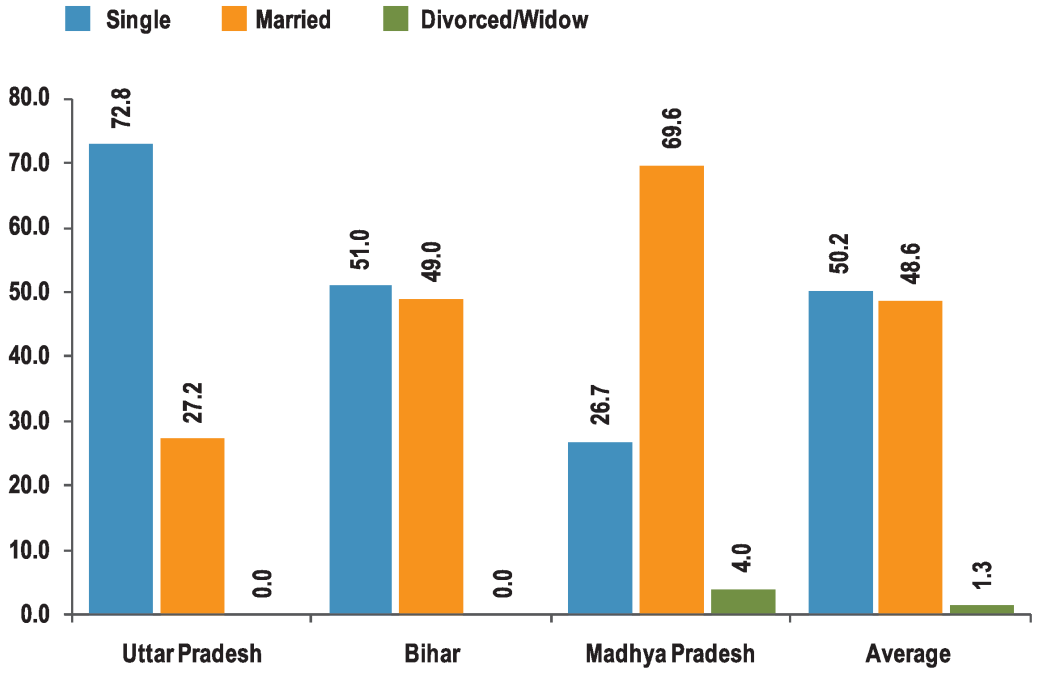
In U.P. and Bihar there were only 1% to 2% ST trainees whereas in M.P. this percentage was 35%, since M.P. has a large tribal population (Fig.3.6).

Table 3.14 Distribution of TTs by religion

Religion	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Hindu	96.1	90.0	95.3	93.8
Muslim	3.0	10.0	3.1	5.4
Others	1.0	0.0	1.0	0.7
Total	100.0	100.0	100.0	100.0

More than 90% trainees in all three states were Hindus (Table 3.14); however a small percentage (5%) of Muslim trainees were also present across the three states.

Fig. 3.7 Marital status of TTs



About 73% trainees were single in U.P. whereas in M.P. only 27% were single (Fig.3.7).

Table 3.15 Educational qualification of teacher trainees

Highest Educational Qualification				
Qualification	**Uttar Pradesh (%)**	**Bihar (%)**	**Madhya Pradesh (%)**	**Average (%)**
10th	3.3	0.0	1.6	1.6
Bachelors	81.3	70.0	0.0	50.4
Masters	14.9	29.0	28.0	24.0
M.Phil	0.3	1.0	33.6	11.6
Ph.D/Ed.D	0.3	0.0	36.8	12.4
Total	100.0	100.0	100.0	100.0

Regarding the highest educational qualifications of the teacher trainees, 81% in U.P. and 70% in Bihar were graduates. In M.P. more than 98% had Masters or above qualifications and 37% had Ph.D. degree (See Table 3.15). This is so because they were working teachers.

3.10.3 Opinion of Teacher Trainees on Teaching-Learning in Class

TTs were asked to give their opinion on 21 statements pertaining to teaching-learning in classroom. They were asked to express their views by indicating whether they strongly agreed, agreed, disagreed with the statement. The statements are grouped into 6 different themes (namely participation, questioning, assessment of learning, learning autonomy) and analysed accordingly. (Tables A-3.11 in Appendix show the percentage of TTs who agreed or strongly agreed to these 21 statements).

Questioning

The opinions were divided regarding asking of questions with more than one correct answer, perhaps because of the philosophy of constructivism, which stresses this, is yet to sink in. However, 90% trainees agreed that wrong answers given by students provided opportunities for helping them to learn.

Assessment for learning

Majority of the trainees (about 85%) had a positive attitude towards examinations and quizzes being best ways of assessing student learning. They also supported the statement that homework should be returned to the students with comments or corrected in their presence in classroom as it helps in learning.

Learning Autonomy

Nearly 80% trainees supported the view that students should be asked what they wanted to learn and also to solve the problems themselves before the teacher demonstrates a solution. This view contradicts the view that teachers should first demonstrate the correct ways to solve a problem before the students try it on their own. It seems some respondents did not notice the contradiction. Only 44% trainees agreed that teachers must first demonstrate how to solve a problem before asking the students to do it on their own.

Diversity

Only about 20% trainees felt that SC/ST/OBC students found learning content in the syllabus difficult. Majority were of the opinion that some children had a natural ability to learn. Also about 80% trainees felt that teachers should discuss social issues like human rights, caste, religion and gender in class.

Traditional Approach (Performance Orientation)

The trainees were also asked to give their views about some traditional approaches of teachers prevalent in Indian education system. While more than 80% agreed that covering the syllabus is the most important part of a teacher's role and dictation of information to students is an effective teaching strategy, only a few (36%) agreed with the view that students learn best through memorisation. About 24% teachers felt that textbooks are the only resources to teach the students about a particular subject and 76% teachers were in favour of use of resources other than textbook.

The above views of teacher trainees indicate that some modern thinking about teaching and learning is taking root among the prospective teachers but many still support traditional practices.

3.10.4 Activities of TTs during Teaching Practice

Teacher Trainees were asked to indicate what they do during practice teaching and how often. There were 11 items for what they do and the frequency was given in terms of always, sometimes, rarely and never. The items were divided into 3 categories as shown below and the percentages against each item are given in Table 3.16.

Table 3.16 Activities of TTs during teaching practice

% of teacher trainees doing different activities during teaching practice						
S. No.	**States**	**Statements**	**Always**	**Sometimes**	**Rarely**	**Never**
a	Uttar Pradesh (%)	Give practical work so students engage in hands-on activities.	53.6	41.4	4.4	0.6
b		Use pair work (where all students work in pairs of 2) where students work together to solve problems or discuss the subject.	55.4	36.8	7.2	0.6
c		Use activities to promote the active participation of all students.	78.7	18.0	2.8	0.6
d		Provide opportunities for students to talk about what they are learning in small groups through group work (working in groups of 4 or more.	41.7	45.6	11.1	1.7
e		use stories and role play to make my lesson interesting	63.1	29.7	6.4	0.8

S. No.	States	Statements	Always	Sometimes	Rarely	Never
a	Bihar (%)	Give practical work so students engage in hands-on activities.	42.3	47.4	8.2	2.0
b		Use pair work (where all students work in pairs of 2) where students work together to solve problems or discuss the subject.	46.4	42.3	9.3	2.1
c		Use activities to promote the active participation of all students.	66.4	24.3	8.9	0.3
d		Provide opportunities for students to talk about what they are learning in small groups through group work (working in groups of 4 or more.	33.3	50.2	13.4	3.1
e		use stories and role play to make my lesson interesting	56.3	36.9	3.4	3.4
a	Madhya Pradesh (%)	Give practical work so students engage in hands-on activities.	51.3	44.7	3.8	0.3
b		Use pair work (where all students work in pairs of 2) where students work together to solve problems or discuss the subject.	52.8	38.8	7.5	0.9
c		Use activities to promote the active participation of all students.	78.3	19.9	1.9	0.0
d		Provide opportunities for students to talk about what they are learning in small groups through group work (working in groups of 4 or more.	61.1	34.3	4.4	0.3
e		use stories and role play to make my lesson interesting	63.7	33.2	2.2	0.9
a	Average (%)	Give practical work so students engage in hands-on activities.	49.1	44.5	5.5	1.0
b		Use pair work (where all students work in pairs of 2) where students work together to solve problems or discuss the subject.	51.5	39.3	8.0	1.2
c		Use activities to promote the active participation of all students.	74.5	20.7	4.5	0.3
d		Provide opportunities for students to talk about what they are learning in small groups through group work (working in groups of 4 or more.	45.4	43.3	9.6	1.7
e		use stories and role play to make my lesson interesting	61.0	33.3	4.0	1.7

Majority (more than 90%) of trainees in all the 3 states reported that they always or sometimes give practical work to the students for providing hands-on experience, used pair work to discuss the subject or solve problems, used activities to promote active participation of students in learning, and also provided them with opportunities to sit in small groups to talk about what they are learning. Also most of them said that they at least sometimes used stories and role play to make their lessons interesting and used material from the local environment to assist students in learning the subject matter.

3.10.5 Teaching Practice of TTs

Teacher trainees were asked to indicate how they teach. Table 3.17 shows their responses.

Table 3.17 Percentage of TTs who adopted different teaching strategies in classrooms

Teaching Practices in my Classroom During lessons I....						
S. No.	**States**	**Statements**	**Always**	**Sometimes**	**Rarely**	**Never**
a	Uttar Pradesh (%)	Use dictation to teach my students the subject matter and they are required to write this in their notebooks.	55.3	37.2	6.4	1.1
b		Require students to copy down information I write on the blackboard.	57.8	33.9	8.1	0.3
c		Use the textbook and students are required to read a particular lesson.	50.3	36.4	11.4	1.9
d		Ask students to memorise information about the subject.	62.2	28.1	7.2	2.5
a	Bihar (%)	Use dictation to teach my students the subject matter and they are required to write this in their notebooks.	53.3	40.9	4.8	1.0
b		Require students to copy down information I write on the blackboard.	71.2	25.7	3.1	0.0
c		Use the textbook and students are required to read a particular lesson.	35.5	40.6	17.1	6.8
d		Ask students to memorise information about the subject.	54.6	28.2	12.4	4.8
a	Madhya Pradesh (%)	Use dictation to teach my students the subject matter and they are required to write this in their notebooks.	60.9	36.0	2.5	0.6
b		Require students to copy down information I write on the blackboard.	70.4	26.8	2.8	0.0
c		Use the textbook and students are required to read a particular lesson.	56.7	30.7	9.7	2.8
d		Ask students to memorise information about the subject.	68.6	23.0	7.1	1.2

S. No.	States	Statements	Always	Sometimes	Rarely	Never
a	Average (%)	Use dictation to teach my students the subject matter and they are required to write this in their notebooks.	56.5	38.0	4.6	0.9
b		Require students to copy down information I write on the blackboard.	66.5	28.8	4.6	0.1
c		Use the textbook and students are required to read a particular lesson.	47.5	35.9	12.7	3.9
d		Ask students to memorise information about the subject.	61.8	26.4	8.9	2.8

More than 80% teacher trainees reported that they used the following practices in Δtheir classrooms either always or sometimes:

- Using dictation to teach the students the subject matter.
- Asking student to copy down information from the blackboard.
- Using textbook to teach and ask the students to read the lesson.
- Asking students to memorize information about the subject.

Regarding the assessment practices, most of the teacher trainees said that they observed their students and made notes about their performance from time to time.

It is evident from the above discussion of the practices of teacher trainees in the three states that they are aware of the desirable practices but they have not come out of the traditional approach to teaching and learning and actually practice them in their classroom. Most of them claimed that they had adopted the methods that are considered to be a part of good classroom teaching but what they actually do can be checked only when their classes are observed systematically (see Table 3.17)

3.10.6 Opinion of TTs about their Pre-Service Teacher Training Programme

It is important to know what the teacher trainees think about their Teacher Training Course. Opinions about various aspects of the course directly or indirectly indicate their satisfaction level with the course and whether it was meeting their expectations or not. They were asked to give their

opinion on 24 statements. The responses on each item were analysed and are presented below in Table 3.18 to 3.22.

Table 3.18 TTs Opinion on Pre-service teacher training

Teaching in general						
Q.No.	**Statements**	**Opinion/ Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
1	to teach my subject	Strongly Agree + Agree (%)	96.7	93.9	99.6	96.7
		Mean Score	1.49	1.52	1.65	
2	for the number of students I am or will be teaching	Strongly Agree + Agree (%)	78.7	74.4	89.2	80.8
		Mean Score	0.76	0.72	1.04	
6	To teach when there is a lack of school facilities (e.g. libraries, science labs, computers, electricity, etc.)	Strongly Agree + Agree (%)	84.3	78.5	85.0	82.6
		Mean Score	0.98	0.84	0.91	
7	to teach in multi grade classrooms	Strongly Agree + Agree (%)	86.7	86.6	87.5	86.9
		Mean Score	1.08	1.10	1.02	
8	for the number of classes I teach or will teach	Strongly Agree + Agree (%)	81.2	67.1	93.5	80.6
		Mean Score	0.84	0.52	1.11	
13	to understand and follow the national curriculum framework (NCF)	Strongly Agree + Agree (%)	99.3	99.3	95.6	98.1
		Mean Score	1.34	1.62	1.21	

Table 3.19 TTs Opinion on Child-centred learning

Q.No.	**Statements**	**Opinion/ Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
9	to use a range of teaching methods that promote children's and young people's learning	Strongly Agree + Agree (%)	93.5	90.0	93.3	92.3
		Mean Score	1.38	1.33	1.17	
12	to plan my teaching to achieve progression for learners	Strongly Agree + Agree (%)	95.0	91.8	97.1	94.6
		Mean Score	1.34	1.31	1.31	

More than 80% teacher trainees agreed that the course they were undergoing prepared them well for dealing with the students in their class and teaching in multi-grade classrooms. It also prepared them to deal with lack of facilities like libraries, science labs, computers, electricity etc. in the school, and to plan their teaching properly. More than 90% trainees across the three states felt that their training course prepared them well to teach their subject and had actually equipped them to plan their teaching and use a variety of teaching methods to promote children's learning. Almost 100% trainees said that their courses helped them to understand and follow the National Curriculum Framework (See Table 3.18 and 3.19).

Table 3.20 TTs Opinion on Participation of TTs

Q. No.	Statements	Opinion/ Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
14	to use group and pair work	Strongly Agree + Agree (%)	99.4	92.9	94.8	95.7
		Mean Score	1.35	1.26	1.11	
15	to demonstrate and / or organise experiments and/or projects	Strongly Agree + Agree (%)	92.0	89.3	92.1	91.1
		Mean Score	1.10	1.21	1.08	
16	to use role play and drama in my teaching	Strongly Agree + Agree (%)	91.9	87.4	92.8	90.7
		Mean Score	1.12	1.11	1.13	
17	to use games that reinforce learning and ideas	Strongly Agree + Agree (%)	98.6	92.7	97.5	96.3
		Mean Score	1.45	1.39	1.29	
19	to use activities and strategies to make my classroom print-rich	Strongly Agree + Agree (%)	92.2	87.7	93.7	91.2
		Mean Score	1.15	1.25	1.19	
20	to develop storytelling techniques	Strongly Agree + Agree (%)	92.6	91.8	93.4	92.6
		Mean Score	1.13	1.23	1.09	

Table 3.20 shows that more than 90% trainees also agreed that their course prepared them to

- use group work and pair work in class
- demonstrate / organise experiments / projects
- use games that reinforce learning and ideas

- use role play and drama in classroom during teaching
- use activities and strategies to make classroom print-rich
- develop story telling techniques

Table 3.21 TTs opinion on assessment for learning

Q. No.	Statements	Opinion/ Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
10	to understand how to monitor, assess, record and report learners' progress	Strongly Agree + Agree (%)	97.5	95.2	95.9	96.2
		Mean Score	1.43	1.43	1.30	
21	to provide appropriate feedback on children's work and homework	Strongly Agree + Agree (%)	93.4	95.5	95.9	94.9
		Mean Score	1.22	1.27	1.24	
22	to use self and peer assessment in my classroom	Strongly Agree + Agree (%)	90.6	80.8	95.3	88.9
		Mean Score	1.10	0.86	1.14	

More than 95% trainees in all the three states said that the Teacher Training Course had helped them to monitor, assess, record and report learners' progress in order to provide appropriate feedback on childrens' work and homework to parents. About 80% teacher trainees in Bihar and more than 90% in U.P. and M.P. felt that their course also helped them to use self assessment and peer-assessment in the classroom (See Table 3.21).

Table 3.22 TTs Opinion on diversified teaching

Q.No.	Statements	Opinion/ Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
3	to teach students with special needs	Strongly Agree + Agree (%)	86.2	74.9	88.7	83.3
		Mean Score	1.02	0.72	1.11	
4	to work with students of different ethnicities and languages	Strongly Agree + Agree (%)	83.2	79.9	85.3	82.8
		Mean Score	0.96	0.96	0.98	
5	for the community/ neighbourhood/village in which my school is/will be located	Strongly Agree + Agree (%)	83.7	83.5	93.2	86.8
		Mean Score	0.98	0.99	1.12	

Q.No.	Statements	Opinion/ Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
11	to teach learners of different abilities	Strongly Agree + Agree (%)	91.4	85.0	94.1	90.2
		Mean Score	1.22	1.19	1.20	
18	to use the local environment as a resource and extension of the classroom	Strongly Agree + Agree (%)	93.9	80.4	91.2	88.5
		Mean Score	1.21	0.95	1.03	
23	to encourage children to seek out knowledge from places other than the textbook including their own experience and people and places in their everyday life	Strongly Agree + Agree (%)	95.6	98.6	97.5	97.2
		Mean Score	1.42	1.63	1.38	
24	to promote the acceptance of multiple views on social issues and a commitment to democratic forms of interaction	Strongly Agree + Agree (%)	84.8	84.5	79.4	82.9
		Mean Score	0.93	0.95	0.79	

As Table 3.22 shows, between 75% and 89% teacher trainees agreed that their course had prepared them well to teach children with special needs and to work with students of different ethnicities and languages.

Between 83%and 97% teacher trainees in the three states agreed that the course was preparing them

- to work for the community / neighbourhood / village in which the school was located
- to use the local environment as a resource and extension of the classroom
- to encourage children to seek knowledge from places other than the textbook
- to promote the acceptance of multiple views on social issues and a commitment to adopt democratic approach on the issues.

3.10.7 Supervision of TTs Teaching Practice

The next set of questions in the questionnaire related to supervision of teaching practice. Though the teaching practice is a part in the Teacher Training Course, when asked whether it was supervised, 15% in Bihar and more than 30% in U.P. and M.P. reported that their teaching practice was not supervised (See table 3.23).

Table 3.23 No. of times TTs were observed by supervisors

Frequency of Visit	Uttar Pradesh	Bihar	Madhya Pradesh	Average
1-5 times	36.5	58.0	67.4	54.0
6-10 times	11.8	8.1	20.5	13.5
11-15 times	3.3	1.4	5.1	3.3
16-20 times	1.4	1.4	1.9	1.5
More than 20	11.0	13.9	5.1	10.0
No Response	36.0	17.3	0.0	17.8
Total	100.0	100.0	100.0	100.0

Those who said that their teaching practice was supervised responded to the questions as follow:

When asked how many times they were observed, about 48% in U.P., 66% in Bihar and 87% in M.P. reported that they were supervised 1 to 10 times. A little more than 11% in U.P. and Bihar reported being supervised more than 20 times.

Table 3.24 TTs who received feedback

Response	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Yes	56.3	65.4	75.8	65.8
No	10.2	17.3	24.2	17.2
No Response	33.5	17.3	0.0	16.9
Total	100.0	100.0	100.0	100.0

As shown in Table 3.24, 56% in U.P., 65% in Bihar and 76% in M.P. had received feedback from their supervisors.

Table 3.25 TTs opinion about whether feedback helpful

Effect of Feedback	Uttar Pradesh	Bihar	Madhya Pradesh	Average
Unhelpful	3.3	2.4	7.9	4.5
Somewhat Helpful	8.2	9.8	29.9	16.0
Helpful	40.7	46.1	51.9	46.2
Very Helpful	12.9	23.7	10.3	15.6
No Response	34.9	18.0	0.0	17.6
Total	100.0	100.0	100.0	100.0

Table 3.25 shows that between 52% and 70% trainees in the 3 states had found the feedback helpful.

Table 3.26 Change in teaching practice as a result feedback

Effect of Feedback	Uttar Pradesh	Bihar	Madhya Pradesh	Average
Not at all	3.6	1.7	4.7	3.3
Somewhat Helpful	8.2	12.9	8.0	9.7
Very Little	31.0	30.8	56.6	39.5
In A Major Way	22.0	36.3	30.7	29.7
No Response	35.2	18.3	0.0	17.8
Total	100.0	100.0	100.0	100.0

On the basis of the feedback 53% in U.P., 67% in Bihar and 87% trainees in U.P. said that they could make at least some changes in their teaching (Table 3.26).

The teacher trainees were asked whether they got feedback from their supervisor, head teacher, other teachers of school or external individual (e.g. school inspector). Table 3.27 shows the responses of the teacher trainees regarding the frequency of the feedback from difference persons.

Table 3.27 Percentage of TTs who received feedback during teaching practice

Teaching Practices in my Classroom During lessons I....						
S. No.	**States**	**Statements**	**Always**	**Sometimes**	**Rarely**	**Never**
a	Uttar Pradesh (%)	Supervisor	56.4	31.9	8.3	3.4
b		Head Teacher	34.6	42.9	10.5	12.0
c		Other teachers or members of the school	41.5	24.8	20.4	13.3
d		External individual or body	18.2	24.2	25.2	32.5
a	Bihar (%)	Supervisor	42.0	50.7	4.9	2.4
b		Head Teacher	24.7	42.7	21.5	11.1
c		Other teachers or members of the school	27.4	36.1	14.2	22.2
d		External individual or body	6.3	26.7	20.1	46.9
a	Madhya Pradesh (%)	Supervisor	34.6	45.8	8.6	11.0
b		Head Teacher	30.6	42.2	13.3	14.0
c		Other teachers or members of the school	28.0	38.3	16.3	17.3
d		External individual or body	13.3	39.5	21.3	25.9
a	Average (%)	Supervisor	44.4	42.8	7.2	5.6
b		Head Teacher	29.9	42.6	15.1	12.4
c		Other teachers or members of the school	32.3	33.1	17.0	17.6
d		External individual or body	12.6	30.1	22.2	35.1

Table 3.27 indicates that 88% in U.P., 93% in Bihar and 80% in M.P. got feedback from supervisor ranging at least sometimes. 67% to 77% TTs in 3 states reported getting feedback either always or sometimes from their head teachers in schools.

Table 3.28 Impact of feedback on activities of TTs during teaching practice

S. No.	States	Statements	A large change	A moderate change	A small change	No change	No response
a	Uttar Pradesh (%)	Your lesson planning	26.4	33.5	24.7	5.2	10.2
b		Class room management	21.2	38.2	22.3	7.4	11.0
c		Teaching methodology	29.4	30.2	19.2	9.1	12.1
d		Peer learning	24.7	31.3	25.3	7.1	11.5
e		Inclusive teaching of students	22.5	40.4	20.9	6.0	10.2
f		Mainstreaming of students	32.7	26.4	9.9	20.1	11.0
a	Bihar (%)	Your lesson planning	35.6	37.6	16.9	6.4	3.4
b		Class room management	33.6	37.3	17.6	8.5	3.1
c		Teaching methodology	36.6	38.0	14.2	6.8	4.4
d		Peer learning	33.6	38.6	18.3	5.4	4.1
e		Inclusive teaching of students	28.8	36.6	20.7	10.5	3.4
f		Mainstreaming of students	33.6	30.2	11.2	21.7	3.4
a	Madhya Pradesh (%)	Your lesson planning	27.1	42.3	23.2	7.4	0.0
b		Class room management	26.7	47.0	21.4	5.0	0.0
c		Teaching methodology	27.5	46.0	20.3	6.2	0.0
d		Peer learning	32.8	42.3	17.5	7.3	0.0
e		Inclusive teaching of students	33.3	36.9	21.3	8.5	0.0
f		Mainstreaming of students	25.2	44.3	13.1	17.4	0.0
a	Average (%)	Your lesson planning	29.7	37.8	21.6	6.4	4.5
		Class room management	27.1	40.8	20.4	7.0	4.7
c		Teaching methodology	31.2	38.1	17.9	7.3	5.5
d		Peer learning	30.4	37.4	20.4	6.6	5.2
e		Inclusive teaching of students	28.2	38.0	21.0	8.4	4.5
f		Mainstreaming of students	30.5	33.6	11.4	19.7	4.8

The teacher trainees were asked to indicate the changes in different aspects of their teaching practices from large change to no change. About one third of teacher trainees from U.P. reported moderate change in 6 aspects of teaching practices viz. lesson planning, classroom management, teaching methodology, peer learning inclusive teaching and mainstreaming of students while 21% to 32% reported a large change. In Bihar a little more than one third of trainees reported large change and one third moderate change whereas in M.P. 25% to 33% reported a large change and 37% to 47% have reported moderate change (See Table 3.28).

3.11 CONCLUSION

Most of the Teacher Educators in the three states are academically and professionally highly qualified. The percentage of teacher educators with a low level of experience is small, both in terms of their experience in teacher education and in school-based teaching. In terms of their employment status, very few of the teacher educators in the report have employment which is temporary in nature.

It is reflected in the findings that the training provided by these TEs has begun to move from more traditional methods of training to those which include other types of pedagogy and methodology. However the study shows that there are contradictory statements on student engagement and types of effective teaching strategies.

Interestingly, a smaller percentage of TEs provide only in-service training. They are more likely to be involved either in pre-service training only, or in both types of training.

TEs expect that their trainees to do various kinds of activities, including debate, discussion and engaging in peer learning. They also expect their trainees to take part in a culture of sharing. The findings show that practices such as micro-teaching, simulated teaching, doing projects and case studies is not prevalent in pre-service teaching.

The majority of TEs in the study promote various methods of assessment, and of providing feedback to students on their class work and homework. There are different methods are applied by TEs to know the learner's progress. Most of the TEs reported that they would like to enhance their knowledge through reading professional literature.

The culture of feedback from a higher teacher education authority is not prevalent as a part of system. In particular, NCTE and SCERT were reported to be less likely to provide feedback, in contrast to the head of teacher training institutes who were reported to often give feedback to their trainees. The checking of lesson plans is a customary method of assessment of teacher trainees, in addition observation and checking their records are other areas of assessment which are used by TEs during appraisal of TTs.

Teacher trainees reported that they prefer to use dictation, copying, use of the textbook and memorisation to teach students. Meanwhile, it seems that feedback given during classroom practice is in the process of changing.

4

Schools and Head Teachers

4. Schools and Head Teachers

4.1 PROFILE OF SCHOOLS

The TESS-India Baseline Study was conducted in 423 schools out of the proposed 432 schools from the three states of U.P., Bihar and M.P. TESS-India's basic mandate of promoting school-based teacher professional development has put the institution of school at the centre of the project's intervention and therefore at the centre of the baseline queries. Although the log-frame talks only about change in teachers' attitudes but it is logical to consider that change in teachers' attitudes and promotion of school-based professional development cannot occur without the will and cooperation of Head Teachers (HTs). As the primary decision-making authority in the school, it is imperative that HTs take initiative in building classrooms which are student-friendly and inspire and motivate teachers to develop their professional capacities. The Leadership Development Units (LDUs) of TESS-India aim to instil these and many more leadership qualities among the HTs serving in the scores of government schools in rural and urban India.

In the study, data were collected from almost equal number of primary, upper primary and secondary school HTs for uniform representation across the three stages of schooling. Data collected from the three states show that a total of 423 schools were covered with equal proportion of primary, upper primary and secondary schools. Majority of these schools (83.5%) were in rural areas and nearly 45 % were located more than 20 kms from the nearest town. A look at the data across the three states also brings out the fact that the concentration of schools in rural areas is highest for primary (94 %), followed by upper primary (87%) and then secondary (70%). This is because now according to government norms there should be one primary school within 1 km of each habitation.

The management of the participating schools in all three categories and all three states is mostly by the Department of Education (DoE) of the respective states. In U.P., 79% of the primary schools, 86% of the upper primary schools and 100 % of the secondary schools are managed by the DoE. Similarly in Bihar 89% primary schools, 98% upper primary and, 81% secondary schools are managed by the DoE of the state. However, in U.P., a small percentage (17%) of secondary schools is also managed by Local bodies. In M.P. which has a significant tribal population it is understandable that apart from the DoE, almost 16% schools (primary, upper primary and secondary) are managed by the Tribal Welfare Department.

Block and Cluster Resource Centres were created under the District Primary Education Programme (DPEP) in the early 90s as academic structures to support and improve the quality of education in schools. Under the Sarva Siksha Abhyan (SSA), the BRC/CRC concept and their role was further extended from just being an alternative to inspection to providing resource support, in-service training of teachers, their mentoring and giving onsite support and training follow up. The importance of BRCs/CRCs has increased with the passing of the Right to Education (RtE) Act in 2009 which puts a lot of emphasis on local authorities to provide free and compulsory education to children[1]. Keeping in mind the renewed emphasis on the functioning of BRCs/CRCs, the Baseline study asked HTs to inform whether cluster meetings were held regularly. In addition, HTs were also asked if the teachers of their schools attended the BRC/CRC meetings.

In U.P., 89% HTs of primary schools reported that cluster meetings are held and majority (69%) said that these meetings are held once a month. The figures from Bihar and M.P. are equally encouraging and 95% HTs of Bihar in primary and upper primary schools and more than 80 % HTs in M.P. primary and upper primary schools said that cluster meetings are held. In these two states the highest number of HTs (Bihar 39% and M.P. 22%) reported that these cluster meetings are held once a month. While 82% Head Teachers in M.P., 40% in U.P. and 20% in Bihar said that BRC/CRC meetings are held regularly, it just shows their awareness of BRC/CRC meetings and not their participation in the meetings.

As regards participation of teachers in cluster meetings, 85% primary school HTs and 84% Upper Primary school HTs in all three states replied in the affirmative. Also majority of teachers in primary (67%) and upper primary (63%) schools participated in these meetings once a month.

School infrastructure is an integral part of education and presence of basic and essential infrastructure like blackboards, drinking water, toilets, libraries, science labs should be present for holistic and quality education. When asked about the presence of some basic infrastructure in their schools, Primary school HTs in all three states reported having sufficient blackboards chalks and dusters (92%) and drinking water facility (84%). However, when it comes to facilities like science laboratories, computers and extra classrooms, more than 80% of primary school HTs denied having these in their school. This is understandable as at the primary level science labs and computer labs are not sanctioned by the government. Other facilities like toilets, libraries, sports equipment and playgrounds are also not sufficiently in approximately 50% of the primary schools.

1. RtE ACT 2009, Clause 9.

In Upper Primary schools more than 90% HTs reported having blackboards, chalk and duster, 89% reported having drinking water facility in the school, 71% reported having separate toilets for boys and girls, nearly 55% reported having staff rooms, 59% reported having library facility in the school and, 54% reported having playground for children. Facilities which were in shortage in the Upper Primary schools as reported by the HTs include science labs (71%), computers (84%) and extra classrooms (77%).

Compared to Primary and Upper Primary schools, relatively more of Secondary schools have facilities such as library (58%), science lab (56%), sports equipment (59%), computers (40%) and playground (56%). Despite faring better than the primary and upper primary schools, the infrastructure and facilities are still inadequate in secondary schools. More than 40% secondary schools do not have such amenities as science labs, libraries etc. which are essential for providing good quality education to students and preparing them for a successful career ahead in life.

Section 21 of the Right to Education Act states that each school shall constitute a School Management Committee (SMC) comprising of elected local representatives, parents/guardians of students and teachers. The primary roles of these SMCs as mentioned in the RtE Act are to:

1. Monitor the working of the school
2. Prepare and recommend School Development plan.
3. Monitor the utilisation of the grants received from the concerned Government or local authority or any other source, and
4. Perform such other functions as may be prescribed

Due to the high importance placed by the RtE on SMCs for ensuring quality education in Primary and Upper primary schools, HTs were asked questions on the functioning of SMCs in their respective schools. When asked whether the SMC was operational, more than 90% HTs across the states confirmed that it was. To the question whether the SMC meets regularly, more than 80% said that it did. HTs were asked whether the SMC had prepared any school development plan, HTs of 40% to 60% schools across the 3 states responded as 'yes'. In contrast to this, only 14% to 28% HTs said that they had a staff development plan. Around 50% HTs said that they had a curriculum development plan focussing on the national/state curriculum (See Table A 4.1 in Appendix C)

4.2 PROFILE OF HEAD TEACHERS

4.2.1 Gender

Table 4.1 represents the gender distribution of head teachers who participated in the study. It was seen that overall the total of the three states (U.P., Bihar and M.P.) the number of female HTs was about 30% whereas male HTs were about 70%, for the total of all the levels of education viz. Primary, Upper Primary and Secondary. The percentage of female head teachers was least in M.P. (21%) and heighest (40%) in U.P.

Table 4.1 Distribution of HTs by gender

Type of Schools	Gender	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Male	79.5	57.4	78.7	71.9
	Female	20.5	42.6	21.3	28.1
Upper Primary	Male	58.3	74.5	77.8	70.2
	Female	41.7	25.5	22.2	29.8
Secondary	Male	42.5	91.7	80.9	71.7
	Female	57.5	8.3	19.1	28.3

4.2.2 Distribution of HTs by Age

HTs in all three states were above 45 years. Similarly at Secondary level, about 67% HTs were above 45 years. In Bihar 75% HTs of secondary schools were above 50, while the percentage of such teachers was only 40% in U.P. and 37.5% in M.P. At the primary level, there were more elderly teachers in M.P. (52% being over 46 years) while the percentage of such teachers was only 27% in U.P. and 22% in Bihar (See Table 4.2).

Table 4.2 Distribution of HTs by age

Type of Schools	Age	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	18-25	4.4	2.1	0.0	2.2
	26-30	13.3	10.6	6.3	10.1
	31-35	22.2	19.1	14.6	18.7
	36-40	20.0	31.9	10.4	20.8
	41-45	13.3	14.9	16.7	15.0
	46-50	6.7	8.5	22.9	12.7
	Over 50	20.0	12.8	29.2	20.6
Upper Primary	18-25	0.0	2.1	2.2	1.4
	26-30	4.2	2.1	2.2	2.8
	31-35	8.3	4.2	15.2	9.2
	36-40	10.4	16.7	6.5	11.2
	41-45	12.5	12.5	6.5	10.5
	46-50	18.8	14.6	21.7	18.4
	Over 50	45.8	47.9	45.7	46.5
Secondary	18-25	2.5	0.0	0.0	0.8
	26-30	7.5	0.0	2.1	3.2
	31-35	10.0	4.2	4.2	6.1
	36-40	10.0	10.4	8.3	9.6
	41-45	10.0	6.3	18.8	11.7
	46-50	20.0	4.2	29.2	17.8
	Over 50	40.0	75.0	37.5	50.8

4.2.3 Distribution of HTs by Social Category

Majority of HTs in all the three states belonged to OBC and 'Other' (general caste categories) categories at all the levels i.e. primary (75.6%), upper Primary (74.8%) and secondary (82.1%). In U.P. there was no Scheduled Tribe HT at any level but in M.P. there were over 20% Schedule Tribe HTs in primary and upper primary schools and 6% Scheduled Tribe HTs in secondary schools (See below table 4.3).

Table 4.3 Distribution of HTs by caste

Type of Schools	Caste	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	SC	17.8	17.0	10.6	15.1
	ST	.0	4.3	23.4	9.2
	OBC	33.3	34.0	38.3	35.2
	Other	48.9	44.7	27.7	40.4
Upper Primary	SC	14.9	20.8	17.8	17.8
	ST	.0	.0	22.2	7.4
	OBC	36.2	29.2	26.7	30.7
	Other	48.9	50.0	33.3	44.1
Secondary	SC	17.5	4.2	25.5	15.7
	ST	.0	.0	6.4	2.1
	OBC	42.5	33.3	27.7	34.5
	Other	40.0	62.5	40.4	47.6

4.2.4 Distribution of HTs b y Religion

Between 85% and 95% HTs were Hindus in all the three states at all the levels. Overall 4% to 8% HTs were Muslims in U.P. and Bihar but 2% or less in M.P.

Table 4.4 Distribution of HTs by religion

Type of Schools	Religion	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Hindu	93.33	85.11	95.74	91.39
	Muslim	6.67	12.77	2.13	7.19
	Other	.00	2.13	2.13	1.42
Upper Primary	Hindu	95.92	91.67	95.65	94.41
	Muslim	4.08	8.33	2.17	4.86
	Other	.00	.00	2.17	.72
Secondary	Hindu	92.68	89.58	95.83	92.70
	Muslim	7.32	10.42	.00	5.90
	Other	.00	.00	4.17	1.40

4.2.5 Distribution of HTs by Marital Status

Table 4.5 related to marital status of the HTs, above 80% HTs were married in all the states and less than 20% were single.

Table 4.5 Distribution of HTs by marital status

Type of Schools	Marital Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Single	11.1	2.1	2.1	5.1
	Married	86.7	97.9	95.8	93.5
	Divorced / Widowed	2.2	.0	2.1	1.4
Upper Primary	Single	4.2	.0	4.3	2.8
	Married	87.5	97.9	95.7	93.7
	Divorced	2.1	.0	.0	.7
	Divorced / Widowed	8.3	2.1	.0	3.5
Secondary	Single	9.8	2.1	2.1	4.7
	Married	82.9	95.8	97.9	92.2
	Divorced / Widowed	7.3	2.1	.0	3.1

4.2.6 Qualification and Experience of Head Teachers

Table 4.6 Shows the distribution of HTs by academic qualification.

Table 4.6 Highest educational qualification of head teachers

Type of Schools	Qualification	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	10th	6.7	4.3	4.3	5.1
	12th	11.1	38.3	25.5	25.0
	Bachelors	37.8	38.3	31.9	36.0
	Masters	42.2	19.1	38.3	33.2
	M.Phil/Ph.D/Ed.D	2.2	.0	.0	.7
Upper Primary	10th	.0	6.3	.0	2.1
	12th	14.3	20.8	4.3	13.2
	Bachelors	30.6	37.5	17.4	28.5
	Masters	46.9	35.4	78.3	53.5
	M.Phil/Ph.D/Ed.D	8.0	.0	.0	2.7
Secondary	12th	.0	.0	2.1	.7
	Bachelors	11.9	16.7	2.1	10.2
	Masters	69.0	68.8	93.8	77.2
	M.Phil/Ph.D/Ed.D	19.0	15.0	2.1	12.0

Overall in the three states, at Primary level 36% HTs had Bachelors and 33% HTs had Master's degree, whereas at Upper Primary level these percentages were 28% and 53%. Also in U.P. 42% and in M.P. 38% HTs had Master's degree at the Primary level. At Secondary level majority of HTs (77%) in the total of three states had Master level qualifications. A small percentage of HTs had M.Phil/Ph.D degree; the percentage of teachers with M.Phil/Ph.D degree in secondary schools was highest (19%) in U.P. and lowest (21%) in M.P. (See Table 4.6).

Table 4.7 shows distribution of HTs by professional qualifications.

Table 4.7 Professional qualification of head teachers

Professional Qualification	Type of Schools	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
CTC/JBT/BTC	Primary	34.8	29.8	25.0	29.9
	Upper Primary	51.0	64.6	21.3	45.6
	Secondary	7.1	8.3	10.4	8.6
DElEd/D.Ed/ BElEd	Primary	.0	17.0	54.2	23.7
	Upper Primary	.0	10.4	34.0	14.8
	Secondary	.0	8.3	8.3	5.6
B.Ed	Primary	47.8	4.3	14.6	22.2
	Upper Primary	49.0	12.5	40.4	34.0
	Secondary	73.8	64.6	75.0	71.1
M.Ed	Primary	.0	.0	.0	.0
	Upper Primary	4.1	.0	2.1	2.1
	Secondary	9.5	4.2	6.3	6.6

About 30% Primary level HTs in the total of all three states had obtained CTC/JBT/BTC, about 24% had DElEd/D.Ed./BEIEd degree and nearly 22% HTs across U.P., Bihar and M.P. had done their B.Ed. but variation across states is very large, the percentage being 47.8% in U.P. and only 4.3% in Bihar. Similarly across the states, 46% of the HTs of upper primary schools had CTC/JBT/BTC and 34% had B.Ed. degrees. As far as the HTs of secondary schools are concerned majority (71%) had B.Ed. degree. In U.P., the percentage of primary and upper primary school Heads with B.Ed. degree was the highest at 47.8% and 49% respectively; however at the same time there were no MEd degree holders serving as HT in U.P . In M.P. also 40% Upper Primary school Heads had B.Ed. degree (See Table 4.7).

Table 4.8 Total teaching experience of head teachers

Type of Schools	Experience	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	0-5 years	40.0	4.3	6.3	16.9
	6-10 years	11.1	63.0	12.5	28.9
	11 and above	48.9	32.6	81.3	54.2
Upper Primary	0-5 years	8.2	6.3	8.9	7.8
	6-10 years	8.2	16.7	11.1	12.0
	11 and above	83.7	77.1	80.0	80.3
Secondary	Less than 1 year	2.4	0.0	2.1	1.5
	0-5 years	19.5	8.3	6.3	11.4
	6-10 years	12.2	6.3	2.1	6.8
	11 and above	68.3	85.4	91.7	81.8

In the Table 4.8 in U.P. 40% Primary School HTs had less than 5 years of teaching experience, whereas in Bihar and M.P. this percentage was less than 6%. In U.P. 49%, in Bihar 33% and in M.P. 81% Heads had more than 10 years of teaching experience. More than 75% Upper Primary school Heads in all the states had teaching experience of more than 10 years. As far as Secondary School Heads are concerned 68% in U.P., 85% in Bihar and 92% in M.P. had more than 10 years of experience. In U.P. the percentage of Secondary Heads with less than 5 years' experience was highest (22%).

Table 4.9 Experience as a HT

Type of Schools	Experience	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	0-5 years	64.4	54.3	51.1	56.6
	6-10 year	20.0	39.1	23.4	27.5
	11 and above	15.6	6.5	25.5	15.9
Upper Primary	0-5 years	60.9	63.8	51.1	58.6
	6-10 year	6.5	19.1	28.9	18.2
	11 and above	32.6	17.0	20.0	23.2
Secondary	0-5 years	75.0	89.4	43.2	69.2
	6-10 year	12.5	0.0	27.3	13.3
	11 and above	12.5	10.6	29.5	17.6

When asked about the experience as HT, more than 50% HTs at Primary level reported having less than 5 years experience in all the states. In U.P. this percentage was the highest (64%). At Upper Primary level also more than 50% HTs reported having less than 5 years' experience in each state, while at secondary level over 75% HTs had less than 5 years experience as HT, except in M.P. were this percentage was 43%. (See Table 4.9).

Table 4.10 Distribution of HTs by employment status

Type of Schools	Employment Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Permanent	80.0	60.9	87.2	76.0
	Temporary	17.8	10.9	4.3	11.0
	Para Teacher	2.2	6.5	.0	2.9
	Samvidha/ Others	.0	21.0	8.5	9.8
Upper Primary	Permanent	81.6	91.5	89.1	87.4
	Temporary	18.4	.0	6.5	8.3
	Para Teacher	.0	2.1	.0	.7
	Samvidha/ Others	.0	6.4	2.2	2.9
Secondary	Permanent	90.5	83.3	85.4	86.4
	Temporary	9.5	6.3	10.4	8.7
	Para Teacher	.0	.0	.0	.0
	Samvidha/ Others	.0	10.0	4.2	4.7

It is found that 79% to 87% HTs of all the schools across all the states were permanent employees. About 12% HTs of Primary Schools were para teachers or Samvidha teachers. In U.P. this percentage was negligible (only 2%) while in Bihar it was the highest (about 24%) (See Table 4.10).

The HTs were also asked as to which classes they taught in their schools. The trend was seen that most HTs taught the higher classes of their schools. For example 69% Primary school

HTs taught class 5, 74% Upper Primary school HTs taught class 8, and 72% Secondary School Heads taught class 10. It may be noted that in some cases an Upper Primary School included primary section also. So some Upper Primary school Heads also taught primary classes.

4.3 HTs' VIEWS ABOUT TEACHING AND HOW STUDENTS LEARN

Data were also collected from the HTs regarding their views about teaching and how students learn. The questionnaire intended to find the opinions of HTs about six aspects of classroom processes namely (i) the ways in which student participation can be facilitated, (ii) questioning strategy of teachers in the classroom (iii) giving students more control over their learning (iv) assessment of learning, (v) diversity of students (vi) traditional approach to teaching.

The HTs responded by ticking in one of the cells given against each statement. These were strongly agreed, agree, disagree and strongly disagree. Apart from percentage of responses in each cell, a mean score was also calculated for each statement as described earlier.

Table 4.11 shows the percentage of responses who 'agree' with the statement by adding the percentage of both `agree `and `strongly agree'. These tables also show the mean scores obtained on each statement.

4.4 HTs' VIEWS ABOUT HOW STUDENTS PARTICIPATION CAN BE FACILITATED

Table 4.11 Facilitation of student participation

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
20	Pair work (all students working in groups of 2) is not productive	Primary	Strongly Agree + Agree (%)	22.22	36.17	21.28
			Mean Score	-0.58	-0.19	-0.72
		Upper Primary	Strongly Agree + Agree (%)	19.15	25.00	30.43
			Mean Score	-0.66	-0.71	-0.43
		Secondary	Strongly Agree + Agree (%)	21.43	21.28	20.83
			Mean Score	-0.55	-0.66	-0.65
6	A silent and disciplined classroom is needed for effective learning to take place	Primary	Strongly Agree + Agree (%)	97.78	97.87	100.00
			Mean Score	1.62	1.60	1.40
		Upper Primary	Strongly Agree + Agree (%)	100.00	100.00	93.48
			Mean Score	1.69	1.71	1.39
		Secondary	Strongly Agree + Agree (%)	100.00	100.00	97.92
			Mean Score	1.74	1.77	1.63
13	Students need to be encouraged to ask questions about what they are learning	Primary	Strongly Agree + Agree (%)	100.00	100.00	100.00
			Mean Score	1.52	1.62	1.47
		Upper Primary	Strongly Agree + Agree (%)	100.00	93.75	100.00
			Mean Score	1.63	1.52	1.46
		Secondary	Strongly Agree + Agree (%)	97.62	97.87	100.00
			Mean Score	1.62	1.68	1.65

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
2	Independent work is best suited for secondary students, not primary students	Primary	Strongly Agree + Agree (%)	53.33	50.00	36.96
			Mean Score	0.02	0.07	-0.24
		Upper Primary	Strongly Agree + Agree (%)	34.69	43.75	56.52
			Mean Score	-0.29	-0.10	0.17
		Secondary	Strongly Agree + Agree (%)	68.29	65.96	57.78
			Mean Score	0.41	0.43	0.04
11	During class students should be engaged in discussions and/or debates about the subject	Primary	Strongly Agree + Agree (%)	93.48	97.87	97.92
			Mean Score	1.22	1.57	1.25
		Upper Primary	Strongly Agree + Agree (%)	91.84	100.00	95.65
			Mean Score	1.16	1.67	1.28
		Secondary	Strongly Agree + Agree (%)	97.62	100.00	93.75
			Mean Score	1.48	1.64	1.21
5	Group work (all students working in groups of 4 to 6) is not productive	Primary	Strongly Agree + Agree (%)	32.61	31.91	23.40
			Mean Score	-0.39	-0.21	-0.64
		Upper Primary	Strongly Agree + Agree (%)	30.61	43.75	17.39
			Mean Score	-0.47	-0.10	-0.76
		Secondary	Strongly Agree + Agree (%)	21.43	27.66	18.75
			Mean Score	-0.64	-0.60	-0.71
10	Students playing games to learn is not as effective as practicing problems in the textbook	Primary	Strongly Agree + Agree (%)	23.91	19.15	33.33
			Mean Score	-0.63	-0.74	-0.38
		Upper Primary	Strongly Agree + Agree (%)	16.33	29.17	34.78
			Mean Score	-0.84	-0.44	-0.39
		Secondary	Strongly Agree + Agree (%)	31.71	21.28	33.33
			Mean Score	-0.46	-0.70	-0.29

When asked about different classroom teaching strategies and organising the class to enhance student participation in learning, more than 90% HTs across all the levels believed that a silent and disciplined classroom was needed for effective learning to take place, that students needed

to be encouraged to ask questions about their learning and that during the class, students should be engaged in discussion and debates about the subject.

Less than 30% of the HTs felt that pair work and group work was not productive. A similar percentage believed that playing games does not add to learning.

4.5 HTs' VIEWS ABOUT THE QUESTIONING STRATEGIES OF TEACHERS

Table 4.12 Questioning strategies of teachers

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
1	Teachers should ask students questions with more than one correct answer	Primary	Strongly Agree + Agree (%)	58.70	95.74	54.35
			Mean Score	0.24	1.40	0.07
		Upper Primary	Strongly Agree + Agree (%)	63.27	91.67	50.00
			Mean Score	0.33	1.33	0.11
		Secondary	Strongly Agree + Agree (%)	65.85	85.11	47.92
			Mean Score	0.29	0.87	-0.04
12	Wrong answers to questions by students provide opportunities to help students learn	Primary	Strongly Agree + Agree (%)	86.96	86.96	87.23
			Mean Score	0.85	1.09	0.96
		Upper Primary	Strongly Agree + Agree (%)	89.80	95.83	91.30
			Mean Score	1.02	1.25	1.00
		Secondary	Strongly Agree + Agree (%)	87.80	97.87	85.11
			Mean Score	0.98	1.21	0.77

More than 85% HTs in all the three states and at all the levels of school education believed that even wrong answers to questions by students provided opportunities to help students learn. However regarding the statement that teachers should ask students questions with more than one correct answer, the opinions were different across the states. While in Bihar more than 85% HTs agreed with it, in U.P. and M.P. the percentage ranged from 48% to 66%. It seems that the HTs of Bihar have better understood the philosophy of constructivism than teachers of U.P. and M.P. (See Table 4.12).

4.6 HTs' VIEWS REGARDING ASSESSMENT

Table 4.13 Assessment of learning

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
9	Examinations and quizzes are the best way to assess student learning	Primary	Strongly Agree + Agree (%)	86.96	85.11	89.36
			Mean Score	1.02	1.06	1.02
		Upper Primary	Strongly Agree + Agree (%)	89.58	68.75	95.65
			Mean Score	1.13	0.65	1.22
		Secondary	Strongly Agree + Agree (%)	87.80	91.49	82.98
			Mean Score	1.00	1.38	0.91
14	Homework should be returned to the students with comments (that help students learn) or corrected together in class	Primary	Strongly Agree + Agree (%)	95.65	95.74	97.83
			Mean Score	1.24	1.30	1.33
		Upper Primary	Strongly Agree + Agree (%)	89.80	91.67	97.78
			Mean Score	0.98	1.17	1.29
		Secondary	Strongly Agree + Agree (%)	95.12	93.62	91.49
			Mean Score	1.20	1.34	1.23
15	Effective teachers must first demonstrate the correct ways to solve a problem before students try it on their own	Primary	Strongly Agree + Agree (%)	52.17	65.96	52.08
			Mean Score	0.22	0.55	0.00
		Upper Primary	Strongly Agree + Agree (%)	48.98	54.17	62.22
			Mean Score	0.04	0.21	0.31
		Secondary	Strongly Agree + Agree (%)	61.90	60.87	52.08
			Mean Score	0.40	0.37	0.08

More than 83% HTs of all schools in all the three states thought that examinations and quizzes are the best way to assess student learning with the exception of Upper Primary level HTs of Bihar as only 69% of them agreed with this view.

More than 90% HTs agreed that homework should be returned to students with proper comments (that helps students' learning) or corrected together in class. (See Table 4.13).

4.7 HTs' VIEWS ABOUT LEARNING AUTONOMY OF STUDENTS

Table 4.14 Learning autonomy of students

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
17	Students should be asked to try problems themselves, before the teacher demonstrates a solution	Primary	Strongly Agree + Agree (%)	77.78	85.11	89.58
			Mean Score	0.67	1.04	0.90
		Upper Primary	Strongly Agree + Agree (%)	89.58	79.17	84.44
			Mean Score	1.02	0.90	1.09
		Secondary	Strongly Agree + Agree (%)	95.24	80.43	91.67
			Mean Score	1.24	0.85	1.13
7	Teachers should ask student what they want to learn about and include this in their lessons	Primary	Strongly Agree + Agree (%)	86.67	87.23	85.11
			Mean Score	0.96	1.17	0.79
		Upper Primary	Strongly Agree + Agree (%)	79.59	85.42	63.04
			Mean Score	0.71	0.94	0.30
		Secondary	Strongly Agree + Agree (%)	78.05	70.21	54.17
			Mean Score	0.63	0.62	0.10

Regarding the views that independent work is best suited for secondary students but not primary students, 64% HTs of Secondary Schools agreed with it. The Primary and Upper Primary school HTs had divided opinions about this view as only 47% and 45% agreed with it respectively.

Similarly, about the statement that 'effective teachers must first demonstrate the correct way to solve a problem before students try it on their own', the opinions were divided as only 55% to 58% HTs agreed with it. On the other hand more than 80% in all the states recommended that students should be asked to try problems themselves, before the teacher demonstrates a solution.

Further (70% - 87%) the Primary School HTs in all the states and Upper Primary and Secondary Heads in UP and Bihar agreed that teachers should ask students what they want to learn and then include that in their lessons. But in M.P., HTs at Upper Primary and secondary level had some reservation about it as only 63% and 54% agreed with it respectively, perhaps because there is a set syllabus for these levels and they did not want to deviate from it (See Table 4.14).

4.8 HTs' VIEWS ABOUT DEALING WITH DIVERSITY IN THE CLASSROOM

Table 4.15 Diversity in the classroom

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
18	Some students have a natural ability to learn and others do not	Primary	Strongly Agree + Agree (%)	84.78	76.09	72.92
			Mean Score	0.83	0.72	0.63
		Upper Primary	Strongly Agree + Agree (%)	79.59	77.08	73.91
			Mean Score	0.73	0.73	0.61
		Secondary	Strongly Agree + Agree (%)	85.71	76.09	81.25
			Mean Score	0.83	0.74	0.81
19	Students who come from SC/ST/OBC find learning content on the syllabus difficult	Primary	Strongly Agree + Agree (%)	19.57	25.53	17.39
			Mean Score	-0.74	-0.60	-0.87
		Upper Primary	Strongly Agree + Agree (%)	14.29	14.89	28.26
			Mean Score	-1.06	-0.98	-0.70
		Secondary	Strongly Agree + Agree (%)	16.67	27.66	20.83
			Mean Score	-0.88	-0.60	-0.77
21	Teachers should discuss social issues (human rights, caste, religion and gender, etc.) in their classroom	Primary	Strongly Agree + Agree (%)	82.61	65.96	95.74
			Mean Score	0.76	0.34	1.17
		Upper Primary	Strongly Agree + Agree (%)	85.42	76.60	90.91
			Mean Score	0.94	0.70	1.20
		Secondary	Strongly Agree + Agree (%)	85.71	85.11	93.75
			Mean Score	1.07	1.00	1.19

Only about 20% HTs in all the states believed that students from SC/ST/OBC categories find the syllabus difficult. More than 80% agreed that teachers should discuss social issues like human rights, caste, religion and gender etc. in their classroom. Similarly, more than 75% believed that some students have a natural ability to learn and others do not (See Table 4.15).

4.9 HTs' VIEWS ABOUT TRADITIONAL PRACTICES

Table 4.16 Traditional approach (Performance Orientation)

These items are on the views of Head Teachers on attitudes that underlie and drive traditional practices

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
3	Covering the syllabus is the most important part of a teacher's role	Primary	Strongly Agree + Agree (%)	93.48	91.49	87.50
			Mean Score	1.39	1.45	1.08
		Upper Primary	Strongly Agree + Agree (%)	91.84	85.42	84.78
			Mean Score	1.27	1.31	1.20
		Secondary	Strongly Agree + Agree (%)	95.24	95.74	89.36
			Mean Score	1.52	1.68	1.34
8	Students learn best through memorisation	Primary	Strongly Agree + Agree (%)	46.67	51.06	34.04
			Mean Score	-0.02	0.21	-0.28
		Upper Primary	Strongly Agree + Agree (%)	40.82	37.50	26.09
			Mean Score	-0.12	-0.27	-0.48
		Secondary	Strongly Agree + Agree (%)	34.15	55.32	39.58
			Mean Score	-0.29	0.15	-0.21
4	Dictation of information to students is an effective teaching strategy	Primary	Strongly Agree + Agree (%)	97.83	95.74	100.00
			Mean Score	1.35	1.47	1.44
		Upper Primary	Strongly Agree + Agree (%)	87.76	95.83	97.83
			Mean Score	1.10	1.50	1.37
		Secondary	Strongly Agree + Agree (%)	100.00	97.87	93.75
			Mean Score	1.43	1.49	1.15

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
16	The textbook is the only resource needed to teach students about the subject	Primary	Strongly Agree + Agree (%)	24.44	34.04	12.77
			Mean Score	-0.69	-0.30	-0.77
		Upper Primary	Strongly Agree + Agree (%)	29.17	18.75	32.61
			Mean Score	-0.48	-0.67	-0.39
		Secondary	Strongly Agree + Agree (%)	26.19	31.91	31.25
			Mean Score	-0.60	-0.43	-0.44

Majority of HTs of all schools in all the three states were of the view that covering the syllabus is the most important part of a teacher's role. Similarly more than 94% believed that dictation of information to students is an effective teaching strategy. As against these views less than 30% agreed that the textbook is the only resource needed to teach students about the subject. The view of HTs seem to differ on the statement that students learnt best through memorization. In U.P. and M.P. only 26% to 47% agreed with the view whereas in Bihar more than 50% Primary and Secondary Heads believed in this dictum.

It can be concluded from the above that some winds of change have reached the schools of U.P., Bihar and M.P. as the HTs in all the three states have exhibited changing views about pedagogy and student participation. Though they are still traditional in certain opinions like a silent and disciplined classroom is needed for effective learning, and that dictating notes to students is an effective teaching strategy, they also think that students should engage in debate and discussion to learn about a subject, and that textbook is not the only resource needed to teach a subject (See Table 4.16).

4.10 HTs' PROFESSIONAL DEVELOPMENT AND TRAINING

Professional Development and Training is important for HTs so that they keep abreast with latest developments in the field of education and pedagogy and in turn may bring quality changes in their schools. When asked whether they had participated in any in-service training programmes, 50% HTs of Primary and Upper Primary Schools and 33% of Secondary Schools across all the three states answered in affirmative. When those who had not attended any in-service training were asked the reason, a large number of HTs reported that it was not offered. Only 23% to 35% of those who underwent the training had found it helpful and 9% to 17% across all the

levels and states found the training very helpful. The duration of training varied from 3-4 days to more than 9 days.

The in-service training is offered on various subjects related to school education like assessment & evaluation, value education, management of schools, education of children with special needs etc. A total of 22 areas were listed in the questionnaire and the data revealed that a small number of HTs had attended training in the different areas and no discernable trend was seen for any particular field of in-service training.

4.11 HTs' GENERIC ATTITUDES ON THE PRACTICE OF HTs

The HTs were asked to indicate their agreement or disagreement with statements related to related to their various functions in schools in order to find out their attitudes towards them. These practices related to six areas. Their attitudes on these areas are discussed below (See Table 4.17):

(i) Enforcing government acts and ensuring that teachers follow curriculum guidelines

Almost all the HTs across all the three states agreed that an effective HT should ensure teachers complete the syllabus on time. However, on the statement that the HT should ensure that teachers teach only from textbooks, the opinions were divided. Only 26% Upper Primary and 31% Secondary HTs agreed with this view whereas at primary level 57% HTs were in agreement with this. However, in M.P. 100% Primary Level HTs agreed with this view.

(ii) Observing and appraising teacher performance

More than 90% HTs agreed that a Head Teacher should frequently monitor the classroom practices of teachers by visiting them when the class is going on.

(iii) Providing / facilitating the school teachers' professional development

Majority of HTs (more than 85%) across all the three states and school levels were in agreement that a Head Teacher should facilitate the school based professional development of teachers and also send them for regular training.

(iv) School governance

Almost 100% HTs agreed that an effective Head Teacher has to monitor students' attendance and performance data (e.g. retention, absenteeism, enrolment etc.) regularly and should take steps to address shortfalls.

More than 70% HTs across the three states agreed that an effective HT ensures that teachers maintain a silent and disciplined classroom and that HT should plan the school calendars to accommodate local festivals from all sections of the community.

The opinions were divided on the statements that a Head Teacher should take disciplinary action against students who do not perform well in class and that a Head Teacher is responsible for effective school management than teaching in the classroom. About 44% to 62% HTs agreed with these two statements.

(v) Improving teaching and learning

For improving teaching and learning in schools, a head teacher has to take such measures as conducting regular staff meetings with teachers to share experiences in teaching, to discuss future plans and at the same time to receive feedback from them on how to improve teaching and learning. On these points almost all the HTs (95% to 100%) from all the three states expressed their strong agreement, with most of the mean scores being well above 1.00.

Regarding the view that an effective Head Teacher ensures that teaching resources e.g. science lab, computer lab, library etc. are present in schools and used by teachers and students, 91% Secondary HTs were in agreement whereas at primary and Upper Primary levels, only 69% and 78% HTs expressed their agreement with it.

While a large percentage of HTs in all the states and at the different levels showed agreement with the statement that a Head Teacher should hold the teachers accountable for the poor performance of the students, there were quite a few who did not agree with this view.

(vi) Promoting student centred learning

Between 82% - 86% HTs agreed that a Head Teacher should encourage teachers to display students' work on the classroom walls. More Primary and Upper Primary Heads agreed with this view than the Secondary School Heads, as class displays are more commonly used at these levels to encourage children rather than at higher levels.

Table 4.17 HTs' Activities in the school

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
Enforcing government acts and ensuring teachers follow curriculum guidelines (National and State)						
7	should ensure teachers complete the syllabus on time.	Primary	Strongly Agree + Agree (%)	97.78	100.00	100.00
			Mean Score	1.44	1.68	1.36
		Upper Primary	Strongly Agree + Agree (%)	100.00	97.92	100.00
			Mean Score	1.41	1.56	1.61
		Secondary	Strongly Agree + Agree (%)	100.00	100.00	100.00
			Mean Score	1.51	1.77	1.63
8	enforce that teachers teach only from textbooks	Primary	Strongly Agree + Agree (%)	31.11	40.43	100.00
			Mean Score	-0.38	-0.15	1.29
		Upper Primary	Strongly Agree + Agree (%)	18.37	18.75	42.22
			Mean Score	-0.67	-0.73	-0.02
		Secondary	Strongly Agree + Agree (%)	24.39	44.68	22.92
			Mean Score	-0.54	-0.02	-0.56
Observing and appraising teacher performance (Strongly Agree + Agree)						
4	often monitors the classroom practices of teachers by visiting them when the class is going on	Primary	Strongly Agree + Agree (%)	91.30	97.87	91.49
			Mean Score	1.26	1.43	1.11
		Upper Primary	Strongly Agree + Agree (%)	89.80	97.92	86.96
			Mean Score	1.10	1.54	0.96
		Secondary	Strongly Agree + Agree (%)	100.00	93.62	93.75
			Mean Score	1.39	1.40	1.15
Providing/facilitating the schools' teacher professional development (Strongly Agree + Agree)						
1	facilitates the professional development of teachers by sending them for regular training	Primary	Strongly Agree + Agree (%)	93.48	95.65	97.87
			Mean Score	1.15	1.33	1.17
		Upper Primary	Strongly Agree + Agree (%)	79.59	91.67	93.33
			Mean Score	0.80	1.23	1.18
		Secondary	Strongly Agree + Agree (%)	95.00	95.74	97.92
			Mean Score	1.30	1.28	1.31
2	facilitates the school-based professional development of teachers	Primary	Strongly Agree + Agree (%)	93.48	93.48	95.74
			Mean Score	1.09	1.17	1.02
		Upper Primary	Strongly Agree + Agree (%)	85.71	89.36	86.67
			Mean Score	0.90	1.13	0.91
		Secondary	Strongly Agree + Agree (%)	92.68	87.23	91.49
			Mean Score	1.05	0.96	1.02

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
School governance (*Strongly Agree + Agree*)						
5	regularly monitors student data (e.g. retention, absenteeism, enrolment etc.) and takes steps to address shortfalls	Primary	Strongly Agree + Agree (%)	100.00	100.00	100.00
			Mean Score	1.41	1.53	1.36
		Upper Primary	Strongly Agree + Agree (%)	100.00	100.00	97.83
			Mean Score	1.35	1.58	1.39
		Secondary	Strongly Agree + Agree (%)	100.00	97.87	100.00
			Mean Score	1.49	1.49	1.38
9	enforce teachers to maintain a silent and disciplined classroom	Primary	Strongly Agree + Agree (%)	68.89	78.72	68.09
			Mean Score	0.62	0.96	0.34
		Upper Primary	Strongly Agree + Agree (%)	83.67	85.42	65.22
			Mean Score	0.98	1.06	0.46
		Secondary	Strongly Agree + Agree (%)	80.49	91.49	79.17
			Mean Score	0.88	1.19	0.71
10	takes disciplinary action against students who do not perform well in class.	Primary	Strongly Agree + Agree (%)	46.67	51.06	34.78
			Mean Score	-0.02	0.21	-0.35
		Upper Primary	Strongly Agree + Agree (%)	59.18	47.92	57.78
			Mean Score	0.22	0.06	0.16
		Secondary	Strongly Agree + Agree (%)	68.29	54.35	63.83
			Mean Score	0.56	0.26	0.40
13	is more responsible for effective school management than teaching in the classroom.	Primary	Strongly Agree + Agree (%)	33.33	80.85	51.06
			Mean Score	-0.33	0.81	0.06
		Upper Primary	Strongly Agree + Agree (%)	55.10	64.58	63.04
			Mean Score	0.24	0.50	0.35
		Secondary	Strongly Agree + Agree (%)	43.90	70.21	48.94
			Mean Score	-0.02	0.62	-0.02
14	plans the school calendar to accommodate local festivals from all sections of the community	Primary	Strongly Agree + Agree (%)	75.00	85.11	93.48
			Mean Score	0.59	0.96	0.96
		Upper Primary	Strongly Agree + Agree (%)	85.71	78.72	73.91
			Mean Score	0.84	0.83	0.59
		Secondary	Strongly Agree + Agree (%)	82.93	85.11	93.75
			Mean Score	0.90	1.00	1.04

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh
Improving teaching and learning (Strongly Agree + Agree)						
3	conducts regular staff meetings with teachers to share experiences in teaching and discuss future plans	Primary	Strongly Agree + Agree (%)	95.56	100.00	93.62
			Mean Score	1.33	1.38	1.06
		Upper Primary	Strongly Agree + Agree (%)	91.84	97.92	93.33
			Mean Score	1.14	1.50	1.13
		Secondary	Strongly Agree + Agree (%)	97.56	100.00	97.92
			Mean Score	1.37	1.47	1.29
6	ensures that teaching resources (e.g. science lab, computer lab, library etc.) are present in the school and used by teachers and students	Primary	Strongly Agree + Agree (%)	70.45	62.22	74.47
			Mean Score	0.55	0.27	0.53
		Upper Primary	Strongly Agree + Agree (%)	71.43	80.85	81.82
			Mean Score	0.53	0.96	0.89
		Secondary	Strongly Agree + Agree (%)	82.93	93.62	97.92
			Mean Score	1.05	1.32	1.17
11	holds the teacher accountable for the poor performance of the students	Primary	Strongly Agree + Agree (%)	51.11	57.45	31.91
			Mean Score	0.02	0.26	-0.47
		Upper Primary	Strongly Agree + Agree (%)	42.86	36.17	50.00
			Mean Score	-0.10	-0.32	0.07
		Secondary	Strongly Agree + Agree (%)	41.46	54.35	42.55
			Mean Score	-0.15	0.13	-0.15
12	should be open to receiving feedback from teachers on how to improve teaching and learning in the school	Primary	Strongly Agree + Agree (%)	97.73	95.65	93.62
			Mean Score	1.23	1.37	1.02
		Upper Primary	Strongly Agree + Agree (%)	97.96	100.00	95.56
			Mean Score	1.18	1.48	1.22
		Secondary	Strongly Agree + Agree (%)	97.56	100.00	100.00
			Mean Score	1.34	1.45	1.31
Promoting student centred learning (Strongly Agree + Agree)						
15	encourages teachers to display students' work on the classroom walls	Primary	Strongly Agree + Agree (%)	72.73	91.49	93.62
			Mean Score	0.68	1.26	1.13
		Upper Primary	Strongly Agree + Agree (%)	77.55	93.75	84.78
			Mean Score	0.73	1.33	0.96
		Secondary	Strongly Agree + Agree (%)	82.93	78.72	85.11
			Mean Score	0.80	0.85	0.87

4.12 PLANNING AND OTHER ACTIVITIES IN SCHOOL

The HTs were asked questions regarding the plans and activities taking place in their schools and were asked by the enumerator to show the documents, records, circulars, announcements to substantiate their claims regarding the activities in school, or their role as HT.

About 70% HTs in all the states said that they visited individual teachers' classrooms at least sometimes, and that they also provided feedback to them.

More than 60% HTs at all the levels across the states stated that they organised the staff meetings and P.T.A. meetings from time to time.

When asked whether the CRC/BRC coordinator provided academic inputs to the school, 47% Primary and 50% Upper Primary Heads across the states said that they did provide input sometimes. As far as Secondary School Heads are concerned, 66% categorically said 'never'.

When asked how often the Heads sent their teachers for professional development outside school, around one third HTs reported it to be rare perhaps because they did not have any roll in selection of teachers for in-service trainning programmes.

When asked whether the HT planned school based professional development, one third of the HTs across the states, at all the school levels reported it to be rare, and another one third categorically said that they 'never' did it.

The HTs were also asked if they attended professional development training themselves and whether they replicated a similar training for teachers of their school, 38% primary, 49% Upper Primary and 36% secondary school Heads reported that they had never attended any training. While 21% to 32% across the states reported attending a professional training rarely. As most of them had never or rarely attended such a programme, they never or rarely replicated them at their school.

Majority of Heads reported celebrating the local and national days like 15th August and 26th January in the presence of local community.

More than 80% HTs said that they impressed upon their teachers the importance of using TLMs to teach the students.

While 40% to 46% HTs at all the levels across the states reported organising medical check-up of students rarely, about 40% reported doing it atleast sometimes.

More than 95% HTs drew the attention of their teachers and students towards the importance of maintaining health and hygiene standards in schools. They also used school records (e.g. student performance record, enrolment, student retention records etc. to improve the working of schools. Majority of HTs also reported checking from time to time whether the teachers were completing the syllabus of their classes.

4.13 CONCLUSION

The present chapter is an analysis of responses of Head Teachers to questions related to school information, their socio-demographic background, perceptions on teaching and learning, professional development and training and finally on attitudes towards Head Teachers' practices in the school. The study covered 141 primary, 144 upper primary and 138 secondary schools. Most of these schools were located in rural areas. Most of the participating schools in all three categories (primary, upper primary, secondary) in the states were under the Department of Education of the respective states. In M.P., however, where there is a relatively large ST population, almost 16 per cent of the schools are managed by the Tribal Welfare Department. The language of instruction in more than 95 per cent schools at all levels in the three states is Hindi.

At the elementary level, BRC/CRCs meetings are held regularly (mostly once a month) and the attendance of teachers from primary and upper primary schools is also quite encouraging. It is also heartening to note that more than 90% HTs across the three states reported that SMCs are present in their school. However, when it came to performance of these SMCs, there still remains a gap between what is prescribed in the policy and what role these SMCs are actually performing.

Most of the participating schools did not have adequate infrastructure and facilities such as libraries, science labs, computer labs, sports equipment, playground etc. Absence of such basic amenities in the schools affects the learning of the students as well as disadvantages the teachers who have to teach with limited resources.

As for HTs, a total of 413 HTs from primary, upper primary and secondary schools in the three states participated in the survey. More than 75% HTs were permanent state government employees. Nearly 70% of these HTs at all levels in the three states were male. A miniscule percentage of HTs across the three levels were less than 30 years of age. Majority of participating HTs in all states were from the OBC and 'Other' category with a very small percentage of HTs in each state were of SC category. There were a few ST category HTs only in M.P. Additionally, majority of HTs were Hindus and in each state more than 90 per cent HTs were married.

Nearly 70% of HTs in primary and upper primary schools are graduates and above, and majority of secondary school HTs held a Master's degree. In terms of professional qualification, majority of secondary school HTs from U.P. had B.Ed. degree as compared to the other two states. There are also HTs, primarily in Bihar and M.P., who had done their CTC/JBT/BTC as part of their professional qualification. All the HTs who participated in the survey had worked as teachers, some of them for as long as 30 years or more. Similarly, these HTs have been serving in the capacity of HT from less than one year to more than 30 years. Data also suggested that a substantial proportion of HTs also conducted classroom teaching in addition to handling administrative responsibilities.

The HTs' response to statements on learning and teaching reflect increased positivity towards student-centric practices. More than 90% HTs across all levels agreed that students needed to be encouraged to ask questions about their learning, during the class students should be engaged

in discussion and debates about the subject, wrong answers to questions by students provided opportunities to help students learn, homework should be returned to students with proper comments and so on. It can be concluded that some winds of change have reached the schools of U.P., Bihar and M.P. Although in some ways they are still rooted in their traditional orientation as can be gauged from their affirmative responses to statements like, a silent and disciplined classroom is needed for effective learning, that dictating notes to student is an effective teaching strategy, and that completion of syllabus is the most important part of a teacher's role.

In-service training for HTs appears to be not properly streamlined, particularly for secondary school teachers. The Rashtriya Madhyamik Siksha Abhiyan (RMSA) which is responsible for training of secondary school teachers is not well-equipped in terms of training resources and trainers and thus, there exists a gap in the training of secondary school HTs.

The HTs were also asked to indicate their opinion on the range of responsibilities that HTs should have in the school. These included such items as enforcing government acts and curriculums, observing and appraising teacher performance, facilitating teachers' professional development, improving teaching and learning and promoting student centred learning. Majority of HTs agreed that their role should be to ensure that policies like NCF are properly implemented in the school and teachers' awareness on these policies through professional development training is essential to establish a student-friendly school. Although, most HTs agreed on items of acceptable leadership qualities but at the same time they also agreed on a few items which support traditional roles such as 'effective HT enforces teachers to maintain a silent and disciplined classroom'. This is an indication that HTs are still ignorant of the changing pattern of school leadership as well as the essence of student centred pedagogy. They see their role more as an administrator rather than as a facilitator or change agent. The conditions of work in most government schools in rural as well as urban areas might also be inhibiting for HTs to perform effectively. As is evident from the data in this survey, nearly 50% of secondary schools do not have science labs, computer labs etc. for students. The situation is worse when it comes to primary and upper primary schools where in some schools even basic amenities like drinking water, toilets, play grounds etc. are not available.

Regarding the plans and activities which HTs are expected to carry out in the school, those activities which they can do independently such as visiting classrooms of teachers, organising staff meetings, celebrating festivals etc. are reported as being carried out often or mostly. However, activities such as sending teachers for in-service training, attending professional development training are not practiced very frequently by most HTs as these kinds of activities are dependent on external agencies like SCERT, SSA, RMSA etc. As far as school based professional development is concerned the percentage of HTs who reported not doing it or doing it rarely is very high. This is so because the concept of 'school-based professional development' is a new concept and is not yet very common in India. This is where TESS-India proposes to make a difference by promoting school based professional training for teachers which will serve the training needs of thousands of teachers who do not get opportunities for professional development.

5

Teachers and Their Classroom Practice

5. Teachers and Their Classroom Practice

5.1 PROFILE OF TEACHERS

5.1.1 Gender

The gender-wise representation of teachers of the sample shows that the male teachers are more than the female teachers at all the three stages, except in secondary schools of U.P. where 62% are female teachers. Variations in terms of states and stages are noticed. Primary schools of U.P., Bihar and M.P. have 44.2%, 50% and 39.7% female teachers respectively. At the upper primary level, the schools of both U.P. and M.P. have 36% female teachers while the state of Bihar has 29.5% female teachers. At the secondary level, the schools of Bihar and M. P. have 21% and 33% female teachers respectively while U.P. has about 62% female teachers. The percentage of female teachers is highest at the primary level; it gradually decreases with the level of education and is lowest at the secondary level in all the states except in U.P. where it is highest at secondary level (See Table 5.1).

Table 5.1 Distribution of teachers by gender

Type of Schools	Gender	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Male	55.8	50.0	60.3	55.4
	Female	44.2	50.0	39.7	44.6
Upper Primary	Male	64.1	70.5	64.2	66.3
	Female	35.9	29.5	35.8	33.7
Secondary	Male	38.1	79.3	67.1	61.5
	Female	61.9	20.7	32.9	38.5

5.1.2 Age Distribution and Marital Status of Teachers

Table 5.2 Distribution of teachers by age

Type of Schools	Age	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	18-25 yrs.	15.6	9.3	15.9	13.6
	26-30 yrs.	23.4	14.0	19.0	18.8
	31-35 yrs.	23.4	29.1	14.3	22.2
	36-40 yrs.	14.3	24.4	15.9	18.2
	41-45 yrs.	7.8	8.1	12.7	9.5
	46-50 yrs.	5.2	10.5	7.9	7.9
	51yrs & above	10.4	4.7	14.3	9.8
Upper Primary	18-25 yrs.	16.7	3.2	10.3	10.0
	26-30 yrs.	16.7	9.5	19.1	15.1
	31-35 yrs.	15.4	22.1	23.5	20.3
	36-40 yrs.	11.5	15.8	2.9	10.1
	41-45 yrs.	9.0	23.2	16.2	16.1
	46-50 yrs.	10.3	8.4	5.9	8.2
	51yrs & above	20.5	17.9	22.1	20.2
Secondary	18-25 yrs.	3.1	1.1	10.1	4.8
	26-30 yrs.	21.9	18.0	13.9	17.9
	31-35 yrs.	14.1	21.3	25.3	20.2
	36-40 yrs.	18.8	18.0	19.0	18.6
	41-45 yrs.	6.3	23.6	11.4	13.7
	46-50 yrs.	14.1	7.9	5.1	9.0
	51yrs & above	21.9	10.1	15.2	15.7

Percentage of teachers in the group is of 26- 40 are more in all the three states at all the stages. Percentage of primary teachers in this age range is 60%, 67% and 49% in U.P., Bihar and M.P. respectively. Percentage of teachers in the age group of 18-25 and 51 and above is less and this trend is quite common in countries like India. Percentage of teachers in 50+ age groups highest in upper

primary schools (overall 20%) and least in primary schools (overall only10%) (Also see Table A-5.1 in appendix D)

Table 5.3 Distribution of teachers by marital status

Type of Schools	Marital Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Single	16.7	6.8	17.2	13.6
	Married	83.3	93.2	78.1	84.9
	Divorced / Widow	.0	.0	4.7	1.6
Upper Primary	Single	19.2	4.3	22.4	15.3
	Married	79.5	94.7	74.6	82.9
	Divorced / Widow	1.3	1.1	3.0	1.8
Secondary	Single	12.5	8.0	20.3	13.6
	Married	87.5	90.9	78.5	85.6
	Divorced / Widow	.0	1.1	1.0	.7

Marital status of the teachers is broadly related to the age of teachers. Majority of (more than 74 percentage of teachers) are married in all the states at each stage of education. Percentage of single teachers in Bihar is less (6.8%, 4.3% and 8.0% respectively at primary, upper primary and secondary stages) compared to the other two states at all the stages. The other two states have more than 12 percent of teachers who are single. There are also a few widows but their percentage comes to 1% or less. Percentage of single teachers is higher in primary and upper primary schools as they are relatively younger (See Table 5.3).

5.1.3 Distribution of Teachers by Social Groups and Religion

Proportion of SC, ST and OBC teachers is broadly the same as their percentage in the state population. The states of U.P. and Bihar have 1% or less teachers belonging to ST category

while the percentage of ST teachers in M.P. is more; of ST teachers being 23%, 5% and 8% respectively in primary, upper primary and secondary schools (See Table 5.4).

Table 5.4 Distribution of teachers by caste

Type of Schools	Caste	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	SC	14.1	11.6	10.0	17.2
	ST	.0	1.2	1.0	23.4
	OBC	50.0	44.2	38.0	40.6
	Other	35.9	43.0	37.0	18.8
Upper Primary	SC	19.5	15.8	15.0	10.3
	ST	.0	1.1	1.0	5.9
	OBC	35.1	48.4	46.0	48.5
	Other	45.5	34.7	33.0	35.3
Secondary	SC	25.0	11.5	10.0	11.5
	ST	1.6	1.1	1.0	9.0
	OBC	39.1	39.1	34.0	38.5
	Other	34.4	48.3	42.0	41.0

Table 5.5 Distribution of teachers by religion

Type of Schools	Religion	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Hindu	94.9	81.8	72.0	100.0
	Muslim	5.1	18.2	16.0	.0
	Others	.0	.0	.0	.0
Upper Primary	Hindu	97.4	91.5	86.0	94.1
	Muslim	2.6	8.5	8.0	2.9
	Others	.0	.0	.0	2.0
Secondary	Hindu	96.9	89.9	80.0	93.7
	Muslim	3.0	10.1	9.0	6.0

More than 90 percent of teachers belong to Hindu religion at all the three stages and in all the three states. The other religions to which the teachers belong are Islam and Christianity

with less than 5% in the states of U.P. and M.P. while the state of Bihar has 18%, 8% and 10% Muslim teachers respectively at the three stages. Other religions represent 1% or less (See Table 5.5).

5.2 EDUCATIONAL AND PROFESSIONAL QUALIFICATION OF TEACHERS

Educational qualifications of the teachers of different stages in the states show a mixed trend. While 55% primary teachers in Bihar are class 12 pass, in U.P. their percentage is only 12% and in M.P., 30%. Large percentage of teachers (38% to 45 %) in all the three states at the primary level hold a Bachelor's degree. A high percentage of teachers who hold Master's degree are in U.P. (44%) and M.P. (31 %) while in Bihar only 8% teachers have Master's degree (See Table A – 5.2 in Appendix D).

As the table on professional qualification of teachers shows, all the teachers had the required qualification. At the primary level we can see a mixed trend as the qualification of teachers ranges from JBT to M.Ed. degree holders. The state of U.P. has 41% and 32% respectively B.Ed. and M.Ed. teachers. Bihar has 57% teaches with M.Ed. degree and M.P. has 76% teachers with the degree of D.El.Ed./B.ElEd. No one holds a M.Ed. degree and very few have B.Ed. degree (6%) in the state.

At the upper primary stage the qualification of teachers shows that the states of U.P. and M.P. have more Master's Degree holders with 60% and 68% such teachers respectively. While 47% teachers in Bihar hold a Bachelor's degree, the percentage of such teachers in U.P. and M.P. is 30% and 32% respectively. Bihar also has 24% teachers with class 10 or 12 qualification while M.P. does not have any teacher with such qualification.

At the upper primary stage, the percentage of teachers holding a B.Ed. degree is 59%, 20% and 37% respectively in U.P., Bihar and M.P. Around 25 % of teachers in U.P and Bihar have JBT / BTC while the percentage of such teachers in M.P. is 11%. The percentage of teachers holding D.El.Ed.is high 76% in M.P. while the percentage of such teachers is 1 % and 5% respectively in U.P. and Bihar (See Table 5.6).

Table 5.6 Professional qualifications of teachers

Type of Schools	Qualification	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	CTC/JBT/BTC	24.3	26.0	10.9	20.4
	DEIEd/D.Ed./ BEIEd	1.4	5.5	76.1	27.7
	B.Ed	41.4	11.0	13.0	21.8
	M.Ed	32.9	57.5	.0	30.1
Upper Primary	CTC/JBT/BTC	26.0	38.2	9.6	24.6
	DEIEd/D.Ed./ BEIEd	.0	16.9	53.8	23.6
	B.Ed	58.9	20.2	36.5	38.6
	M.Ed	15.1	24.7	.0	13.3
Secondary	CTC/JBT/BTC	10.2	2.3	6.1	6.2
	DEIEd/D.Ed./ BEIEd	1.7	3.4	12.1	5.7
	B.Ed	78.0	77.3	81.8	79.0
	M.Ed	10.2	17.0	.0	9.1

5.3 TEACHING EXPERIENCE OF TEACHERS

Teachers' teaching experience ranges from less than 1 years to 31 years or more U.P. and Bihar have high percentage of teachers with 1 to 10 years of experience at primary level in all the states. There are teachers who have just joined and have put in less than one year of service; the percentage of such teachers is less than 10% except in Bihar where the percentage is 19% in secondary schools. Similarly, the percentage teachers with 30 or more years of experience at all the stages and in the total of the 3 states is around 10% (See Table 5.7).

A significant percentage of teachers at all the three stages and in all the three states have been for 10 years more in their current position. The percentages fall in the range of 35% to 45 % except in state of M.P. where the percentage of teachers in the current position at the upper primary and secondary stages is 26% and 15% respectively. At the primary stage, 40% of teachers in U.P. and M.P., and 32% teachers in Bihar have were in the current position for only 1 to 5 years. A higher percentage (49%) of teachers of Bihar have put in 6 to 10 years of service in the current position than in the other two states where the percentage of such teachers in is 36% in U.P. and 16% in M.P.

At the upper primary stage the states of U.P. and M.P. have more than half of the teachers in the current position for five years of which around 30% have put in only less than one year of service. The percentage of upper primary teacher who have been in the current position from 11 to 20 years is between 10% and 13%. Less than 10% teachers had 21 to 31 years of service in the same position in all the three states. (See Table 5.8).

At the secondary level, 45% and 40% respectively of the states of U.P. and M.P. had 1-5 years' experience in the current position while the percentage of teachers in this category in Bihar is 27%. Bihar has 28% of secondary teachers in the range of 6 to 10 years of service in the current position while the other two states have 11 and 18 percent such teachers respectively. M.P. has 24% of secondary teachers in the current position in the experience range of 11-20 years. U.P. has comparatively more teachers continuing in the current position (11% to 20%) with 21-30 years of experience and the corresponding percentages are 19 and 11 respectively (See Table 5.8).

Table 5.7 Total teaching experience of teachers

Type of Schools	Experience	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Less than 1 yr.	7.7	3.5	9.5	6.9
	1-5 yrs.	38.5	25.9	30.2	31.5
	6-10 yrs.	35.9	55.3	14.3	35.2
	11-20 yrs.	9.0	7.1	22.2	12.8
	21-30 yrs.	3.8	5.9	17.5	9.1
	31 &above	5.1	2.4	6.3	4.6
Upper Primary	Less than 1 yr.	17.9	7.4	11.8	12.4
	1-5 yrs.	19.2	14.7	30.9	21.6
	6-10 yrs.	19.2	50.5	11.8	27.2
	11-20 yrs.	20.5	13.7	17.6	17.3
	21-30 yrs.	10.3	8.4	17.6	12.1
	31 &above	12.8	5.3	10.3	9.5
Secondary	Less than 1 yr.	6.3	19.3	5.1	10.2
	1-5 yrs.	35.9	23.9	29.5	29.8
	6-10 yrs.	10.9	29.5	17.9	19.5
	11-20 yrs.	23.4	11.4	32.1	22.3
	21-30 yrs.	15.6	11.4	5.1	10.7
	31 &above	7.8	4.5	10.3	7.5

Table 5.8 Experience in current position as a teacher

Type of Schools	Experience	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Less than 1 yr.	15.4	11.4	9.5	12.1
	1-5 yrs.	39.7	31.8	41.3	37.6
	6-10 yrs.	35.9	48.9	15.9	33.5
	11-20 yrs.	6.4	4.5	15.9	8.9
	21-30 yrs.	1.3	2.3	14.3	5.9
	31 &above	1.3	1.1	3.2	1.9
Upper Primary	Less than 1 yr.	30.8	8.6	26.9	22.1
	1-5 yrs.	24.4	21.5	32.8	26.2
	6-10 yrs.	19.2	47.3	10.4	25.7
	11-20 yrs.	10.3	11.8	13.4	11.8
	21-30 yrs.	9.0	8.6	11.9	9.8
	31 &above	6.4	2.2	4.5	4.3
Secondary	Less than 1 yr.	9.4	26.1	15.4	17.0
	1-5 yrs.	45.3	27.3	39.7	37.4
	6-10 yrs.	10.9	28.4	17.9	19.1
	11-20 yrs.	18.8	9.1	24.4	17.4
	21-30 yrs.	10.9	5.7	1.3	6.0
	31 &above	4.7	3.4	1.3	3.1

5.4 EMPLOYMENT STATUS OF TEACHERS

Employment status of teachers gives information about the status of teacher's recruitment and deployment in the states. All the states have more than half of the teachers as permanent at the primary stage. Bihar has 35% contract-teachers while the other two states, U.P. and M.P. have 22% and 26% contract-teachers respectively. The states also have temporary teachers with the highest percentage of such teachers being in U.P. (32%) while the other two states have less than 20% such teachers (Bihar 12% and M.P. 19%).

Table 5.9 Distribution of teachers by employment status

Type of Schools	Employment Status	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Permanent	45.5	53.5	54.8	51.3
	Temporary	32.5	11.6	19.4	21.2
	Para Teacher/ Contract/Other	22.1	35.0	26.0	27.7
Upper Primary	Permanent	57.1	71.0	50.7	59.6
	Temporary	27.3	7.5	17.9	17.6
	Para Teacher/ Contract/Other	15.0	21.0	31.0	22.3
Secondary	Permanent	81.3	37.9	54.5	57.9
	Temporary	14.1	12.6	18.2	15.0
	Para Teacher/ Contract/Other	5.0	49.0	26.0	26.7

5.5 TEACHERS VIEWS ON VARIOUS CLASSROOM TEACHING STRATEGIES

Teachers were also given a four point scale to give opinion on statements about their classrooms, knowledge of pedagogy and school activities and were asked to indicate whether they agreed, strongly agreed, disagreed or strongly disagreed. The percentages reported in Table A 5.3 of Appendix-D are for 'strongly agree' and 'agree' combined. Mean scores were calculated by giving weight of +2 to strongly agree, +1 to agree, –1 to disagree and -2 to 'strongly disagree' . The higher the value of mean, the stronger is the agreement with the statement while high negative value of mean indicates stronger disagreement.

Given below are the statements and findings on the same (See Table A-5.3 in Appendix D).

(1) **Pair work (all students working in groups of 2) is not productive.**

(2) **Group work (all students working in groups of 4 to 6) is not productive**

The above two statements have drawn less respondents in favour of the statement in all the states except at the primary stage of U.P. and Bihar with 47 and 40 percentages teachers respectively

agreeing with it. The trend reveals that the percentage of teachers who agree with the above statement decreases with the level of education and the mean score, in all the states are in negative. This reveals that the teachers do not think that group work and pair work are productive.

(3) **A silent and disciplined classroom is needed for effective learning to take place.**

Teacher's responses to the statement show that overwhelming 95% or more teachers of all stages in all the three states support it. The mean is around above 1.5. It shows that the teachers in general accept that silent and disciplined classrooms are prerequisites for effective learning to take place.

(4) **Students need to be encouraged to ask questions about what they are learning.**

(5) **Independent work is best suited for secondary students, not for primary students.**

Teachers differ in their opinion on the above statements. Here the majority of teachers (more than 95%) at all three stages and in all the 3 states strongly agree or agree with the statement and the mean score is 1.40 or more. This can be compared with the responses to the second statement given above. At the primary stage percentage of teachers agreeing with it is 43%, 50% and 29% respectively in U.P., Bihar and M.P. More than half of upper primary teachers of U.P. and M.P. agreed with it while only 36% teachers of Bihar agreed with it. At the secondary stage, 50% or more teachers agreed that the independent work is best suited for secondary students, not for primary students.

(6) **Interaction with students–Teachers should ask students questions with more than one correct answer.**

(7) **Wrong answer by students to questions of teachers provides opportunities to students to learn.**

Teachers' responses to the above statements show that the teachers have an understanding of the importance of interaction between teacher and students in the classroom. Statements have around 60 and more percentage of teachers 'strongly agreeing or agree' to the first statement. They appeared to be supporting of this view. The second statement has 85% and above percent of teachers of all stages and states 'strongly agreeing or agreeing' to it. The corresponding mean is above 1.0.

(8) **Examination and quizzes are the best ways to assess students learning.**

(9) **Homework should be returned to the students with comments (that help students learn) to corrected together in the class.**

Teachers' responses to the above statements on 'assessment for learning' indicate that they support evaluation through examinations. The overwhelming responses to the statement,

examinations written and quizzes are the best ways to assess student learning show that the teachers believe in product based assessments where the learner's abilities to reproduce whatever has been learnt is assessed. The mean score is about 1 or more. The responses to the next statement on homework are also overwhelming with more than 87 % strongly agreeing to it. Teachers believe that homework with feedback or correction by peers supports students in their learning.

(10) Effective teachers must demonstrate the correct ways of solving a problem before students try to solve it on their own

The statement 'demonstration of the correct ways of to solve problems before students try it on their own' has drawn mixed responses. The percentage of teachers agreeing to it at the primary (49%, 61% and 61% in U.P., Bihar and M.P. respectively) and secondary level (60%, 59% and 43% respectively) were higher than corresponding percentages at the upper primary level in all the states. The means are positive but less than 1. This shows that the more teachers were in favour of giving demonstration before asking students to try something on their own.

(11) Teachers should ask student, what they want to learn and include it in their lessons

(12) Students should be asked to try problems themselves, before the teacher demonstrates and gives solution

Teacher's responses to the statement on learner autonomy bring out 'strongly agree' responses (more than 74%) at all the stages and in all the states. Teachers also feel that students should be asked about what they want to learn. This aims at bringing in the students in the planning and designing of the lesson itself in. More than 75 % of teachers in all the states and stages except in secondary stage of U.P. and Bihar (where the percentage is 66 and 60 respectively) agree to it.

(13) Students who come from SC/ST/OBC categories find learning content of the syllabus difficult

(14) Teachers should discuss social issues (human rights, caste, religion and gender, etc.) in their classroom

Attitude of teachers to three statements on diversity and social issues shows that the teachers are socially responsive to the schooling context. The statement, 'students of SC/ST/OBC communities find the content of the syllabus difficult' has drawn 75 % of teachers disagreeing with it and the mean score is in the negative. This makes it clear that the teachers believe that children belonging to all categories are capable of learning. More than 70 % teachers agree with this view.

Teachers believe that social issues such as human rights, caste, religions and gender should find place in the discussions of the classroom. Over 60% teachers from the all the stages agreed with it. However, we notice some differences in the degree of agreement. The state of M.P. has 81% or more of teachers strongly agreeing with it while other states also have 67% or more agreeing with it.

(15) Covering the syllabus is most important part of a teacher's role

(16) Dictation of information to students is an effective teaching strategy

Teachers' attitudes and views are contradictory on traditional approaches to teaching-learning in the classroom. The majority in all the states and stages overwhelmingly agree that covering of the syllabus is the most important part of a teacher's role and dictation of information to students is an effective teaching strategy, and they disagree with the idea that students learn best through memorization and that textbook is the only resource needed to teach students. The percentages in both the statements are less than 45 % and the mean score is negative.

5.6 TEACHING PRACTICES IN CLASSROOM

Teachers were asked about whether and how often they perform certain given teacher's activities in the classroom on a four point scale of 'Always', 'Sometimes', 'Rarely' and 'Never'.

Majority of teachers (60%) at all the stages and states have marked that they always gave practical work to students to engage in hands-on activities and more that 35% teachers gave such work only sometimes.

The classroom seems to be conventional and teachers believe in traditional methodologies. This is well revealed when teachers mark 'always' for

(1) the use of dictations in the conventional sense,

(2) asking students to write down whatever is written on the blackboard (instead of asking them to note points and write coherently later),

(3) learners need to follow religiously the textbook read out by the teacher and

(4) asking students to memorize important information in the lesson.

Majority of teachers in all the three states marked 'always' (the percentage being above 60%) and in some cases above 80%. Teachers who have marked 'sometimes' are about 20%. The other two responses 'rarely and 'never' are less than 5 %.

However, majority of teachers indicated that they always (more than 60%) observe students and make note of their performance and use materials from the local environment to assist students in learning the subject matter. These two aspects, 'observing while learning and using the local materials' give clues that the teachers are aware of the constructivist approach and sometimes attempt to use it in their classroom. However, these responses may also be due to these being socially desirable responses, while actually they may not be adopting this approach in their classrooms (See Table A 5.4 in Appendix D)

5.7 PARTICIPATION OF TEACHERS IN IN-SERVICE TRAINING

Teacher's professional development on a continuous basis is a requirement these days. In-service training of teachers is an on-going process in school systems. However, the picture that emerges in the three states is not encouraging in this regard. It appears that about less than half of the teachers of the primary and secondary stages have participated in in-service training. The percentage at the upper primary stage is still less (less than 40%). Teachers were also asked to state the reasons for not attending the in-service training courses. One major reason for not attending any in-service training is that there was no in-service training offered during the last one year. The percentage is above 75% at all the three stages and in all the states. Very few teachers (about 2%) could not attend because they were not relieved to attend the training. About 20% teachers at all the stages and in all the three states are new appointees and are yet to go for an in-service training (See table A -5.5 in Appendix D).

Duration of in-service training programmes ranges from 1 day to more than 10 days. Majority of the primary and upper primary teachers of Bihar have attended training programmes of more than 10 days but in other states at all the three stages the trend is different as most of teachers attended only 3-4 days or 5-6 days training programmes (See Table A 5.7 in Appendix D).

Majority of the teachers found the in-service training helpful. About 30% felt that it was very helpful at the primary and upper primary stages; at the secondary stage about 40% teachers of Bihar and M.P. found it is very helpful. Teachers who felt that the in-service training was somewhat helpful were only 10% each at upper primary and secondary stages in Bihar and M.P. and at upper primary stage in U.P. Less than 5% of teachers of Bihar at all the stages felt that the training programme, were only 'somewhat helpful'. M.P. presents a completely different picture as about 40% of teachers at the elementary stage felt that the training programmes were only 'somewhat helpful' (See Table A 5.6 in Appendix D).

The themes and contents of the in-service training programmes attended by these teachers are mostly subject centric like Mathematics, English, EVS, Science and Social Science. They felt that systemic issues like management, both classroom and school based management, social

concerns like environment education, RTE and human rights, gender issues in school education, evaluation, value education were not addressed in the in-service training programmes. If one takes 'no response' as indicative of 'not offered or not available', one has to come to the above conclusion. The percentage of teachers marked 'yes' for the contents are below 20 % is all the cases and often it is less than 10%. This informs us about the way our training programmes concentrate more on the subjects and deny the need for bringing social and systemic issues which a teacher needs to understand for teaching the subjects in today's schooling context.

Teachers' responses to the training programmes being helpful are very positive. An overwhelming percentage of teachers strongly agrees with all the positive statements. The teachers feel that the training helps in improving their teaching, students' learning and was relevant to their classroom. The percentages are 95 or above and the mean score is 1.4 or more showing a positive response. One negative statement in the category, 'trainings are not good use of time' shows that some (less than 25 %) agreed with it and were not much in favour of training as is conducted at present.

5.8 SCHOOL ACTIVITIES AND TEACHERS

5.8.1 Head Teacher and Teacher's Active Participation

Table A – 5.8 in Appendix D shows that 45% or more head teachers visited teacher's classroom sometimes when they were teaching in the classroom. Percentage of head teachers never visiting classrooms was less in higher classes than lower classes. It was also found that most (90%) of the head teachers gave feedback to teachers after the classroom visit but only 50% head teachers gave written feedback to teachers.

5.8.2 Use of TLM

More than 80% teachers in all classes were using TLM during teaching practice but it was not clear what TLM they used. Close to 100% teachers in Bihar send that they used TLM at least sometimes in Upper Primary schools (Table A-5.8 in appendix –D)

5.8.3 Continuous and Comprehensive Evaluation (CCE) and Completion of Syllabus

Most of the teachers (90%) said that they were advised to incorporate CCE in their classroom teaching. In UP the percentage of teachers in primary schools was to 9% who said their head

teachers had never asked them to implement CCE in their classes whereas in Bihar and MP This percentage was zero. (Table A-5.8 in appendix –D).

5.8.4 Staff Meeting

In higher classes over 80% teachers reported that staff meetings were held sometimes or regularly. Subject specific team meeting also took place but more in higher classes than lower classes (Table A-5.8 in appendix –D).

5.8.5 Parent Teacher Association (PTA)

Across all three states 85% upper primary teachers reported that PTA meeting was held at least sometimes. However, in primary and secondary classes the percentage was less (Table A-5.8 in appendix –D).

5.8.6 Other Activities

Over 90% teachers reported that in their school, they had maintained records of the students' performance, enrolment, PTA records. They said that head teacher also interacted with students. It was also found that over 90% teachers reported that they celebrated national festivals like 15th August, and January 26 in the presence of community members (Table A-5.8 in appendix –D).

5.9 CLASSROOM PRACTICES

5.9.1 Teacher Activities in Classrooms

An important objective of the project is to bring about a change in the teaching learning process and to make it more student-centred. The project focuses on changing the nature of interaction between the teacher and students within the classroom and shifting from a model of transmission of knowledge to students to a learner-centred approach that recognizes the learner's ability in constructing knowledge. This approach has been advocated in the National Curriculum Framework 2005 (NCERT) also. In order to assess the impact of the project at the end, and to monitor the progress during its implementation, it is necessary to

have baseline data on the teaching-learning processes being currently used in schools. To get such data, a classroom observation schedule was developed to find out what teachers do in class and how much time they spend on different activities during the class period such as on talking in the class, reading from textbooks, giving dictation, interacting with students etc. The data collected through the schedule would help in finding out whether teachers give due attention to activities in which there is interaction between the teacher and students or if their teaching is traditional with more time spent on one-way communication with students.

The classroom observation schedule developed after field trial during the pilot study in Uttar Pradesh, has a list of 20 activities divided into 3 parts as follows:

Part A–Organisation:

(4 activities such as organising students to work individually, as a class, in pairs or in groups);

Part B–Teacher talk:

(10 activities such as whether silent, giving instructions, explaining or presenting, reading, dictating, asking questions, or giving feedback);

Part C–Teacher activities:

(6 activities such as reading from textbook; writing on the blackboard, demonstrating, walking around the classroom, observing students or participating in a group discussion).

Teachers teaching Class V, VII and X were observed by trained investigators during 20 minutes of a class period. They recorded their observations every two minutes, the first in the 7th minute after beginning of the period, the second in 9th minute and so on till the 10th and last observation was recorded in the 25th minute after the class period started. The investigator had to tick only one activity of each part at a particular time, since the activities within a part are mutually exclusive. Thus there are 10 observations against each activity of Parts A, B and C. If a particular activity, such as `Reading from the textbook' is taking place only in 15th, 17th and 19th minute, then there would be 3 observations out of 10 in which this activity has taken place.

In this case, we can say that an estimate of teacher time spent on this activity is 30% of the 20 minutes during which the teacher's activities in the class were observed. Similarly the percentage of time spent on each activity was obtained for every teacher.

Finally the average time spent by teachers of all sampled schools on each of the given activities was computed, which was expressed as percentage of total time during which the class was observed.

5.9.2 Profile of Classroom Observations

The following table 5.10 shows the number of classes of different subjects that were observed in Class V, VII and X in each state.

Table 5.10 Class & subject wise percentage of classroom observed

Class	Subjects	Uttar Pradesh		Bihar		Madhya Pradesh		Average (%)
		N	%	N	%	N	%	
5th	English	25	27.2	21	23.3	14	17.9	22.8
	Mathematics	23	25.0	22	24.4	24	30.8	26.7
	Science	23	25.0	26	28.9	15	19.2	24.4
	Hindi	21	22.8	21	23.3	25	32.1	26.1
	Total	92	100.0	90	100.0	78	100.0	100.0
7th	English	23	26.1	22	22.7	20	25.6	24.8
	Mathematics	20	22.7	29	29.9	17	21.8	24.8
	Science	22	25.0	24	24.7	27	34.6	28.1
	Hindi	23	26.1	22	22.7	14	17.9	22.3
	Total	88	100.0	97	100.0	78	100.0	100.0
10th	English	20	26.0	29	31.9	16	19.8	25.9
	Mathematics	16	20.8	30	33.0	30	37.0	30.3
	Science	19	24.7	28	30.8	34	42.0	32.5
	Hindi	22	28.6	4	4.4	1	1.2	11.4
	Total	77	100.0	91	100.0	81	100.0	100.0

Teaching in classrooms was observed to understand the processes adopted by teachers and to find out how the teachers spent their allocated time with students on different activities to teach their lessons. Total 772 classes were observed and 77 to 92 classes were observed in each level of each state.

The findings are reported grade-wise for the total of all classes that were observed and not subject wise in each grade.

Table 5.11 Gender distribution of teachers

Class	Gender	Uttar Pradesh (%)		Bihar (%)		Madhya Pradesh (%)		Average (%)
		N	%	N	%	N	%	
5th	Male	56	62.2	46	52.3	56	72.7	62.4
	Female	34	37.8	42	47.7	21	27.3	37.6
	Total	90	100.0	88	100.0	77	100.0	100.0
7th	Male	57	67.1	67	71.3	48	63.2	67.2
	Female	28	32.9	27	28.7	28	36.8	32.8
	Total	85	100.0	94	100.0	76	100.0	100.0
10th	Male	25	34.7	71	78.9	79	98.8	70.8
	Female	47	65.3	19	21.1	1	1.3	29.2
	Total	72	100.0	90	100.0	80	100.0	100.0

Classes of all the teachers who were formed to be teaching were observed, irrespective of the gender and qualifications of the teacher teaching the class. Although teaching activities also depend on the subject being taught, the main purpose was to find out what the teachers do and how they teach and interact with their students in the class in general. Analysis was done separately for each class irrespective of the subject being taught. Analysis was also done subject-wise irrespective of class, merging the class-wise data.

Textbook seems to be the major resource for the teachers in all the classes and in all the states. More than 90% teachers use the textbook as the only resource for their classroom teaching-learning. Very few classes (class 7 in U.P. and all the classes of Bihar) had teachers who used other books. Few teachers in all the classes use posters and hand-outs and the percentage of such teachers is well below 5 %. Only less than 2% of school teachers used science equipment for teaching in their classes except in class 10 of M.P. where teachers were using science equipment. Only 5 to 10 percent teachers used local resources during their teaching. This was true for all the classes in every state (See Table 5.11).

Table 5.12 Activities beginning of class room observation

Q.No.	At the beginning of the lesson….	Type of School	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
1	does the teacher take the roll call?	5th	28.3	50.0	50.0	42.8
		7th	29.5	47.3	57.3	44.7
		10th	27.0	50.6	45.1	40.9
2	does the teacher check/ correct the students' homework?	5th	26.1	49.4	42.3	39.3
		7th	27.3	48.3	40.0	38.5
		10th	30.1	39.8	49.4	39.8
3	does the teacher ask students what they know about the topic (e.g. 'Do you have any favourite poems?' or 'How does blood circulate through the body?')?	5th	60.4	45.5	70.5	58.8
		7th	62.5	52.2	65.3	60.0
		10th	66.7	73.0	82.1	73.9
4	does the teacher introduce the topic of the lesson (e.g. 'today we will study fractions or long division')?	5th	81.5	69.7	79.2	76.8
		7th	73.9	82.4	85.3	80.5
		10th	84.0	88.8	91.4	88.0
5	does the teacher state the aims of the lesson (e.g. 'by the end of the lesson you will be able to multiply three-digit	5th	62.6	41.6	58.4	54.2
		7th	52.3	62.6	73.3	62.7
		10th	52.7	71.6	65.8	63.4

Classroom observation schedule had five items relating to what the teacher does in the beginning of the lesson. The first item is about the attendance or roll call taken by the teachers. The observations show that roll call is taken in the states of Bihar and Madhya Pradesh in around 50% classes at the beginning while in the state of Uttar Pradesh the percentage of such teachers is only about 28% in all the three classes. It appears that most teachers either take attendance later or skip it altogether.

Homework is checked and corrected to begin with in the class work in around 26-30 percent of all the three classes in Uttar Pradesh. The percentage ranges between 40 and 50 in the state of Bihar and M.P. in all the three classes.

Majority of teachers of each class tried to connect student's previous knowledge or ideas about the lesson before starting actual teaching by asking questions on what the students already know about the topic to be taught. In class 10 particularly more teachers did this in all the states (66, 73 and 82 percent respectively in U.P., Bihar and M.P.). Overall, all the teachers practicing this in classes of 5, 7 and 10 ranges from 60 to 66 percent in U.P. In Bihar the percentage is 45%

in class 5 and 52 % in class 7 and it goes up to 73% in class 10. In M.P. relatively more teachers do this (70%, 65%, and 82% in classes 5, 7 and 10 respectively). There is a greater need to ask what children already know in classes 5 and 7 as these learners are young, but the percentage of teachers not doing it is rather large (60% to 82%) in U.P. The percentage is only 45% in primary classes and 52% in upper primary classes.

Most teachers said that they introduced the topic of lesson by telling the students, "Today we will study…." The percentages are above 80% in most of the classes that were observed. This has to be seen as a positive feature since the teacher first sets the tone for the class by telling them what to expect from the class to be taught.

The observers were also asked to find out whether the teachers set out the objectives beforehand so as to prepare the learners for achieving the objectives of the lesson. The percentages here exceed 50% in all the states. The percentages of classes in which this was happening range between 53% and 73% except in class 5 of Bihar where the percentage is only 42% and in class 7 of U.P. where it is 52%. (See Table 5.12).

5.9.3 Findings on Classroom Observation

As mentioned above, the following analysis was based on the 20 minutes classroom observation done 10 times at intervals of 2 minutes. Activities are divided into Parts A, B and C as already mentioned above. The observer had to put a tick mark against one item of each section after 7, 9, 11, 13, 15, 17, 19, 21, and 25 minutes of starting of the class. The following analysis tables presents class wise, percentage of time devoted by teachers to each of the different activities of Parts A, B and C.

In each class, more than 80% time was spent by every teacher of Science, Mathematics, Hindi and English on organising the class while and only 7% time was devoted to organising students for individual work. Comparatively, much less time (1% to 2%) had been spent by subject teachers in the class for activities like organising pair work or group work (See Table A- 5.8, 5.9 &5.10 in Appendix D). Also there were no such differences found within the classes and across states. Subject wise % time devoted by teachers against organising the whole class did not have big difference and percentage ranges from 81% to 93% (See Table A -5.10 in appendix –D). But, Math and Science teachers were observed giving more time 9% and 7% respectively on organising individual work than the language teachers (5%).

Table A 5.11 in appendix D shows that 44% and 23% time was spent by teachers in giving instructions and reading from textbook respectively across states. But, on remaining activities they had spent on an average 1% to 5% of their total time. Also there was no difference within and across subjects with regard to time spent on giving instructions. One thing was clear that teachers were conscious of not punishing students. Only 1 to 2% of teachers' spent time on reprimanding students but it cannot be totally true that teachers do not use punishment or reprimand the students

in the classrooms. Only in Bihar 3% time of teachers in class 5th were observed to have spent some time on reprimanding students(See Table A -5.12 and 5.13 in Appendix D).

It was observed that mathematics teacher had spent comparatively more time (51%) compared to Science (46%), Hindi (37%) and English (41%) teachers in giving instructions. Both language teachers had been observed spending more than 28% of their time on using textbooks while minimum percentage of time was spent by Maths teachers (12%).

On dictating students from text book or note book, it was found that teachers had spent 4% to 5% of their time but in U.P it was found that English teachers were devoting 6% of their time on this activity compared to 2% time in M.P. It was also found that teachers of language classes in U.P and M.P had spent more time (6%) and (9%) respectively in asking students to repeat what they said compared to Bihar (3%). In M.P., teachers had spent on an average 15% of their time on asking questions which is higher than other states. One important observation was that very small percentage (2%) of time was spent by teachers on praising students for good work across three states (See table A-5.11, 5.12, 5.13, 5.14 in Appendix D).

In part-C , it was observed that most of the time of teachers' (29% and 44%) was spent on writing on black board and talking to class respectively. Only 3% of time was devoted by teachers on participation in group work and 4% on demonstrating to students. However, walking around class and observation of students also attracted teachers' attention devoting at least 8% of time to this. Only in Bihar, it was observed that 8% of teacher's time was spent on participating in group discussion while teaching to 10th class but in other classes 3% to 4% of teacher's time was spent on this in total of all the states. While teaching English and Hindi, teachers were observed devoting more time in talking to class as compare to other subjects (See Table A - 5.15, 5.16, and 5.17 in Appendix D.

5.9.4 Language Used During Teaching

Field investigators were instructed to observe and note down frequency of language used simultaneously with the frequency of activities observed in three parts i.e. organising, teachers' talk and teachers' activities. Teachers were found to be using mostly Hindi as the medium of instruction in all activities and only English teachers used bilingual method to some extent while doing different activities. It is also found that in higher classes, English teachers used comparatively more English language than lower classes. Very rarely teachers used local dialects in their classes.

5.9.5 Teacher Activities Observed During the Classroom Observation

The following table shows whether teachers do certain things that teachers are normally expected to do in a class. Table 5.13 given below lists 13 activities. The investigators checked whether these were being done or not; the table shows the percentage of teachers doing the activities.

Table 5.13 Activities end of classroom observation

Q.No.		Type of School	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
1	Does the teacher have a textbook for the lesson?	Primary	86.8	93.4	96.2	92.1
		Upper Primary	89.8	90.1	92.0	90.6
		Secondary	94.7	89.9	85.2	89.9
2	Is there a working blackboard in the classroom (one that the teacher can work on and those students can read from)?	Primary	97.8	98.9	100.0	98.9
		Upper Primary	97.7	94.5	100.0	97.4
		Secondary	100.0	100.0	98.8	99.6
3	Does the teacher ask questions to the same students repeatedly by calling on them individually? (E.g. did only 4-5 students answer questions?)	Primary	25.0	27.8	39.7	30.8
		Upper Primary	13.6	13.2	26.7	17.8
		Secondary	14.7	15.9	23.5	18.0
4	Does the teacher use materials other than the textbook?	Primary	27.5	23.1	38.5	29.7
		Upper Primary	31.8	18.7	41.9	30.8
		Secondary	26.7	22.5	39.0	29.4
5	During the lesson does the teacher hand out resource materials to students (e.g. hand-outs, bottle tops, cardboard, newspapers, etc.)	Primary	9.8	10.0	22.1	14.0
		Upper Primary	5.7	8.9	18.9	11.2
		Secondary	6.7	10.2	19.8	12.2
6	Does the teacher use a game?	Primary	17.4	17.8	31.6	22.2
		Upper Primary	12.5	14.4	28.0	18.3
		Secondary	12.0	14.8	16.5	14.4
7	Does the teacher ask students what they know about the topic at the	Primary	62.6	50.0	62.0	58.2
		Upper Primary	57.5	50.0	67.6	58.3
		Secondary	66.7	68.5	70.9	68.7
8	If not in the beginning of the period, did the teacher take the roll call at any time in the lesson? Beginning of the lesson?	Primary	28.6	38.6	33.3	33.5
		Upper Primary	27.4	30.0	22.7	26.7
		Secondary	19.7	47.1	17.9	28.2
9	If not in the beginning of the period, did the teacher check homework at any time in the lesson?	Primary	26.1	48.8	33.3	36.1
		Upper Primary	27.1	48.8	40.0	38.6
		Secondary	33.3	35.2	38.8	35.8

Q.No.		Type of School	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
10	At the end of the period, does the teacher write summary notes on the blackboard?	Primary	50.0	44.0	44.2	46.0
		Upper Primary	40.9	47.8	51.4	46.7
		Secondary	50.7	58.4	62.0	57.0
11	During the period, does the teacher call students to write on the blackboard?	Primary	27.5	35.6	35.9	33.0
		Upper Primary	17.2	30.8	36.5	28.2
		Secondary	17.3	38.6	22.8	26.3
12	At the end of the period, does the teacher give students homework?	Primary	75.8	72.2	74.0	74.0
		Upper Primary	69.3	73.6	73.0	72.0
		Secondary	75.3	62.5	68.8	68.9
13	At the end of the period	Primary	80.4	73.6	65.8	73.3
		Upper Primary	69.3	84.6	71.6	75.2
		Secondary	77.3	71.6	70.0	73.0

Teachers in very few classes (generally less than 30%) were doing the following activity:

- Asking same students repeatedly by calling them individually (18 % to 31 %)
- Using material other than text book (29 % to 31 %)
- Distributing resource materials to students (12% to 14 %)
- Using game while teaching (14% to 22 %)
- Roll call during the class (27% to 33%)
- Calling students to write on the blackboard (26% to 33%)

Handing out resource materials to students was very rare (in less than 10% classes) except in M.P. where this percentage was about 20%. The following were the activities with more than 50% classes where teachers were found to be doing such activities as:

- Asking students what they know about the topic in the beginning (58% to 69%)
- Writing summary notes at the end of the lesson only in class 10th (57%)
- Giving home work to students (69% to 74%)
- Students writing summary in their copy (73% to 75%)

The following table 5.14 shows the percentage of classes in which most or only some students had textbooks.

Table 5.14 How many students have a textbook?

Type of School		Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	most students	78.9	69.2	89.7	79.3
	half students	18.9	28.6	10.3	19.2
	few students	2.2	2.2	0.0	1.5
Upper Primary	most students	86.0	68.9	90.7	81.9
	half students	11.6	26.7	9.3	15.9
	few students	2.3	4.4	0.0	2.3
Secondary	most students	75.7	62.2	89.0	75.6
	half students	24.3	17.8	9.8	17.3
	few students	0.0	20.0	1.2	7.1

In more than 75% classes, most of the students had textbooks in U.P.; in Bihar, in 60 to 70% classes this was so and in M.P. in about 90% classes, most students had textbooks. The percentage of classes where only a few students had textbooks was negligible.

Table 5.15 What type of resources were used in the period you observed

Resources	Uttar Pradesh (%)			Bihar (%)			Madhya Pradesh (%)		
	5th Class	7th Class	10th Class	5th Class	7th Class	10th Class	5th Class	7th Class	10th Class
Textbook	94.5	96.5	90.4	95.5	91.6	93.3	100	96.1	91.3
Other books	0	2.3	0	1.1	2.1	2.2	0	0	0
Posters	4.4	1.2	4.1	4.5	1.1	3.3	5.1	6.6	5.0
Pictures	14.3	8.1	12.3	7.9	4.2	5.6	11.5	14.5	12.5
Hand-out made by the teacher	4.4	4.7	1.4	2.2	1.1	2.2	6.4	11.8	5.0
Material made by students	1.1	0	0	2.2	1.1	0	3.8	3.9	0
Local resources	11.0	0	4.1	14.3	9.0	5.3	5.6	11.5	13.2
Science equipment	1.1	1.2	1.4	0	1.1	1.1	0	1.3	7.5
Computers	0	0	0	0	0	0	0	0	0

The above table 5.15 gives the percentage of classes where certain resources were used in one way or the other. It was observed in almost 90% classes, textbook was used. But, it is clearly noticed from the table that rarely teachers referred or used books other than textbooks. In MP, teachers of 4% classes of 5th and 7th grade had used materials created by students. Also local resources were used less in UP compared to Bihar and UP. Interesting to note that not even a single teacher in senior classes had used computer to teach students. In MP in 8% classes science equipment was found to be used but it is not clear which science instruments were used and to what extent.

5.9.6 Special Observation of Field Investigator

Observers also recorded their observations and opinions about the classroom observed. The stems were relating to teachers being disturbed by mobile phone calls, being called out by someone, use of TLM and good teaching method and so on. The observations from the classes of U.P. shows that around 50 % teachers are disturbed by mobile phone calls. They also recorded punishment given to students at times by the teacher. 40% of teachers of class 10 in M.P. adopted good teaching methods as observed by the observers. In the state of M.P. has very small percentage (less than 10%) was recorded in all categories (like disturbance by mobile, being called out and so on) and this shows that the teachers in M. P. schools were generally not disturbed during their teaching.

5.10 CONCLUSION

In the three states of U.P., Bihar and M.P. there were more male teachers at all the three stages except in secondary schools of U.P., where female teachers were 62%. Across all the three stages, the female teachers were more at the primary level and their percentage decreased gradually with the level of education. Most of the teachers were in the age group between 26-40 and more than 75% were married.

The teachers in all the states were well qualified. A large percentage of primary teachers had a bachelor's degree in all the three states, and 60% to 68% upper primary teachers had Masters' degree in U.P. and M.P. All the teachers had required professional qualifications and had teaching experience ranging from one year to 31 years.

Regarding the employment status of teachers, more than 50% were permanent and 15% to 35% were contract teachers in all the states at primary and upper primary levels. At secondary level, Bihar had the largest number of contract teachers (49%) whereas U.P. had only 5%.

The teachers across the states expressed almost similar views when asked about student participation in classroom. More than 90% teachers believed that a silent and disciplined classroom is required for effective learning to take place, that students should be encouraged to ask questions and that student should engage in discussions and debates. Only a few teachers (16% to 36%) thought that group work, pair work and games are not productive learning activities.

More than 80% teachers in all the states agreed that examinations and quizzes are the best ways to assess student; homework should be returned with appropriate comments, students should be asked to try to solve problems themselves before the teacher demonstrates a solution and wrong answers to questions provide learning opportunities to students.

While majority of teachers felt that covering the syllabus is the most important part of a teacher's work and that dictation is an effective teaching strategy, less than 47% across the states agreed that memorization is the best way to learn and that text book is the only resource to teacher.

It can be inferred from the above that while the teachers are still very traditional in certain aspects of classroom practices, they are trying to come out of the traditional mould in some other aspects.

Teachers were also asked to respond about their classroom practices. From their responses, it can be inferred that the classroom is very conventional as large majority of teachers use traditional methods to teach. They dictate information to the students; ask them to copy from the blackboard; ask the students to memorize information; and use only textbooks to teach.

About 60% teachers in all the states and at all stages give practical work to students to engage in hands-on-activities, observe their students' performance and record it and they use local materials to assist their teaching. Their responses indicate that teachers are well aware of the new methods, though how far they actually adopt them in the classroom needs systematic observation.

As far as their professional development is concerned the picture of all the three states was not very encouraging as less than half of the teachers had the opportunity to participate in in-service training. Of those who had attended in-service training only 30% to 40% felt it was helpful in improving their teaching.

Classroom practices

Teachers teaching classes 5, 7 and 10 were observed by trained investigators during 20 minutes of a class period. They recorded their observation every two minutes. This was done to understand the teaching process adopted by teachers and to find out how much time they spent on different activities during their lesson.

The findings were that the textbook was the major resource for the teachers at all the stages and in all the states. Only 5 to 10% teachers used other local resources during their lessons.

Homework was being checked in the classroom in about 30% to 50% classes in all the three states. Majority of teachers (58% to 74%) tried to find out what the students already knew about the topic before starting the lesson. 54% to 63% teachers stated the aims of the lesson so to begin with as to prepare the students for achieving the objectives of the lesson.

It was observed that more than 85% time was spent on organising the class. Only 7% time was devoted to individual work by students. Pair work and group work were found to be almost non-existent which is quite contrary to the opinion expressed by the teachers.

Reading from the textbook was commonly seen across the states. The language teachers spent more time talking to the students than science and Maths teachers. Hardly any teacher took time to appreciate students' performance.

Teachers rarely (14% to 22%) used games during their teaching. Giving homework seems to be a common practice across the states.

It was observed that more than 60% students had textbooks. Computers were never used for teaching. In M.P. science equipment was used in 8% classes.

The investigators found that around 50% teachers were disturbed by mobile phones during the class in U.P.

6

Perception of Students on Teaching and Learning

6. Perception of Students on Teaching and Learning

6.1 PROFILE

As a part of this study, it was decided to get the views of students on teaching learning activities taking place in the classroom and what they like or do not like. A student questionnaire was given to students of classes 5, 7 and 10 to respond. The questionnaire also consisted of a few items on family background of students in order to find out what their socio-economic status.

6.1.1 Area

As can be seen in Table 6.1 more than 90% students in class V are from rural area while this percentage steadily decreases in classes VII and X in every state except Bihar where more than 90% students (of class VII also) are from rural areas. As per the state policy, there is a primary school within a radius of 2-3 kilometres in every state.

Table 6.1 Rural-Urban distribution of students

Class	Area	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
5th	Rural	94.2	92.1	91.8	92.7
	Urban	5.8	7.9	8.2	7.3
7th	Rural	84.4	95.6	81.9	87.3
	Urban	15.6	4.4	18.1	12.7
10th	Rural	61.4	76.7	71.3	69.8
	Urban	38.6	23.3	28.7	30.2

6.1.2 Gender

Table 6.2 Distribution of students by gender

Class	Gender	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
5th	Male	52.6	46.3	54.1	51.0
	Female	47.4	53.7	45.9	49.0
7th	Male	40.2	48.0	39.5	42.6
	Female	59.8	52.0	60.5	57.4
10th	Male	30.5	52.9	42.0	41.8
	Female	69.5	47.1	58.0	58.2

Generally the percentage of girls is more in lower classes which gradually declines in higher classes. In U.P., however, the trend is just the opposite. There are 47% girls in class 5 and 60 % in class 7 and even more (69.5%) in class 10. In Bihar, the percentage of girls was more or less same (about 52%) in classes 5 and 7 but reduced to 47.1% in class 10. In M.P. the trend is similar to that of U.P.; in class 5, 46% students are girls and their percentage increases to 60.5% in class 7 and to 58% in class 10 (See table 6.2).

6.1.3 Category

Table 6.3 Distribution of students by caste

Class	Caste	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
5th	SC	39.2	19.6	15.2	24.6
	ST	1.6	4.3	35.1	13.7
	OBC	46.7	58.4	42.2	49.1
	Other	12.4	17.8	7.6	12.6
7th	SC	30.7	22.8	20.7	24.8
	ST	1.6	1.3	28.9	10.6
	OBC	53.8	55.7	42.7	50.7
	Other	13.9	20.1	7.7	13.9
10th	SC	20.7	20.3	16.5	19.2
	ST	3.6	2.2	19.0	8.3
	OBC	60.2	49.1	52.1	53.8
	Other	15.5	28.3	12.4	18.7

The OBC representation of students in U.P. gradually increased from 46.7% in class 5 to nearly 60% in class 10 while in Bihar it remained close to 20% in all the three classes. In M.P. there are only 7.6% students in the 'Other' category in class 5 but their percentage increased to 12.4% in class 10. The percentage of ST students is approximately 5% in U.P. and Bihar but in M.P. which has large pockets of tribal population, their percentage is more; it is 35% in class 5, which reduced to 19% in class 10. This drop is an indication that many ST children gradually drop out from school after the primary or upper primary level (See table 6.3).

6.1.4 Distribution of Students by Religion

Table 6.4 Distribution of students by religion

Class	Caste	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
5th	Hindu	89.4	81.6	96.5	89.2
	Muslim	10.4	17.7	3.0	10.4
	Others	.5	.6	.5	.5
7th	Hindu	91.7	88.2	95.4	91.8
	Muslim	8.3	11.2	3.7	7.7
	Others	.5	.7	.9	.7
10th	Hindu	84.7	92.0	95.1	90.6
	Muslim	14.7	7.3	4.5	8.8
	Others	.5	.7	.5	.6

The above Table 6.4 shows religion wise distribution of students. It showes that 85% to 92% students in U.P. and Bihar belong to Hindu families while the percentage is over 95% in M.P. Muslim students are between 8% and 18% in the states of U.P. and Bihar, while in M.P. the percentage of Muslim students is below 5% in all the three classes. Students of other religions (Christian, Sikh and others) form less than 1 per cent of the sample.

6.1.5 Distribution of Students by Age

Table 6.5 Distribution of students by age

Class	Age	Uttar Pradesh		Bihar		Madhya Pradesh		Average (%)
		N	%	N	%	N	%	
5th	8-9 yrs.	56	12.9	13	3.1	12	3.0	6.3
	10-11 yrs.	267	61.4	303	72.5	332	86.8	73.6
	12-13 yrs.	101	23.2	97	23.2	34	8.9	18.4
	14-15 yrs.	9	2.1	5	1.2	3	0.8	1.3
	16Yrs. +	2	0.5	0	0.0	2	0.5	0.3
	Total	435	100.0	418	100.0	383	100.0	100.0
7th	8-10 yrs.	14	3.1	18	3.9	14	3.2	3.4
	11-12 yrs.	209	46.1	193	42.3	229	51.7	46.7
	13-14 yrs.	202	44.6	234	51.3	179	40.4	45.4
	15-16 yrs.	26	5.7	11	2.4	20	4.5	4.2
	16Yrs. +	2	0.5	0	0.5	1	0.5	0.5
	Total	453	100.0	456	100.0	443	100.0	100.0
10th	8-10 yrs.	2	0.5	4	0.9	3	0.6	0.7
	11-13 yrs.	26	7.0	41	9.1	35	7.4	7.9
	14-15 yrs.	249	67.3	345	76.5	298	63.4	69.1
	16 Yrs.	75	20.3	53	11.8	98	20.9	17.6
	16Yrs. +	18	4.9	8	1.8	36	7.7	4.8
	Total	370	100.0	451	100.0	470	100.0	100.0

Most of the primary students (92%) in all states belong to 10-13 years of age, which is the typical age for primary. Corresponding to this age of, majority of students (above 90%) in Class VII is between 11-14 years. In all the states the maximum percentage of secondary students (86.7%) are in the age group of 14-16 years. (See Table 6.5)

6.1.6 Class wise Distribution of Students

Majority of students of all the three classes take the maximum of 20 minutes to reach school. Overall 87 % of students reached primary school in 10 to 20 minutes. More than 75% of class 5th students of Bihar took only 10 minutes to reach the school. There are very few students who took 30 to 50 minutes to reach the school. Class 10 students took a little more time to reach their schools in all the states. There are about more than 20 per cent students in all the states who took

between 21-30 minutes to reach their schools. The trends from the data show that students at the primary and elementary level reach in 20-30 minutes. The governments' policy of having a primary school in each habitat makes the children reach their school in very short time.

6.1.7 Parents' Qualification

Educational qualification of parents presents a gender skewed data as we can see larger number of mothers who are less qualified and come under the category of 'did not attend school' than the fathers. The overall average of mothers in the category of 'did not attend school' is 40% while it is 17% for fathers. The same trend is noticed in all the levels of qualifications. Some students in all the three states did not know their parents educational qualifications. Even in this case the percentage of students who do not know the educational qualification of mother is more than the percentage of not knowing the qualifications of fathers (See table 6.6 and 6.7)

Table 6.6 Fathers' qualification

Qualification	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Did not attend school	13.7	18.9	19.1	17.2
Up to grade 5	24.5	24.7	35.4	28.2
Up to grade 10	28.0	26.6	18.2	24.3
Up to grade 12	14.5	12.7	10.9	12.7
Graduation or higher	6.0	8.2	4.1	6.1
Do not Know	11.6	7.5	9.8	9.6
Not Applicable	1.6	1.3	2.6	1.8

Table 6.7 Mothers' qualification

Qualification	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Did not attend school	42	41	38	40
Up to grade 5	23.8	24.6	31.1	26.5
Up to grade 10	11.7	15.8	11.1	12.9
Up to grade 12	4.2	6.1	2.9	4.4
Graduation or higher	1.7	1.8	1.2	1.5
Do not Know	14.7	8.4	13.7	12.3
Not Applicable	2.2	2.1	2.5	2.3

6.1.8 Occupation of Parents

Table 6.8 Fathers' occupation

Occupation	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Unemployed	6.0	3.3	3.8	4.4
Farmer	37.1	30.1	44.5	37.2
Daily Wage Labourer	29.2	37.6	36.9	34.6
Business	14.9	18.2	6.6	13.2
Government employee	3.5	4.7	3.4	3.8
Private Employee	7.0	4.0	3.1	4.7
Do not Know	2.4	2.1	1.7	2.0

Table 6.9 Mothers' occupation

Occupation	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
House wife	82.0	85.9	46.5	71.5
Farmer	6.6	2.3	21.0	10.0
Daily Wage Labourer	6.6	5.6	25.9	12.7
Business	1.7	1.8	1.4	1.6
Government employee	1.0	3.1	2.2	2.1
Private Employee	1.3	.6	1.0	.9
Do not Know	.9	.7	2.0	1.2

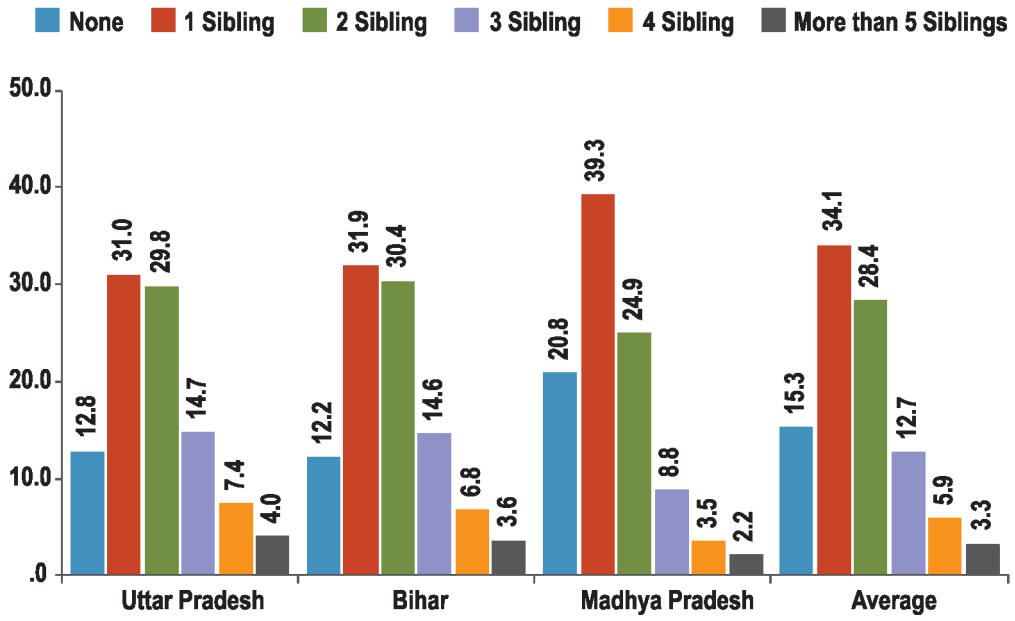
Table 6.8 shows that father's occupations span from daily wager labourer, agriculture to government and private employment. Overall the average as well as the state percentages shows that the occupation of over two-third fathers is either farming or daily wage labour. Only 3% to 6% of fathers were unemployed. Majority of students in U.P. and Bihar (82% and 85.9% respectively) stated that their mothers were homemakers, while in the state of M.P. only 46.5% mothers were reported to be homemakers. Nearly half of the mothers (46.9%) in M.P. were working either as farmers or daily wage labourers (See table 6.9).

Other occupations of fathers include business, government employment and private sector employment. As can be seen in Table 6.8 the occupation of father 'running a business' in the states of U.P. and Bihar was in 15% and 18% cases respectively while this percentage was 7% in M.P. In all three states the government-employed fathers accounted for only 3-4 %. There were a few mothers who ran businesses and were government-employees, but the percentage is quite small (below 5%).

Students were also asked to state whether either of their parents is a teacher. Overall 5% of parents were working as teachers and the state percentages shows that in Bihar 7% children said that one of parents was a teacher, while in U.P. and M.P., this percentage was about 4%.

6.1.9 Number of Siblings

Fig. 6.1 Number of siblings



Students were asked to mention number of siblings they have. The data show that the small family norm has worked well in the states as the percentage of students having no brother or sister was 12.8% in U.P., 12.2% in Bihar and 20% in M.P. The overall percentage of students having one or two siblings in the three states is also a little over 60% (See Figure 6.1).

6.1.10 Languages Spoken at Home

Table 6.10 Language spoken at home

Language	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Hindi	92.8	61.0	91.2	81.7
Urdu	0.6	2.8	0.4	1.3
English	0.3	0.1	0.0	0.1
Other	6.2	36.2	8.4	16.9

Hindi is the major language spoken at home, as it is mother tongue (over 90% in U.P. and M.P.) of majority of learners. In Bihar 36% students reported that some other language, not Hindi, was spoken at home. Perhaps they meant Bhojpuri, Maithili or some local dialect (See table 6.10).

6.2 STUDENTS' ATTITUDE / PERCEPTION ABOUT CLASSROOM ACTIVITIES

Students were administered an attitude to know their opinion and perceptions of classroom activities of teachers. The questionnaire intended to find the opinion of learners about four aspects/dimensions of classroom processes, namely, (i) Questioning strategy of the teachers in the classroom; (ii) Child centred approach, (iii) Participatory approach and (iv) Overall approach followed by teacher (See Table 6.11).

Table 6.11 Questioning strategy–Students' opinion

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
2	I don't like it when teachers ask me questions that are not in the textbook	5th	Strongly Agree + Agree	65.6	72.7	59.7	66.0
			Mean Score	0.51	0.77	0.31	
		7th	Strongly Agree + Agree	63.1	60.7	65.9	63.2
			Mean Score	0.35	0.33	0.45	
		10th	Strongly Agree + Agree	64.8	59.1	56.3	60.1
			Mean Score	0.43	0.23	0.20	
9	I am afraid of giving wrong answers to my teachers' questions	5th	Strongly Agree + Agree	68.3	68.8	56.7	64.6
			Mean Score	0.55	0.63	0.20	
		7th	Strongly Agree + Agree	63.7	59.9	65.8	63.2
			Mean Score	0.44	0.32	0.41	
		10th	Strongly Agree + Agree	65.5	55.7	66.8	62.7
			Mean Score	0.42	0.14	0.47	
12	I think teachers should only ask the best students to answer questions	5th	Strongly Agree + Agree	35.6	38.2	30.8	34.9
			Mean Score	-0.36	-0.20	-0.41	
		7th	Strongly Agree + Agree	29.2	20.0	29.4	26.2
			Mean Score	-0.58	-0.85	-0.46	
		10th	Strongly Agree + Agree	30.4	24.5	23.9	26.3
			Mean Score	-0.55	-0.76	-0.68	

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
16	I like it when the teacher asks me a question in class	5th	Strongly Agree + Agree	86.1	92.8	88.1	89.0
			Mean Score	1.10	1.31	1.02	
		7th	Strongly Agree + Agree	94.4	95.1	93.4	94.3
			Mean Score	1.31	1.43	1.15	
		10th	Strongly Agree + Agree	92.1	94.5	97.4	94.7
			Mean Score	1.32	1.40	1.38	

Statements 2, 9, 12 and, 16 in the Student Questionnaire are on Questioning strategy. Students were asked about their opinion on questioning strategies that are adopted by teachers in the classroom.

Students responses to whether they like their teachers asking them questions that were not in the textbook (statement 2) show that across states and across standards nearly 60% of students didn't like to be questioned on topics that were not in the textbook. This is an indication that education in schools is still textbook centric and students also conform to the dominant view that knowledge is found only in textbooks and therefore studying and knowing about the topics in the textbook is sufficient.

Students' apprehension of giving wrong answers to the question put by teachers is revealed in their responses to Statement 9 (I am afraid of giving wrong answers to my teachers' questions). Overall more than 60% of students were afraid of giving wrong answer to their teacher's questions in all the classes in U.P., Bihar and M.P. The percentage is comparatively higher (68%) in the case of class V students of U.P. and Bihar.

It appears that students' do not like the idea of teacher asking questions only to brighter student, as less than 35% students in primary and almost 26% in both upper primary and secondary agreed with statement 12 (I think teachers should only ask the best students to answer questions).

Most students (approximately 90%) in all classes in the states agreed that they liked teachers asking them questions in the class. This might be an indication that asking questions to individual students is regarded by them as teacher giving individual attention to them.

Table 6.12 Child-centred approach–Students' opinion

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
3	I like to solve problems first, rather than my teacher showing me how to do it	5th	Strongly Agree + Agree	71.1	79.7	64.5	71.8
			Mean Score	0.65	0.88	0.44	
		7th	Strongly Agree + Agree	70.9	69.2	71.5	70.5
			Mean Score	0.65	0.63	0.64	
		10th	Strongly Agree + Agree	64.8	74.2	66.1	68.3
			Mean Score	0.50	0.77	0.47	
4	I feel comfortable asking my teacher for help when I can't solve a problem	5th	Strongly Agree + Agree	84.1	87.9	83.3	85.1
			Mean Score	1.01	1.17	0.88	
		7th	Strongly Agree + Agree	85.4	90.3	90.7	88.8
			Mean Score	1.06	1.29	1.17	
		10th	Strongly Agree + Agree	83.3	86.6	91.3	87.1
			Mean Score	1.05	1.11	1.19	
5	I don't like working with children from other castes and religions	5th	Strongly Agree + Agree	37.8	48.0	32.0	39.3
			Mean Score	-0.32	-0.01	-0.45	
		7th	Strongly Agree + Agree	42.5	31.8	39.4	37.9
			Mean Score	-0.26	-0.45	-0.31	
		10th	Strongly Agree + Agree	36.3	43.0	35.9	38.4
			Mean Score	-0.46	-0.26	-0.39	
8	I like it when my teachers put comments on my homework, not just a grade or mark	5th	Strongly Agree + Agree	70.8	82.8	78.6	77.4
			Mean Score	0.61	0.98	0.80	
		7th	Strongly Agree + Agree	81.3	81.7	76.1	79.7
			Mean Score	0.92	0.95	0.77	
		10th	Strongly Agree + Agree	74.5	74.2	71.1	73.3
			Mean Score	0.74	0.74	0.68	
11	I feel comfortable talking to my teachers when I have a problem	5th	Strongly Agree + Agree	83.1	89.7	88.3	87.0
			Mean Score	0.93	1.16	1.00	
		7th	Strongly Agree + Agree	80.9	89.5	88.4	86.2
			Mean Score	0.94	1.19	1.04	
		10th	Strongly Agree + Agree	83.3	90.1	89.8	87.8
			Mean Score	1.03	1.17	1.15	

Table 6.12 having statement and information on child-centric approach reveals, how far the classroom processes are supportive of the learners. The responses of the students to these statements are largely positive and point to their preference for child-centric classroom activities. Majority of the learners (nearly 70%) of all the three classes in all the states explicitly stated that they like to solve problems on their own rather than the teachers showing them how to do it (statement 3). Also responses to statement 4 (I feel comfortable asking my teacher for help when I can't solve a problem) reveal that more students (approximately 85%) are comfortable approaching their teachers when they face hurdles in solving problems. This shows that the teacher-student relationship, which is very often steeped in hegemony, is undergoing some change, with teachers being more approachable for students.

Though majority of students (nearly 60%) said that they do not find any problem working with children of other caste or religion (statement 5), it is still disconcerting to note that almost 40% students agree that they don't like mixing with students from other castes and religions. The percentage of such students is relatively more in the states of Bihar and U.P., which are two states where caste prejudices are still prevalent. However, the prevalence of caste and communal feelings in students as young as 8 years is a cause of concern.

The responses to the remaining two items in this category show a positive trend. Nearly 75% students of all the classes from all the three states like their teachers writing comments on their homework (statement 8) rather than giving marks/grade. More than 85% students feel comfortable talking to their teachers when they have a problem (statement 11). This again demonstrates the growing consciousness among students that they can approach their teachers when they have any problems.

Table 6.13 Participatory approach–Students' opinion

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
6	I like it when teachers use games to teach the subject	5th	Strongly Agree + Agree	91.5	89.8	92.6	91.3
			Mean Score	1.30	1.24	1.19	
		7th	Strongly Agree + Agree	89.9	81.3	91.6	87.6
			Mean Score	1.28	1.06	1.18	
		10th	Strongly Agree + Agree	81.2	79.8	84.9	82.0
			Mean Score	0.95	0.88	1.06	

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
7	I like working in groups with my classmates to learn or solve problems	5th	Strongly Agree + Agree	85.9	88.7	89.5	88.0
			Mean Score	1.09	1.21	1.08	
		7th	Strongly Agree + Agree	94.7	90.1	91.1	92.0
			Mean Score	1.34	1.23	1.15	
		10th	Strongly Agree + Agree	90.8	88.8	90.7	90.1
			Mean Score	1.19	1.19	1.14	
10	I enjoy playing games to help me learn different subjects	5th	Strongly Agree + Agree	95.6	89.9	93.9	93.1
			Mean Score	1.46	1.32	1.26	
		7th	Strongly Agree + Agree	85.4	82.1	91.3	86.3
			Mean Score	1.16	1.01	1.23	
		10th	Strongly Agree + Agree	86.5	82.0	83.3	83.9
			Mean Score	1.08	0.93	0.95	
13	I think it is a good idea for teachers to organise students into pairs and give them work to complete together	5th	Strongly Agree + Agree	81.5	90.4	90.3	87.4
			Mean Score	0.84	1.15	1.05	
		7th	Strongly Agree + Agree	90.2	86.5	90.2	89.0
			Mean Score	1.09	1.02	1.07	
		10th	Strongly Agree + Agree	85.1	85.0	91.0	87.0
			Mean Score	1.00	1.02	1.08	
15	I like working alone on my classwork	5th	Strongly Agree + Agree	55.2	57.3	43.3	51.9
			Mean Score	0.20	0.32	-0.05	
		7th	Strongly Agree + Agree	60.1	38.1	46.5	48.2
			Mean Score	0.33	-0.18	0.03	
		10th	Strongly Agree + Agree	58.6	54.2	55.3	56.1
			Mean Score	0.29	0.10	0.23	

Table 6.13 shows student's attitudes towards participatory approach in the classroom was highly tilted towards more activity based learning and working in groups as the responses to the statements 6,7,10 and 13 indicate. The percentage of students who like participating in activities such as working in groups, playing educational games, working in pairs etc. is close to 90% in all the classes and in all the states. The percentage of students who said that they like working alone in their class work (statement 13) was relatively less, but still quite significant, particularly for class 10. This is understandable as older students can handle individual work and enjoy it more than the younger lot.

Table 6.14 Classroom practice (traditional and new–Opnion of Students

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
1	I like reciting what I know from memory	5th	Strongly Agree + Agree	94.1	94.2	88.5	92.2
			Mean Score	1.34	1.45	1.08	
		7th	Strongly Agree + Agree	96.6	97.5	96.4	96.9
			Mean Score	1.53	1.59	1.34	
		10th	Strongly Agree + Agree	97.6	95.0	95.1	95.9
			Mean Score	1.58	1.41	1.36	
14	I learn best by memorising what is in the textbook	5th	Strongly Agree + Agree	88.3	87.9	80.0	85.4
			Mean Score	1.10	1.11	0.81	
		7th	Strongly Agree + Agree	88.4	83.4	77.2	83.0
			Mean Score	1.12	1.03	0.72	
		10th	Strongly Agree + Agree	89.5	87.2	85.7	87.5
			Mean Score	1.22	1.10	1.02	
17	I like writing answers on the blackboard	5th	Strongly Agree + Agree	82.8	87.4	90.9	87.0
			Mean Score	0.99	1.14	1.12	
		7th	Strongly Agree + Agree	82.0	89.2	87.9	86.4
			Mean Score	0.94	1.28	1.04	
		10th	Strongly Agree + Agree	79.3	88.5	86.2	84.7
			Mean Score	0.87	1.15	1.04	

Q.No.	Statements	Class	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
18	I like completing project work	5th	Strongly Agree + Agree	81.4	83.8	86.4	83.9
			Mean Score	0.95	1.02	0.98	
		7th	Strongly Agree + Agree	89.1	87.3	93.8	90.1
			Mean Score	1.17	1.14	1.18	
		10th	Strongly Agree + Agree	85.2	87.4	90.2	87.6
			Mean Score	1.06	1.10	1.11	
19	It is good when my teacher uses material or resources that are not in the textbook	5th	Strongly Agree + Agree	78.8	79.3	82.3	80.1
			Mean Score	0.83	0.85	0.93	
		7th	Strongly Agree + Agree	83.3	66.7	80.4	76.8
			Mean Score	0.98	0.52	0.86	
		10th	Strongly Agree + Agree	76.2	71.7	71.9	73.3
			Mean Score	0.81	0.67	0.69	
20	I like it when teachers discuss social issues in class (e.g. politics, caste & religion, health)	5th	Strongly Agree + Agree	80.5	67.2	84.3	77.3
			Mean Score	0.88	0.56	0.94	
		7th	Strongly Agree + Agree	78.2	73.1	90.0	80.4
			Mean Score	0.81	0.70	1.11	
		10th	Strongly Agree + Agree	87.4	84.2	92.1	87.9
			Mean Score	1.12	1.01	1.23	

Table 6.14 shows students' own learning style and attitude towards classroom practices as indicated in Statements 1, 14, 17, 18, 19 and 20 provide a different perspective and is sometimes contradictory to the responses to other statements discussed above. About 95% students of all the three classes from all the three states overwhelmingly endorse the view that they like reciting from memory (statement 1) and about 85% feel that memorizing from the textbook (statement 14) is a good way of learning. At the same time most of them also believe that the project work (statement 18) and teacher's use of materials and resources other than that of the text (statement 19) are good for their learning. Only in class 10, the percentage of students who like teachers to use other materials is relatively less (about 72% in Bihar and M.P. and 76% in U.P.) indicating that some of them still feel that teachers should limit their teaching to textbooks.

The responses reflect the existing classroom ethos and the practices. When students say that memorization or rote memory is a good way of learning, they in reality reflect practices and opinions of their teachers or the general belief in school and at home. Responses of students to doing project work and teachers' discussing political issues in the classroom also have more than 75% of students liking them. This shows the student's expectations from the teachers. This does not mean these are happening in the classroom. Student's responses to classroom practices can be seen as a mix of traditional and new pedagogies. Teachers probably do not have complete understanding of new pedagogies which the National Curriculum Framework – 2005 advocates, and even if they have, they prefer teaching in the traditional way while students appear to be endorsing both traditional and new approaches to teaching and learning.

6.3 CONCLUSION

The sample students' attitude and perceptions about classroom practice has been studied and data has been analysed in this chapter. From the students' perspective, there was no agreement on whether the teacher should ask questions that are not in textbook. The majority of students are afraid of giving the wrong answer, but other than this are happy with asking questions in class. This shows that the learning process may have some problems and is therefore not providing an open learning environment to students in which they can learn fearlessly and express themselves freely.

A positive trend is visible for teachers to see themselves in a support role and there is agreement on child-centred approach by students. Students across all states have also reported favourable attitudes towards participatory approaches, such as games, working in groups and pair work. This presents a contrast with the realities of classroom practice as observed in classroom observations, with little resemblance between classroom practices and students' preferred approach. The findings of this chapter make clear that a new way of learning will be welcomed by students in all states.

Recommendations

Recommendations

INTRODUCTION

The vision of TESS-India is the development of a better educated teacher workforce at elementary and secondary level to support students learning through more participatory and active learning pedagogy. Undertaking a baseline study in the initial phase of the project allowed a greater level of understanding around the attitudes of teachers and teacher educators, and about their existing practices, and will provide a base for comparison with similar data to be collected at different stages in the future.

Based on the findings of the study, the following recommendations have been made.

TEACHER EDUCATORS' (TE) ATTITUDES ON PEDAGOGY

- The study shows that teacher educators are aware of some of the theories of learning through a student-centred approach and of methods of assessment which are formative and continuous. However, this theory is not fully supported by teacher educators' practice and this is reflected by some of the more traditional pedagogical methods used by the teacher trainees.
- There is a need for a better feedback system between teacher educators and teacher education institutions such as NCTE, SCERT and DIETs. This has the potential to support a change in the practice of teacher educators and, through this, the practice of the teacher trainees they work with.
- Most of the TEs reported a positive attitude towards the use of professional literature for enhancing knowledge. This suggests that they may also be open to the use of other methods, for example the MOOC (Massive Open Online Course) which TESS-India plans to develop, for the same purpose in the future.
- The study shows that rote learning is more prevalent in Bihar than in Uttar Pradesh and Madhya Pradesh. The project should monitor how such regional differences impact on the implementation of the TESS-India OERs and exposure to new approaches to learning.

TES' PRACTICE, WITH PARTICULAR FOCUS ON HOW THEY ASSESS TRAINEES' PEDAGOGY

- The study shows that teacher trainees rarely make use of student-centred practices in the classroom. Teacher educators should be encouraged to monitor the use of student-centred pedagogies as part of their assessment of the teacher trainees, and to provide feedback and support to the trainees to encourage such use.
- The majority of TEs predominantly use the lecture method to teach the trainees, although they also give some hands-on-practical work. Use of the TESS-India OERs should encourage TEs to make use of student-centred pedagogies in their own teaching, which will provide a model of the use of such strategies for the trainees.
- Teacher trainees reported that they complete practical activities such as micro-teaching, simulated teaching, projects and case studies as part of their training. However, the study suggests that teacher educators' practice places less importance on project work. Use of the TESS-India OERs in teacher training should help address this and provide support for trainees undertaking project work.

TEACHER TRAINEES' (TT) AND TEACHERS' ATTITUDES ON PEDAGOGY

- The majority of TEs reported that when training teacher trainees they try to make use of different types of pedagogic approaches to make training more interactive and learner centred. They also reported a positive attitude towards a culture of debate and discussion in teacher training, and towards engaging in peer learning activities. This is a good sign and suggests that the TESS-India OERs will be well received.
- TTs report a positive attitude towards student-centred pedagogies such as practical work, pair work, and the use of role play and stories in the classroom. However, the study shows that this attitude is not reflected in their classroom practices.
- Findings show that the use of traditional learning methodologies such as dictation, copying information from the blackboard, reading the lesson from the textbook and the memorisation of information are still dominant in teachers' classroom practice. This signifies that the positive attitude which teachers report towards learner centred methods is not yet reflected in their practice.
- The study therefore suggests that there is a need for teachers and teacher trainees to receive support to help them to move from a theoretical understanding of active learning pedagogy, as demonstrated by their positive attitude towards these methods, to a more practical understanding which allows them to implement

such methods in their classrooms. Teacher educators who have knowledge of the pedagogies incorporated within the TESS-India OERs will be required to support this training.

TEACHERS' CLASSROOM PRACTICE

- The study shows that there is a large section of teachers in these three states who believe that group work, pair work and games are less productive than more traditional methods of teaching. This is something which support from TEs with knowledge of the OERs could address, perhaps by modelling the use of such learning methodologies through in-service training.

- The majority of teachers also reported that they prefer traditional methods of evaluation such as examination and quizzes. Again, this is something which may require further support from their peers, school leaders and teacher educators with knowledge of other methods if teachers are to feel comfortable with trying something new. The development of a TESS-India community of practice, where teachers are able to discuss such things with their peers may offer this type of support.

- The majority of teachers felt that covering the syllabus, the use of the text book as the only teaching resource, the use of dictation by the teacher and of memorisation by students were most appropriate teaching methods. This shows that the in-service training currently received by teachers does not reflect the need for experiential training which can be incorporated into their classroom practices. The study shows that teachers are well aware of different methods of teaching; yet systematic classroom observation reveals that they rarely make use of anything other than traditional methods in their teaching. It is therefore suggested that there is a scope for a revised approach towards in-service training to help teachers bridge the gap between theory and practice.

STUDENTS' ATTITUDES AND VIEWS ON THEIR LEARNING EXPERIENCE

- Data from students reveals that the majority of class time is used for organising the classroom. There is little use of group activities, or of other practices which engage the students and enhance the learning process. Students also reported that the text book is used as the main resource in the classroom. ICT is also rarely used in practice.

- These reflections support the data collected from the systematic classroom observations. A more traditional approach of teaching is therefore seen to be prevalent in most classrooms, and teachers are not seen to be demonstrating the pedagogies advocated in the NCF 2005. Students reported that they would feel positive about a more participatory way of learning in their classrooms.

HEAD TEACHERS' (HTS) ATTITUDE ON LEADERSHIP AND SCHOOL DEVELOPMENT

- The study showed that head teachers see their role as administrator rather than facilitator, with little knowledge about other aspects of being a school leader. There is a wide scope for 'school based professional development', which is a new concept, and the support of head teachers is vital if this is to be accepted.

- Head teachers reported their support for a traditional approach to teaching, as demonstrated by their preference for teachers to maintain a silent and disciplined classroom. It is important for TESS-India to find ways to engage head teachers in the OERs and to suggest alternate approaches to teaching and learning if teachers are to receive the support they need to use such approaches in their classrooms. It is also important to note that, in many schools, the condition of work is inhibiting the head teacher's ability to perform effectively.

- The study shows that head teachers spend little time making plans based on observations, classroom visits and staff meetings to improve the functioning of the school administration and student-related activities. In-service training aimed at supporting school leaders could help to address this.

- Professional development is not currently viewed by HTs as an important part of improving the system as a whole, and there is little attention given to the concept of 'school-based professional development'. The study therefore shows that head teachers would benefit from further training and support to allow them to facilitate changes in teaching throughout their school. Head teacher professional development needs attention, with the study revealing that a large number of head teachers had never attended in-service training and therefore were not able to impart their knowledge to the teachers in their school. Head teachers would benefit from professional training incorporating inputs from the TESS-India LDUs which would help them to provide leadership and support to their teaching staff in the use of different teaching methodologies.

HEAD TEACHERS' (HTS) PRACTICES IN SCHOOLS

- Head teachers has reported positive attitudes on student-centred teaching, yet their practices continue to reflect a more traditional orientation and suggest that teachers should continue to focus on dictation, memorisation of information and completing the syllabus. HTs require more support to translate this positive attitude into practical steps within their school. There is a need for training for secondary school head teachers in particular. There is a huge gap in resources in this area, and a large number of trainers are required.

- The study shows that some things are changing at the school level, but in many ways a traditional orientation remains dominant. It is important that head teachers are brought on board with the active learning pedagogies incorporated in the TESS-India OERs so they can support the teachers in their school to work on these areas and try new methods of teaching.

CONCLUSION

The baseline study has provided a great deal of clarity for TESS-India in relation to the attitudes and practices of different stakeholders who will be making use of the TESS-India OERs. The study has helped the project to identify some of the key points where support is required, and the concepts which future training could cover. In order to further explore these points, and the reality of using inputs from the TESS-India OERs in Indian schools, some in-depth qualitative studies may be undertaken after the OERs are made available.

It is apparent from the study that most teachers, head teachers and teacher educators have an understanding of the theory of student centred pedagogies, but require support to translate this into practical activities in their classroom. It is therefore highly recommended that inputs from the TDUs are used in in-service and pre-service training programmes to support them in making this transition from theory to practice.

It is also important to recognise that, in reality, teachers and teacher educators may not be able to access the OERs online. It may therefore be necessary to disseminate print copies of the OERs during training sessions.

It is suggested that it would be beneficial if the teacher educators and teachers who take part in training incorporating TESS-India OERs are monitored at regular intervals to review the extent to which the translation of the OERs into classroom practice is taking place. The results from

such monitoring can then be fed back and used to modify the project's implementation strategy where necessary.

In-depth studies of a qualitative nature would enable a greater level of knowledge on the realities of the teacher education systems covered in this baseline and of the different levels at which implementation of the OERs could take place. To help support the move from the theory of student-centred pedagogy to a more practical use of it in the classroom, the project could work with existing institutions at a range of different levels - block, district and state – to provide multiple levels of support. Working with voluntary organisations / NGOs who are also engaged in the field of education in implementation districts could also help support the use TESS-India OERs for multiple impacts.

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Appendices

APPENDIX-A

Table A-2.1 District and Level wise distribution of actual sample of UP

Name of Dist.	Type of Schools	Total No. of Schools	Total No. of Head Teachers	Total No. of Students	Total No. of Classroom Observations	Total No. of Teachers
Ballia	Primary	6	6	57	9	6
	Elementary	6	6	61	12	6
	Secondary	4	4	26	4	3
Barabanki	Primary	6	6	55	11	10
	Elementary	6	6	60	9	8
	Secondary	5	5	50	9	9
Bhadoi	Primary	6	6	56	12	11
	Elementary	6	6	57	12	12
	Secondary	6	6	57	12	7
Gautam Buddha Nagar	Primary	6	6	61	12	6
	Elementary	6	6	53	11	8
	Secondary	5	5	50	10	10
Gorakhpur	Primary	5	5	51	12	11
	Elementary	6	6	57	12	12
	Secondary	5	5	50	9	8
Jaunpur	Primary	6	6	60	12	11
	Elementary	6	6	60	11	11
	Secondary	6	6	52	9	10
Rae Bareli	Primary	5	5	57	12	11
	Elementary	7	7	60	12	11
	Secondary	5	5	50	9	9
Unnao	Primary	6	6	43	12	12
	Elementary	6	6	52	10	10
	Secondary	6	6	53	13	9
		Total	137	1288	256	221

Table A-2.2 District and Level wise distribution of actual sample of Bihar

Name of Dist.	Type of Schools	Total No. of Schools	Total No. of Head Teachers	Total No. of Students	Total No. of Classroom Observations	Total No. of Teachers
Begusarai	Primary	6	6	58	12	12
	Elementary	6	6	60	12	12
	Secondary	6	6	60	12	12
Bhagalpur	Primary	6	6	56	13	12
	Elementary	6	6	62	12	12
	Secondary	6	6	56	12	12
Buxar	Primary	6	6	53	11	11
	Elementary	6	6	60	12	12
	Secondary	6	6	60	8	8
Darbhanga	Primary	6	6	63	12	12
	Elementary	6	6	61	12	12
	Secondary	6	6	59	12	12
Muzapharpur	Primary	6	6	60	12	11
	Elementary	6	6	58	12	12
	Secondary	6	6	59	12	11
Nalanda	Primary	6	6	60	11	12
	Elementary	6	6	60	11	11
	Secondary	6	6	60	12	11
Puba Champaran	Primary	6	6	57	12	12
	Elementary	5	5	50	10	10
	Secondary	6	6	60	12	12
Vaisali	Primary	5	5	51	11	7
	Elementary	7	7	71	11	14
	Secondary	6	6	60	12	11
Total		143	143	1414	278	273

Table A-2.3 District and Level wise distribution of actual sample of MP

Name of Dist.	Type of Schools	Total No. of Schools	Total No. of Head Teachers	Total No. of Students	Total No. of Classroom Observations	Total No. of Teachers
Balaghat	Primary	6	6	60	10	7
	Elementary	6	6	60	12	9
	Secondary	6	6	60	11	11
Betul	Primary	6	6	56	12	6
	Elementary	6	6	61	12	5
	Secondary	6	6	59	11	7
Chhindwara	Primary	6	6	60	10	10
	Elementary	7	7	59	10	11
	Secondary	6	6	62	10	11
Guna	Primary	5	5	49	12	12
	Elementary	5	5	61	10	10
	Secondary	6	6	60	13	13
Hosangabad	Primary	6	6	47	6	6
	Elementary	6	6	60	6	9
	Secondary	6	6	60	7	7
Jabalpur	Primary	6	6	61	11	10
	Elementary	6	6	63	10	10
	Secondary	6	6	58	10	10
Narsimhapur	Primary	7	7	59	6	7
	Elementary	5	5	37	4	4
	Secondary	6	6	82	8	8.0
Rewa	Primary	6	6	60	12	7
	Elementary	6	6	61	12	10
	Secondary	6	6	60	12	13
	Total	143	143	1415	237	213

APPENDIX-B

Table A-3.1 Number and percentage of SC and ST TEs

SC Teacher Educators							
Number of SC Teacher Educators	**Uttar Pradesh**		**Bihar**		**Madhya Pradesh**		**Average (%)**
	N	**%**	**N**	**%**	**N**	**%**	
1	1	13	4	50	2	25	29
2	2	25	0	0	0	0	8
6	1	13	0	0	0	0	4
No Response	4	50	4	50	6	75	58
Total	8	100	8	100	8	100	100
ST Teacher Educators							
Number of ST Teacher Educators	**Uttar Pradesh**		**Bihar**		**Madhya Pradesh**		**Average (%)**
	N	**%**	**N**	**%**	**N**	**%**	
1	0	0	0	0	1	13	4
No Response	8	100	8	100	7	88	96
Total	8	100	8	100	8	100	100

Table A-3.2 Distribution of TEs by employment status

Contract teacher	**Uttar Pradesh**		**Bihar**		**Madhya Pradesh**		**Average (%)**
	N	**%**	**N**	**%**	**N**	**%**	
1	0	0	0	0	1	13	4
2	1	13	0	0	0	0	4
6	0	0	1	13	0	0	4
No Response	7	88	7	88	7	88	88
Total	8	100	8	100	8	100	100

Table A-3.3 Views of TEs about teaching and how students learn

Participation

These items examine teachers' attitudes to the kinds and uses of questions they ask:

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
20	Pair work (all students working in groups of 2) is not productive	Strongly Agree + Agree (%)	23.3	28.8	26.5	26.2
		Mean Score	-0.58	-0.46	-0.67	
6	A silent and disciplined classroom is needed for effective learning to take place	Strongly Agree + Agree (%)	91.8	84.6	75.5	84.0
		Mean Score	1.45	1.25	0.82	
13	Students need to be encouraged to ask questions about what they are learning	Strongly Agree + Agree (%)	98.6	100.0	95.9	98.2
		Mean Score	1.58	1.69	1.45	
2	Independent work is best suited for secondary students, not primary students	Strongly Agree + Agree (%)	45.2	53.8	28.5	42.5
		Mean Score	-0.18	0.17	-0.45	
11	During class students should be engaged in discussions and/or debates about the subject	Strongly Agree + Agree (%)	91.9	98.1	95.9	95.3
		Mean Score	1.34	1.58	1.37	
5	Group work (all students working in groups of 4 to 6) is not productive	Strongly Agree + Agree (%)	16.7	13.5	12.7	14.3
		Mean Score	-0.81	-0.96	-1.21	
10	Students playing games to learn is not as effective as practicing problems in the textbook	Strongly Agree + Agree (%)	16.4	13.5	20.4	16.8
		Mean Score	-0.82	-0.92	-0.76	

Questioning

These items examine teachers' attitudes to the kinds and uses of questions they ask:

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
1	Teachers should ask students questions with more than one correct answer	Strongly Agree + Agree (%)	45.2	59.6	46.9	50.6
		Mean Score	-0.12	0.33	-0.08	
12	Wrong answers to questions by students provide opportunities to help students learn	Strongly Agree + Agree (%)	89.0	94.2	91.9	91.7
		Mean Score	0.99	1.17	1.12	

Assessment for learning[1]

These items examine teachers' attitudes to practices that promote assessment for learning (or are the opposite):

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
9	Examinations and quizzes are the best way to assess student learning	Strongly Agree + Agree (%)	72.6	69.2	26.1	56.0
		Mean Score	0.68	0.67	-0.50	
14	Homework should be returned to the students with comments (that help students learn) or corrected together in class	Strongly Agree + Agree (%)	95.9	96.2	97.9	96.7
		Mean Score	1.31	1.46	1.41	
15	Effective teachers must first demonstrate the correct ways to solve a problem before students try it on their own	Strongly Agree + Agree (%)	50.0	51.9	30.6	44.2
		Mean Score	0.11	0.13	-0.53	

Learning autonomy

Such items measure teachers' views on ways to give students more control over their learning:

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
17	Students should be asked to try problems themselves, before the teacher demonstrates a solution	Strongly Agree + Agree (%)	84.9	84.6	87.5	85.7
		Mean Score	1.04	1.04	1.10	
7	Teachers should ask student what they want to learn about and include this in their lessons	Strongly Agree + Agree (%)	63.9	80.4	85.4	76.6
		Mean Score	0.35	0.82	0.92	

Diversity

These items register teacher views about what all students can achieve as well dealing with such diversity in the classroom:

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
18	Some students have a natural ability to learn and others do not	Strongly Agree + Agree (%)	68.9	73.1	62.5	68.2
		Mean Score	0.50	0.60	0.15	
19	Students who come from SC/ST/OBC find learning content on the syllabus difficult	Strongly Agree + Agree (%)	17.6	23.1	16.3	19.0
		Mean Score	-0.85	-0.63	-0.96	
21	Teachers should discuss social issues (human rights, caste, religion and gender, etc.) in their classroom	Strongly Agree + Agree (%)	86.5	78.8	91.8	85.7
		Mean Score	1.01	0.83	1.16	

Traditional approach (Performance orientation)

These items are not so much about the 'traditional' practices in the classroom, as the views that underlie and drive such practices:

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
3	Covering the syllabus is the most important part of a teacher's role	Strongly Agree + Agree (%)	86.3	86.5	63.3	78.7
		Mean Score	1.08	1.27	0.49	
8	Students learn best through memorisation	Strongly Agree + Agree (%)	46.6	38.5	18.3	34.4
		Mean Score	-0.10	-0.27	-0.84	
4	Dictation of information to students is an effective teaching strategy	Strongly Agree + Agree (%)	90.3	98.1	87.8	92.1
		Mean Score	1.14	1.50	1.16	
16	The textbook is the only resource needed to teach students about the subject	Strongly Agree + Agree (%)	19.2	28.8	12.5	20.2
		Mean Score	-0.70	-0.46	-0.92	

Table A-3.4 Teaching practices in TEs classroom

	During lessons I…. (%)					
Q.No.	States	Teacher Trainees/ Educators were expected to	Always	Sometimes	Rarely	Never
5	Uttar Pradesh (%)	complete assignments	65.8	30.1	4.1	0.0
7		illustrate how integrate games	60.3	35.6	4.1	0.0
8		illustrate how critically examine the syllabus	63.0	30.1	5.5	1.4
9		design classroom resources	52.1	43.8	2.7	1.4
11		participate in debates, group discussion and role play	67.6	29.7	2.7	0.0
12		demonstrate how to use local materials	62.2	31.1	6.8	0.0
14		demonstrate how create a print-rich classroom	60.8	36.5	1.4	1.4
16		illustrate ways to organise group work	54.8	43.8	1.4	0.0
17		participate in peer-peer activities	60.8	39.2	0.0	0.0

Q.No.	States	Teacher Trainees/ Educators were expected to	Always	Sometimes	Rarely	Never
5	Bihar (%)	complete assignments	72.5	23.5	3.9	0.0
7		illustrate how integrate games	52.9	39.2	7.8	0.0
8		illustrate how critically examine the syllabus	68.6	27.5	3.9	0.0
9		design classroom resources	72.5	23.5	3.9	0.0
11		participate in debates, group discussion and role play	73.1	25.0	1.9	0.0
12		demonstrate how to use local materials	61.5	36.5	1.9	0.0
14		demonstrate how create a print-rich classroom	71.2	25.0	1.9	1.9
16		illustrate ways to organise group work	50.0	38.5	11.5	0.0
17		participate in peer-peer activities	61.5	32.7	5.8	0.0
5	Madhya Pradesh (%)	complete assignments	79.6	16.3	2.0	2.0
7		illustrate how integrate games	85.7	14.3	0.0	0.0
8		illustrate how critically examine the syllabus	81.6	14.3	4.1	0.0
9		design classroom resources	79.6	18.4	2.0	0.0
11		participate in debates, group discussion and role play	79.6	20.4	0.0	0.0
12		demonstrate how to use local materials	75.5	22.4	2.0	0.0
14		demonstrate how create a print-rich classroom	60.4	35.4	2.1	2.1
16		illustrate ways to organise group work	63.3	36.7	0.0	0.0
17		participate in peer-peer activities	67.3	32.7	0.0	0.0

Q.No.	States	Teacher Trainees/ Educators were expected to	Always	Sometimes	Rarely	Never
5	Average (%)	complete assignments	72.6	23.3	3.3	0.7
7		illustrate how integrate games	66.3	29.7	4.0	0.0
8		illustrate how critically examine the syllabus	71.1	24.0	4.5	0.5
9		design classroom resources	68.1	28.6	2.9	0.5
11		participate in debates, group discussion and role play	73.4	25.0	1.5	0.0
12		demonstrate how to use local materials	66.4	30.0	3.6	0.0
14		demonstrate how create a print-rich classroom	64.1	32.3	1.8	1.8
16		illustrate ways to organise group work	56.0	39.7	4.3	0.0
17		participate in peer-peer activities	63.2	34.9	1.9	0.0
1	Uttar Pradesh (%)	I use lectures to teach my teacher trainees	50.7	42.5	5.5	1.4
2		give group work	57.5	37.0	5.5	0.0
3		set classroom time aside to discuss course readings.	24.3	41.4	17.1	17.1
4		use case studies	42.5	43.8	8.2	5.5
6		provide training on how to organise projects	67.1	30.1	2.7	0.0
10		provide training on how to include folklore and storytelling	52.7	36.5	9.5	1.4
13		model ways to do a brainstorm and use of the outcome	47.3	44.6	8.1	0.0
15		provide examples of how to organise pair work	33.8	62.2	4.1	0.0
18		assess TTs ability to design activities	54.1	33.8	10.8	1.4

Q.No.	States	Teacher Trainees/ Educators were expected to	Always	Sometimes	Rarely	Never
1	Bihar (%)	I use lectures to teach my teacher trainees	38.0	46.0	14.0	2.0
2		give group work	66.7	29.4	2.0	2.0
3		set classroom time aside to discuss course readings.	17.6	51.0	23.5	7.8
4		use case studies	35.3	49.0	11.8	3.9
6		provide training on how to organise projects	68.6	29.4	2.0	0.0
10		provide training on how to include folklore and storytelling	55.8	36.5	3.8	3.8
13		model ways to do a brainstorm and use of the outcome	51.0	49.0	0.0	0.0
15		provide examples of how to organise pair work	40.4	57.7	1.9	0.0
18		assess TTs ability to design activities	59.6	32.7	7.7	0.0
1	Madhya Pradesh (%)	I use lectures to teach my teacher trainees	22.4	65.3	10.2	2.0
2		give group work	49.0	44.9	6.1	0.0
3		set classroom time aside to discuss course readings.	35.6	24.4	24.4	15.6
4		use case studies	39.6	33.3	20.8	6.3
6		provide training on how to organise projects	73.5	22.4	4.1	0.0
10		provide training on how to include folklore and storytelling	65.3	34.7	0.0	0.0
13		model ways to do a brainstorm and use of the outcome	53.1	42.9	4.1	0.0
15		provide examples of how to organise pair work	46.9	49.0	2.0	2.0
18		assess TTs ability to design activities	63.3	36.7	0.0	0.0

Q.No.	States	Teacher Trainees/ Educators were expected to	Always	Sometimes	Rarely	Never
1	Average (%)	I use lectures to teach my teacher trainees	37.0	51.3	9.9	1.8
2		give group work	57.7	37.1	4.5	0.7
3		set classroom time aside to discuss course readings.	25.8	38.9	21.7	13.5
4		use case studies	39.1	42.1	13.6	5.2
6		provide training on how to organise projects	69.8	27.3	2.9	0.0
10		provide training on how to include folklore and storytelling	57.9	35.9	4.4	1.7
13		model ways to do a brainstorm and use of the outcome	50.5	45.5	4.1	0.0
15		provide examples of how to organise pair work	40.4	56.3	2.7	0.7
18		assess TTs ability to design activities	59.0	34.4	6.2	0.5

Table A-3.5 Frequency of appraisal and feedback TEs receive

States	Statements	A large change	A moderate change	A small change	No change
Uttar Pradesh (%)	The emphasis you place upon improving trainee teacher test scores in your teaching	6.1	26.5	40.8	26.5
	Your teaching on classroom management practices	10.2	18.4	61.2	10.2
	Your knowledge and understanding of teaching methodologies	10.9	21.7	47.8	19.6
	Professional development you have undertaken	6.3	35.4	41.7	16.7
	Your teaching on inclusive teaching of students with special learning needs	8.2	28.6	49.0	14.3
	Your teaching on the mainstreaming of students from the following communities SC, ST, Muslim minority & landless agricultural labourers'	14.0	20.0	38.0	28.0
Bihar (%)	The emphasis you place upon improving trainee teacher test scores in your teaching	40.5	40.5	18.9	0.0
	Your teaching on classroom management practices	10.8	35.1	27.0	27.0
	Your knowledge and understanding of teaching methodologies	19.4	5.6	44.4	30.6
	Professional development you have undertaken	8.3	25.0	44.4	22.2
	Your teaching on inclusive teaching of students with special learning needs	8.3	33.3	22.2	36.1
	Your teaching on the mainstreaming of students from the following communities SC, ST, Muslim minority & landless agricultural labourers'	13.9	25.0	25.0	36.1

States	Statements	A large change	A moderate change	A small change	No change
Madhya Pradesh (%)	The emphasis you place upon improving trainee teacher test scores in your teaching	6.9	31.0	48.3	13.8
	Your teaching on classroom management practices	6.9	31.0	48.3	13.8
	Your knowledge and understanding of teaching methodologies	13.8	13.8	41.4	31.0
	Professional development you have undertaken	10.3	17.2	58.6	13.8
	Your teaching on inclusive teaching of students with special learning needs	13.8	44.8	31.0	10.3
	Your teaching on the mainstreaming of students from the following communities SC, ST, Muslim minority & landless agricultural labourers'	20.7	27.6	34.5	17.2
Average (%)	The emphasis you place upon improving trainee teacher test scores in your teaching	17.9	32.7	36.0	13.4
	Your teaching on classroom management practices	9.3	28.2	45.5	17.0
	Your knowledge and understanding of teaching methodologies	14.7	13.7	44.6	27.0
	Professional development you have undertaken	8.3	25.9	48.2	17.6
	Your teaching on inclusive teaching of students with special learning needs	10.1	35.6	34.1	20.2
	Your teaching on the mainstreaming of students from the following communities SC, ST, Muslim minority & landless agricultural labourers'	16.2	24.2	32.5	27.1

Table A-3.6 Views of TEs on methods of assessment of TTs

The assessment of teacher trainee should be …					
Q.No.	**Statements**	**Uttar Pradesh (%)**	**Bihar (%)**	**Madhya Pradesh (%)**	**Average (%)**
1	spread out over the duration of the course	93.2	94.3	95.3	94.3
2	equally based on case studies and projects alongside examinations	91.8	96.2	93.0	93.7
3	based on the Teacher Educator's observations during teaching practice	94.5	88.7	90.7	91.3
4	observed through checklists	76.4	79.2	65.9	73.8
5	based on observation schedules	77.5	80.8	87.8	82.0
6	based on records	71.4	64.2	85.7	73.8
7	evaluated primarily on written examinations based on the curriculum	43.1	39.6	22.5	35.1
8	evaluated by oral examinations based on the curriculum	80.6	58.5	65.1	68.0
9	evaluated on the innovative materials they develop and use in their teaching practice	97.2	100.0	90.7	96.0
10	evaluated on how they interact with students in the classroom	86.1	90.6	97.7	91.5
11	evaluated on how well they meet the learning objectives of lesson plans	98.6	90.6	100.0	96.4

Table A-3.7 Views of TEs on the place of the school in teacher education

Pre-service teacher training practice prepares teacher trainees to						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
1	understand how children learn	Strongly Agree + Agree (%)	100.0	98.1	100.0	99.4
		Mean Score	1.36	1.60	1.63	
2	create a classroom environment conducive to learning	Strongly Agree + Agree (%)	100.0	98.1	100.0	99.4
		Mean Score	1.49	1.50	1.65	
3	be receptive and be constantly learning	Strongly Agree + Agree (%)	98.6	98.1	100.0	98.9
		Mean Score	1.42	1.58	1.67	
4	be sensitive to the professional and administrative context	Strongly Agree + Agree (%)	93.2	92.5	95.4	93.7
		Mean Score	1.05	1.06	1.40	
5	attain a sound knowledge base and proficiency in their subject area and/or grade level	Strongly Agree + Agree (%)	97.3	88.7	100.0	95.3
		Mean Score	1.26	1.17	1.49	
6	view appraisal as a continuous educative process	Strongly Agree + Agree (%)	97.3	90.6	100.0	95.9
		Mean Score	1.38	1.40	1.72	
7	develop counselling skills and competencies for facilitating and helping children	Strongly Agree + Agree (%)	97.2	98.1	100.0	98.4
		Mean Score	1.36	1.58	1.61	
8	address the learning needs of different children	Strongly Agree + Agree (%)	93.2	90.4	100.0	94.5
		Mean Score	1.11	1.08	1.51	
9	learn how to use TLM as a medium of teaching	Strongly Agree + Agree (%)	100.0	100.0	100.0	100.0
		Mean Score	1.62	1.77	1.72	

Table A-3.8 Number of TEs supervised by % TEs

How many trainee teacher educator supervise				
Number of Supervise	**Uttar Pradesh (%)**	**Bihar (%)**	**Madhya Pradesh (%)**	**Average (%)**
None	5.6	3.9	0.0	3.2
1 to 5	2.8	5.9	11.9	6.9
6 to 10	2.8	11.8	23.8	12.8
11 to 15	2.8	3.9	2.4	3.0
16 to 20	1.4	5.9	4.8	4.0
More than 20	84.5	68.6	57.1	70.1
Total	100.0	100.0	100.0	100.0

Table A-3.9 Percentage of TEs visit during teaching practice

Number of visits	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
None	5.7	4.0	0.0	3.2
1 to 5	22.9	18.0	23.8	21.6
6 to 10	15.7	6.0	14.3	12.0
11 to 15	10.0	10.0	2.4	7.5
16 to 20	2.9	22.0	19.0	14.6
More than 20	42.9	40.0	40.5	41.1
Total	100.0	100.0	100.0	100.0

Table A-3.10 How much time TEs devote during supervision of teacher practice

Minutes	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
1 to 5	16.9	0.0	2.4	6.4
6 to 10	15.5	24.5	2.4	14.1
11 to 15	14.1	16.3	19.0	16.5
16 to 20	8.5	22.4	21.4	17.5
More than 20	45.1	36.7	54.8	45.5
Total	100.0	100.0	100.0	100.0

Table A-3.11 Types of teacher education practice

Participation						
These items relate to views on the ways in which student participation can be facilitated: (Strongly Agree + Agree)						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
20	Pair work (all students working in groups of 2) is not productive	Strongly Agree + Agree (%)	21.8	23.3	23.2	22.8
		Mean Score	-0.67	-0.69	-0.65	
6	A silent and disciplined classroom is needed for effective learning to take place	Strongly Agree + Agree (%)	95.0	93.5	94.1	94.2
		Mean Score	1.50	1.47	1.31	
13	Students need to be encouraged to ask questions about what they are learning	Strongly Agree + Agree (%)	97.2	96.6	99.4	97.7
		Mean Score	1.52	1.60	1.43	
2	Independent work is best suited for secondary students, not primary students	Strongly Agree + Agree (%)	50.7	46.4	33.2	43.4
		Mean Score	-0.01	-0.10	-0.43	
11	During class students should be engaged in discussions and/or debates about the subject	Strongly Agree + Agree (%)	95.3	95.6	93.5	94.8
		Mean Score	1.32	1.44	1.23	
5	Group work (all students working in groups of 4 to 6) is not productive	Strongly Agree + Agree (%)	17.5	29.3	21.3	22.7
		Mean Score	-0.86	-0.64	-0.73	
10	Students playing games to learn is not as effective as practicing problems in the textbook	Strongly Agree + Agree (%)	17.6	19.2	33.0	23.3
		Mean Score	-0.95	-0.88	-0.41	
Questioning						
These items examine teachers' attitudes to the kinds and uses of questions they ask: (Strongly Agree + Agree)						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
1	Teachers should ask students questions with more than one correct answer	Strongly Agree + Agree (%)	50.4	66.7	59.2	58.8
		Mean Score	0.03	0.57	0.21	
12	Wrong answers to questions by students provide opportunities to help students learn	Strongly Agree + Agree (%)	94.5	88.7	87.8	90.3
		Mean Score	1.10	1.13	0.91	

Assessment for learning [1]						
These items examine teachers' attitudes to practices that promote assessment for learning (or are the opposite): (Strongly Agree + Agree)						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
9	Examinations and quizzes are the best way to assess student learning	Strongly Agree + Agree (%)	88.7	80.7	88.0	85.8
		Mean Score	1.10	0.86	1.02	
14	Homework should be returned to the students with comments (that help students learn) or corrected together in class	Strongly Agree + Agree (%)	91.5	85.8	88.6	88.6
		Mean Score	1.10	1.02	1.03	
Learning autonomy						
Such items measure teachers' views on ways to give students more control over their learning: (Strongly Agree + Agree)						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
7	Teachers should ask student what they want to learn about and include this in their lessons	Strongly Agree + Agree (%)	81.1	72.0	82.7	78.6
		Mean Score	0.79	0.59	0.86	
15	Effective teachers must first demonstrate the correct ways to solve a problem before students try it on their own	Strongly Agree + Agree (%)	45.9	38.2	47.3	43.8
		Mean Score	-0.11	-0.37	-0.02	
17	Students should be asked to try problems themselves, before the teacher demonstrates a solution	Strongly Agree + Agree (%)	81.6	81.5	82.5	81.9
		Mean Score	0.87	0.95	0.84	
Diversity						
These items register teacher views about what all students can achieve as well dealing with such diversity in the classroom: (Strongly Agree + Agree)						
Q.No.	**Statements**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
18	Some students have a natural ability to learn and others do not	Strongly Agree + Agree (%)	72.5	69.2	20.1	53.9
		Mean Score	0.55	0.46	-1.20	
19	Students who come from SC/ST/OBC find learning content on the syllabus difficult	Strongly Agree + Agree (%)	14.9	18.0	70.8	34.6
		Mean Score	-1.08	-0.99	-0.40	
21	Teachers should discuss social issues (human rights, caste, religion and gender, etc.) in their classroom	Strongly Agree + Agree (%)	83.7	74.1	16.0	57.9
		Mean Score	0.98	0.69	0.02	

Traditional approach (Performance orientation)

These items are not so much about the 'traditional' practices in the classroom, as the views that underlie and drive such practices: (Strongly Agree + Agree)

Q.No.	Statements	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
3	Covering the syllabus is the most important part of a teacher's role	Strongly Agree + Agree (%)	83.5	86.7	83.5	84.6
		Mean Score	1.00	1.20	0.92	
8	Students learn best through memorisation	Strongly Agree + Agree (%)	40.2	38.2	30.6	36.3
		Mean Score	-0.25	-0.29	-0.42	
4	Dictation of information to students is an effective teaching strategy	Strongly Agree + Agree (%)	90.0	93.5	95.0	92.8
		Mean Score	1.16	1.27	1.23	
16	The textbook is the only resource needed to teach students about the subject	Strongly Agree + Agree (%)	22.4	22.0	28.2	24.2
		Mean Score	-0.67	-0.78	-0.46	

APPENDIX-C

Table A-4.1 N &% of basic information about school

Q. No.	Statements	Type of Schools	Qualification	Uttar Pradesh		Bihar		Madhya Pradesh		Average
				N	%	N	%	N	%	
1	Teacher attendance register	Primary	Yes	45	100	47	100	48	100	100
			No Response	0	0	0	0	0	0	0
			Total	45	100	47	100	48	100	100
		Upper Primary	Yes	48	100	47	100	45	100	100
			No Response	0	0	0	0	0	0	0
			Total	48	100	47	100	45	100	100
		Secondary	Yes	40	100	47	100	51	100	100
			No Response	0	0	0	0	0	0	0
			Total	40	100	47	100	51	100	100
2	Classroom attendance registers	Primary	Yes	45	100	47	100	48	100	100
			No Response	0	0	0	0	0	0	0
			Total	45	100	47	100	48	100	100
		Upper Primary	Yes	48	100	47	100	45	100	100
			No Response	0	0	0	0	0	0	0
			Total	48	100	47	100	45	100	100
		Secondary	Yes	40	100	47	100	51	100	100
			No Response	0	0	0	0	0	0	0
			Total	40	100	47	100	51	100	100
3	School Development Plan prepared by the SMC/SMDC?	Primary	Yes	31	70	39	87	40	83	80
			No Response	13	30	6	13	8	17	20
			Total	44	100	45	100	48	100	100
		Upper Primary	Yes	34	71	41	87	40	89	82
			No Response	14	29	6	13	5	11	18
			Total	48	100	47	100	45	100	100
		Secondary	Yes	28	72	35	80	45	90	80
			No Response	11	28	9	20	5	10	20
			Total	39	100	44	100	50	100	100
4	Staff Development Plan	Primary	Yes	12	28	15	35	15	36	33
			No Response	31	72	28	65	27	64	67
			Total	43	100	43	100	42	100	100
		Upper Primary	Yes	34	76	27	60	26	59	65
			No Response	11	24	18	40	18	41	35
			Total	45	100	45	100	44	100	100
		Secondary	Yes	16	43	15	32	31	61	45
			No Response	21	57	32	68	20	39	55
			Total	37	100	47	100	51	100	100

Q. No.	Statements	Type of Schools	Qualification	Uttar Pradesh		Bihar		Madhya Pradesh		Average
				N	%	N	%	N	%	
5	Register of visits to individual teachers' classrooms	Primary	Yes	17	38	29	63	29	62	54
			No Response	28	62	17	37	18	38	46
			Total	45	100	46	100	47	100	100
		Upper Primary	Yes	20	42	38	83	21	48	57
			No Response	28	58	8	17	23	52	43
			Total	48	100	46	100	44	100	100
		Secondary	Yes	17	44	8	17	11	22	28
			No Response	22	56	38	83	39	78	72
			Total	39	100	46	100	50	100	100
6	Example of feedback to teachers after visits	Primary	Yes	12	27	33	77	30	64	56
			No Response	32	73	10	23	17	36	44
			Total	44	100	43	100	47	100	100
		Upper Primary	Yes	17	35	35	74	24	55	55
			No Response	31	65	12	26	20	45	45
			Total	48	100	47	100	44	100	100
		Secondary	Yes	21	55	37	79	39	76	70
			No Response	17	45	10	21	12	24	30
			Total	38	100	47	100	51	100	100
7	Register maintained for staff meetings	Primary	Yes	15	33	38	81	33	72	62
			No Response	30	67	9	19	13	28	38
			Total	45	100	47	100	46	100	100
		Upper Primary	Yes	25	53	37	79	34	76	69
			No Response	22	47	10	21	11	24	31
			Total	47	100	47	100	45	100	100
		Secondary	Yes	25	63	43	93	46	90	82
			No Response	15	38	3	7	5	10	18
			Total	40	100	46	100	51	100	100
8	Register maintained for parents' meetings	Primary	Yes	32	71	42	89	42	88	83
			No Response	13	29	5	11	6	13	17
			Total	45	100	47	100	48	100	100
		Upper Primary	Yes	34	72	44	94	38	84	83
			No Response	13	28	3	6	7	16	17
			Total	47	100	47	100	45	100	100
		Secondary	Yes	33	83	34	72	43	86	80
			No Response	7	18	13	28	7	14	20
			Total	40	100	47	100	50	100	100

Q. No.	Statements	Type of Schools	Qualification	Uttar Pradesh		Bihar		Madhya Pradesh		Average
				N	%	N	%	N	%	
9	File of teachers' in-service trainings outside of school	Primary	Yes	19	42	27	59	27	56	52
			No Response	26	58	19	41	21	44	48
			Total	45	100	46	100	48	100	100
		Upper Primary	Yes	21	45	31	66	15	35	49
			No Response	26	55	16	34	28	65	51
			Total	47	100	47	100	43	100	100
		Secondary	Yes	22	55	28	60	34	68	61
			No Response	18	45	19	40	16	32	39
			Total	40	100	47	100	50	100	100
10	A schedule or programme of a school-based in-service training	Primary	Yes	14	33	31	69	22	51	51
			No Response	29	67	14	31	21	49	49
			Total	43	100	45	100	43	100	100
		Upper Primary	Yes	23	48	26	57	15	35	46
			No Response	25	52	20	43	28	65	54
			Total	48	100	46	100	43	100	100
		Secondary	Yes	13	35	24	53	27	55	48
			No Response	24	65	21	47	22	45	52
			Total	37	100	45	100	49	100	100
11	An example of how explaining teachers the importance of using	Primary	Yes	33	73	44	94	33	72	80
			No Response	12	27	3	6	13	28	20
			Total	45	100	47	100	46	100	100
		Upper Primary	Yes	32	68	44	94	30	68	77
			No Response	15	32	3	6	14	32	23
			Total	47	100	47	100	44	100	100
		Secondary	Yes	23	58	40	87	32	64	69
			No Response	17	43	6	13	18	36	31
			Total	40	100	46	100	50	100	100
12	An example of teacher lesson plan	Primary	Yes	31	70	44	94	31	67	77
			No Response	13	30	3	6	15	33	23
			Total	44	100	47	100	46	100	100
		Upper Primary	Yes	31	66	46	98	32	74	79
			No Response	16	34	1	2	11	26	21
			Total	47	100	47	100	43	100	100
		Secondary	Yes	25	66	41	89	36	75	77
			No Response	13	34	5	11	12	25	23
			Total	38	100	46	100	48	100	100

APPENDIX-D

Table A-5.1 Distribution of teachers by age

Type of Schools	Age	Uttar Pradesh		Bihar		Madhya Pradesh		Average
		N	%	N	%	N	%	
Primary	18-25 yrs.	12	15.6	8	9.3	10	15.9	13.6
	26-30 yrs.	18	23.4	12	14.0	12	19.0	18.8
	31-35 yrs.	18	23.4	25	29.1	9	14.3	22.2
	36-40 yrs.	11	14.3	21	24.4	10	15.9	18.2
	41-45 yrs.	6	7.8	7	8.1	8	12.7	9.5
	46-50 yrs.	4	5.2	9	10.5	5	7.9	7.9
	51yrs & above	8	10.4	4	4.7	9	14.3	9.8
	Total	77	100.0	86	100.0	63	100.0	100.0
Upper Primary	18-25 yrs.	13	16.7	3	3.2	7	10.3	10.0
	26-30 yrs.	13	16.7	9	9.5	13	19.1	15.1
	31-35 yrs.	12	15.4	21	22.1	16	23.5	20.3
	36-40 yrs.	9	11.5	15	15.8	2	2.9	10.1
	41-45 yrs.	7	9.0	22	23.2	11	16.2	16.1
	46-50 yrs.	8	10.3	8	8.4	4	5.9	8.2
	51yrs & above	16	20.5	17	17.9	15	22.1	20.2
	Total	78	100.0	95	100.0	68	100.0	100.0
Secondary	18-25 yrs.	2	3.1	1	1.1	8	10.1	4.8
	26-30 yrs.	14	21.9	16	18.0	11	13.9	17.9
	31-35 yrs.	9	14.1	19	21.3	20	25.3	20.2
	36-40 yrs.	12	18.8	16	18.0	15	19.0	18.6
	41-45 yrs.	4	6.3	21	23.6	9	11.4	13.7
	46-50 yrs.	9	14.1	7	7.9	4	5.1	9.0
	51yrs & above	14	21.9	9	10.1	12	15.2	15.7
	Total	64	100.0	89	100.0	79	100.0	100.0

Table A-5.2 Distribution of teachers by highest educational qualification

Type of Schools	Qualification	Uttar Pradesh		Bihar		Madhya Pradesh		Average
		N	%	N	%	N	%	
Primary	10th/12th	9	11.5	48	54.5	19	30.2	32.1
	Bachelors	35	44.9	33	37.5	24	38.1	40.2
	Masters	34	43.6	7	8.0	20	31.7	27.8
	M Phil/Ph.D./EdD	0	0.0	0	0.0	0	0.0	0.0
	Total	78	100.0	88	100.0	63	100.0	100.0
Upper Primary	10th/12th	7	9.1	23	24.0	0	0.0	11.0
	Bachelors	23	29.9	44	46.8	22	32.4	36.3
	Masters	46	59.7	27	28.7	46	67.6	52.0
	M Phil/PhD/EdD	1	1.3	0	0.0	0	0.0	0.0
	Total	77	100.0	94	100.0	68	100.0	100.0
Secondary	10th/12th	7	11.0	1	1.0	1	1.3	4.4
	Bachelors	7	10.9	24	27.3	20	25.3	21.2
	Masters	53	82.8	62	70.5	58	73.4	75.6
	M Phil/PhD/EdD	4	7.0	1	1.0	0	0.0	2.7
	Total	64	100.0	88	100.0	79	100.0	100.0

Table A-5.3 Attitudes

Participation

These items relate to views on the ways in which student participation can be facilitated:

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
20	**Pair work (all students working in groups of 2) is not productive**	Primary	Strongly Agree + Agree	46.7	39.8	22.2	36.2
			Mean Score	-0.04	-0.17	-0.60	
		Upper Primary	Strongly Agree + Agree	26.9	24.2	27.9	26.4
			Mean Score	-0.54	-0.67	-0.46	
		Secondary	Strongly Agree + Agree	20.3	12.6	15.2	16.0
			Mean Score	-0.66	-0.86	-0.89	

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
6	**A silent and disciplined classroom is needed for effective learning to take place**	Primary	Strongly Agree + Agree	96.2	95.4	95.3	95.6
			Mean Score	1.46	1.62	1.22	
		Upper Primary	Strongly Agree + Agree	98.7	97.9	95.6	97.4
			Mean Score	1.52	1.64	1.43	
		Secondary	Strongly Agree + Agree	96.9	98.9	96.2	97.3
			Mean Score	1.44	1.68	1.53	
13	**Students need to be encouraged to ask questions about what they are learning**	Primary	Strongly Agree + Agree	96.2	95.5	98.4	96.7
			Mean Score	1.41	1.57	1.28	
		Upper Primary	Strongly Agree + Agree	98.7	97.9	98.5	98.4
			Mean Score	1.49	1.58	1.49	
		Secondary	Strongly Agree + Agree	100.0	97.7	98.8	98.8
			Mean Score	1.42	1.52	1.59	
2	**Independent work is best suited for secondary students, not primary students**	Primary	Strongly Agree + Agree	42.9	50.0	29.0	40.6
			Mean Score	-0.19	0.00	-0.40	
		Upper Primary	Strongly Agree + Agree	57.7	35.8	54.5	49.3
			Mean Score	0.24	-0.37	0.02	
		Secondary	Strongly Agree + Agree	57.1	53.5	49.4	53.3
			Mean Score	0.27	0.10	-0.08	
11	**During class students should be engaged in discussions and/or debates about the subject**	Primary	Strongly Agree + Agree	89.7	94.3	92.2	92.1
			Mean Score	1.19	1.39	1.19	
		Upper Primary	Strongly Agree + Agree	92.3	98.9	92.5	94.6
			Mean Score	1.21	1.56	1.27	
		Secondary	Strongly Agree + Agree	92.2	92.0	91.3	91.8
			Mean Score	1.20	1.43	1.23	

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
5	**Group work (all students working in groups of 4 to 6) is not productive**	Primary	Strongly Agree + Agree	29.9	31.8	25.4	29.0
			Mean Score	-0.52	-0.43	-0.54	
		Upper Primary	Strongly Agree + Agree	26.9	27.4	29.4	27.9
			Mean Score	-0.45	-0.58	-0.54	
		Secondary	Strongly Agree + Agree	31.7	15.9	18.8	22.1
			Mean Score	-0.54	-0.89	-0.78	
10	**Students playing games to learn is not as effective as practicing problems in the textbook**	Primary	Strongly Agree + Agree	34.6	30.7	36.5	33.9
			Mean Score	-0.36	-0.57	-0.29	
		Upper Primary	Strongly Agree + Agree	17.9	13.7	41.2	24.3
			Mean Score	-0.78	-0.88	-0.19	
		Secondary	Strongly Agree + Agree	34.9	14.8	26.3	25.3
			Mean Score	-0.40	-0.88	-0.56	
Questioning							
These items examine teachers' attitudes to the kinds and uses of questions they ask:							
S.No.	**Statements**	**Type of School**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
1	**Teachers should ask students questions with more than one correct answer**	Primary	Strongly Agree + Agree	65.8	88.6	65.6	73.4
			Mean Score	0.37	1.09	0.41	
		Upper Primary	Strongly Agree + Agree	59.0	74.7	62.7	65.5
			Mean Score	0.29	0.78	0.37	
		Secondary	Strongly Agree + Agree	54.0	58.1	54.4	55.5
			Mean Score	0.17	0.16	0.15	
12	**Wrong answers to questions by students provide opportunities to help students learn**	Primary	Strongly Agree + Agree	91.0	92.0	84.4	89.1
			Mean Score	0.96	1.13	0.80	
		Upper Primary	Strongly Agree + Agree	91.0	96.8	79.4	89.1
			Mean Score	0.99	1.23	0.66	
		Secondary	Strongly Agree + Agree	85.9	85.2	94.9	88.7
			Mean Score	0.83	0.93	1.10	

Assessment for learning							
These items examine teachers' attitudes to practices that promote assessment for learning (or are the opposite):							
S.No.	**Statements**	**Type of School**	**Mean Score**	**Uttar Pradesh**	**Bihar**	**Madhya Pradesh**	**Average (%)**
9	**Examinations and quizzes are the best way to assess student learning**	Primary	Strongly Agree + Agree	88.5	89.7	85.7	87.9
			Mean Score	1.06	1.10	0.97	
		Upper Primary	Strongly Agree + Agree	94.8	75.5	86.4	85.6
			Mean Score	1.18	0.77	1.00	
		Secondary	Strongly Agree + Agree	87.3	88.6	91.1	89.0
			Mean Score	0.94	1.13	1.08	
14	**Homework should be returned to the students with comments (that help students learn) or corrected together in class**	Primary	Strongly Agree + Agree	82.9	97.7	98.4	93.0
			Mean Score	0.91	1.40	1.30	
		Upper Primary	Strongly Agree + Agree	87.2	90.5	97.1	91.6
			Mean Score	1.03	1.21	1.19	
		Secondary	Strongly Agree + Agree	92.1	95.4	93.7	93.7
			Mean Score	1.08	1.30	1.23	
15	**Effective teachers must first demonstrate the correct ways to solve a problem before students try it on their own**	Primary	Strongly Agree + Agree	49.4	61.4	60.9	57.2
			Mean Score	0.08	0.41	0.19	
		Upper Primary	Strongly Agree + Agree	41.6	49.5	57.4	49.5
			Mean Score	-0.16	0.12	0.22	
		Secondary	Strongly Agree + Agree	60.3	59.1	42.5	54.0
			Mean Score	0.27	0.32	-0.20	

Learning autonomy

Such items measure teachers' views on ways to give students more control over their learning:

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
17	**Students should be asked to try problems themselves, before the teacher demonstrates a solution**	Primary	Strongly Agree + Agree	74.4	82.8	90.3	82.5
			Mean Score	0.63	1.08	0.95	
		Upper Primary	Strongly Agree + Agree	83.1	82.1	92.6	86.0
			Mean Score	0.86	0.91	1.07	
		Secondary	Strongly Agree + Agree	95.3	86.0	92.3	91.2
			Mean Score	1.09	0.93	1.19	
7	**Teachers should ask student what they want to learn about and include this in their lessons**	Primary	Strongly Agree + Agree	79.2	85.2	78.1	80.9
			Mean Score	0.82	1.08	0.66	
		Upper Primary	Strongly Agree + Agree	82.1	76.8	80.9	79.9
			Mean Score	0.81	0.69	0.75	
		Secondary	Strongly Agree + Agree	66.7	60.9	71.3	66.3
			Mean Score	0.43	0.31	0.49	

Diversity

These items register teacher views about what all students can achieve as well dealing with such diversity in the classroom:

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
18	**Some students have a natural ability to learn and others do not**	Primary	Strongly Agree + Agree	70.5	74.7	82.8	76.0
			Mean Score	0.50	0.67	0.86	
		Upper Primary	Strongly Agree + Agree	74.4	64.2	77.9	72.2
			Mean Score	0.64	0.37	0.57	
		Secondary	Strongly Agree + Agree	73.4	63.2	71.3	69.3
			Mean Score	0.58	0.45	0.46	

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
19	**Students who come from SC/ST/OBC find learning content on the syllabus difficult**	Primary	Strongly Agree + Agree	22.1	19.3	26.6	22.7
			Mean Score	-0.81	-0.77	-0.61	
		Upper Primary	Strongly Agree + Agree	10.3	10.5	23.9	14.9
			Mean Score	-1.14	-1.05	-0.75	
		Secondary	Strongly Agree + Agree	15.6	21.8	17.5	18.3
			Mean Score	-0.89	-0.79	-0.94	
21	**Teachers should discuss social issues (human rights, caste, religion and gender, etc.) in their classroom**	Primary	Strongly Agree + Agree	76.9	67.0	96.9	80.3
			Mean Score	0.71	0.44	1.08	
		Upper Primary	Strongly Agree + Agree	85.9	76.8	92.6	85.1
			Mean Score	1.00	0.73	1.07	
		Secondary	Strongly Agree + Agree	84.1	83.7	81.3	83.0
			Mean Score	0.92	0.80	0.85	

Traditional approach (Performance orientation)

These items are not so much about the 'traditional' practices in the classroom, as the views that underlie and drive such practices:

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
3	**Covering the syllabus is the most important part of a teacher's role**	Primary	Strongly Agree + Agree	87.2	98.9	92.2	92.7
			Mean Score	1.18	1.67	1.16	
		Upper Primary	Strongly Agree + Agree	88.5	90.5	88.1	89.0
			Mean Score	1.17	1.41	1.16	
		Secondary	Strongly Agree + Agree	85.9	98.9	86.3	90.4
			Mean Score	1.02	1.67	1.23	

S.No.	Statements	Type of School	Mean Score	Uttar Pradesh	Bihar	Madhya Pradesh	Average (%)
8	**Students learn best through memorisation**	Primary	Strongly Agree + Agree	38.5	59.1	45.3	47.6
			Mean Score	-0.19	0.28	-0.09	
		Upper Primary	Strongly Agree + Agree	43.6	34.7	33.8	37.4
			Mean Score	-0.10	-0.37	-0.35	
		Secondary	Strongly Agree + Agree	44.4	34.1	36.7	38.4
			Mean Score	-0.10	-0.33	-0.32	
4	**Dictation of information to students is an effective teaching strategy**	Primary	Strongly Agree + Agree	93.5	97.7	96.9	96.0
			Mean Score	1.25	1.52	1.22	
		Upper Primary	Strongly Agree + Agree	88.5	96.8	97.1	94.1
			Mean Score	1.10	1.46	1.38	
		Secondary	Strongly Agree + Agree	89.1	95.3	92.3	92.2
			Mean Score	1.06	1.43	1.23	
16	**The textbook is the only resource needed to teach students about the subject**	Primary	Strongly Agree + Agree	28.2	36.4	29.7	31.4
			Mean Score	-0.56	-0.28	-0.41	
		Upper Primary	Strongly Agree + Agree	26.9	20.4	33.8	27.1
			Mean Score	-0.59	-0.65	-0.38	
		Secondary	Strongly Agree + Agree	21.9	24.1	21.3	22.4
			Mean Score	-0.61	-0.61	-0.73	

Table A-5.4 Percentage of Teacher's Activities in classroom

S.No.	Statements	Type of School		Uttar Pradesh (%)		Bihar (%)		Madhya Pradesh (%)		Average (%)
				N	%	N	%	N	%	
2	**Give practical work so students engage in hands-on activities.**	Primary	Always	44	57.1	61	70.1	33	51.6	59.6
			Sometimes	30	39.0	22	25.3	25	39.1	34.4
			Rarely	3	3.9	4	4.6	3	4.7	4.4
			Never	0	.0	0	.0	3	4.7	1.6
		Upper Primary	Always	48	61.5	56	58.9	37	55.2	58.6
			Sometimes	29	37.2	38	40.0	27	40.3	39.2
			Never	1	1.3	1	1.1	3	4.5	2.3
		Secondary	Always	31	48.4	58	66.7	49	62.0	59.0
			Sometimes	23	35.9	23	26.4	25	31.6	31.3
			Rarely	6	9.4	4	4.6	1	1.3	5.1
			Never	4	6.3	2	2.3	4	5.1	4.5
3	**Use pair work (where all students work in pairs of 2) where students work together to solve problems or discuss the subject.**	Primary	Always	40	52.6	36	41.4	38	59.4	51.1
			Sometimes	30	39.5	42	48.3	22	34.4	40.7
			Rarely	6	7.9	9	10.3	3	4.7	7.6
			Never	0	.0	0	.0	1	1.6	.5
		Upper Primary	Always	36	46.2	48	50.5	44	64.7	53.8
			Sometimes	32	41.0	44	46.3	19	27.9	38.4
			Rarely	9	11.5	3	3.2	4	5.9	6.9
			Never	1	1.3	0	.0	1	1.5	.9
		Secondary	Always	27	42.2	48	55.8	45	57.7	51.9
			Sometimes	31	48.4	34	39.5	29	37.2	41.7
			Rarely	5	7.8	3	3.5	2	2.6	4.6
			Never	1	1.6	1	1.2	2	2.6	1.8
4	**Use activities to promote the active participation of all students.**	Primary	Always	55	71.4	75	86.2	51	81.0	79.5
			Sometimes	20	26.0	10	11.5	10	15.9	17.8
			Rarely	2	2.6	2	2.3	1	1.6	2.2
			Never	0	.0	0	.0	1	1.6	.5
		Upper Primary	Always	64	82.1	85	89.5	59	86.8	86.1
			Sometimes	10	12.8	9	9.5	9	13.2	11.8
			Rarely	4	5.1	1	1.1	0	.0	2.1
		Secondary	Always	50	78.1	72	82.8	61	77.2	79.4
			Sometimes	13	20.3	14	16.1	17	21.5	19.3
			Rarely	1	1.6	1	1.1	1	1.3	1.3

S.No.	Statements	Type of School		Uttar Pradesh (%)		Bihar (%)		Madhya Pradesh (%)		Average (%)
				N	%	N	%	N	%	
7	**Provide opportunities for students to talk about what they are learning in small groups through group work (working in groups of 4 or more.**	Primary	Always	29	37.7	48	55.8	42	65.6	53.0
			Sometimes	44	57.1	32	37.2	19	29.7	41.3
			Rarely	4	5.2	6	7.0	1	1.6	4.6
			Never	0	.0	0	.0	2	3.1	1.0
		Upper Primary	Always	35	44.9	48	51.1	35	52.2	49.4
			Sometimes	37	47.4	43	45.7	25	37.3	43.5
			Rarely	4	5.1	2	2.1	6	9.0	5.4
			Never	2	2.6	1	1.1	1	1.5	1.7
		Secondary	Always	23	35.9	42	48.3	32	41.0	41.7
			Sometimes	37	57.8	36	41.4	35	44.9	48.0
			Rarely	4	6.3	5	5.7	10	12.8	8.3
			Never	0	.0	4	4.6	1	1.3	2.0
10	**use stories and role play to make my lesson interesting**	Primary	Always	48	61.5	52	59.8	42	65.6	62.3
			Sometimes	24	30.8	32	36.8	20	31.3	32.9
			Rarely	6	7.7	2	2.3	1	1.6	3.9
			Never	0	.0	1	1.1	1	1.6	.9
		Upper Primary	Always	45	57.7	63	66.3	37	55.2	59.7
			Sometimes	27	34.6	32	33.7	24	35.8	34.7
			Rarely	6	7.7	0	.0	6	9.0	5.5
		Secondary	Always	32	50.0	45	52.9	43	54.4	52.5
			Sometimes	25	39.1	31	36.5	31	39.2	38.3
			Rarely	5	7.8	7	8.2	4	5.1	7.0
			Never	2	3.1	2	2.4	1	1.3	2.2
1	**Use dictation to teach my students the subject matter and they are required to write this in their notebooks.**	Primary	Always	48	61.5	72	82.8	39	60.9	68.4
			Sometimes	27	34.6	15	17.2	20	31.3	27.7
			Rarely	2	2.6	0	.0	5	7.8	3.5
			Never	1	1.3	0	.0	0	.0	.0
		Upper Primary	Always	41	52.6	71	74.7	38	55.9	61.1
			Sometimes	35	44.9	19	20.0	28	41.2	35.3
			Rarely	2	2.6	5	5.3	2	2.9	3.6
		Secondary	Always	32	50.0	50	57.5	39	50.0	52.5
			Sometimes	27	42.2	29	33.3	31	39.7	38.4
			Rarely	3	4.7	5	5.7	6	7.7	6.0
			Never	2	3.1	3	3.4	2	2.6	3.0

S.No.	Statements	Type of School		Uttar Pradesh (%)		Bihar (%)		Madhya Pradesh (%)		Average (%)
				N	%	N	%	N	%	
5	**Require students to copy down information I write on the blackboard.**	Primary	Always	61	78.2	76	87.4	51	79.7	81.7
			Sometimes	15	19.2	10	11.5	10	15.6	15.5
			Rarely	2	2.6	1	1.1	3	4.7	2.8
		Upper Primary	Always	53	67.9	81	85.3	59	86.8	80.0
			Sometimes	21	26.9	12	12.6	8	11.8	17.1
			Rarely	3	3.8	2	2.1	1	1.5	2.5
			Never	1	1.3	0	.0	0	.0	.0
		Secondary	Always	50	78.1	73	83.9	61	77.2	79.7
			Sometimes	12	18.8	12	13.8	17	21.5	18.0
			Rarely	1	1.6	2	2.3	1	1.3	1.7
			Never	1	1.6	0	.0	0	.0	.5
6	**Use the textbook and students are required to read a particular lesson.**	Primary	Always	61	78.2	75	86.2	50	78.1	80.8
			Sometimes	9	11.5	11	12.6	14	21.9	15.4
			Rarely	8	10.3	1	1.1		.0	3.8
		Upper Primary	Always	56	71.8	75	79.8	51	76.1	75.9
			Sometimes	16	20.5	16	17.0	15	22.4	20.0
			Rarely	4	5.1	3	3.2	1	1.5	3.3
			Never	2	2.6	0	.0	0	.0	.9
		Secondary	Always	34	54.0	52	60.5	39	49.4	54.6
			Sometimes	23	36.5	24	27.9	21	26.6	30.3
			Rarely	5	7.9	9	10.5	14	17.7	12.0
			Never	1	1.6	1	1.2	5	6.3	3.0
11	**Ask students to memorise information about the subject.**	Primary	Always	56	71.8	68	78.2	36	56.3	68.7
			Sometimes	17	21.8	14	16.1	22	34.4	24.1
			Rarely	5	6.4	4	4.6	4	6.3	5.8
			Never	0	.0	1	1.1	2	3.1	1.4
		Upper Primary	Always	61	78.2	71	74.7	55	82.1	78.3
			Sometimes	12	15.4	12	12.6	8	11.9	13.3
			Rarely	5	6.4	9	9.5	3	4.5	6.8
			Never	0	.0	3	3.2	1	1.5	1.6
		Secondary	Always	43	67.2	56	65.1	52	65.8	66.0
			Sometimes	19	29.7	19	22.1	18	22.8	24.9
			Rarely	2	3.1	4	4.7	7	8.9	5.5
			Never	0	.0	7	8.1	2	2.5	3.6

S.No.	Statements	Type of School		Uttar Pradesh (%)		Bihar (%)		Madhya Pradesh (%)		Average (%)
				N	%	N	%	N	%	
8	**observe students and makes notes about their performance,**	Primary	Always	54	69.2	56	64.4	50	78.1	70.6
			Sometimes	21	26.9	24	27.6	12	18.8	24.4
			Rarely	3	3.8	6	6.9	2	3.1	4.6
			Never	0	.0	1	1.1	0	.0	.0
		Upper Primary	Always	58	74.4	73	76.8	58	86.6	79.3
			Sometimes	18	23.1	20	21.1	8	11.9	18.7
			Rarely	2	2.6	2	2.1	1	1.5	2.1
		Secondary	Always	52	81.3	69	80.2	62	78.5	80.0
			Sometimes	12	18.8	17	19.8	15	19.0	19.2
			Rarely	0	.0	0	.0	2	2.5	.8
9	**Use materials from the local environment to assist students in learning the subject matter.**	Primary	Always	49	63.6	66	75.9	51	79.7	73.1
			Sometimes	20	26.0	17	19.5	8	12.5	19.3
			Rarely	5	6.5	3	3.4	5	7.8	5.9
			Never	3	3.9	1	1.1	0	.0	1.7
		Upper Primary	Always	53	67.9	65	68.4	48	71.6	69.3
			Sometimes	20	25.6	24	25.3	17	25.4	25.4
			Rarely	4	5.1	6	6.3	2	3.0	4.8
			Never	1	1.3	0	.0	0	.0	.0
		Secondary	Always	42	65.6	49	57.0	63	79.7	67.4
			Sometimes	20	31.3	32	37.2	15	19.0	29.1
			Rarely	2	3.1	2	2.3	1	1.3	2.2
			Never	0	.0	3	3.5	0	.0	1.2

Table A-5.5 Reason for not attending in-service training over12 months by teachers

Type of Schools	Statements	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	I am a new Appointee	19.4	16.2	21.9	19
	In-service training was not offered	75.0	81.1	78.1	78
	In -service training was offered, but I was not released from Training to attend	5.6	2.7	.0	3
Upper Primary	I am a new Appointee	27.1	16.4	23.1	22
	In-service training was not offered	68.8	80.0	71.8	74
	In -service training was offered, but I was not released from Training to attend	2.1	.0	2.6	2
	In service training was offered, but out too to attend	2.1	3.6	2.6	3
Secondary	I am a new Appointee	8.6	36.1	18.2	21
	In-service training was not offered	85.7	63.9	79.5	76
	In service training was offered, but I was not released from Training to attend	2.9	.0	2.3	2
	In service training was offered, but out too to attend	2.9	.0	.0	1

Table A-5.6 Opinion of teachers on usefulness of past in-service training programme

Type of Schools	Statements	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	Somewhat helpful	9.8	4.5	17.2	10.5
	Helpful	58.5	50.0	58.6	55.7
	very helpful	31.7	45.5	24.1	33.8
Upper Primary	Unhelpful	3.4	2.4	.0	1.9
	Somewhat helpful	20.7	2.4	40.0	21.0
	Helpful	55.2	33.3	28.0	38.8
	very helpful	20.7	61.9	32.0	38.2
Secondary	Unhelpful	3.4	.0	.0	1.1
	Somewhat helpful	10.3	4.3	8.8	7.8
	Helpful	65.5	43.5	41.2	50.1
	very helpful	20.7	52.2	50.0	41.0

Table A-5.7 No. of days teachers attended training programme

Type of Schools	Days	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
Primary	1-2 days	9.8	7.1	19.2	12.0
	3-4 days	48.8	4.8	.0	17.8
	5-6 days	9.8	2.4	.0	4.0
	6-7 days	7.3	14.3	.0	7.2
	7-8 days	.0	.0	46.2	15.4
	More than 10 days	24.4	71.4	34.6	43.5
Upper Primary	1-2 days	3.4	2.5	4.3	3.4
	3-4 days	34.5	12.5	39.1	28.7
	5-6 days	31.0	5.0	4.3	13.5
	6-7 days	3.4	.0	4.3	2.6
	7-8 days	3.4	15.0	30.4	16.3
	More than 10 days	24.1	65.0	17.4	35.5
Secondary	1-2 days	10.7	4.3	20.0	11.7
	3-4 days	21.4	4.3	11.4	12.4
	5-6 days	42.9	47.8	40.0	43.6
	6-7 days	3.6	8.7	5.7	6.0
	7-8 days	10.7	4.3	8.6	7.9
	More than 10 days	10.7	30.4	14.3	18.5

Table A-5.8 Teachers and frequency of activities

Q.No.	Statements	Type of School	Frequency	Uttar Pradesh		Bihar		Madhya Pradesh	
				N	%	N	%	N	%
1	Does the HT visit your classrooms when you are teaching in class?	Primary	Always	36	48.0	45	51.7	30	46.9
			Sometimes	35	46.7	37	42.5	32	50.0
			Rarely	1	1.3	3	3.4		.0
			Never	3	4.0	2	2.3	2	3.1
		Upper Primary	Always	40	52.6	42	44.7	27	41.5
			Sometimes	28	36.8	46	48.9	32	49.2
			Rarely	5	6.6	3	3.2	5	7.7
			Never	3	3.9	3	3.2	1	1.5
		Secondary	Always	19	30.6	34	39.1	27	34.6
			Sometimes	39	62.9	49	56.3	45	57.7
			Rarely	3	4.8	1	1.1	6	7.7
			Never	1	1.6	3	3.4		.0

Q.No.	Statements	Type of School	Frequency	Uttar Pradesh		Bihar		Madhya Pradesh	
				N	%	N	%	N	%
2	Does the HT provide you with verbal feedback?	Primary	Always	34	46.6	42	48.3	23	36.5
			Sometimes	31	42.5	40	46.0	31	49.2
			Rarely	5	6.8	2	2.3	5	7.9
			Never	3	4.1	3	3.4	4	6.3
		Upper Primary	Always	27	35.5	43	45.7	27	41.5
			Sometimes	37	48.7	46	48.9	27	41.5
			Rarely	8	10.5	3	3.2	9	13.8
			Never	4	5.3	2	2.1	2	3.1
		Secondary	Always	17	27.4	31	35.6	19	24.4
			Sometimes	28	45.2	45	51.7	48	61.5
			Rarely	11	17.7	7	8.0	7	9.0
			Never	6	9.7	4	4.6	4	5.1
3	Does the HT provide you with written feedback?	Primary	Always	15	20.8	26	29.9	13	21.3
			Sometimes	19	26.4	30	34.5	25	41.0
			Rarely	11	15.3	14	16.1	15	24.6
			Never	27	37.5	17	19.5	8	13.1
		Upper Primary	Always	8	10.5	22	23.7	16	25.0
			Sometimes	23	30.3	39	41.9	16	25.0
			Rarely	16	21.1	17	18.3	15	23.4
			Never	29	38.2	15	16.1	17	26.6
		Secondary	Always	7	11.7	16	18.8	8	10.5
			Sometimes	16	26.7	34	40.0	22	28.9
			Rarely	13	21.7	10	11.8	25	32.9
			Never	24	40.0	25	29.4	21	27.6
8	Do you access the TLM in your school?	Primary	Always	55	70.5	68	78.2	50	79.4
			Sometimes	15	19.2	16	18.4	10	15.9
			Rarely	6	7.7	2	2.3	1	1.6
			Never	2	2.6	1	1.1	2	3.2
		Upper Primary	Always	56	73.7	85	90.4	45	68.2
			Sometimes	15	19.7	9	9.6	14	21.2
			Rarely	5	6.6		.0	2	3.0
			Never	0	.0		.0	5	7.6
		Secondary	Always	31	49.2	52	60.5	53	67.9
			Sometimes	20	31.7	20	23.3	16	20.5
			Rarely	7	11.1	3	3.5	5	6.4
			Never	5	7.9	11	12.8	4	5.1

Q.No.	Statements	Type of School	Frequency	Uttar Pradesh		Bihar		Madhya Pradesh	
				N	%	N	%	N	%
12	Does the HT require you to incorporate CCE into your teaching practice?	Primary	Always	53	68.8	71	82.6	56	87.5
			Sometimes	11	14.3	10	11.6	6	9.4
			Rarely	6	7.8	5	5.8	2	3.1
			Never	7	9.1		.0		.0
		Upper Primary	Always	62	81.6	87	92.6	59	90.8
			Sometimes	11	14.5	6	6.4	5	7.7
			Rarely	3	3.9	1	1.1	1	1.5
		Secondary	Always	42	67.7	70	81.4	68	87.2
			Sometimes	15	24.2	15	17.4	9	11.5
			Rarely	4	6.5	1	1.2	1	1.3
			Never	1	1.6		.0		.0
13	Does the HT check to see if teachers in your school are completing the syllabus?	Primary	Always	63	81.8	57	65.5	55	85.9
			Sometimes	11	14.3	26	29.9	8	12.5
			Rarely	2	2.6	2	2.3		.0
			Never	1	1.3	2	2.3	1	1.6
		Upper Primary	Always	61	80.3	81	86.2	57	86.4
			Sometimes	10	13.2	10	10.6	7	10.6
			Rarely	4	5.3	2	2.1	1	1.5
			Never	1	1.3	1	1.1	1	1.5
		Secondary	Always	48	76.2	69	79.3	71	91.0
			Sometimes	15	23.8	16	18.4	5	6.4
			Rarely	0	.0	1	1.1	2	2.6
			Never	0	.0	1	1.1		.0
4	Do you have regular staff meetings?	Primary	Always	35	46.1	50	57.5	35	54.7
			Sometimes	29	38.2	26	29.9	24	37.5
			Rarely	7	9.2	5	5.7	3	4.7
			Never	5	6.6	6	6.9	2	3.1
		Upper Primary	Always	37	49.3	60	63.8	36	55.4
			Sometimes	30	40.0	32	34.0	26	40.0
			Rarely	4	5.3	1	1.1	1	1.5
			Never	4	5.3	1	1.1	2	3.1
		Secondary	Always	26	41.3	45	51.7	50	65.8
			Sometimes	26	41.3	37	42.5	23	30.3
			Rarely	8	12.7	4	4.6	2	2.6
			Never	3	4.8	1	1.1	1	1.3

Q.No.	Statements	Type of School	Frequency	Uttar Pradesh		Bihar		Madhya Pradesh	
				N	%	N	%	N	%
5	Do you have subject-specific staff meetings?	Primary	Always	11	14.5	37	43.0	19	31.1
			Sometimes	39	51.3	26	30.2	24	39.3
			Rarely	14	18.4	7	8.1	3	4.9
			Never	12	15.8	16	18.6	15	24.6
		Upper Primary	Always	17	22.4	36	38.3	16	24.2
			Sometimes	39	51.3	46	48.9	33	50.0
			Rarely	6	7.9	6	6.4	7	10.6
			Never	14	18.4	6	6.4	10	15.2
		Secondary	Always	14	22.6	29	34.1	24	30.8
			Sometimes	28	45.2	37	43.5	35	44.9
			Rarely	7	11.3	6	7.1	11	14.1
			Never	13	21.0	13	15.3	8	10.3
6	Do your school have regular PTA (Parent Teacher Association) meetings?	Primary	Always	36	46.8	56	64.4	43	69.4
			Sometimes	31	40.3	22	25.3	14	22.6
			Rarely	8	10.4	6	6.9	3	4.8
			Never	2	2.6	3	3.4	2	3.2
		Upper Primary	Always	30	39.5	55	58.5	44	66.7
			Sometimes	32	42.1	30	31.9	14	21.2
			Rarely	6	7.9	7	7.4	4	6.1
			Never	8	10.5	2	2.1	4	6.1
		Secondary	Always	23	37.1	23	27.4	36	48.6
			Sometimes	30	48.4	42	50.0	25	33.8
			Rarely	3	4.8	14	16.7	7	9.5
			Never	6	9.7	5	6.0	6	8.1
9	Does the HT schedule periodic medical checks for the students?	Primary	Always	29	37.7	24	27.9	23	37.1
			Sometimes	31	40.3	32	37.2	28	45.2
			Rarely	10	13.0	17	19.8	6	9.7
			Never	7	9.1	13	15.1	5	8.1
		Upper Primary	Always	30	39.5	31	33.0	27	40.9
			Sometimes	32	42.1	46	48.9	27	40.9
			Rarely	10	13.2	11	11.7	7	10.6
			Never	4	5.3	6	6.4	5	7.6
		Secondary	Always	17	27.4	14	16.1	30	38.5
			Sometimes	25	40.3	43	49.4	28	35.9
			Rarely	9	14.5	9	10.3	15	19.2
			Never	11	17.7	21	24.1	5	6.4

Q.No.	Statements	Type of School	Frequency	Uttar Pradesh		Bihar		Madhya Pradesh	
				N	%	N	%	N	%
10	Are there school records (e.g. student performance records, enrolment, student retention, PTA records, and SMC records) available in your school?	Primary	Always	57	79.2	63	72.4	51	82.3
			Sometimes	4	5.6	10	11.5	7	11.3
			Rarely	8	11.1	11	12.6	2	3.2
			Never	3	4.2	3	3.4	2	3.2
		Upper Primary	Always	61	81.3	73	77.7	57	87.7
			Sometimes	5	6.7	14	14.9	4	6.2
			Rarely	8	10.7	5	5.3	4	6.2
			Never	1	1.3	2	2.1		.0
		Secondary	Always	49	80.3	78	91.8	69	89.6
			Sometimes	10	16.4	5	5.9	7	9.1
			Rarely	1	1.6	1	1.2	1	1.3
			Never	1	1.6	1	1.2		.0
11	Does the HT interact with students in your school?	Primary	Always	64	83.1	78	89.7	57	89.1
			Sometimes	11	14.3	9	10.3	6	9.4
			Rarely	2	2.6		.0	1	1.6
		Upper Primary	Always	60	78.9	81	86.2	62	93.9
			Sometimes	15	19.7	13	13.8	3	4.5
			Rarely	1	1.3		.0	1	1.5
		Secondary	Always	45	72.6	73	83.9	66	84.6
			Sometimes	14	22.6	13	14.9	12	15.4
			Rarely	3	4.8	1	1.1		.0
7	Do you celebrate local and national days (e.g. 15 August, 26 January) in the presence of local communities?	Primary	Always	70	89.7	77	89.5	60	95.2
			Sometimes	6	7.7	8	9.3	3	4.8
			Rarely	0	.0		.0		.0
			Never	2	2.6	1	1.2		.0
		Upper Primary	Always	74	97.4	93	98.9	64	97.0
			Sometimes	2	2.6	1	1.1	2	3.0
			Rarely	0	.0		.0		.0
			Never	0	.0		.0		.0
		Secondary	Always	57	91.9	85	97.7	77	98.7
			Sometimes	4	6.5	1	1.1	1	1.3
			Rarely	1	1.6		.0		.0
			Never	0	.0	1	1.1		.0

Table A-5.9 State wise % time devoted on "Organisation"

S.No.	Statement	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
A	Organizing for Individual work	4.4	7.6	9.1	7.0
B	Organizing for whole class	88.8	85.8	84.2	86.3
C	Organizing for pair work	2.1	1.1	1.1	1.4
D	Organizing for group work	2.9	.7	1.4	1.7

Table A-5.10 Class and state wise % of time on "Organisation"

S.No.	Statement	Uttar Pradesh (%)			Bihar (%)			Madhya Pradesh (%)	
		5th	7th	10th	5th	7th	10th	5th	7th
A	Organizing for Individual work	5.4	3.6	3.9	8.0	8.0	6.6	9.1	10.1
B	Organizing for whole class	89.1	89.5	87.7	87.2	81.9	88.7	84.6	78.1
C	Organizing for pair work	2.2	1.5	2.6	2.4	.0	.5	2.4	.9
D	Organizing for group work	2.4	3.0	3.5	1.3	.7	.0	.0	3.5

Table A-5.11 Subject wise % time devoted on "Organisation"

S.No.	Statement	Uttar Pradesh (%)				Bihar (%)			
		English	Mathematics	Science	Hindi	English	Mathematics	Science	Hindi
A	Organizing for Individual work	3.1	5.4	2.8	6.2	6.5	8.4	8.3	6.4
B	Organizing for whole class	92.9	85.4	87.8	88.6	91.1	81.1	83.1	90.4
C	Organizing for pair work	.9	4.1	2.2	1.4	1.5	.7	.0	2.1
D	Organizing for group work	2.2	3.4	4.4	1.8	.0	.0	1.5	.0

Table A-5.12 "Teacher Talk"

S.No.	Statement	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
E	Silent	5.5	8.3	7.5	7.1
F	Giving Instructions	48.8	42.1	41.5	44.1
G	Reading from textbook	23.0	25.8	19.2	22.7
H	Dictating for students	4.5	5.0	4.3	4.6
I	Asking closed questions	4.6	5.9	8.6	6.4
J	Asking open ended questions	4.6	3.1	6.5	4.8
K	Asking students to repeat what he or she says	4.3	2.7	5.8	4.3
L	Closed response to students' answer	.9	2.4	1.6	1.7
M	Praising students	2.1	2.1	1.3	1.8
N	Reprimanding students	1.1	1.4	.9	1.1

Table A-5.13 Class wise teachers talk

S.No.	Statement	Uttar Pradesh (%)			Bihar (%)			Madhya Pradesh (%)	
		5th	7th	10th	5th	7th	10th	5th	7th
E	Silent	6.6	6.4	3.1	8.9	7.5	8.6	7.1	8.6
F	Giving Instructions	47.7	47.2	51.9	43.7	40.2	42.5	40.4	35.4
G	Reading from textbook	21.8	22.4	25.2	24.6	26.8	26.0	23.1	20.4
H	Dictating for students	4.6	5.7	3.0	5.0	5.2	4.9	3.2	5.4
I	Asking closed questions	4.2	5.2	4.2	4.4	7.0	6.0	6.4	6.8
J	Asking open ended questions	3.6	6.0	4.2	1.8	3.8	3.7	7.6	5.6
K	Asking students to repeat what he or she says	6.3	3.1	3.4	3.6	2.8	1.8	6.4	6.0
L	Closed response to students' answer	1.1	.0	1.7	2.8	1.9	2.6	1.4	2.2
M	Praising students	2.5	1.4	2.6	2.1	2.5	1.8	1.7	1.4
N	Reprimanding students	1.4	.6	1.3	2.8	.9	.0	1.0	1.2

Table A-5.14 Subject wise teacher talk

S.No.	Statement	Uttar Pradesh (%)				Bihar (%)			
		English	Mathematics	Science	Hindi	English	Mathematics	Science	Hindi
E	Silent	3.4	10.0	4.2	4.8	7.5	10.1	9.0	5.3
F	Giving Instructions	46.6	56.3	51.4	41.8	35.8	51.7	41.8	35.5
G	Reading from textbook	25.4	10.7	21.6	33.0	35.8	12.7	25.6	33.4
H	Dictating for students	6.2	4.7	2.5	4.4	4.2	4.2	5.1	7.7
I	Asking closed questions	4.0	4.6	6.3	3.5	5.4	6.5	5.5	6.0
J	Asking open ended questions	4.4	4.1	5.2	4.7	2.6	3.3	3.1	3.6
K	Asking students to repeat what he or she says	6.8	2.5	2.7	5.0	2.9	2.5	2.1	3.8
L	Closed response to students' answer	.6	1.2	1.4	.6	2.2	2.7	2.9	1.3
M	Praising students	2.5	3.1	1.7	1.4	1.0	3.0	1.8	3.0
N	Reprimanding students	.3	1.7	1.3	1.2	1.4	1.0	1.9	1.1

Table A-5.15 State wise teacher activities

S.No.	Statement	Uttar Pradesh (%)	Bihar (%)	Madhya Pradesh (%)	Average (%)
O	Reading and writing on the BBC	23.4	27.1	37.8	29.4
P	Demonstrating something	3.3	2.8	2.5	2.9
Q	Walking around the classroom	6.3	10.7	7.5	8.2
R	Observing students working	8.7	10.0	9.5	9.4
S	Participating in a group discussion	4.6	3.7	3.0	3.8
T	Talking to class	52.9	43.6	37.0	44.5

Table A-5.16 Class wise teacher activities

S.No.	Statement	Uttar Pradesh (%)			Bihar (%)			Madhya Pradesh (%)	
		5th	7th	10th	5th	7th	10th	5th	7th
O	Reading and writing on the BBC	24.3	24.4	21.0	26.7	24.9	29.8	36.2	32.2
P	Demonstrating something	2.6	3.3	4.0	3.2	1.9	3.5	2.3	2.9
Q	Walking around the classroom	6.0	7.7	5.2	11.1	10.5	10.5	5.6	9.1
R	Observing students working	9.0	6.7	10.5	11.7	9.7	8.6	9.6	9.2
S	Participating in a group discussion	3.7	2.8	7.7	4.8	3.0	3.5	3.7	3.8
T	Talking to class	53.2	53.4	51.9	41.6	47.1	41.9	40.5	36.7

Table A-5.17 Subject wise teacher activities

S.No.	Statement	Uttar Pradesh (%)				Bihar (%)			
		English	Mathematics	Science	Hindi	English	Mathematics	Science	Hindi
O	Reading and writing on the BBC	21.9	32.7	24.7	15.3	22.2	38.9	23.7	19.8
P	Demonstrating something	1.2	4.4	5.9	1.8	1.1	2.8	4.6	2.6
Q	Walking around the classroom	4.4	10.5	3.6	7.3	10.3	12.7	8.6	11.5
R	Observing students working	7.9	10.0	7.3	9.5	8.8	11.0	9.0	11.7
S	Participating in a group discussion	5.0	3.7	4.8	4.7	4.2	3.1	3.6	4.5
T	Talking to class	59.6	38.0	50.9	61.2	49.9	29.8	48.7	49.4

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