

# Voices of Teachers and Teacher Educators



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# **Voices of Teachers and Teacher Educators**

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# About the Journal

The journal 'Voices of Teachers and Teacher Educators', an initiative of the Ministry of Education (MoE), which is co-ordinated by the NCERT. The Journal highlights the vital role of teacher education in India, as the country is poised to provide quality education to all its children, irrespective of gender, caste, creed, religion and geography. The National Curriculum Framework (NCF)-2005, the National Curriculum Framework for Teacher Education (NCFTE)-2009 and the Right of Children to Free and Compulsory Education Act (RTE)-2009 all reflect this commitment and underline the principles that make such an effort necessary and also spell out the strategies for it. The challenge is to augment the role of teachers in shaping the social transformation that India is witnessing, have a long lasting impact on the quality of education, and making education equitable. Teachers and all those concerned with education need to recognize that their ownership and voices are important and that they can and do learn not only from their own experiences but also from each other through collective reflection and analysis. The Journal attempts to lend voice to teachers, teacher educators, researchers, administrators and policy makers in varied institutions such as schools, Cluster Resource Centres (CRCs), Block Resource Centres (BRCs), District Institutes of Education and Training (DIETs), Institutes of Advanced Studies in Education (IASEs), Colleges of Teacher Education (CTEs), State Councils of Educational Research and Training (SCERTs), etc., and make their engagement visible in accomplishing extraordinarily complex and diverse tasks that they are expected to perform. Now, we are also adding in our scope the discussion and initiatives with regard to National Education Policy, 2020 for wider dissemination and implementation. Contributions to the Journal are welcome both in English and Hindi. Voices is an e-Journal and we hope to circulate it widely. We also look forward to suggestions and comments on the articles published. The views expressed and the information given are that of the authors and may not reflect the views of the NCERT.

## Call for Contributions

This biannual publication is for all of us: teachers, teacher educators, administrators, researchers and policy makers. It seeks to provide a platform and build a network for our voices, ideas and reflections. To enable this journal to reflect all voices, we must contribute to it in as many ways as we can. We look forward to many contributing with different experiences, questions, suggestions, perspectives as well as critical comments on different aspects of teacher education and schooling. The contributions could be in the form of articles, reports, documents, pictures, cartoons or any other forms of presentation amenable for print. We also seek comments and reflections on the current issue to improve publication and make it a participative endeavour. We must together make this journal truly reflective of our voices. We look forward to receive your contributions for the next issue by 20<sup>th</sup> March, 2021. We also look forward to your comments and suggestions. The contributions can be sent to the following:

**E-mail:** [voicesofeducators2016@gmail.com](mailto:voicesofeducators2016@gmail.com)

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# Contents

1. Enrolled, yet Absent: Children with Disabilities <i>Jayita Mehdi</i>	1-5
2. इतिहास में पुरातत्व का महत्व और उपयोग <i>सीमा ओझा</i>	6-14
3. Exploring English Language Proficiency of High School ESL Learners <i>Dr. Kabita Kumari and Dr. V. Sudhakar</i>	15-21
4. The Relationship of Grammatical Knowledge and Sentence Structure Knowledge with Cloze Test Based Reading Comprehension <i>Nitinkumar Dhadhodara and Bharat Joshi</i>	22-28
5. Teaching Gender Through Films on Sportswomen: Contrary Messages <i>Ankita Chakravarty</i>	29-35
6. Indian Trainee Teachers' Perceptions of 21 <sup>st</sup> Century Skills <i>Arnab Kundu, Dr. Tripti Bej and Dr. Kedar Nath Dey</i>	36-49
7. Implementation of Vocational Education in the State of Haryana: Some Insights from the Field Visit <i>Dr. K V Sridevi</i>	50-57
8. Pedagogical Practices in D.El.Ed. Programme of DIETs of Odisha: An Exploration <i>Dr. Dhanya Krishnan and Mr. Bijay Kumar Mallick</i>	58-71
9. Improving Practice Teaching in Primary Schools for School Internship Programme <i>Sumbul Khalil</i>	72-84
10. Perceptions of Teachers Toward Nature of Science (NOS) and Attitude toward Teaching Nature of Science (NOS) <i>Nitu Kaur, Margaret Lalhmingliani and R.P. Vadhera</i>	85-98
11. Understanding MOOCs (Massive Open Online Courses) and its Pedagogy to Use it as a Potential Solution for Learning <i>Dr. Neeru Rathee and Karuna Bhardwaj</i>	99-104
12. Guide to Blended Learning, by Marta Cleveland – Innes with Dan Wilton, Common Wealth of Learning (COL): Canada, 2018. 80 pages ISBN 978-1-894975-94-0 <i>Dr. K V Sridevi</i>	105-106
13. Can Education Change Society? by Michael W. Apple. Routledge: New York, 2012, pp. 190 <i>Poonam Sharma</i>	107-108
14. Garima—An Incentive Based School Assessment System in Odisha: The Case of Koraput District <i>Dr. Latika Kumari Mishra</i>	109-118
15. Cultural Competence of Secondary School Teachers in Relation to their Self Esteem <i>Dr. Richa Singh and Dr. Seema Singh</i>	119-124

16. Vocational Education in Schools: A Tool to Overcome the Drop-Out Rate in Public Funded Institutions <i>Dr. Viqar Unnisa</i>	125-134
17. A Correlational Study of Home Environment and Adjustment with Reference to Adolescence Students <i>Amitesh Kumar Singh and Namrata Singh</i>	135-139
18. Status of Teachers Working in KGBV in Selected Districts of Madhya Pradesh: An Explorative Study <i>Dr. Neeti Dutta</i>	140-155
19. Pre-Service Teacher Education in India: Some Apposite Issues <i>Dr. Dhananjay Joshi, Dr. Sonal Chabra and Dr. Indrajeet Dutta</i>	156-165
20. Factors Affecting Females' Occupational Aspirations: A Synthesis of the Literature <i>Dr. Andleeb</i>	166-173
21. Teachers Perception towards Problem of Learning Social Studies among Students at Upper Primary Schools nearby Slum area in Maharashtra <i>Dr. Premananda Sethy and Dr. Sambhu Sankar Deep</i>	174-188

# Editorial

We bring you this issue of VOICES of Teachers and Teacher Educators with 21 articles. With the increase in number of articles the task of keeping track of the mails coming in and responding to them quickly has become difficult. With our desire to support the authors the steps in the review of the article and the process of its selection sometime require many communications between the VTTE team, the reviewers and the author. This may lead to an occasional delay in giving the responses as well as in finalization of the issue. The pandemic has also resulted in difficulty for the editorial committee as they are not able to meet face to face in working meetings. We have however, slowly been able to set up systems so that we can do the necessary at our end.

We however, need help from the prospective authors as well. They must ensure that the paper that they submit has less than 4-5% similarity index on Urkund. In no case should it have more than 5% similarity index. There are on line mechanisms to check for the similarity index for those who are citing other people's work or their own work as well. Taking material from any published work including your own is not expected in a research journal. We must keep the amount of material we have cited as it is also small. Whatever we want to refer to should be our interpretation of what is said in the paper and in our words. You would give credit for the work that you refer to but not by using the text from the work as it is. If these steps are kept in mind some of the back and forth can reduce. We would also urge you to if possible, do the Urkund test and attach the report so that the process of review is quicker. It would also help the authors to understand what causes the high similarity index and thereby reduce it in their next papers.

We have been receiving a lot of contributions for publication and are thankful to the contributors and also to the reviewers for the effort they put in to review and offer suggestions for improvement. We are happy about the number of contributions that we have started receiving and will use the contributions received till now over the next one or two issues. Because of the large number of aspiring contributions the time for processing has become a bit long. We are trying to overcome that slowly.

Voices of Teachers and Teacher Educators was initiated as an effort to find space for well thought of experience based articulations of the teachers and educators community based on their work and learning. The name Voices was meant to reflect that. The last few issues however, have been general without any specific theme and we want to slowly make the following issues theme based. We have started getting a lot of general papers but publishing such papers is not the key purpose of this publication. We would therefore not take more such research efforts in future. The papers that have come in so far, we will gradually accommodate but the subsequent submissions would be sent back with a request to send them elsewhere. We therefore, request authors to send papers not linked to suggested themes to the many journals meant for that purpose.

As we are all aware the National Education Policy 2020 has been released. It has made many important recommendations to reform and improve education. Given the focus of VOICES of Teachers and Teacher Educators on school education and the education of the teachers we want to bring out three issues next year on the ideas in policy and steps emerging from them. We would therefore urge authors to write about the Policy suggestions and the curricular documents that have to be developed in order to put those on the ground. The policy has recommended the clubbing together of the pre-school with the first two years of primary education to make a 5 year Foundational Education period. The policy has emphasized the

use of mother tongue and the need for multilingualism in the school classrooms. There is a recommendation to integrate arts, sports, pre-vocational and many other areas as integral experiences to the school education processes. The policy has also recommended flexible secondary school program and assessment for learning instead of assessment of learning. It has also called for ensuring that students learn to learn instead of being swamped by a load of particular facts and procedures. These are some of the key features of the policy and there are many more including about adult education and the re-starting the effort to open opportunities for the adults to learn. It is both important to clarify what these would precisely mean and imply and elaborate what these would mean on the ground through experience on the grounds that is carefully analysed and reflected upon. It is also clear that many of these are not easy and would require many stage-wise steps and concentrated persistent efforts. It would also be important to clarify the opportunities and the threats in the processes. We would invite papers on these aspects with the spirit of how the intent of the recommendations can be meaningfully understood and made possible on the ground through reflective experiences and/or on ground researches from work that has already been happening at different scales in the country.

The areas that we would therefore like to spell out for these research and experience based papers are:

- Works about the Early childhood care and education- This also includes inclusion, Fundamental literacy and numeracy, multilingualism
- Work around school education around the idea of learning to learn, moving away from rote based to curiosity retention and exploration, assessment for scaffolding, celebration of learning and encouragement, integration of sports, arts, vocational trades, among the academic subjects
- Work around adult and continuation of education and learning
- Work around teacher education to prepare the teachers who would be able to interact with the students so as to give them the confidence to learn and understand, keep their desire to explore and think alive, be able to think of their way ahead in the classrooms and have a sense of purpose and agency. What would be also important would be researches and experiences around the challenges to these and how this can be made possible. Elaborating the implications of the idea of light and tight regulation of the policy through experiences and their analysis.
- Work around ideas of Teacher continuous Professional Development and its possibilities. Also the challenges and the opportunities towards this.

Elaboration and possibilities of the school complexes through reflective experiences and analysis. These are by no means exhaustive but are certainly the ones that are more immediate and of greater relevance. The contributions can also reflect the analysis of existing data around these areas and in this effort include suggestions of the way forward. These need to be backed by relevant and sufficient experience and have ideas that can be explored.

This issue of Voices of Teachers and Educators has got delayed due to the continued uncertainty arising out of COVID. The issue has 21 articles addressing different aspects of school and teacher education.

The first article by **Jayita Mehdi** Enrolled, yet Absent Children with Disabilities focussed on issues faced by children with disabilities and their families and discusses the factors affecting the attendance of such students. Whether it is in reaching the school or in communication and participation in the classroom or in the activities, these children are not given enough attention and empathy. The author suggests that people need to be more aware of the requirements of these children and teachers need to be trained in this aspect.

The second article by **Seema Ojha** examines the importance of archeology in history and gives an elementary description of history and its epistemic roots. It places History in the Secondary and Sr Secondary Curriculum and as a part of Social Sciences. It analyses some textbooks of History prescribed by different boards and compares their important characteristics and their alignment with the NCF 2005.

The third article entitled Exploring English Language Proficiency of High School ESL Learners by **Kabita Kumari** and **V. Sudhakar** is based on a purposive sample of 62 students of class IX of a school in Telangana. The proficiency tool used was the one developed by CBSE and the data was analysed with descriptive statistics. The paper shows that the verbal responses were much better than the written performance and underscores the need for a more detailed institutional study to explore proficiency.

The fourth article is by **Nitin Kumar Dhadhodara** and **Bharat Joshi**, it is an empirical study entitled 'Relationship of Grammatical Knowledge and Sentence Structure Knowledge with Cloze Test based Reading Comprehension'. The paper as the name suggests uses a cloze test of 54 students studying B.Ed. Programme. The study confirms the close relationship between these.

The fifth article by **Ankita Chakravarty** titled "Teaching Gender through Films on Sportswomen: Contrary Messages", is important as it addresses two issues that are not talked about enough. The issue of gender and the issue of use of films and that too about sports and sportspersons. The article however points out from the analysis of two films that are purportedly focused on women in sports that these films still have males as the main protagonists and the sports chiefly as masculine achievement statements and the women come in only as a supporting narrative. It suggests therefore that in using such materials the films should be chosen carefully and the points of emphasis and discussion also underlined suitably.

The sixth article Indian trainee teachers' perceptions of 21st Century skills written by **Arnab Kundu** is an empirical study on a stratified random sample of 500 trainee teachers. Using the definitions available for 21st Century skills the author developed a survey form and also conducted some detailed semi-structured interviews and in depth observations of classrooms. The paper also provides a backdrop of what has been said before about the issue and lays the context for the study. The data is analyzed using descriptive statistics.

The next article by **KV Sridevi** has the title "Implementation of Vocational Education in the State of Haryana-Some Insights from the Field Visit", is based on observations and reflections during a visit to the districts of Haryana and state head quarters.

The eighth paper "Pedagogical practices in DEL.Ed. programme of DIETs of ODISHA: An Exploration" is by **Dhanya Krishnan** and **Bijay Kumar Mallick**. It is based on a study conducted in 6 DIETs with DEL.Ed. students through interview, Focus Group Discussions and classroom processes to understand and describe the pedagogical processes being used.

The ninth paper "Improving practice teaching in primary schools for school internship programme" is by **Sumbul Khalil** looks at the conceptual ideas and suggestions about the school practice during internship and summarises the key ideas about what needs to be done that are embedded in the policy discourse.

The tenth paper by **Nita Kaur**, **Margaret Lalhmingliani** and **R.P. Vadhera** is titled "Perceptions of Teachers towards Nature of Science (NOS) and Attitude towards Teaching Nature of Science". This also is an empirical study and uses a questionnaire available in literature as a tool. The author has analysed the data of 50 respondents using descriptive statistics.

The next article by **Neeru Rathee** and **Karuna Bhardwaj** is focussed on the Massive Open Online Courses (MOOC). It has the title “Understanding MOOC's and its pedagogy” and it talks about how we can use it as a potential solution for learning. The paper describes the evolution and development of the various MOOC systems over time and compares different models.

This next article, the twelfth in this issue, is a review of the book “Guide to Blended Learning” which has been compiled by Innes with Dan Wilton and brought out by Commonwealth of Learning. The review is contributed by **K V Sridevi**, who finds the book extremely useful and says that the book offers a platform for the trainee teachers, teachers and teacher educators to design, develop and implement blended learning courses suitable in their respective contexts.

The next contribution is also a review of a book. The book is “Can Education Change Society?” by Michael W. Apple. The review has been done by **Poonam Sharma**. The reviewer highlights some important points of the book and points out that Michael Apple acknowledges that teachers have to deal with the complexities of different interest groups and upcoming neoliberal forces. They also have to contend with national and international level class and race politics. In the form of a personal narrative with episodes and moods to enter and decipher the book is a smooth yet passionate reading. The book is important for those who want to make a struggle to bring about change in the system in the disillusioning space of education.


The next article by **Latika Kumari Mishra** is a study of a Odisha Govt. initiative to improve student outcomes through assessment based encouragement and incentives. The programme is called Garima and the study on Garima was done in Koraput district. Paper discusses the implementation process of this assessment method in Koraput. The author points out the challenges in the implementation of this program but suggests that there are advantages of using this strategy as it is based in schools volunteering and making their own effort to improve.

The fifteenth paper is titled, “Cultural Competence of Secondary School Teachers in Relation to their Self-esteem” and is authored by **Richa Singh** and **Seema Singh**. The paper is an empirical study on a randomly selected secondary stage teacher of Varanasi. The study is on estimation of their Competence and Self-esteem based on available measurement tools and an interview.

The next paper is by **Viquar Unnisa** and is titled “Vocational Education in Secondary Schools – A Tool to Overcome the Drop-out Rate in Public Funded Institutions”. It presents the recent policy view on the importance of vocational education and data from a study to find out what students are doing after discontinuing studies. It relates the drop outs and what they are doing to their profile. From the views of the students and their parents, it presents its analysis on whether vocationalisation of education would reduce propensity to dropout.

The next paper titled “A Correlation Study of Home Environment and Adjustment with reference to Adolescent Students”, by **Amitesh Kumar Singh** and **Namrata Singh** is also an empirical study on a sample of randomly selected 120 students of ages ranging between 13 – 18 years from 8 schools in Raipur. The study tests hypothesis between variables of home environment and adjustments using correlations.

The eighteenth paper “Status of Teachers Working in KGBV in Selected Districts of Madhya Pradesh: An Explorative Study” by **Neeti Dutta** is based on an empirical study on a sample of 48 teachers. It presents an overview of the situation of literacy rates in India and MP. It describes the broad situation of teacher education and explores the questions around literacy rates.



The nineteenth paper by **Dhananjay Joshi, Sonal Chabra, and Indrajeet Dutta** has the title, “Pre-Service Teacher Education in India: Some Apposite Issues”. This paper tries to highlight the concerns gripping teacher education systems of India, which is one of the largest such systems in the world. The paper expresses concern about the imbalance between the numbers of public and the private institutions and lays emphasis on ensuring that teacher education institutions transform themselves into real professional institutions with rigour, academic excellence, professional preparation, autonomy and accountability.

The next paper has the title, “Factors affecting Females Occupational Aspirations: A synthesis of the literature”. Written by **Andleeb**, the paper analyses the choices available to women to take as professions. The paper is based on the previous studies on this theme analyses the choices and how they are affected by and affect motivations of women.

The last paper by **Premananda Sethy and Sambhu Sankar Deep** focusses on Social Science Studies Teaching in the slum schools of Mumbai and is titled “Teachers Perceptions towards Problems of Learning Social Studies among students at Upper Primary Schools of nearby slum areas in Maharashtra”. The paper is an empirical study on a purposive sample of 5 teachers from three schools. The paper studies the perceptions about teaching difficulties and the learning difficulties of students.

We look forward to your views on the current issue and to your contributions for the next issue. We may remind you that as we have said in the beginning the articles need to be focused on the themes indicated.

## Enrolled, yet Absent: Children with Disabilities

### Abstract

*This paper discusses about absenteeism of children from schools. It focuses primarily on the issues faced by the children with disabilities and their families. It also briefly discusses the factors affecting the school attendance of such children. The concluding section discusses the measures that can be taken to limit absenteeism of children with disabilities from school.*

### Introduction

This paper focusses on the issue of attendance and absenteeism with particular reference to children with disabilities, that emerged from the same study.

The hurdles that children with disabilities and their families face regularly is unimaginable for others, especially for those who are not well informed about the types of disabilities that people may have. Children with disabilities are disadvantaged as compared to the others in some form or the other.

As per section 2 subsection(s) of the Rights of Persons with Disabilities Act, 2016 “‘person with disability’ means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others”. This clearly means that the disabled people need additional support in order to be able to fully participate in the society along with others.

Therefore, for children with disabilities to be enrolled in, and be regular to, school requires immense courage and determination on the part of these children and their families. These children are continuously at a high risk of being sporadically or continuously absent, and if not provided

with the right environment in their school, home or community, are prone to dropping out of the schooling system altogether.

### Why Talk about Absence of Children with Disabilities from School?

One major reason why parents and guardians of children with disabilities send their children to school is because they want their child to learn the basic norms and rules that govern the society.

For instance, Rahul’s parents and sister want him to go to school so that he knows the meaning of school. This is despite the medical issues (Autism, Attention-Deficit Hyperactivity Disorder among other issues) the child has, which makes his going to school a task for not only him, but the entire family especially his mother who stays with him the entire time to monitor his health. It does not matter to his parents and sister whether he studies or not. They primarily want their child to improve his language and communication skills. They want him to be able to interact and “engage” with others. They want him to be equipped enough to be able to live a life as close to normal as possible. They want him to cultivate the habit of getting up in the morning at six, taking a bath, going to school and being



able to do regular things like going to the washroom when he feels the urge to, and coming outside the washroom after using it. They want him to have certain uniform habits like any other child. They want him to start talking to other children and asking them general questions like “What is your name?”. The father feels that if his child could go to school everyday, he would be a little more normal in his behaviour around other people and not create scenes in public like he normally does.

### **Factors Affecting Children with Disabilities**

Apart from the factors that have an impact on the attendance of every child, there are certain factors that specifically affect the attendance of children with disabilities. The inability of such children to effectively be able to communicate with others, lack of disability-related awareness among people, lack of empathy in people, scarcity or unavailability of special teachers, discrimination by teachers and other children in schools, inaccessible infrastructure, are some of these factors.

#### **Discrimination**

As per section 2 sub-section (h) of the Rights of Persons with Disabilities Act, 2016, “discrimination’ in relation to disability, means any distinction, exclusion, restriction on the basis of disability which is the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field and includes all forms of discrimination and denial of reasonable accommodation.”

Rahul’s parents and sister pointed out, during their conversation with me, that there is not much interaction between him and the teachers. The teachers are unable to make, and hold eye contact with him possibly due to some apprehensions that they may have. They do not even ask him whether he did his

homework. Surprisingly, one teacher does not even call out his roll number while taking the roll call of the class in spite of requests by the parents to treat him like a normal child. They believe some teachers lack the patience and empathy required to deal with such children.

Section 8 sub-section (c) of the Right to Education Act, 2009 mandates the appropriate Government to “ensure that the child belonging to weaker section and the child belonging to disadvantaged group are not discriminated against and prevented from pursuing and completing elementary education on any grounds.” Despite this legal mandate, Rahul’s family faced multiple challenges and hurdles in getting their child admitted to class 6 in a school of their choice because of which they had to let the child continue pursuing education in the school he was already studying in. Schools refused to even entertain the parents when they came to enquire about admissions for their child and those who did entertain them did it with no intention to actually admit him into the school.

#### **Communication Problems**

Rahul’s family also shared the case of the only dyslexic child in his school at that time who comes from *Saidulajab*, which is about six kilometres from his school. The mother of the dyslexic child told them what he goes through on a daily basis. Travelling to and from the school is a task for the child who is ill-treated very often. He cannot get on the right bus because he cannot read the bus number. He is hesitant in asking for help because he fears people will taunt him for not knowing the number of the bus he gets on to go to school everyday. He even gets beaten sometimes because he is not able to speak up at the right time. Some teachers too, hit him due to his improper uniform.

#### **Dearth of Special Teachers**

Section 24 sub-section (d) of the Right to Education Act, 2009 lays out the duty of teachers to “assess the learning ability of each

child and accordingly supplement additional instructions, if any, as required". For disabled children, only teachers specialised in dealing with their specific disabilities can effectively follow through with this duty as they have the requisite knowledge and skills to be able to create an environment suitable to these children.

Rahul's school has no special teacher for autism. He is the only autistic child in his school. At the time when I spoke to his family, the school had a special educator for the visually impaired who was not equipped to deal with autistic children. The special educator was not even aware of what autism means as was evident during a conversation this child's parents had with him. Rahul's parents and sister feel that he loses out on crucial years of his life whenever there is no special teacher who can cater to his special needs as has been the case for the past few years. His behavioural problems started because he thought he does not have to study because there was no special educator in school. After the special educators, whom the child got comfortable with, left, his desire to go to school went away. As his father said, "He will not follow the command unless he understands what he has to follow and what is the purpose of following it." and explaining this to such children is the job of a special educator.

## Conclusion

School environment should be well structured and based on discipline and order. Schools must have satisfactory levels of hygiene and sanitation and comfortable and

accessible infrastructure. Teachers should create an environment that is encouraging and learning-oriented. They must have the support of the students, parents, other staff members, Head of School and other government officials. They must have adequate workload and access to relevant teaching and learning materials. The schools' administrative leadership should be strong, responsible and accountable. Schooling should be suited to the diverse needs, interests and potential of all the children.

A positive school environment is very important for children, especially the children with disabilities. Awareness and normalisation of "abnormalities" is necessary because that will help to get rid of the stigma attached to such children and allow them to live without the fear of being laughed at, judged, mocked or harassed. The teachers should continuously assess the progress of each child and undertake necessary interventions to help each child. There must be special needs educators for children with disabilities as required, in each school.

People need to be more aware of the types of disabilities and what an appropriate behaviour in this regard would entail. Most people in the society lack awareness and, as a result, empathy towards people, including children, with disabilities. Awareness drives should be conducted by the government and the civil society, including non-government organisations, for this purpose. They also need to ensure that teachers and other school staff are sensitised and trained to be able to deal with such cases in a suitable manner.

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## इतिहास में पुरातत्व का महत्व और उपयोग

इतिहास अतीत की घटनाओं, गतिविधियों, स्थितियों और प्रक्रियाओं का एक रिकॉर्ड है। एक विषय के रूप में, यह न केवल यह समझने में छात्रों की मदद करता है कि वे कौन हैं और कहां से आए हैं, बल्कि यह उन्हें वर्तमान मुद्दों और भविष्य के बारे में सोचसमझकर निर्णय लेने का अवसर भी प्रदान करता है। इसके साथ ही इतिहास जिम्मेदारी पूर्ण नागरिकतासिखाने के साथ ही विद्यार्थियों में कई तरह के कौशलों का भी विकास करता है। इतिहासकारों का मानना है कि इतिहास का अध्ययन एक व्यक्ति को मानवीय अनुभव की सार्वभौमिकता के साथ-साथ उन विशिष्टताओं के प्रति भी संवेदनशील बनाता है जो संस्कृतियों और समाजों को एक दूसरे से अलग करते हैं (डेनियल, 1981; वॉस, 1998)। सामाजिक विज्ञान के एक विषय के रूप में, इतिहास, इस प्रकार, प्राथमिक और द्वितीयक दोनों स्रोतों के आधार पर इतिहासकारों द्वारा तैयार किया गया मानव अनुभवों के बहुपक्षीय विवरणों का विवरण है।

यह सभी मानते हैं कि वास्तविक साक्ष्य/ प्राथमिक स्रोत का उपयोग इतिहास-शिक्षण का एक महत्वपूर्ण मानदंड है। दुनिया के कई हिस्सों की कक्षाओं में पहले से ही, स्कूल में पाठ्यपुस्तकों का उपयोग करने के बजाय प्राथमिक और द्वितीयक दोनों स्रोतों का उपयोग करने पर जोर दिया जाने लगा है। इसने इतिहास शिक्षण को अधिक उपयोगी और आनंदमय बना दिया है। पुरातात्विक अवशेष एक महत्वपूर्ण प्राथमिक स्रोत हैं। लोगों के अतीत को समझने के लिए पुरातात्विक साक्ष्यों का उपयोग शिक्षार्थियों के मानसिक क्षितिज को व्यापक बनाता है और उन्हें विभिन्न जीवनशैलियों की वैधता और व्यवहार्यता से परिचित कराता है (फेडोराक, 1994, पृष्ठ.26)। पुरातात्विक अवशेष न केवल कुलीन लोगों के जीवन पर प्रकाश डालते हैं, बल्कि आम लोगों की कहानियों और उनके दैनिक कारनामों को भी प्रस्तुत करते हैं।

आज यह देखाजा रहा है कि ऐतिहासिक विरासतें लुप्त हो रही हैं। लोगों द्वारा कई बार जानबूझकर अथवा कई बार लापरवाही से संग्रह करने के कारण ऐतिहासिक स्थल अलग-अलग तरीकों से नष्ट हो रहे हैं। अधिकांश लोग इस बात से अनभिज्ञ हैं कि किसी ऐतिहासिक स्थल की सतह पर मिला एक बर्तन का टुकड़ा भी ऐतिहासिक दृष्टि से बहुत महत्वपूर्ण हो सकता है। हो सकता है कि यह टुकड़ा उस स्थान पर रहने वाले लोगों के बारे में जानकारी का एकमात्र साक्ष्य हो। ऐसे में यदि लापरवाही से साक्ष्य को एकत्र किया गया तो उसमें निहित ऐतिहासिक

ज्ञान हमेशा के लिए खो सकता है। यह एक सामान्य समझ की बात है कि जब अधिक से अधिक लोग पुरातत्वविदों और उनके काम के बारे में 'जागरूक' होंगे, तो वे सांस्कृतिक विरासत के प्रति अधिक से अधिक सराहनीय रवैया रखेंगे, और इस तरह हम अधिक से अधिक स्मारकों और पुरातात्विक स्थलों और वस्तुओं को विनाश या लूट से बचा पाएंगे। पीटर स्टोन ने ठीक ही कहा है कि, "भौतिक विरासत का दुरुपयोग कानून द्वारा पूरी तरह से नहीं रोका जा सकता है, यह काम केवल शिक्षा के माध्यम से आम जनता के जागरूकता के स्तर को बढ़ाकर ही किया जा सकता है। आज की जनता पर सबसे महत्वपूर्ण प्रभाव डालने वाले उनके बच्चे हैं, जो कल की आम जनता का निर्माण करेंगे" (कॉर्बिशले, 2011, पृ. 84-85)।

### इतिहास की कक्षाओं में पुरातत्व का महत्व और उपयोग

युवा छात्र अक्सर समय और इतिहास की अवधारणाओं को समझने में कठिनाई का सामना करते हैं। फेडोराक ने एडम (1994, पृ. 26) को उद्धृत करते हुए लिखा है जो यह प्रस्तावित करते हैं कि इस तरह की समस्या से निपटने के लिए अतीत में लोग कब रहते थे से ज्यादा जोर इस बात पर देना होगा कि अतीत में लोग कैसे रहते थे। भौतिक सामग्री या पुरातात्विक अवशेषों का उपयोग छात्रों को ठोस सबूत देता है जो उन्हें समय की अवधारणा (फेडोराक में किस्कोक द्वारा, 1994, पृ.26) को समझने में मदद करता है। पुरातात्विक साक्ष्य छात्रों को बदलाव की अवधारणा को समझने के लिए भी आदर्श माना जाता है क्योंकि अतीत की उन कलाकृतियों को देखने से उनमें समय के साथ जो परिवर्तन दिखता है उससे छात्रों के लिए यह समझना आसान हो जाता है कि समय के साथ परिवर्तन कैसे होते हैं (वही, पृ.26) हेंसन, बोडले और हेवर्थ (2006, पृ.36) का कहना है कि "पुरातात्विक साक्ष्य का उपयोग करते हुए इतिहास पढ़ाने से स्कूलों में इतिहास के कई सकारात्मक शैक्षिक लाभ दिखते हैं। पुरातत्व एक अनुभव आधारित विषय है। कलाकृतियों और स्मारकों की जांच करने से छात्रों को अतीत की भौतिक सामग्री से ऐसा जुड़ाव हो जाता है जिसे आसानी से अकेले दस्तावेजों के जरिये नहीं पाया जा सकता है।"

कक्षा में पुरातत्व के उपयोग पर कई प्रकाशित शोध हैं। 2003 में, लेवस्तिक, हेंडरसन और शाल्ब ने अपने लेख 'डिगिंग फॉर क्लूज: एन आर्कियोलॉजिकल एक्सप्लोरेशन ऑफ हिस्टोरिकल कॉग्निशन' में छात्रों के सीखने पर पुरातात्विक शिक्षा के प्रभावों की जांच की है। उनका निष्कर्ष था कि पुरातत्व शिक्षा इकाइयां इतिहास और पुरातत्व को सीखने में योगदान करने के साथ ही पुरातात्विक नैतिकता के प्रति सम्मान व्यक्त करने में भी योगदान देती हैं। 2003 में डॉ मैरी डर्बिश ने अपनी कक्षा में छात्रों पर पुरातात्विक इकाइयों के प्रभावों की जांच की। उनके शोध के परिणामों में पुरातत्व के लिए एक बढ़ी हुई जानकारी और प्रशंसा मिली, लेकिन पुरातात्विक नैतिकता के बारे में छात्र जागरूकता या चिंता में थोड़ी ही वृद्धि देखने को मिली (डर्बिश 2003, पृ.108)। सोसाइटी फॉर अमेरिकन आर्कियोलॉजी (SAA) ने अपने अध्ययन में 'आर्कियोलॉजी के बारे में सार्वजनिक धारणाओं और दृष्टिकोणों के बारे में' शीर्षक से एक पुस्तिका निकाली। इस पुस्तिका के निष्कर्ष में कहा गया है कि "पुरातत्व और पुरातत्वविदों के बारे में अमेरिकी जनता का ज्ञान न तो ठोस है और न ही स्पष्ट है और इसके साथ ही इस अध्ययन क्षेत्र को लेकर कई बार उनमें गलत धारणाएं भी हैं" (रामोस और डुगानेन 2000, पृ.30)। इस तरह के अध्ययनों से संकेत मिलता है कि प्रारंभिक पुरातत्व शिक्षा की कितनी आवश्यकता है। SAA ने कहा कि "पुरातत्व छात्रों को अवलोकन, व्याख्या, निष्कर्ष निकालने की क्षमता, अनुमान, और वर्गीकरण जैसे महत्वपूर्ण कौशल का उपयोग करने और विकसित करने का अवसर प्रदान करता है। यह गणित (जैसे ग्रिड के साथ काम करना), विज्ञान (जैसे, स्तरविज्ञान का अध्ययन करना), भाषा कला (जैसे नोट्स लेना), और कला (जैसे, वस्तुओं का चित्र बनाना) में छात्रों के कौशल को भी बढ़ाता है" (सोसाइटी फॉर अमेरिकन आर्कियोलॉजी, 1995, पृ.1)।

मैट ग्लेंडिंग (2005) ने अपने लेख 'डिगिंग इन टू हिस्ट्री: ऑथेंटिक लर्निंग थ्रू आर्कियोलॉजी' में यह निष्कर्ष निकाला कि पुरातत्व, इतिहास-सहयोगात्मक, बहुआयामी, अनुभवात्मक, मजेदार और अतीत को पढ़ने का सबसे प्रभावशाली तरीका है। पुरातात्विक और ऐतिहासिक साक्ष्यों का उपयोग अब इतिहास के शिक्षकों द्वारा कई देशों में अपने विषय को पढ़ाने के तरीके में प्रमुखता से शामिल है। कई देशों में कई पुरातात्विक संगठन और संग्रहालय शिक्षकों को पुरातत्व और स्कूलों में सीखने के साक्ष्य को अध्ययन में शामिल करने के लिए प्रोत्साहित करने के लिए काम कर रहे हैं (कॉर्बिशले, 2011, पृ.83-84, 94)। कई स्थानों पर शिक्षकों के लिए कई तरह की कार्यशालाओं का आयोजन किया जा रहा है, जैसे उदाह में आयोजित 'आर्कियोलॉजी, एथिक्स एंड कैरेक्टर' कार्यशाला जिसके द्वारा पुरातत्व को कक्षा का महत्वपूर्ण हिस्सा बनाने का प्रयास किया गया (मो, एट आल 2002, पृ.112)। शोध से पता चलता है कि पठन-पाठन में इमारतों और स्थानीय स्थानों का उपयोग करने के प्रति काफ़ी जागरूकता और उत्साह दिखता है और यह भी कि इस तरह के शिक्षण से अंतर्विषयी कार्य के भरपूर अवसर मिलते हैं

(कॉर्बिशले, 2011, पृ.9)। कई विश्वविद्यालय भी पुरातत्व विज्ञान में शिक्षक पाठ्यक्रम प्रदान कर रहे हैं।

## भारतीय स्कूल पाठ्यक्रम के ढांचे में पुरातत्व

भारत में स्कूली शिक्षा से संबंधित व्यापक दिशा-निर्देश राष्ट्रीय सरकार द्वारा तैयार किए जाते हैं। इन दिशानिर्देशों को राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (NCERT) द्वारा पाठ्यक्रम के ढांचे के रूप में और विस्तार दिया जाता है। अब तक एनसीईआरटी द्वारा चार पाठ्यचर्या की रूपरेखाएं तैयार की गई हैं। ये रूपरेखाएं सांस्कृतिक विरासत के संदर्भ में पुरातत्व पर बात करती है (जिसमें पुरातत्व और जीवित विरासत दोनों शामिल हैं)। पाठ्यक्रम की सिफारिशों को आगे विभिन्न चरणों में पाठ्यक्रम और पाठ्य पुस्तकों के माध्यम से पेश किया जाता है।

भारत में परिषद द्वारा तैयार किए गए पाठ्यक्रम और पाठ्यपुस्तकों को आमतौर पर राज्यों और अन्य स्कूल प्रबंधनों द्वारा ज्यों का त्यों अथवा कुछ स्थानीय सुधारों के साथ अपनाया जाता है, हालांकि, शिक्षा समवर्ती सूची 'के अंतर्गत आती है, इसलिए कई राज्य अपना स्वयं का पाठ्यक्रम और पाठ्यपुस्तकें भी तैयार करते हैं।

परिषद में पाठ्यपुस्तकों के निर्माण की शुरुआत से ही, पुरातात्विक साक्ष्यों को इतिहास के पाठ्यक्रम में एकीकृत तरीके से प्रस्तुत किया जाता रहा है। 2005 से पहले, इतिहास की पाठ्यपुस्तकों में विभिन्न लोगों के जीवन और गतिविधियों का वर्णन करने वाली सामग्री के साथ ही उनके द्वारा बनाई गई वस्तुओं, पुरास्थलों और नक्शों की तस्वीरें और चित्र शामिल थे। लेकिन इस तरह के चित्र बहुत कम थे और ये सबूत के रूप में कम सजावट के उद्देश्य से अधिक उपयोग में लाये गए थे। इतिहास की पाठ्यपुस्तकों में साक्ष्यों के इस्तेमाल हेतु बहुत लम्बा इंतज़ार करना पड़ा। 2005 में सर्वप्रथम पाठ्यपुस्तकों में तरह-तरह के लिखित तथा चित्र साक्ष्यों का प्रयोग किया गया जहाँ सभी चित्रों के साथ विस्तृत टिप्पणियां, तरह-तरह की गतिविधियां, प्रश्न तथा पुरातात्विक और अन्य ऐतिहासिक साक्ष्यों पर चर्चाएं शामिल की गई थीं।

भारत में स्कूली शिक्षा में 2005 में नए राष्ट्रीय पाठ्यचर्या की रूपरेखा (NCF, 2005) की शुरुआत के साथ महत्वपूर्ण बदलाव आए जिसने बाल-केंद्रित शिक्षा के लिए अवसर प्रदान करने पर जोर दिया; गतिविधि-आधारित सीखने को बढ़ावा देने की बात की। NCF 2005 के बाद तैयार इतिहास का पाठ्यक्रम वास्तव में पिछले पाठ्यक्रमों से काफी अलग है। इतिहास की पाठ्यपुस्तकें अब साक्ष्य आधारित इतिहास प्रस्तुत करती हैं। पाठ्यपुस्तकों में साक्ष्य को अक्सर लेखकों द्वारा 'स्रोतों' या 'चित्रों' के रूप में उल्लिखित किया गया है और अब छात्रों के सामने विविध प्रकार के दस्तावेजों, उद्धरणों और इमारतों और वस्तुओं की तस्वीरों को प्रस्तुत कर उन्हें पूछताछ के द्वारा अपने स्वयं के निष्कर्ष तक पहुंचने के लिए प्रोत्साहित किया जाता है। विस्तृत टिप्पणियों के साथ तस्वीरें और चित्र, योजनाएं और कलाकारों के छापे जैसे पुरातात्विक और ऐतिहासिक साक्ष्यों का उपयोग, अब इतिहास की

पाठ्यपुस्तकों का एक अभिन्न अंग है। अब इतिहास की पाठ्यपुस्तकों में चित्रण के लिए एक अलग तरह का दृष्टिकोण अपनाया गया है। वे अब केवल पाठ की एकरसता को नहीं तोड़ते हैं या पुस्तक को अधिक आकर्षक बनाने का प्रयास नहीं करते हैं। अब छात्रों को केवल इतिहास का ज्ञान प्राप्त करने के लिए नहीं बल्कि विविध साक्ष्यों के जरिये इतिहास को करके सीखने के लिए प्रोत्साहित किया जा रहा है। उन्हें प्राथमिक और द्वितीयक दोनों स्रोतों को देखकर मानव अतीत के बारे में सीखना है, जैसाकि इतिहासकार अतीत की कहानी-इतिहास के बारे में बताते समय करते हैं।

इसलिए पुरातात्विक साक्ष्य बहुत शुरुआत से ही इतिहास के पाठ्यक्रम का हिस्सा थे, लेकिन पहले इन्हें इस तरह से दिया गया था कि शिक्षक खुदअक्सर नहीं जानते थे कि यह पाठ्यक्रम में दिया गया था जिसे उन्हें पढ़ाने की आवश्यकता थी। NCF 2005 के बाद इतिहास की पाठ्यपुस्तकों की जो एक नई विशेषता हम सबके सामने आई, वह इतिहास के विद्यार्थियों का उन स्रोतों से परिचय है, जो छात्रों को उनका अध्ययन करने, उन पर सोचने और स्वयं निष्कर्ष तक पहुंचने के लिए प्रोत्साहित करते हैं।

### अध्ययन की आवश्यकता और औचित्य

आज पूरी दुनिया के पुरातत्वविद पुरातत्व विज्ञान के बारे में छात्रों और जनता के साथ जानकारी साझा करने का प्रयास कर रहे हैं ताकि पुरातात्विक संसाधनों की रक्षा और पहचान में उनका समर्थन प्राप्त किया जा सके। अतः यह समझना ज़रूरी है कि इन महत्वपूर्ण मुद्दों के बारे में हमारे विद्यार्थियों के विचार, और अनुभव क्या हैं। विभिन्न शिक्षक प्रशिक्षण कार्यक्रमों में और छात्रों के साथ बातचीत में यह पता चला है कि छात्र पुरातत्व के बारे में बहुत उत्सुक हैं लेकिन अध्ययन के इस क्षेत्र बारे में उनके पास पर्याप्त जानकारी नहीं है। भारत में छात्रों की ऐतिहासिक सोच पर पुरातत्व के उपयोग और प्रभाव की जांच करने वाले शोध नहीं मिलते हैं। हालांकि सामान्य रूप से इतिहास शिक्षण की जांच के लिए कुछ प्रयास किए गए हैं। रैना (1992) ने राजस्थान में इतिहास शिक्षण का एक सर्वेक्षण किया। दहिया (1994) ने माध्यमिक छात्रों को प्राचीन और मध्यकालीन इतिहास पढ़ाने में पुरातत्व के महत्व पर हरियाणा और दिल्ली में सीबीएसई से संबद्ध स्कूलों के शिक्षकों का एक सर्वेक्षण किया। सामाजिक विज्ञान शिक्षा विभाग (एन सी ई आर टी, 2004) ने सामाजिक विज्ञान, भाषा और वाणिज्य की पाठ्य पुस्तकों का मूल्यांकन अध्ययन किया, लेकिन कहीं भी पुरातत्व के बारे में विविध बोर्डों की पाठ्यपुस्तकों में उपलब्ध जानकारी का विश्लेषण यह जानने के लिए नहीं किया गया कि अमुक सामग्री छात्रों के ऐतिहासिक ज्ञान पर क्या प्रभाव डालती है अथवा उन्हें सांस्कृतिक विरासत के प्रति संवेदनशील बनाती है या नहीं।

### शोध प्रश्न

अध्ययन निम्नलिखित सवालों के जवाब देने का प्रयास करता है:

1. क्या विभिन्न बोर्डों का इतिहास पाठ्यक्रम और पाठ्यपुस्तकें पुरातत्व के बारे में छात्रों की समझ विकसित करती हैं।
2. क्या विभिन्न बोर्डों का इतिहास पाठ्यक्रम और पाठ्यपुस्तकें सांस्कृतिक विरासत के संरक्षण के प्रति संवेदनशीलता को बढ़ावा देती हैं।

### पाठ्यक्रम और पाठ्यपुस्तकों की समीक्षा

अध्ययन के लिए केंद्रीय माध्यमिक शिक्षा बोर्ड (CBSE)\*, भारतीय स्कूल प्रमाणपत्र परीक्षा परिषद (CISCE) और उत्तर प्रदेश बोर्ड ऑफ हाई स्कूल और इंटरमीडिएट एजुकेशन (यूपी बोर्ड)\*\*से संबद्ध स्कूलों में इस्तेमाल किये जाने वाले ग्यारहवीं और बारहवीं कक्षा के इतिहास के पाठ्यक्रमों और पाठ्यपुस्तकों की समीक्षा की गई। उच्च माध्यमिक स्तर पर इन बोर्डों के इतिहास पाठ्यक्रम की समीक्षा यह जानने के लिए की गई कि इन बोर्डों में इतिहास को पढ़ाने के औचित्य और उद्देश्यों का पता लगाया जा सके और साथ ही यह भी जाना जा सके कि इनमें पुरातात्विक सामग्री को कितना और किस तरह दिया गया है और इस सम्बन्ध में कैसी गतिविधियां दी गई हैं। इतिहास की पाठ्यपुस्तकों की सामग्री, प्रश्नों / अभ्यासों और चित्रों के संदर्भ में समीक्षा की गई कि कैसे इन पाठ्यपुस्तकों की पुरातात्विक सामग्रियां इतिहास की बेहतर समझ और छात्रों के बीच पुरातत्व की बुनियादी समझ में योगदान करती हैं और कैसे ये पाठ्यपुस्तकें छात्र-छात्राओं को सांस्कृतिक विरासत के संरक्षण के लिए संवेदनशील बनाती हैं।

जैसा कि हम जानते हैं कि दसवीं कक्षा तक इतिहास सामाजिक विज्ञान का हिस्सा है और कक्षा XI-XII में यह एक वैकल्पिक विषय के रूप में उपलब्ध है। सीबीएसईसे जुड़े स्कूल NCERT द्वारा तैयार किए गए पाठ्यक्रम और पाठ्यपुस्तकों का अनुसरण करते हैं, जबकि अन्य दो बोर्ड सिर्फ पाठ्यक्रम तैयार करते हैं और संबद्ध स्कूलों को निजी प्रकाशकों द्वारा प्रकाशित पाठ्य पुस्तकों में चुनाव का विकल्प देते हैं। CISCE और UP के विपरीत, NCERT पाठ्यक्रम विषय के औचित्य, इसे पढ़ाने के उद्देश्य के साथ-साथ विभिन्न प्रकरणों (topic) के उद्देश्यों पर भी प्रकाश डालता है। पाठ्यक्रम और पाठ्यपुस्तकों की समीक्षा से पता चलता है कि सीबीएसई और यूपी बोर्ड उच्च माध्यमिक स्तर पर प्राचीन, मध्यकालीन और आधुनिक भारतीय इतिहास पढ़ाते हैं, जबकि CISCE बोर्ड इस समय अवधि के बारे में कक्षा IX-X में पढ़ाता है। इसलिए तुलनात्मक विश्लेषण के लिए हमने CISCEबोर्ड की कक्षा IX-X के पाठ्यक्रम और पाठ्यपुस्तकों की, जो प्राचीन, मध्यकालीन व आधुनिक भारतीय इतिहास की चर्चा करते हैं के साथ-साथ इनके कक्षा XI-XII के पाठ्यक्रम और पाठ्यपुस्तकों की भी समीक्षा की है जो आधुनिक भारतीय और विश्व इतिहास से संबंधित हैं।

## उच्च माध्यमिक स्तर पर इतिहास शिक्षण के उद्देश्य

उच्च माध्यमिक स्तर पर इन बोर्डों में इतिहास शिक्षण के औचित्य, इसे पढ़ाने के उद्देश्य और इसमें पुरातत्व संबंधी सामग्री और गतिविधियों के प्रस्तुतीकरण का पता लगाने के लिए इनके इतिहास के पाठ्यक्रम की समीक्षा की गई।

एनसीईआरटी पाठ्यक्रम का पहला उद्देश्य विषय के साथ छात्रों की रचनात्मक सहभागिता को बढ़ावा देना है। इसलिए, पाठ्यक्रम को इस तरह से तैयार किया गया है कि यह छात्रों में एक ऐतिहासिक संवेदनशीलता विकसित करने में मदद करता है और साथ ही इतिहास के महत्व के बारे में उन्हें जागरूक करता है। पाठ्यक्रम का दूसरा उद्देश्य छात्रों पर भार को कम करना है। ऐसा कुछ महत्वपूर्ण मुद्दों और घटनाओं पर ध्यान केंद्रित करके किया गया है। भार में कमी के लक्ष्य को प्राप्त करके, इसके तीसरे उद्देश्य के रूप में पाठ्यक्रम की अपेक्षा है कि यह शिक्षकों को इतिहास के विविध प्रकरणों को गहराई से जानने हेतु पर्याप्त समय प्रदान करेगा। चौथा, पाठ्यक्रम ने अन्य प्रकरणों के साथ ही हाशिये पर रह रहे लोगों व लैंगिक मुद्दों पर ध्यान केंद्रित कर ऐतिहासिक पूछताछ / अध्ययन के दायरे को व्यापक बनाने का प्रयास किया है। पाँचवें, अंतःविषय की पाठ्यचर्या संबंधी चिंताओं को संबोधित करते हुए यह पाठ्यक्रम विभिन्न विषयों के बीच के संपर्क को भी प्रदर्शित करता है और इस तरह यह पाठ्यक्रम इतिहास के विचार को व्यापक बनाने में मदद करता है।

कक्षा XI और XII में, पाठ्यक्रम ने समय और स्थान पर फैले विषयों की ऐतिहासिक समझ को विकसित करने और बढ़ावा देने के लिए एक मुद्दा आधारित दृष्टिकोण (thematic approach) अपनाया है। इसलिए, छात्रों को इस विचार से परिचित कराने का ध्यान रखा गया है कि ऐतिहासिक ज्ञान बहस के माध्यम से विकसित होता है और साक्ष्यों को ध्यान से पढ़ना और व्याख्या करना आवश्यक है।

बारहवीं कक्षा में, पाठ्यक्रम विद्यार्थियों का परिचय प्राचीन, मध्ययुगीन और आधुनिक भारतीय इतिहास के कुछ मुख्य प्रकरणों से करता है जो छात्रों को प्रत्येक विषय के बारे में अधिक विस्तार और गहराई से जानने का अवसर देता है। कक्षा बारहवीं के पाठ्यक्रम को इस तरह से तैयार किया गया है कि प्रत्येक अध्याय एक विशेष प्रकार के स्रोत का अन्वेषण हो जाता है: पुरातात्विक अवशेष, शिलालेख, महाकाव्य, कालक्रम, धार्मिक ग्रंथ, यात्रा विवरण, सरकारी रिपोर्ट, राजस्व मैनुअल, पुलिस रिकॉर्ड, समाचार पत्र, भवन, चित्र, विज्ञापन, मौखिक स्रोत।

CISCE पाठ्यक्रम इतिहास पढ़ाने के पीछे विस्तृत तर्क या उद्देश्य प्रदान नहीं करता है। माध्यमिक स्तर पर इसके पाठ्यक्रम का उद्देश्य विद्यार्थियों को भारतीय ऐतिहासिक विकास के उन पहलुओं की समझ से परिचित कराना है जो समकालीन भारत की समझ के लिए महत्वपूर्ण हैं। इसके साथ ही विद्यार्थियों में विभिन्न धाराओं की एक वांछनीय समझ को जागृत करना है जिन्होंने भारतीय राष्ट्र और इसकी सभ्यता और

संस्कृति के विकास में योगदान दिया है। मानव जाति की कुल विरासत के लिए विभिन्न संस्कृतियों द्वारा किए गए योगदान के प्रति एक वैश्विक ऐतिहासिक परिप्रेक्ष्य विकसित करना भी इसका एक महत्वपूर्ण उद्देश्य है।

उच्चतर माध्यमिक स्तर पर, पाठ्यक्रम का उद्देश्य शिक्षार्थियों को अध्ययन अवधि की महत्वपूर्ण घटनाओं और व्यक्तित्वों का क्रमानुसार और संदर्भ के साथ ज्ञान प्रदान करना है, तथ्यात्मक सबूतों से परिचित कराना है, जिसके आधार पर उस काल अवधि के बारे में स्पष्टीकरण या निर्णय स्थापित किए जाने चाहिए। इसके साथ ही समस्याओं के अस्तित्व और व्याख्या के साक्ष्य की प्रासंगिकता, तथ्यों को इकट्ठा करने की क्षमता का विकास करना, साक्ष्य का मूल्यांकन करना और ऐतिहासिक दृष्टिकोण से मुद्दों पर चर्चा करना, नए साक्ष्य के प्रकाश में ऐतिहासिक विचारों को पढ़ने या साक्ष्य की नई व्याख्या करने की क्षमता विकसित करना, ऐतिहासिक निरंतरता की भावना को बढ़ावा देना, पूर्वाग्रहों को कम करने और विश्व इतिहास के लिए एक अधिक अंतरराष्ट्रीय दृष्टिकोण विकसित करने के लिए, विषय की सही शब्दावली का उपयोग करके विचारों और तर्कों को स्पष्ट रूप से व्यक्त करने की क्षमता विकसित करना, और विभिन्न प्रकार के ऐतिहासिक साक्ष्यों से परिचित कराना और उनके मूल्यांकन में आने वाली समस्याओं के बारे में जागरूक कराना आदि इसके कुछ अन्य महत्वपूर्ण उद्देश्य हैं।

माध्यमिक स्तर पर कक्षा IX के पाठ्यक्रम में हड़प्पा सभ्यता से लेकर गुप्त काल, दक्षिण भारत का मध्यकालीन भारतीय इतिहास, दिल्ली सल्तनत, मुगल इतिहास और विश्व इतिहास की कुछ महत्वपूर्ण घटनाएँ अर्थात् पुनर्जागरण और औद्योगिक क्रांति शामिल हैं। दसवीं कक्षा का पाठ्यक्रम मुख्यतः 1857 से 1947 तक भारतीय स्वतंत्रता संग्राम और विश्व इतिहास से संबंधित कुछ विषयों से संबंधित है। अगर हम ग्यारहवीं और बारहवीं कक्षा के पाठ्यक्रम की बात करते हैं, तो इसमें राष्ट्रवाद का इतिहास (स्वदेशी आंदोलन से सविनय अवज्ञा तक) और विश्व इतिहास के कुछ विषय शामिल हैं। हालांकि पाठ्यक्रम में छात्रों में ऐतिहासिक संवेदनशीलता विकसित करने के बारे में कुछ भी नहीं कहा गया है, लेकिन विषयों और उप-विषयों को सूचीबद्ध करते समय इसमें विभिन्न प्रकार के स्रोतों का उल्लेख है। हर अध्याय में साहित्यिक, पुरातात्विक साक्ष्य शीर्षक से जानकारी दी गई है। यह इंगित करता है कि पाठ्यक्रम निर्माता छात्रों को विभिन्न स्रोतों की बुनियादी समझ प्रदान करना महत्वपूर्ण समझते हैं। कक्षा XI-XII के लिए पाठ्यक्रम हालांकि विषयों और उप-विषयों के रूप में है, लेकिन शुरुआत में यह न केवल ज्ञान पक्ष पर ध्यान केंद्रित करता है, बल्कि पाठ्यक्रम के एक महत्वपूर्ण उद्देश्य के रूप में स्रोतों पर काम करने के माध्यम से विभिन्न क्षमताओं के विकास पर भी ध्यान दिलाता है।

हमने अध्ययन के लिए एक राज्य बोर्ड उत्तर प्रदेश लिया है। उत्तर प्रदेश में कुछ माध्यमिक स्कूल CISCE और CBSE बोर्ड से संबद्ध हैं, लेकिन अधिकांश माध्यमिक विद्यालय उत्तर प्रदेश बोर्ड से संबद्ध



हैं। कक्षा आठवीं तक पाठ्यक्रम व पाठ्यपुस्तकें शासन द्वारा तैयार करवाये जाते रहे हैं, लेकिन कक्षा IX के बाद स्कूल राज्य द्वारा तैयार किए गए पाठ्यक्रम पर विभिन्न लेखकों द्वारा लिखित पाठ्य पुस्तकों का चयन करने के लिए स्वतंत्र हैं। इस स्तर पर इतिहास पाठ्यक्रम के मुख्य उद्देश्य हैं- भारतीय इतिहास को विश्व इतिहास के संदर्भ में देखना, छात्र-छात्राओं का मूल्यांकन करते समय उनकी मौलिकता पर ध्यान केंद्रित करना, छात्रों को नवीनतम शोध से समझ हासिल करने के लिए प्रेरित करना। ऐतिहासिक यात्राओं के महत्व को ध्यान में रखते हुए, पाठ्यक्रम शैक्षिक यात्रा को अनिवार्य बनाने और छात्रों को वर्ष में कम से कम एक बार इस तरह की यात्रा पर ले जाने का सुझाव देता है। पाठ्यक्रम यह स्पष्ट करता है कि इतिहास का अध्ययन पूरे राष्ट्र के अतीत पर आधारित होना चाहिए ताकि छात्र अपने पूर्वजों की संस्कृति, उनकी उपलब्धियों के बारे में ज्ञान प्राप्त कर सकें, उनसे प्रेरणा ले सकें और गलतियों को दोहराने से बच सकें। इसका उद्देश्य छात्रों को उन तथ्यों से अवगत कराना है, जिन्होंने राष्ट्रवाद की भावनाओं को विकसित करने में मदद की और उन कमियों को भी समझने में मदद करना है जिन्होंने ऐसी भावनाओं के विकास में बाधाएं उत्पन्न कीं ताकि वे स्वयं इन गलतियों को न दोहराएं। पाठ्यक्रम अपने उद्देश्य के रूप में छात्रों में सार्वभौमिक भाईचारे, मानवतावादी और यथार्थवादी दृष्टिकोण की भावनाओं को विकसित करना चाहता है। यह अपने अतीत के आधार पर वर्तमान की समझ बनाने का सुझाव देता है और अंतर्राष्ट्रीय घटनाक्रम और हमारे राष्ट्र पर इसके प्रभाव को समझने का सुझाव देता है। इतिहास को रोचक बनाने के लिए जहाँ भी संभव हो मानचित्र और अन्य चित्रों के उपयोग करने का भी प्रस्ताव करता है।

कक्षा XI में इतिहास का पाठ्यक्रम इतिहास के स्रोतों पर केंद्रित है, जिसमें प्रागितिहास से लेकर गुप्त वंश तक प्राचीन भारतीय अतीत और मध्ययुगीन इतिहास में सल्तनत से सूफी संतों तक और कक्षा XII में भारतीय इतिहास में मुगलों से 1947 में भारत की स्वतंत्रता तक के इतिहास को जगह मिली है। पाठ्यक्रम केवल प्रकरणों और उपप्रकरणों के रूप में है। इस पाठ्यक्रम में इतिहासकार के शिल्प के बारे में कुछ भी नहीं कहा गया है कि कैसे छात्र विभिन्न स्रोतों का प्रयोग करेंगे और इस विषय से जुड़े कौशल को हासिल करेंगे।

CISCE और UP के विपरीत, एनसीईआरटी पाठ्यक्रम न केवल शुरुआत में विषय के औचित्य और इसे पढ़ाने के उद्देश्य पर प्रकाश डालता है, बल्कि सभी प्रकरणों के साथ भी उद्देश्य का उल्लेख करता है। यूपी और आईसीएसई पाठ्यक्रम दोनों ऐतिहासिक यात्राओं को महत्व देते हैं। यूपी इसे कुछ हद तक अनिवार्य करने का सुझाव देता है, जबकि ICSE इसे IX, XI और XII के लिए सुझाये गए कई परियोजना कार्यों में से एक के रूप में रखता है।

## विभिन्न बोर्डों की पाठ्य पुस्तकों की तुलना

विभिन्न बोर्डों की इतिहास की पाठ्यपुस्तकों की पाठ्य सामग्री, चित्रों

और अभ्यास की तुलना द्वारा यह जानने का प्रयास किया गया कि ये पाठ्यपुस्तकें पुरातात्विक सामग्री को कितना तथा किस तरह प्रस्तुत करती हैं। इसके साथ ही यह भी जानने का प्रयास किया गया है कि इनकी पाठ्य सामग्री, अभ्यास व गतिविधियाँ विद्यार्थियों को पुरातात्विक सामग्री अथवा सांस्कृतिक विरासत के संरक्षण हेतु किस हद तक प्रेरित करती हैं। पाठ्यपुस्तकों की तुलना करते हुए, अन्वेषक ने पुरातत्व का व्यापक संभव दृष्टिकोण लिया, जिसमें हमारी धरती पर रहने वाले सभी लोगों के संपूर्ण इतिहास से जुड़े आरंभिक समय से लेकर वर्तमान समय तक के सभी भौतिक साक्ष्य शामिल हैं।

## पाठ्यसामग्री

NCERT की पाठ्यपुस्तकें उन उद्देश्यों को प्राप्त करती हुई दिखती हैं, जिन्हें प्राप्त करना पाठ्यक्रम में निर्धारित किया गया था। ये पाठ्यपुस्तकें अतीत को समझने के लिए विभिन्न प्रकार के स्रोतों पर बहुत अधिक जोर देते हुए विषयगत दृष्टिकोण (thematic approach) पर आधारित हैं। पुरातात्विक स्रोत इनमें से एक हैं। ये पाठ्यपुस्तकें न केवल पुरातत्व पर सामग्री प्रदान करती हैं बल्कि पूरी सामग्री को पुरातात्विक सामग्री के साथ जोड़ कर प्रस्तुत करती हैं। पाठ्यपुस्तक केवल उस दौरान के प्रारंभिक मानव समाजों, प्राचीन सभ्यताओं, प्रारंभिक शहरों, राज्यों, साम्राज्यों, राजवंशों, शासकों, अर्थव्यवस्था, धर्म, कला-वास्तुकला और समाजों के विकास के बारे में ही जानकारी प्रदान नहीं करती हैं, बल्कि ऐसा वे बड़े दिलचस्प रूप से उन प्राथमिक स्रोतों के माध्यम से करती हैं जिससे हमें इन समयावधियों के बारे में पता चलता है। पुरातत्वविदों द्वारा किए गए पुरातात्विक कार्य और विभिन्न पुरातात्विक स्थलों पर चर्चा विभिन्न अध्यायों का महत्वपूर्ण पहलू हैं। इसके अलावा, इन पाठ्यपुस्तकों में पुरातत्व से संबंधित विभिन्न शब्दों की व्याख्या भी की गई है, जैसे कि वनस्पतिशास्त्री, पुरातत्वविज्ञानी, उत्खनन, पुरातत्व, पुरातात्विक साक्ष्य, सिक्के, मुहरें आदि।

इतिहास में कक्षा XI की पाठ्यपुस्तक 'विश्व इतिहास के कुछ विषय' प्राचीन मेसोपोटामिया, अफ्रीका, इराक, रोमन साम्राज्य, मध्य पूर्व क्षेत्रों, यूरोप, उत्तरी अमेरिका और कई अन्य जैसे दुनिया के शुरुआती प्राचीन समाजों के बारे में बताती है। कक्षा XII की पाठ्यपुस्तक 'भारतीय इतिहास के कुछ विषय' के तीन भाग हैं जिनमें क्रमशः भारतीय इतिहास के प्राचीन, मध्यकालीन और आधुनिक कालखंडों के बारे में बताया गया है।

CISCE बोर्ड अपनी ओर से किसी भी पाठ्यपुस्तक को निर्धारित नहीं करता है और इस संबंध में स्कूलों को स्वयं पुस्तकों के चयन की स्वतंत्रता देता है। कक्षा IX की पाठ्यपुस्तक जो प्राचीन और मध्ययुगीन भारतीय इतिहास से संबंधित है, में इन कालखंडों का विस्तृत कालानुक्रमिक इतिहास प्रस्तुत किया गया है। जैसा कि हम जानते हैं कि दसवीं कक्षा की पाठ्यपुस्तक का संबंध आधुनिक भारतीय इतिहास और विश्व इतिहास से है। यह पुस्तक भी इन कालखंडों के कालानुक्रमिक

इतिहास को बहुत तथ्यात्मक विस्तार के साथ और मूर्तियों, इमारतों के विविध चित्रों के साथ प्रस्तुत करती है। अध्यायों के मुख्य बिंदु हैं, 'क्या आप जानते हैं' जो कुछ अतिरिक्त जानकारी प्रदान करते हैं, 'पता करें' जो कुछ और जानकारी प्राप्त करने के लिए कहते हैं, 'मुख्य शब्द' और 'अभ्यास' भी दिये गए हैं। जहाँ तक कक्षा XI-XII की पाठ्यपुस्तकों का सवाल है, ये अर्थव्यवस्था में विकास, औद्योगिकीकरण, समाज का क्रांतिकारी चरित्र, विभिन्न विद्रोहों आदि पारंपरिक विषयों से संबंधित हैं। विश्व इतिहास का हिस्सा मुख्य रूप से संकट, परिवर्तन, राजनीतिक आंदोलनों, राजनीतिक प्रभुत्व, युद्ध, क्रांतियों आदि के बारे में बात करता है।

इन पुस्तकों में अलग-अलग समय अवधि को इसके सभी पहलुओं जैसे- राजवंशों, शासकों, समाज, अर्थव्यवस्था, कला वास्तुकला और कई अन्य विवरणों के साथ प्रस्तुत किया गया है। विषय की शुरुआत करते समय साक्ष्यों का अक्सर शुरुआत में उल्लेख किया गया है। NCERT के विपरीत, ये पुस्तकें विषयवस्तु को पुरातात्विक अवशेषों के साथ प्रस्तुत करने की जगह पुरातत्व पर सामग्री अलग से प्रस्तुत करती हैं। CISCE पाठ्यपुस्तक की सामग्री पुराने पारंपरिक रूप में व्यवस्थित एक सामान्य कालानुक्रमिक इतिहासपर आधारित है जिसमें मुख्य बिंदुओं पर जोर देते हुए ज्यादातर जानकारियाँ बिन्दुवार ही दी गई हैं। इसे इन दोनों ही तरह की पाठ्यपुस्तकों में महाजनपदों पर दी गई सामग्री के उदाहरण द्वारा समझा जा सकता है। दोनों पाठ्यपुस्तकों में महाजनपदों पर सामग्री है, लेकिन NCERT पाठ्यपुस्तक में इस बात की चर्चा है कि महाजनपद कैसे अस्तित्व में आए और उनकी विशेषताएं क्या थीं। CISCE पाठ्यपुस्तक सिर्फ विशिष्ट जनपदों, उनके शासकों और प्रशासन पर केंद्रित है। ब्रह्म समाज के भवन और कुछ अन्य भवनों का उल्लेख इन CISCE पुस्तकों में किया गया है लेकिन यहाँ उनका अध्ययन केवल उनकी स्थापना के इर्द गिर्द ही सीमित है। एनसीईआरटी की पाठ्यसामग्री निरंतर छात्रों के साथ संवाद करती है, बीच-बीच में सोचने पर मजबूर कर देने वाले प्रश्न उठाती है ताकि बच्चे रुककर विचार करें। साथ ही इनमें विभिन्न साक्ष्यों के साथ भी प्रश्न दिये गए हैं जो छात्रों को केवल एक समय विशेष के कुछ पुरातात्विक स्रोतों के बारे में जानकारी प्राप्त करने तक सीमित न रहकर विद्यार्थियों को पुरातात्विक सामग्री की मदद से और सीखने व समझने के लिए प्रेरित करते हैं। कुछ प्रश्नों के उदाहरण इस तरह हैं जैसे कि राजा को सिक्कों में कैसे चित्रित किया गया है? मूर्तिकला में ऐसे कौन से तत्व हैं जो सुझाव देते हैं कि यह एक राजा की छवि है? इस तरह एनसीईआरटी की पाठ्यपुस्तकों में सभी जगह विद्यार्थियों को पाठ्यसामग्री पर गहराई से सोचने और विश्लेषण करने के लिए प्रोत्साहित करने का प्रयास किया गया है।

यूपी के पाठ्यक्रम के दस्तावेज़ में स्पष्ट रूप से उल्लेख किया गया है कि कोई भी पाठ्यपुस्तक बोर्ड द्वारा निर्धारित या सुझाई नहीं गई है और स्कूल प्राचार्य अपने विषय शिक्षक के परामर्श से पाठ्यक्रम के अनुसार

पाठ्यपुस्तक का चयन कर सकते हैं। यूपी में, सरकारी एजेंसी द्वारा कक्षा आठवीं तक की पाठ्यपुस्तकें तैयार की जाती हैं और कक्षा IX से विभिन्न प्रकाशनों की पाठ्यपुस्तकें उपलब्ध हैं, जिनमें से चयन करने के लिए विद्यालय स्वतंत्र हैं। ये पाठ्यपुस्तकें यूपी द्वारा तैयार पाठ्यक्रम के आधार पर लिखी गई हैं। इन सभी पाठ्यपुस्तकों की समान विशेषताएं हैं। ये किताबें मुख्य रूप से तथ्यात्मक विवरणों से भरी लंबे कालानुक्रमिक इतिहास को प्रस्तुत करती हैं, लेकिन ये विभिन्न पुरास्थलों से खुदाई में मिले पुरावशेषों, सिक्कों, शिलालेखों, मकबरों, मस्जिदों, किलों आदि पर भी विस्तृत जानकारी देती हैं। ये पुस्तकें विभिन्न राजवंशों के दौरान विभिन्न शासकों, अर्थव्यवस्था, राजनीति, समाज और प्रशासन पर विवरण प्रदान करती हैं। इसे पारंपरिक पाठ प्रस्तुत करने का तरीका माना जा सकता है, जिसको इसी रूप में संपूर्ण भारत की पुस्तकों में वर्षों से ऐसा ही दिया जाता रहा है। आधुनिक इतिहास से संबंधित पुस्तक में अलीगढ़ में प्राच्य महाविद्यालय, कोलकाता में हिंदू कॉलेज, ब्रह्म समाज, आर्य समाज, प्रार्थना/ समाज, सेलुलर जेल जैसी विभिन्न इमारतों का भी उल्लेख किया गया है, लेकिन वास्तुकला के दृष्टिकोण से इन पर चर्चा नहीं की गई है। इन पुस्तकों की एक महत्वपूर्ण विशेषता विभिन्न इतिहासकारों या पुरातत्वविदों के दृष्टिकोण या कथन हैं जो सभी अध्यायों में प्रदान किए गए हैं। इस बोर्ड की पाठ्यपुस्तकों की एक अन्य महत्वपूर्ण विशेषता है प्रत्येक पुस्तक के अंत में महत्वपूर्ण तिथियों, व्यक्तित्वों, मानचित्रों और ऐतिहासिक स्थानों पर दिये गए विभिन्न प्रकार के परिशिष्ट। ऐतिहासिक स्थानों पर दिये गए परिशिष्ट में ऐतिहासिक महत्व के स्थानों की वर्तमान स्थिति और वहां से खुदाई में निकली सामग्री का विवरण दिया गया है। ऐसी प्रत्येक जगह के बारे में दिये गए इन संक्षिप्त लेखों से कला, वास्तुकला, मूर्तिकला और कभी-कभी इन स्थानों पर स्थित संग्रहालयों और उनके संग्रह के बारे में भी जानकारी मिलती है।

एनसीईआरटी की पुस्तकें भारत की कला और वास्तुकला पर ध्यान केंद्रित करने का प्रयास करती हैं और इसके इतिहास के बारे में बताती हैं। विभिन्न अध्यायों में इस पहलू पर चर्चा करने के साथ-साथ इस भौतिक या मूर्त विरासत की चर्चा एक अलग अध्याय में भी की गई है। दूसरी ओर, अन्य पुस्तकों में इस तरह की सामग्री की चर्चा उस साम्राज्य या शासक के शासन की चर्चा करते समय की गई है जिसके शासन के दौरान इसका निर्माण हुआ था। NCERT पुस्तक पुरासामग्री के संरक्षण में संलग्न विदेशी अधिकारियों और भारतीयों के प्रयासों को भी इंगित करती है। कलाकृतियों की खोज, उनके लंदन ले जाए जाने, एशियाटिक सोसाइटी पर चर्चा और ब्रिटिश पुरातत्वविदों के दृष्टिकोण NCERT पाठ्यपुस्तकों की महत्वपूर्ण सामग्री हैं। मंदिरों के निर्माण में दक्षिण भारत, उत्तर भारत और पश्चिमी भारत में अपनाई गई विभिन्न वास्तुकला शैलियों पर बहुत सारे चित्रों और चर्चा के साथ प्रस्तुत किए गए कला और वास्तुकला के विभिन्न उदाहरण छात्रों को भारत की कलात्मक उत्कृष्टता का भान कराते हैं। एनसीईआरटी की सभी पाठ्यपुस्तकों में

पुरातात्विक अवशेष, चाहे वे महलों, खंडहरों के रूप में हों या अन्य मूर्त प्रमाणों के रूप में, भारतीय इतिहास के सभी कालखंडों से जुड़ी इन सामग्रियों की चर्चा और चित्रण किया गया है। इसके अलावा, इसमें नक्शे भी हैं, विभिन्न शहरों के और विभिन्न इमारतों की योजनाएं और विभिन्न वास्तुशिल्प और मूर्तिकला नमूनों के रेखा चित्र हैं। इस तरह NCERT पाठ्यपुस्तकों में साहित्यिक और मौखिक परंपराओं, स्मारकों, शिलालेखों और अन्य अभिलेखों से मिलाजुलाकर प्रस्तुत की गई सामग्री छात्रों को इतिहास को बेहतर तरीके से समझने में मदद करती है।

### प्रश्न / अभ्यास

जहाँ तक NCERT की पाठ्यपुस्तकों में दिए गए प्रश्नों का प्रश्न है, अध्यायों में विभिन्न प्रकार के प्रश्न होते हैं जैसे लघु उत्तर, दीर्घ उत्तर, चित्र पर प्रश्न, मानचित्र कार्य, परियोजना कार्य जो छात्रों से संग्रहालयों या किसी ऐतिहासिक स्मारक या पुरास्थल पर जाने और उस पर एक रिपोर्ट तैयार करने की अपेक्षा करते हैं। ये प्रश्न तुलना, संक्षिप्तकरण, सूचीबद्ध करने, संक्षिप्त लेखन, चर्चा, तर्क, व्याख्या, विश्लेषण और अन्वेषण पर ध्यान केंद्रित करते हैं। जिज्ञासु छात्रों को और अधिक जानने के लिए कुछ पुस्तकों के नाम और लिंक भी दिए गए हैं।

जहाँ तक CISCE पाठ्यपुस्तकों का सवाल है, कक्षा IX-X की पाठ्यपुस्तकों में संक्षिप्त उत्तर, संरचित प्रश्न और एक स्रोत आधारित प्रश्न होता है। इन पुस्तकों की एक दिलचस्प विशेषता स्रोत आधारित/चित्र अध्ययन प्रश्न है जहाँ 3-4 प्रश्नों के साथ एक छवि, कलाकृतियों, शिलालेख, सिक्का, मुहर या पेंटिंग की तस्वीर दी गई है। इसके अपने फायदे हैं क्योंकि यह छात्रों को इतिहास के अध्ययन के लिए उपयोग किए जाने वाले विभिन्न प्रकार के स्रोतों से परिचित कराता है और उन्हें इन स्रोतों का विश्लेषण करने के लिए प्रोत्साहित भी करता है। लेकिन एनसीईआरटी के विपरीत ये प्रश्न अधिकतर ज्ञान की जाँच करते हैं, जैसे एक अध्याय में उन्होंने छात्रों से एक मंदिर की तस्वीर का अध्ययन करने के लिए कहा है और फिर छात्रों से वास्तुशिल्प विशेषताओं का निरीक्षण करने और इसे पहचानने के लिए कहने के बजाय छात्रों से पूछा गया है - मंदिर कहाँ स्थित है, किसने इसका निर्माण किया, यह मंदिर किस देवता का है आदि। संरचित प्रश्नों में उन्होंने कुछ बिंदु दिए हैं जिन पर छात्रों से उत्तर अपेक्षित है। ये प्रश्न केवल तथ्यात्मक विवरण पर केंद्रित हैं और मुख्य रूप से ज्ञान आधारित हैं। उच्चतर माध्यमिक स्तर पर लघु और दीर्घ उत्तरीय दोनों प्रश्न दिए गए हैं लेकिन ये केवल तथ्यात्मक विवरण पर आधारित हैं। अभ्यास प्रश्न सामान्यतया सूचना केंद्रित हैं। बहुत कम प्रश्न ही 'क्यों' और 'कैसे' पर ध्यान देते हैं।

यूपी की पाठ्यपुस्तकों में दिए गए प्रश्न आम तौर पर तीन प्रकार के हैं: लघु उत्तरीय, दीर्घ उत्तरीय, बहुविकल्पीय प्रश्न और कभी-कभी ऐतिहासिक स्थानों, मार्गों, हमले के स्थानों और साम्राज्य की सीमा के मानचित्रण पर प्रश्न किया गया है। अधिकांश प्रश्न ज्ञान आधारित हैं। बहुत

कम प्रश्नों में ही विद्यार्थियों से मूल्यांकन, विश्लेषण की अपेक्षा की गई है। किसी भी प्रकाशन की पुस्तक में चित्र या अन्य प्रकार के स्रोतों पर प्रश्न नहीं हैं।

### चित्र

छात्र की कल्पना को साकार करने में चित्र महत्वपूर्ण भूमिका निभाते हैं। जहाँ तक एनसीईआरटी की किताबों का सवाल है, इन किताबों में दिए गए चित्र बहुत स्पष्ट, रंगीन और विस्तृत टिप्पणी के साथ हैं। चित्रों में सिक्का, मूर्तिकला, शिलालेख, मंदिर, मस्जिद और दरगाह, विभिन्न कला रूप, महल, इमारतें, शहरों का लेआउट, इमारतों की योजना, वास्तुकला और मूर्तिकला नमूनों के रेखा चित्र, नक्शे, कलाकृतियों और अन्य सामग्री के चित्र शामिल हैं। इन पाठ्यपुस्तकों में उपकरण बनाने में शामिल प्रक्रियाओं और तकनीकों के चित्र भी हैं जो एक छात्र के लिए तत्कालीन समय की कल्पना करने में बहुत मदद करते हैं।

CISCE की कक्षा IX-X की पाठ्यपुस्तक में दिये गए चित्र छोटे हैं लेकिन काफी स्पष्ट और रंगीन हैं। हालांकि सभी नहीं, लेकिन कुछ चित्र छात्रों को चित्र के बारे में अधिक जानने के लिए कहते हैं। कक्षा XI-XII की पाठ्यपुस्तकों में बहुत कम चित्र हैं और वे भी विभिन्न व्यक्तियों और कुछ मानचित्रों के हैं। ये चित्र काले और सफेद रंग में हैं और बहुत अच्छी गुणवत्ता के नहीं हैं। इस स्तर की पाठ्यपुस्तकें विभिन्न घटनाओं और घटनाओं से संबंधित स्थानों का कोई चित्र प्रदान नहीं करती हैं। यूपी बोर्ड की सभी प्रकाशन पुस्तकों में बहुत कम चित्र दिए गए हैं और जो चित्र मौजूद हैं वे स्पष्ट और रंगीन नहीं हैं।

### निष्कर्ष

तीन विद्यालयी बोर्डों के इतिहास पाठ्यक्रम और पाठ्यपुस्तकों की समीक्षा से पता चलता है कि पुरातात्विक अवशेषों की सामग्री और उनके कवरेज के संदर्भ में CISCE, UP और CBSE पाठ्यक्रम और पाठ्यपुस्तकों में व्यापक अंतर है। यह सही है कि गतिविधि आधारित शिक्षण और शैक्षिक यात्राएं यह सुनिश्चित करती हैं कि छात्र-छात्राएं वास्तविक ऐतिहासिक ज्ञान प्राप्त करने और न केवल स्कूल में बल्कि बाहर के जीवन में उस ज्ञान और कौशल को लागू करने में सक्षम होंगे जिसे उन्होंने विद्यालय में अर्जित किया है। लेकिन इन सबसे पहले यह सुनिश्चित करना जरूरी होगा कि छात्र-छात्राओं द्वारा प्रयोग में लाई जाने वाली पाठ्यपुस्तकों और अन्य पाठ्यसामग्रियों में ऐसी पुरातात्विक सामग्रियों को यथास्थान और पर्याप्त रूप में दिया गया हो। इसके साथ ही पूरी विषय सामग्री को पुरातात्विक अवशेषों को साथ लेते हुए प्रस्तुत करने की आवश्यकता है न कि इन्हें अलग से प्रस्तुत करने की। इस तरह से प्रस्तुत सामग्री में छात्र-छात्राओं के साथ प्रश्नों के जरिये निरंतर संवाद करने की भी जरूरत है ताकि सभी विद्यार्थियों को उनकी सांस्कृतिक विरासत के प्रति संवेदनशील बनाया जा सके। इस तरह से किए गए इतिहास-शिक्षण से विद्यार्थियों को सांस्कृतिक विरासत के प्रति अधिक

जागरूक और संवेदनशील बनने में मदद मिलेगी और अंततः उन्हें इसे संरक्षित करने के लिए भी प्रोत्साहित किया जा सकेगा। एनसीईआरटी की इतिहास की पाठ्यपुस्तकें न केवल पुरातत्व पर सामग्री प्रदान करती हैं बल्कि पूरी सामग्री को पुरातात्विक सामग्री के साथ जोड़कर प्रस्तुत करती हैं और ऐसा वे विभिन्न तरह के चित्रों, प्रश्नों और गतिविधियों के जरिये करती हैं। इन सभी प्रयासों के माध्यम से ये पुस्तकें विद्यार्थियों को अपनी सांस्कृतिक धरोहर से परिचित कराने के साथ ही साथ उन्हें इनके संरक्षण के प्रति भी प्रेरित करती हैं। अन्य बोर्डों के इतिहास के पाठ्यक्रम और पाठ्यपुस्तकों को इस दिशा में काफी बदलाव करने की आवश्यकता है। यहाँ हमारा उद्देश्य यह सुझाव देना नहीं है कि प्रत्येक बोर्ड को एनसीईआरटी/सीबीएसई पाठ्यक्रम और पाठ्यपुस्तकों का पालन करने की आवश्यकता है, लेकिन इतिहास के शिक्षण-प्रशिक्षण में दुनिया भर में आए बदलाव को देखते हुए जहाँ स्रोत आधारित शिक्षण और विभिन्न कौशलों की प्राप्ति को इतिहास शिक्षण के महत्वपूर्ण पहलुओं के रूप में कई वर्षों से माना जाता रहा है, को सभी स्कूल बोर्डों को चाहे वे निजी हों या राज्य के, अपने पाठ्यक्रम और पाठ्यपुस्तकों पर गहराई से विचार करना चाहिए और छात्रों की ग्रेड स्तर क्षमताओं

और इतिहास शिक्षण के उद्देश्यों को ध्यान में रखते हुए इस व्यापक अंतर को दूर करने का प्रयास करना चाहिए। पाठ्यपुस्तकों को पाठ्यक्रम में निर्धारित व्यापक उद्देश्यों का पालन करने की आवश्यकता है।

## नोट

\*सीबीएसई से संबद्ध विद्यालयों में प्रायः एनसीईआरटी द्वारा तैयार पाठ्यक्रम और पाठ्यपुस्तकें प्रयोग में लाई जाती हैं अतः यहाँ तीन बोर्डों के पाठ्यक्रम और पाठ्यपुस्तकों की तुलनात्मक समीक्षा के समय सुविधा की दृष्टि से पूरे लेख को पढ़ते समय इस बात को ध्यान में रखा जाए।

\*\*उत्तर प्रदेश बोर्ड ऑफ हाईस्कूल एंड इंटरमीडियट ने वर्तमान सत्र से अपने संबद्ध विद्यालयों में एनसीईआरटी द्वारा तैयार पाठ्यक्रम और पाठ्यपुस्तकें प्रयोग में लाने का आदेश दिया है। यह अध्ययन 2017-18 में किया गया था जब वहाँ के विद्यालयों में व्यक्तिगत प्रकाशकों द्वारा तैयार पुस्तकें प्रयोग में लाई जाती थीं।

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## Exploring English Language Proficiency of High School ESL Learners

### Abstract

*In spite of the importance that English maintains for socio-economic mobility and access to academic resources, various studies suggest that the proficiency level of students in English is not satisfactory in spite of English being introduced in most schools as a subject from class one or as a medium of instruction. To assess where students stand in proficiency in English, the present study was conducted with 62 students from class IX of a government-run school in Telangana state of India. The students were administered a proficiency test developed by the CBSE. The findings reveal that most of the students have a moderate level of proficiency. The study also suggests that the gender of the students plays a significant role in language proficiency.*

**Keywords:** English, Language Proficiency, Gender

### Introduction

English in India is not only a language among the multitudes of languages spoken, written and understood at local, regional and official levels, but it is a language of opportunities, a language of social and economic aspiration (NCF-2005). It is a language that, to a great extent, facilitates socio-economic mobility and ensures greater access to resources, both academic and economic (Azam, Chin & Prakash, 2010). Proficiency in a language has been construed variously by different scholars and ELT practitioners. Language proficiency denotes the ability of a person to perform in a language (Harsch, 2017). This performance in the language is the outcome of 'the linguistic knowledge and skills that underlie L2 learners' successful comprehension and production of the target language' (Gaillard & Tremblay 2016). A modest proficiency in English not only enables the learners to perform in English but also perform in other content areas in a better way as the language of academics at higher level in India is accessible primarily through English. Hence, it is greatly required that in this English-driven world, the learners

do possess a certain level of proficiency in English, so that their studies at later stages happen without much of language hiccups.

In an English as a Second Language (ESL) setting, testing students' language proficiency gives an idea of how much and in which of the skill areas, namely listening, speaking, reading and writing, students can perform a given task and where they stand in comparison with each other. Proficiency tests work as diagnostic as well as predictive tests: the scores tell us in which of the skills or aspects of the language a student is poor and needs help. Besides, they also predict whether a certain task can be performed by the student or not. Hence, proficiency tests help, to a great extent in producing materials and designing appropriate tasks for students in language classrooms to enhance their language capabilities.

### Review of Related Literature

The English language proficiency of school students in India, however, is not very encouraging. Studies in this area, and reports from government and private organizations

show that despite the introduction of English in schools as early as at class I, students' proficiency in the language is not at par with their academic and cognitive level. Student performance has been constantly declining compared to their performances in earlier years (ASER, 2018). The report suggests that students' proficiency in English is below their cognitive level. When it comes to the proficiency level of the students studying in government schools and especially in rural areas, they lag behind their counterparts studying in urban areas whether in government or private schools (NCERT 2015). Prakash & Hooda (2016) in their study with 200 students studying in classes XI and X in Sirsa district of Haryana, report that the students studying in government schools located in rural areas had lower proficiency in English when compared to their counterparts studying in private schools in urban areas. Madhumati, Ramani, & Prema (2014) in their study on 60 students enrolled in B.Tech 1<sup>st</sup> Year in a private university in South India, report that the students' overall proficiency level in English was of Beginner level only even though they had received English instruction for at least ten years.

Gender and its association with language have formed a focal point of enquiry in many social science researches. Several studies have also been done in the area of gender and language development. The findings of research in this area point out that female students outperform male students in their proficiency in English. The studies conducted by the NCERT (2014) on students of class VIII, underscore that in most of the states of India, girls performed significantly better at reading comprehension compared to boys. However, the National Achievement Survey Reports for Class X conducted in the year 2015 reveal that except a few states like Kerala and Goa, there is no significant difference in the performance of girls and boys in English. Whereas, ASER (2018) reports that even in the rural set up, girls' performance on reading was better compared to boys in the age group of 14-16 in most

of the states of India. Besides the reports by NCERT and ASER, many individual studies conducted in India also affirm that girls tend to have better proficiency in English than boys. Ghosh (2017) in his study reveals that the gender is a determining factor in overall achievement in English. His study conducted with 300 students of class X of Murshidabad district, West Bengal, found out that the proficiency level of girls was significantly higher in English than boys.

These studies suggest that students whether at school level or undergraduate level are not very competent in English. Also, the proficiency level of students from rural background tends to be lower. The studies also suggest that girls and boys show different levels of competence in English. What remains to be seen is if such findings can be generalized everywhere in India or if there are schools and students even in a rural set up who show remarkable proficiency in English in spite of lacking basic exposure to the language.

## Objectives

This study endeavours to assess the proficiency level of students studying in class IX of an English medium school run by the government of Telangana, India. The objectives of this research are:

- To assess the high school students' level of proficiency in English
- To explore the difference between boys and girls in proficiency in English

## Research Procedure

The study was conducted in a government school in Karimnagar district of Telangana, India. The school caters to the educational needs of rural children. The medium of instruction in the school is English. The sample was drawn through Purposive sampling technique. The number of students who took part in this study was 62 where 32 were girls and 30 were boys. All the students were studying in class IX. The test was

conducted for two and half hours in a single day. The students' responses were sought on a multiple-choice question (MCQ) based English proficiency test.

## Study Tools

To examine students' proficiency in English, a proficiency test developed by the Central Board of Secondary Education (CBSE) was administered. The proficiency test aims to assess students' skills in reading, writing and vocabulary. It has five sections - Reading, Vocabulary, Writing, Grammar and Cloze test. The Reading section assesses students' comprehension of the given texts based on factual, inferential and evaluative questions. The vocabulary section intends to examine students' range of knowledge of words. The writing section assesses students' awareness of the various genres and formats of writing, namely letter, paragraph organization etc. The Grammar section aims to examine students' knowledge and usage of grammar at sentence level. The Cloze test aims to test students' ability to use language in context. The test consists of 100 Multiple Choice items for 100 marks and the distribution of marks for each component is as follows:

Reading: 30 marks

Vocabulary: 20 marks

Writing: 20 marks

Grammar: 15 marks

Cloze Test: 15 marks

Based on the students' performance on each component, the students' overall proficiency is categorised in five levels:

1. Good user -80 % and above;
2. Competent user -60%-79%
3. Modest user- 40%-59%
4. Limited user- 20%-39% and
5. Very limited user- below 0-19%

The test was conducted in the classroom and students were given two and half hours to complete the test. Later, the scores of the students were collected, processed and analysed quantitatively. For the quantitative analysis, their proficiency was categorised into five levels as per the guidelines of the CBSE and were tested through non-Parametric statistical procedure.

## Data Analysis and Findings

Students' performance on English proficiency test was analysed quantitatively. Students' scores were analysed component wise as well as cumulatively.

### The Proficiency Level of Students in English

The analysis of students' scores on Proficiency test shows that the students, contrary to the other findings in this area, were not extremely limited in their proficiency. However, none of the students were found to be exceptionally proficient in the language.

**Table 1:** Distribution of Boys & Girls' Proficiency in English

			Proficiency					Total
			Very Limited User	Limited User	Modest User	Competent User	Good User	
Gender	Boys	Count	0	22	8	0	0	30
		% within Gender	0	73.3%	26.7%	0.0%	0	100.0%
	Girls	Count	0	13	17	2	0	32
		% within Gender	0	40.6%	53.1%	6.3%	0	100.0%
Total	Count		0	35	25	2	0	62
	% within Gender			56.5%	40.3%	3.2%	0	100.0%
	% of Total			56.5%	40.3%	3.2%		100.0%



From the Table 1 given above, it can be observed that out of 62 students, 56.5 % of the students were limited users of the language while 40.3 % of them were modest users; whereas only 3.2 % of them were

competent users of the language. However, none of the students were in either of the extreme levels-very limited user and good user.

**Table 2:** English Proficiency (Component-Wise)

		Reading (20 Marks)	Vocabulary (20 Marks)	Grammar (15 Marks)	Writing (20 marks)	Cloze Test (15 marks)	Total Profi- ciency (100 marks)
N	Valid	62	62	62	62	62	62
	Missing	0	0	0	0	0	0
Mean		10.3065	11.0645	4.4677	4.3226	7.6452	38.7581
Std. Deviation		2.60258	2.75128	2.21558	1.67698	2.49653	8.16567
Min.		7.00	6.00	1.00	2.00	2.00	24.00
Max.		17.00	17.00	12.00	8.00	13.00	62.00

The analysis of students' performance on each component reveals that the students performed better on reading and vocabulary compared to grammar and writing. Further, many of the students could demonstrate their understanding of language in context since their performance in Cloze test was better than their performance on other language elements. As it can be observed from the above table, the mean score of the students was highest in Cloze test. The students got 7.64 out of 15 with standard deviation of 2.49. The students' performance was equally appreciable in vocabulary and reading where their mean score was 11.06 out of 20 with standard deviation of 2.75 and 10.30 out of 30 and standard deviation of 2.60 respectively. The lowest performance of the students was observed in writing and grammar, where their mean score could go up to 4.32 out of 20 with S.D. 1.67 and 4.46 out of 15 with S.D. 2.21 respectively. It can be observed that the performance of the students on reading, vocabulary and cloze test was comparatively better than their performance on writing and grammar.

The above statistical details imply that the students have more interest in reading and as a result their vocabulary and their knowledge of language use in context as observed in their performance on cloze test, are also improved. However, their

performance in writing and grammar, which is below the average, indicates that the classroom teaching focuses less on writing activities and as a result their knowledge of English grammar is also very limited. It is because when the students are engaged in writing tasks, they consciously imbibe the grammar of a language.

### Gender and Proficiency in English

As discussed earlier, gender is one of the most central variables being explored in the studies related to language learning. Gender while it includes male, female, transgender and queers, for this study, gender denotes to male and female only. The students' proficiency test results were also analysed to find any association between gender and English language proficiency. The performance of the students shows that there was a significant difference between boys and girls in terms of their proficiency in English. From the Table.1, it can be noticed that out of 32 girls, 40.6 % of the girls and out of 30 boys, 73.3% of the boys were limited users of English. Further, 53.1% of the total girls and 26.7% of the total boys fell in the modest user category. Out of 32 girls, only 6.3% girls were found to be competent users, but no boy was found in this category.

The difference between boys' and girls' level of proficiency in English was quite palpable.

The results show that more boys compared to girls fell below the average proficiency level. Since the overall performance of the students on proficiency test demonstrated a difference in the proficiency level of boys and girls, the Mann-Whitney- U test was employed to get a clearer picture of the differences in their performance. Mann-Whitney-U test is a Non-parametrical test which compares the differences between two independent groups. Here, the Mann-Whitney-U test was adopted because the distribution of the variable was found not to be normal.

For statistical procedures, following hypothesis was framed:

$H_1$ : There is significant difference between boys and girls in terms of their proficiency in English.

To test it, the above hypothesis was converted into the following null form:

$H_0$ : There is no significant difference between boys and girls in terms of their proficiency in English.

Following results were obtained from the statistical analysis:

**Table 3:** Mann-Whitney-U Test Results of Proficiency in English

	Gender	N	Mean Rank	Sum of Ranks
Proficiency	Boys	30	26.00	780.00
	Girls	32	36.66	1173.00
	Total	62		

**Table 4:** Mann-Whitney-U Test Results of Proficiency in English (Component wise)

	Gender	N	Mean Rank	Sum of Ranks
Reading	Boys	30	28.63	859.00
	Girls	32	34.19	1094.00
Vocabulary	Boys	30	27.62	828.50
	Girls	32	35.14	1124.50
Grammar	Boys	30	28.93	868.00
	Girls	32	33.91	1085.00
Writing	Boys	30	26.70	801.00
	Girls	32	36.00	1152.00
Cloze test	Boys	30	26.83	805.00
	Girls	32	35.88	1148.00

	Proficiency
Mann-Whitney U	315.000
Wilcoxon W	780.000
Z	-2.675
Asymp. Sig. (2-tailed)	.007

The results observed from the above table show that the mean rank of boys is 26 and for girls it is 36.66 in Proficiency in English. From the Mann-Whitney U statistical analysis, it is found that the U value is 315 and the Z score is -2.675 and the  $p$  value is 0.007. The  $p$  value is a measure of the strength of the evidence of data against null hypothesis. The smaller the  $p$  value, the stronger the sample evidence for rejecting the null hypothesis. The  $p$  value indicates that there is 0.07 % of chance that the null hypothesis is true. Hence, sample results are not consistent with a null hypothesis that is true. Since the  $p$  value is small, it is concluded that the sample is so incompatible with the null hypothesis that one can reject the null for the entire population. Hence, it can be inferred that the boys and girls differ significantly with respect to their proficiency in English. In other words, based on the strong evidence ( $p$  value < 0.05, i.e. 0.007), the null hypothesis is rejected. Therefore, it is concluded that the difference between boys and girls with respect to their proficiency is statistically significant.

	Reading	Vocabulary	Grammar	Writing	Cloze Test
Mann-Whitney U	394.000	363.500	403.000	336.000	340.000
Wilcoxon W	859.000	828.500	868.000	801.000	805.000
Z	-1.673	-1.810	-1.202	-2.331	-2.128
Asymp. Sig. (2-tailed)	.094	.070	.229	.020	.033

Further, if the difference between the boys' and girls' performance on each of the test components is analysed, we find that the boys' mean rank is lower than the girls' mean rank on each of the components. However, this difference between both the genders- boys and girls- is only significant for writing ( $p$  value  $<0.05$ , i.e. 0.020) and cloze test ( $p$  value  $<0.05$ , i.e. 0.033). Boys and girls do not differ significantly in terms of their reading ( $p$  value  $>0.05$ , i.e. 0.094), vocabulary ( $p$  value  $>0.05$ , i.e. 0.070) and grammar ( $p$  value  $>0.05$ , i.e. .229). In other words, reading, vocabulary and grammatical knowledge of English are not gender dependent and any difference observed in the performance of boys and girls on these aspects are not statistically significant. However, boys and girls do significantly differ in their writing skills and their use of English in context. Although at discrete skills level, out of the five components, only on two components boys and girls differed significantly and on three components the difference in their performance was not statistically significant, yet at the overall proficiency level in English, it can be observed that these small differences between boys and girls in terms of their reading, vocabulary and grammar, have certainly compounded to a significant difference. What this analysis seems to suggest is that even if the difference might be statistically insignificant yet attending to these little differences may help in building the overall proficiency level of the students and can bridge the gender gap in proficiency level of the students.

## Discussion and Conclusion

Students' proficiency in English, as suggested by various studies and reports by national and international agencies, is not very

remarkable in Indian context. The present study found that although the students were not extremely limited in their proficiency in English, none of them were very competent in the language as well. Especially, the proficiency level of most of the boys was in the Limited User category itself and a very few boys were modest users when compared to girls who were mostly modest users of English. Analysis of data also reveals that the girls performed significantly better than the boys in English which reaffirms the results of various studies done in national and international context, i.e. girls are better at language compared to boys (Heinzmann, 2009; Główka, 2014; NCERT, 2014,; Ghosh, 2017; ASER 2019). This finding certainly points out that the implementation of English as a medium of instruction is not enough to make learners proficient in the language. While the medium of instruction can make learners communicate in the classroom, it does not, however, guarantee overall proficiency. The findings of this study also corroborate it further: the students could be found responding in English to the teacher (Researcher), but when it came to writing and grammar, their performance was below the average. This underscores the fact that all the basic skills, namely Listening, Speaking, Reading, and Writing are not getting sufficient attention in the English class.

Hence, there is a need to do a systematic assessment of learners' English language proficiency at the institutional level. Based on students' performance on each component, the tasks, activities and instructions should be customised for learners. Such a step would bring a positive change in students' proficiency in English and would also bring boys and girls at par with each other in terms of their proficiency in English.

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## The Relationship of Grammatical Knowledge and Sentence Structure Knowledge with Cloze Test Based Reading Comprehension

### Abstract

*The present study attempts to examine the relationship of grammatical knowledge and sentence structure knowledge with reading comprehension of higher education students. The main purpose of this paper is two-fold: first, to explore the reading comprehension of higher education students in the context of their grammatical knowledge level and sentence structure knowledge level; second, to examine correlation of grammatical knowledge and sentence structure knowledge with reading comprehension. The sample consisted of 54 students, who were studying in B.Ed. programme. The study was carried out by administering grammatical knowledge test, sentence structure knowledge test and cloze test. Descriptive analysis, one way ANOVA and pearson 'r' were employed to analyze the data. The study revealed that most of students had moderate level of grammatical knowledge, sentence structure knowledge and reading comprehension. There was significant difference found between the scores for reading comprehension in the context of their levels of grammatical knowledge and in the context of their levels of sentence structure knowledge also. The correlations between grammatical knowledge and sentence structure knowledge with reading comprehension were significant and positive.*

**Keywords:** Grammatical knowledge, Sentence structure knowledge, Reading comprehension, Relationship

It is a wrong assumption that a person who can read can comprehend. Reading and reading comprehension are two different aspects. Reading involves translating and decoding text into sounds and spoken words, while reading comprehension involves taking what was just read and constructing meaning from those words. In simpler words, reading comprehension is the ability to read, understand, process, and recall what was just read. It is the act of thinking and constructing meaning before, during and after reading by integrating the information presented by the author with the reader's background knowledge (Sweet & Snow, 2003; Snider, 1989). Reading comprehension is a cognitive process that is extremely complex. The process provides readers maximum information from a text with the minimum misunderstanding. Scholars say that it is a special kind of thinking which

involving several abilities. According to Armbruster (2000, pp. 41) imperfect reading comprehension is the basic reason for not understanding what is being read. If readers are reading but not getting any meaning of what is being read, then it not reading at all. Reading depends on the ability to decode, understand and find meaning of the text. It shows level of understanding the text. Reading comprehension is center point of the reading. Reading process is not complete without reading comprehension.

Reading comprehension increases the enjoyment and effectiveness of reading. It is the very useful skill to develop academic, professional and personal identity. Reading comprehension skill is also necessary for passing academic achievement tests and for being able to read effectively for one's career. Findings of many researches showed importance of reading comprehension.

There is research that shows that reading comprehension has a tremendous effect on achievement in mathematics as well as science because there is positive correlation between reading comprehension and student achievement in both mathematics and science (Akbaşlı; Şahin & Yaykiran, 2016). The findings from one research showed significant and positive relationship between reading comprehension and academic achievement (Menaka & Justin Jebaraj, 2017). The correlation between reading comprehension and reading attitude was positive (Windra Dwie Agustiani, 2017). Writing ability and translating ability depends upon reading comprehension because, there is a positive correlation between reading comprehension, and writing and translating ability (Rahemi; Jufri & Havid Ardi, 2013). Reading fluency is closely associated with reading comprehension (Ching Pey; Hui Min & Lay Wah, 2014). So it becomes important to know the factors that influence students' reading comprehension. Does the grammatical knowledge and the sentence structure knowledge affect the reading comprehension? The question led researchers to conduct the study.

### Objectives of the Study

1. To examine the levels of grammatical knowledge, sentence structure knowledge and reading comprehension of higher education students.
2. To examine reading comprehension of higher education students in the context of their grammatical knowledge level, sentence structure knowledge level.
3. To examine correlations of grammatical knowledge, sentence structure knowledge with reading comprehension

### Hypotheses of the Study

Keeping in mind the above mentioned objectives following null hypotheses were formulated:

$H_{01}$  There will be no significant relationship between mean score obtained on reading comprehension test by the higher edu-

cation students who had high, moderate and low level grammatical knowledge.

$H_{02}$  There will be no significant relationship between mean score obtained on reading comprehension test by the higher education students who had high, moderate and low level sentence structure knowledge.

$H_{03}$  There will be no significant correlation between grammatical knowledge and cloze test based reading comprehension of higher education students.

$H_{04}$  There will be no significant correlation between sentence structure knowledge and cloze test based reading comprehension of higher education students.

### Operational Definition of the Terms

**Grammatical Knowledge.** The total score obtained on grammar test by the student was considered as grammatical knowledge. The grammatical knowledge was categorized in three levels: High, moderate and low.

**Sentence Structure Knowledge.** The total score obtained on sentence structure knowledge test by the student was considered as sentence structure knowledge of the student. The sentence structure knowledge was categorized in three levels: High, moderate and low.

**Reading Comprehension.** The total score obtained on cloze test by the student was considered as reading comprehension of the student. The reading comprehension was categorized in three levels: High, moderate and low.

### Sample of the Study

The sample consisted of 54 students, studying in the B.Ed. programme (2017-18) at Faculty of Education, Gujarat Vidyapith.

### Tools of the Study

**Grammatical knowledge test.** The tool was used to measure grammatical knowledge of higher education students. 26 multiple

choice questions were given in the tool. The respondents had to tick mark against the correct option. Each correct answer carried 1 mark and each incorrect answer carried 0 marks. The Chronbach alpha reliability value of the tool was 0.67, Spearman Brown Coefficient value was 0.57 and Guttman Split Half Coefficient value was 0.53. Clifs Consistency Index – ‘C’ which indicates the validity of the test battery was 0.57.

**Sentence structure knowledge test.** The tool was used to measure sentence structure knowledge of higher education students. 14 multiple choice questions were given in the tool. The respondents had to tick mark against the correct option. Each correct answer carried 1 mark and each incorrect answer carried 0 marks. The Chronbach alpha reliability value of the tool was 0.54, Spearman Brown Coefficient values was 0.39 and Guttman Split Half Coefficient value was 0.56. Clifs Consistency Index – ‘C’ which indicates the validity of the test was 0.58.

**Cloze test.** The tool was used to measure reading comprehension of higher education students. A paragraph was given in the test. Total 66 words included in the paragraph. There were 23 blanks in the paragraph. The respondents had to put appropriate word in the blank. Each correct answer carried

1 mark and each incorrect answer carried 0 marks. The Chronbach alpha reliability value of the tool was 0.73, Spearman Brown Coefficient values was 0.55 and Guttman Split Half Coefficient value was 0.61. Clifs Consistency Index – ‘C’ which indicates the validity of the test was 0.71.

## Data Collection and Analysis

Tools of the study were administered to collect data in a normal classroom condition. The respondents were given general information and instruction regarding response submission method. No time limit was imposed for responding. Total 54 higher education students had given responses on the grammar test, the sentence structure knowledge test and the cloze test.

After tabulation of data, descriptive statistics, pearson ‘r’ and one way ANOVA were employed to analyze the data.

## Results

To categorize three levels of grammatical knowledge, sentence structure knowledge and reading comprehension of higher education students *Mean +/- sd* formula was applied. The results are presented in Table 1.

**Table 1:** Grammatical knowledge, Sentence structure knowledge and reading comprehension of higher education students

Variable	Level	Score	N	Percentage
Grammatical knowledge	Low	> 9.011	9	16.66
	Moderate	9.011 to 16.769	38	70.37
	High	16.769	7	12.96
Sentence structure knowledge	Low	<6.476	10	18.51
	Moderate	6.476 to 11.564	36	66.66
	High	>11.564	8	14.81
Reading comprehension	Low	< 8.072	11	20.37
	Moderate	8.072 to 16.808	32	59.25
	High	> 16.808	11	20.37

Table 1 show that 16.66 % students had low; 70.37% students had moderate and 12.96 % students had high level of grammatical knowledge. The results revealed that most of students had moderate level of grammatical knowledge.

The 18.51 % students had low; 66.66% students had moderate and 14.81 % students had high level of sentence structure knowledge. The results revealed that most of students had moderate level of sentence structure knowledge.

The 20.37 % students had low level reading comprehension; 59.25% students had moderate level reading comprehension and 20.37 % students had high level reading comprehension. The results revealed that most of students had moderate level reading comprehension.

In the present study, four null hypotheses were formulated. The descriptive statistics of the first and second hypotheses testing are presented in Table 2.

**Table 2:** Descriptive statistics for the first and second hypothesis

Variable	Level	N	Mean	Std. Dev.
Grammatical knowledge	High	7	19.86	1.676
	Moderate	38	12.53	2.689
	Low	9	6.33	0.866
Sentence structure knowledge	High	10	5.20	0.632
	Moderate	36	9.22	1.376
	Low	8	12.88	0.991

The means presented in Table 2 are further analyzed using analysis of variance to find out the relationship between grammatical

knowledge, reading comprehension and sentence structure knowledge. The results are presented in Table 3.

**Table 3:** Relationship of grammatical knowledge level and sentence structure knowledge level with reading comprehension

Variable	Source of Variance	Sum of Squares	df	Mean Squares	F-value	Sig level
Grammatical knowledge	Between groups	721.003	2	360.501	63.326	0.01
	Within groups	290.331	51	5.693		
	Total	1011.333	53			
Sentence structure knowledge level	Between groups	266.284	2	133.142	88.533	0.01
	Within groups	76.697	51	1.504		
	Total	342.981	53			

Table 3 shows that the Sum of squares between groups of grammatical knowledge level was 721.003 and within groups was 290.331. Mean square between groups was 360.501 and within groups was 5.396. F-value was 63.326. The calculated value was greater than the table value. Therefore the null hypothesis was not accepted. There was significant difference in reading comprehension of higher education students in the context of grammatical knowledge level.

Table 3 also shows that Sum of squares between groups of sentence structure knowledge level was 266.284 and within groups was 76.697. Mean square between groups was 133.142 and within groups was 1.504. F-value was 88.533. The calculated value was greater than the table value. Therefore the null hypothesis was not accepted. There was significant difference in reading comprehension of higher education students in the context of their sentence structure level.



Researchers employed post hoc test LSD to know specific groups difference. Results are

presented in Table 4.

**Table 4:** Summary of LSD analysis on grammatical knowledge and sentence structure knowledge

Variable	Group 1	Group 2	Mean dif	Sig level
Grammatical knowledge	Law	Moderate	6.193	0.05
	Moderate	High	13.524	0.05
	High	Law	7.331	0.05
Sentence structure knowledge	Law	Moderate	4.022	0.05
	Moderate	High	3.653	0.05
	High	Law	7.675	0.05

Table 4 shows that there was a significant mean difference between the reading comprehension scores of the students of group 1 and group 2. On the basis of mean value, it was concluded that the students who had high level of grammatical knowledge had higher level of reading comprehension than the students who had moderate level of grammatical knowledge. The students who had moderate level of grammatical knowledge had higher level of reading comprehension than the students who had low level of grammatical knowledge. The students who had high level of grammatical knowledge had higher level of reading comprehension than the students who had low level of grammatical knowledge.

There was a significant mean difference between the vocabulary scores of the

students of group 1 and group 2. On the basis of mean value, it was concluded that the students who had high level of sentence structure knowledge had higher level of reading comprehension than the students who had moderate level of sentence structure knowledge. The students who had moderate level of sentence structure knowledge had higher level of reading comprehension than the students who had low level of sentence structure knowledge. The students who had high level of sentence structure knowledge had higher level of reading comprehension than the students who had low level of sentence structure knowledge.

The results of the third hypothesis testing are presented in Table 5.

**Table 5:** Correlation between grammatical knowledge and reading comprehension

Variable	N	Mean	Std. Deviation	Pearson 'r'
Grammatical knowledge	346	6.26	2.661	0.589*
Reading comprehension	346	6.42	2.370	

\* Significant at the 0.01 level

The observation of Table 5 shows that Pearson 'r' was calculated to examine the correlation between grammatical knowledge and reading comprehension. There was significant and positive relationship between grammatical knowledge and reading comprehension ( $r =$

0.589,  $N = 54$ ,  $p = 0.000$ ). Therefore the null hypothesis was not accepted. These results suggested that as the grammatical knowledge increases, reading comprehension increases. The results of the fourth hypothesis testing are presented in table 6.

**Table 6:** Correlation between sentence structure knowledge and reading comprehension

Variable	N	Mean	Std. Deviation	Pearson 'r'
Sentence structure knowledge	346	6.38	2.371	0.500*
Reading comprehension	346	6.42	2.370	

\* Significant at the 0.01 level

The observation of Table 6 shows that Pearson 'r' was calculated to examine the correlation between sentence structure knowledge and reading comprehension. There was a significant and positive relationship between sentence structure knowledge and reading comprehension ( $r = 0.500$ ,  $N = 54$ ,  $p = 0.000$ ). Therefore the null hypothesis was not accepted. These results suggested that as the sentence structure knowledge increases, the reading comprehension also increases.

## Discussion

The results of this study reveal that most of the students studied had a moderate level of grammatical and sentence structure knowledge and basic reading comprehension ability. What is of concern is why only a small number of students are at a high level in grammatical and sentence structure knowledge with reading comprehension ability. This may be a question of interest for future researchers.

Results of this study showed a significant difference in reading comprehension of higher education students in the context of their grammatical knowledge level. There was a significant and positive relationship between grammatical knowledge and reading comprehension. The result was in line with the results of the studies by Alderson (1984), Martiarini (2015), Karyadi (2016), Rahmawati (2016), Muharni (2017), *Ulfatussyarifah* (2017), Fitriyeni (2018), Septiani, Diem and Yunus (2018), Yuliawati (2018) and Styaningrum (2019). The results of these studies on the whole suggest that the person having better grammatical knowledge

holds better reading comprehension. It is indicated that the mastery over grammar is critical to increase students' comprehension of the text.

Results of this study showed that there was a significant difference in reading comprehension of higher education students in the context of their sentence structure knowledge level. It also showed a significant and positive relationship between sentence structure knowledge and reading comprehension. Many past research findings supported this finding. The study by Morvay (nd), Shioutsu and Weir (2007), and Mokhtari & Niederhause (2013) showed results similar to the present study. The findings of both studies lead to the conclusion that sentence structure knowledge is important in reading comprehension.

Reading may be improved by students' grammatical knowledge. Therefore, academicians should motivate students to use grammar manuals and reference books for improvement of grammatical knowledge. Students should be given more opportunities to apply grammatical knowledge in writing and speaking exercises. A teacher should point out their grammatical errors found in the written and verbal communication. Teaching of grammar should be made more interesting, interactive and effective. Students should always pay more attention to the grammatical composition in their daily reading-writing related activities, be in oral or written form. Student can express orally or in written form if he has sufficient hold on grammatical structures and he will be confident in expression as well.

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## Teaching Gender Through Films on Sportswomen: Contrary Messages

### Abstract

*It is increasingly essential that teachers focus on media-based ways of teaching and learning. Hence, educators include films to provoke discussions and analyses of concepts. Scholars investigating women in films have shown the dominance of gendered constructions and representations. However, there are very few studies evaluating films on Indian sportswomen. This article assesses the utility of teaching gender and empowerment through two prominent films on sportswomen- Chak De! India and Bend it like Beckham. By engaging in critical content analysis, the article highlights that these films, ironically, predominantly identify sports with masculine achievements, wherein women's successes become supporting narratives merely.*

### Introduction

One of the most important tools of teaching in the 21<sup>st</sup> century is the film or visual medium. Due to the ubiquity of images, videos and visual flow that students, and indeed, society is exposed to, it is essential that teachers, educators and courses, focus on innovative and media-based ways of teaching and learning. An integral way to do so is of course, to include films or television shows or even video snippets which can provoke thought, reflection, discussions and analyses of different concepts and issues addressed in the course. Indeed, cinema has been highlighted as one of the most important cultural expressions of the increasingly globalized information society that we inhabit (Moura, Cachadinha, & Almeida, 2017). Consequently, utilizing films for analyses relating to important concepts like gender, sexuality, power and discrimination, is indeed a fascinating enterprise.

There has been a growing tendency of investigating the representations of women in films as it helps to shed light on and thereby, question the dominant gender stereotypes that prevail in popular culture. Scholars

have focussed on the under-representation of women as compared to men in television and films (Signorielli, 2001), the desirability and sexual attraction of women being linked to their younger age (Bacue, 1999), women being rendered and represented as sexualized, objectified and shown as helpless as well as incompetent (Witt, 2000) along with other related themes. There have also been analyses of the role of heroines and female characters in Disney films which have revealed the specific gender constructions and representations they have focussed on- for instance, a depiction of the female characters as being emotional, sexually and socially passive, dependent and romanticas compared to their male counterparts (Wiersma, 2000). Analyses of such films have also revealed how, despite the overt messages of women as powerful and liberated, there are often insidious subtexts of domestic violence, sexism, racism, ageism and a culture of complicity with sexual violence, that is being encouraged (Towbin, et al., 2008).

However, there have been far fewer studies on the issues of women in sports

as well as their representation in cinema (Muller, 2013). Nonetheless, most of these studies have showcased the very limited number of films being made on the issue of sportswomen, as well as the disproportionate focus on the sexuality and sexualisation of the women (Cahn, 1994; Caudwell, 2009; Pappas, 2012) that many of these films have engaged in. Interestingly however, very few such studies of evaluating films being made on sportswomen have been done in the Indian context (De, 2013; Mukherjee, 2018). This article is an attempt to analyse the utility of teaching gender and related concepts through the use of two of the most prominent films made on sportswomen in recent times, the first structured within the Indian context, and the second focussed in and around the Indian Diaspora- *Chak De! India* and *Bend it like Beckham*.

### **Films on Sportswomen of Indian origin: The case for analysing *Chak De! India* and *Bend it like Beckham***

It is undoubtedly the increasing global success of Indian sportswoman that has resulted in a higher number of films being made on this issue. Typically, as sports is largely understood as a patriarchal and male-dominated sphere where women have rarely, and only recently, been given increased access, most of the films on Indian sportswomen have focussed on the challenges confronted by these pioneers. If we merely try to list out the total number of films focussing on sportswomen in India, we find that almost all of these films have been released in the last two decades or so. If we take the case of the largest film industry in India, the Hindi language film industry, we find that Bollywood as it is popularly known- has released important films like *Chak De! India*, *Mary Kom*, *Dangal*, *Sultan* and the Tamil-Hindi film *Irudhi Suttru* (Hindi film released as *Saala Khadoos*). Apart from these, there was *Kousalya Krishnamurthy*, a Telegu language remake of the Tamil film *Kanaa*,

which have both been released in the recent past. It is a logical argument that these films have only been possible due to the success enjoyed by the actual Indian sportswomen at the global sporting arena- for instance, the success of the Indian sportswomen at the Olympics. Taking a cue from the real life glories of the Indian sportswomen, cinema in India has tended to reflect the rising role women are playing in the traditionally men's world of sports, and professional sports at that.

The films are especially dedicated to highlighting the role played by sports in freeing women from the fetters of patriarchal society which has always strived to restrain women from accessing and succeeding in the masculine world of sports. Indeed, several scholars have pointed out how sports traditionally had a huge role to play in celebrating and shaping masculinity and its expressions (Connell, 1995; Rajendran, 2017). The new message or lesson however, is that women have now managed to wrangle their way into the high stakes arena of professional sports. This is also in keeping with the increasing social awareness of feminist issues and the construction of a conscious demographic which will consume films or other aesthetic products which assert such messages.

While almost all of these films have been released after the 2012 and the 2016 Olympic Games where Indian sportswomen won medals and captured popular imagination like never before, one of the most prominent films on Indian women's sports was of course, *Chak De! India*- which was out in the year 2007. It focuses on the meanings of national identity while being premised on a failing national women's hockey team, and highlights the evolving definitions of Indian womanhood as well as how they play out in the wider space of cultural politics (De, 2013).

In a similar vein, scholars analyse the British- Asian comedy-drama film *Bend it like Beckham*, and attempt to locate the possibilities of sports as an avenue for

inclusion, in the context of the construction of a multicultural society like Britain (Abdel-Shehid & Kalman-Lamb, 2015). The film was released in 2002, when in Tony Blair's Britain, multiculturalism was more than just the flavour of changing times, and population demographics. Indeed, in this British film about people of Indian origin or the Indian Diaspora, the trope of multiculturalism as a socio-political strategy of the new Labour government becomes ironically an aspirational idea, while in actuality, doing little to challenge the pressure towards conformity to the white English norm. They also note that the film's apparent feminist commitment, with the context of sport ostensibly offering a scope for the women to overcome their gendered life and opportunities, however, fails to mount a sustained and realistic challenge to the hetero-normative values of patriarchy premised around conventional constructions of masculinity and femininity. The basic purpose of this paper then is to engage in critical content analysis of these two culturally influential films in order to understand the varied readings and constructions of gender, sexuality and feminisms that these films can be considered to represent. The films have been understood to represent women's empowerment through their successes in sports, however, a more analytical reading of the films suggest that there are in fact, messages contrary to the empowerment narrative that are obvious in the themes. In fact, despite the fact that after the release of these two films, there have been a number of such films which have been centred on sportswomen, some of the more problematic gendered themes that we identify in these two initial films continue to remain relevant in the latter films as well. Consequently, these two films can be considered to have had a lasting impact on the genre- which is what makes them particularly suitable to use as tools to aid in teaching about gender and the related constructs.

As the following arguments in this paper note, most of the themes in these films are consistent with the constructs

of conventional notions of patriarchy and masculinity. Despite the distinctly women-centric premise of both films, the prioritization of the masculine values of authority, pride and aggression as stemming from and being synonymous with the male characters in the film helps to buttress the traditional constructions of men as the decision-makers and change agents within these films.

### **Teaching women's empowerment through *Chak De! India*: Patriarchy prevails**

The film *Chak De! India* essentially starts out by showing that the Indian men's Hockey team captain Kabir Khan had apparently intentionally lost an international match- where he seemingly intentionally misses a penalty shot in a match against Pakistan, leading to India losing the match. Consequently, the media hound him and he is branded a traitor and forced to move out of his home and neighbourhood. With his reputation in tatters, he disappears from the public eye for quite some time before resurfacing years later in order to apply for the post of the Coach of the faltering Indian women's hockey team. The film clearly highlights the intrinsically gendered and biased attitude of the office bearers of the Hockey Association. The Head of the organization expressly says that the women's hockey team exists merely because of the state providing subsidy, and that there is no inherent value at all that it serves. He believes that the woman's place is only in the home; and cooking and cleaning are the only two things that the women should focus on- leaving the sporting activities to the men. By starkly showing the audience what the sportswomen are up against, the film reaffirms its commitment to be a watershed film on women's empowerment by highlighting that nothing is in fact, impossible for women to accomplish- despite the existence of sizeable obstacles.

The storyline of the film follows how the team falls apart even more due to firstly- the patriarchal attitude of the officials and the

management body, as well as the internal divisions and regional divides between the players themselves. It is only with the talismanic Coach, played by Shah Rukh Khan, and his tremendous self-belief and determination that the players are united as a team and learn to play like, and eventually, become champions. Apart from asserting the unshakeable patriotism of the coach and his redemption at an international sporting event, the film also intends to serve as a celebration of girl power, Indian womanhood and the solidarity of women.

Indeed, it must be recognized that *Chak De! India* played a significant role in the popularizing of the issue of women's sport as well as harbouring a keen sense of nationalistic fervour. However, while attempting to read the film as a visual text in order to interrogate the meanings of women's empowerment that it claims to envision, I would like to point out that despite the film-makers' attempts to re-conceptualise sports as an avenue of liberation for women, the end result is much more contradictory and complex.

Since the movie is so predominantly premised on the trope of the 'hero'-represented by the mentor cum coach figure of Kabir Khan, and his redemption through success at an international sporting event, the focus on the women becomes secondary, and instead, is subverted by the male figure of the coach emerging as patronising and decisive, who must direct the women as they have to unite to win the ultimate sporting event. The male as rescuer of a troubled women's team becomes another variation of the trope of the male as saviour of the damsel(s) in distress (Wiersma, 2000)- who are unable to help themselves and rendered voiceless and agency-less, unless and until the central hero of the film comes to their aid. Indeed, the underlying narrative of the film is overwhelmingly masculine and patriarchal- as revealed by the figure of the coach as not only embodying the role of the paternal protector, but also serving as a potential source of threat to the female

characters whenever they serve to challenge his masculine authority. For instance, the coach Kabir Khan warns the senior-most player that despite her obvious seniority and experience, she cannot be the "goonda" or undisputed leader- the trouble-making masculine entity (De, 2013) since every team can only have one such character, and in this case, it is he, himself who fills that role. Hence, the implicit violence that has been identified by feminists as part of the structure of control of patriarchy (Krishnan, 2018) has, ironically, been showcased by this film celebrating the power of Indian women as well.

### **Teaching gender stereotypes and women's agency through *Bend it like Beckham*: Locating sports as avenue for reclaiming masculinity**

The second film that I seek to view in order to understand its gender implications is *Bend it like Beckham*. It tells the story of two eighteen year old aspiring professional footballers in UK: Jesminder "Jess" Bhamra and Jules Paxton. Jess is from a British Asian Sikh background while Jules is from a white ethnic background. Following the Orientalist trope of the European initiating the Asian (Said, 1978), she initiates Jess into the local women's football team. Both the women have their own battles to bear as Jess is shown to come from a very conservative family where her mother is extremely concerned at her lack of femininity, as well as her overt challenge of traditional gender norms, whereas Jules is plagued by the presence of a hyper feminine mother who believes that sporting activities lead to undesirably masculine traits among women along with the possible spectre of turning her daughter into a lesbian, in keeping with the close cliché association of sportswomen being likely to be lesbian in terms of sexual orientation (Caudwell, 2009).

Further, the construct of multiculturalism as integration is attempted to be clearly

addressed in the film; however, the structuring is such that Jess' attempts to embrace typically English practices are seen as an entire contrast to traditional Asian Indian values and hence, her transformation into adopting the English lifestyle and practices are almost constructed as rejections of her devalued Indian identity and cultural values, revealing the relatively overt way in which the colonial narrative of the whites as offering a respite from the barbaric nature of Indian culture, seems reemphasized.

### **Sports as inherently masculine: the failure of the case for empowering women**

Sports can be located as one of the last few legitimate spaces for men to claim, emphasize and reassert their masculinity. As it is an elaborate ritual for men to display their physical strength and aggression in a publicly accepted and approved way, feminist critics have frequently been critical of its inherently gendered and exclusionary character. Sporting activities have been noted as being the foundational basis for the development of the concept of hegemonic masculinity, as well as offering men the cultural ideals of the perfect masculinity to aspire to (Connell, 1995). Additionally, the female body in sport has tended to be scrutinized in terms of its levels of sexualisation and desirability. Traditionally, the women and by extension, the female body had been held up as the reward or spoils of victory in sporting events, and more recently served in the role of the overtly sexualised objects, important as diversionary spectacles, but not as intrinsically competent competitors (Muller, 2013).

In both these films, despite the celebration of the actualization of women as sports-persons being the manifestly obvious focus, the essential-significance attached to authoritative, patriarchal figures- what may be referred to as the role of the 'benevolent dictator', as played out by the central figures of coach Kabir Khan in *Chak De! India*, and

by Jess's father Mr. Bhamra, as well as by the ethnically white coach Joe, in *Bend it like Beckham*.

Mr. Bhamra is consistently portrayed in a largely sympathetic light, as a victim of systemic racism while Joe, a much younger coach who could not go the distance in his own men's football career due to injury, is similarly treated as the source of masculine authority, direction and guidance for Joe and Jules. And indeed, in the ultimate and predictable victory of the women's team when both Jules and Jess are selected to go for the much coveted US based soccer scholarship, it is as much an affirmation of Joe's capacity to participate in and find success/fulfilment in the ultimate sporting arena of football.

As for the coach Kabir Khan in *Chak De! India*, his journey towards the retrieval of his erstwhile reputation as a loyal player- which had been 'lost' due to the clearly undeserved allegations of betrayal and cheating that he had faced earlier, is addressed through his reclamation of the lost masculine identity and potency with the success of the women's team. This journey is of course, complicated by his Muslim identity in a Hindu-majority country like India, and the allegation of cheating having been made in a match against Pakistan; the background of war and antagonistic relations between India and Pakistan being of supreme-significance in this context.

### **Conclusion: Movies, Masculinity and Messages**

It can be argued that *Bend it like Beckham* can be considered to fall within the lens of post-feminism as a 'sensibility' wherein ideas of women's empowerment are gradually affirmed through the agency of the individual woman, as against the structural and systemic nature of sexism that must be combated as a matter of course by women across the world. The trope of the sportswoman finding fulfilment and success through sport and becoming empowered is still a shying away from the acknowledgement



of the need for a collective correction of the structural inequalities. Both *Chak De! India* and *Bend it like Beckham* are indeed, sports films centred on women engaged in sports as vocation with the emphasis on the liberating potentials of sports. The twin contexts of the developing world and the developed world—as evident through these films, may differ in terms of basic facilities, but the approach to women in sports seems to be quite similar. The perspective of the man as coach, and to a lesser extent, as the protectionist *Pater*, largely renders women as agency-less subjects who need to be taught and trained in the ways and skills of masculine sports. Additionally the male coach and or the *Pater* is one who had inevitably failed in men's sports in some way— either in terms of breaking into the world of professional men's sports— as exemplified by Joe and Mr. Bhamra in *Bend it like Beckham*, or failed as a model sportsman who epitomizes loyalty and commitment to sports and his nation— as exemplified by Kabir Khan in *Chak De! India*. Hence, the failure of the man is an

implied and yet clearly articulated failure of him in terms of his masculine identity. Subsequently, their success in the women's sporting arena, even as it comes through the sports women's triumphs, becomes a way for the emasculated sportsmen to almost reclaim victory, and therefore, their masculinity.

Consequently, teaching these two foundational visual texts as premised on the meaning and nature of women's empowerment becomes a complicated and ultimately, problematic exercise since these films celebrate the importance of sports as an avenue for masculine achievements, wherein women's successes only become supporting narratives in the overwhelmingly male tropes of success and glory in sports. Therefore, teaching gender and the related concepts of femininity and masculinity, as well as the complexities of sexuality, through two seemingly women-centric films become an exercise in contradictions, due to the implicit, but clearly antithetical message that they seem to express.

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## Indian Trainee Teachers' Perceptions of 21<sup>st</sup> Century Skills

### Abstract

*National Curriculum Framework for Teacher Education (NCFTE) provided a meaningful pathway to develop 'reflective teachers', creating a cadre of confident, effective and efficacious teachers for 21<sup>st</sup> century's fast changing Indian society who can teach effectively in diverse classrooms and for this to happen 21<sup>st</sup> century skills need to be focussed. This study sought to investigate the Indian trainee teachers' perception of those skills, to what extent these skills were integrated in Indian teacher education programmes and challenges against this integration. A survey was administered following descriptive method within ex-post-facto research design among 500 final year trainee teachers from 50 teachers' training colleges stratified random sampling technique. Data were analysed descriptively and inferentially. The findings revealed that few such skills were partially integrated while few others were poorly integrated. Significant differences were found in ingestion of these skills between trainees' of private and government teacher training colleges. The study also noted the challenges in integrating these skills that will provide valuable reference for teacher education curriculum planning and implementation with a view of providing a holistic educational experience among trainee teachers across the country.*

**Keywords:** Trainee teachers; Teacher education; National Curriculum Framework for Teacher Education (NCFTE); 21<sup>st</sup> century teaching skills; India.

### Introduction

John Dewey (1910) said "if we teach today's students as we taught yesterday's, we rob them of tomorrow", that implies we must offer students authentic learning experiences that prepare them for the ever-evolving challenges that lie ahead and engage, equip and ready them to lead into the 21st Century. Chronologically we are in 21<sup>st</sup> century and education in the 21st century is profoundly affected by changes in society: globalization, technology, labour market dynamics, immigration etc. (Cretu, 2017). 21<sup>st</sup> century has brought its own changes and challenges which demand that teachers be properly prepared, trained and equipped with the right skills which will help them to deal with such challenges in their profession because, quality of teachers

determines the quality of education that is linked with nation's development (Trilling & Fadel, 2009). The effect of globalization and other pressures and challenges such as the rapid technological advancements, changing patterns of work, explosion in information access and use have brought in certain demands on education such that the inculcation of 21<sup>st</sup> century skills has become a necessity because 21<sup>st</sup> century teaching is however a different perspective, learning could never happen the way it is happening these times (Stewart, 2014). The American Association of Colleges for Teacher Education (AACTE) and the Partnership for 21<sup>st</sup> Century Skills believe new teacher candidates must be equipped with 21<sup>st</sup> century knowledge and skills and learn how to integrate them into their classroom practice for our nation to realize its goal of successfully meeting the

challenges of this century (AACTE, 2010). Changes in the demand for skills have profound implications for the competencies which teachers themselves need to acquire to effectively teach 21<sup>st</sup> century skills to their students (OECD, 2012 cited as Andreas, S. 2012).

Clark (2009) expressed a need for 21<sup>st</sup> century students who not only are prepared for the technology of the changing world, but to acquire other skills needed in the workforce, such as problem solving and leadership skills. Therefore, for students to be well equipped with the necessary skills, they are supposed to be taught by teachers who have felt skills those in their lives, having a good command of those skills, and are able to transmit those skills to their students (Saavedra & Opfer, 2012). Many nations around the world have undertaken wide-ranging reforms of curriculum, instruction, and assessments with the intention of better preparing all children for the higher educational demands of life and work in the 21<sup>st</sup> century, what are the skills that young people need to be successful in this rapidly changing world and what competencies do teachers need, in turn, to effectively teach those skills to their students (Schleicher, A., 2012). It is also an established fact that many countries globally face the problem of shortage of teachers to meet the requirements of their education systems (Santina, 2014). Due to such shortages, countries emphasize on expanding teacher education to increase output without much consideration about the necessary critical skills required for these teachers to be effective in the 21<sup>st</sup> century classrooms (Saavedra & Opfer, 2012). Former USA President Bill Clinton (1998) stated in his '*Call for Action for American Education in the 21st Century*' that, every community should have a talented and dedicated teacher in every classroom and consequently, the emphasis on massive training of teachers without integrating the much required skills would, therefore, mean wastage of resources. NCFTE, (2009) also stated it is well known that the quality and

extent of learner achievement are determined primarily by teachers' competence, sensitivity and motivation that constitute a critical component of the essential learning conditions for achieving the educational goals. Thus quality teachers are the key factor for sustainable global development, and their training, recruitment, retention, status and working conditions are among global priorities today (Kumar & Azad, 2016) and in this context this research topic deserves a good attention for a developing country like India being the home of 193 million school going children. The specific research questions being investigated were-

- I. How is the perception of Indian trainee teachers regarding 21<sup>st</sup> century teaching skills being integrated in their course?
- II. What are the possible challenges in conceptualising these skills in their training course?

## 21<sup>st</sup> Century Skills for Pre-Service Teachers

The foundation of the '21<sup>st</sup> century skills', elements and definitions stem from the framework presented by *Partnership for 21st Century Skills* (Dede, 2010), the term 21<sup>st</sup> century skills is generally used to refer to certain core competencies such as Creativity, Critical thinking, Communication, Collaboration, and Information, media, and technology skills (henceforth IMTS) that schools need to teach to help students thrive in today's world (Pacific Policy Research Center, 2010; Saavedra & Opfer 2012) because today's youth are to face a rapidly changing world, requiring them to move beyond basic formulaic knowledge and skills. The current educational policy, represents a shift away from rote learning and memorization of facts to the development of the 21<sup>st</sup> century skills (Urbani, Roshandel, Michaels & Truesdell, 2017) and this tone was also reverberated in the latest National Curriculum Framework of India (NCF, 2005). 21<sup>st</sup> century learning means students master content while producing, synthesizing and

evaluating information from a wide variety of subjects and sources with an understanding of and respect for diverse culture (Rich, Elizabeth, 2010). For this purpose Fidel-and Trilling (as cited in Romero, Usart and Ott, 2015) defines 21<sup>st</sup> century skills as the new

set of skills required for success in learning, working and living. Michaels, Truesdell & Brown (2015) defined the 21<sup>st</sup> century skills for pre-service teachers in a comprehensible manner as mentioned below in Table 1.

**Table 1:** Definition of 21st century skills for pre-service teachers.

Creativity	Creativity is the ability to develop, choose, and integrate novel, unconventional, and innovative approaches to teaching and learning.
Critical Thinking	Critical thinking is the ability to effectively use higher order thinking skills to plan, teach, and reflect on instructional practice while integrating and applying theories of teaching, learning, and development.
Communication	Communication is the ability to successfully use interpersonal skills and components of literacy (reading, writing, speaking, and listening) to contribute to teaching, learning, and development
Collaboration	Collaboration is the ability to work productively and equitably while valuing others in diverse educational settings.
Information, Media, and Technology Skills (IMTS)	IMTS is the ability to access, manage, apply, analyse, and evaluate digital information and instructional technological tools. This includes leveraging technology innovatively and effectively in diverse learning environments to collaborate, communicate, think critically, and create new functions in the midst of rapidly changing technological advances.

Arguably, it is imperative for teacher educators to enhance their own 21st century skills in order to transfer this skill set to their students (Rust & Bergey, 2014; White & Chant, 2014; Michaels, Roshandel, Truesdell & Urbani, 2015). Grounded in cognitive apprenticeship theory, constructivist approaches to human learning that emphasizes the importance of the process in which a master of a skill teaches that skill to an apprentice (Collins, Brown, & Newman, 1987; Brown, Collins, & Duguid, 1989), this process starts with foundational course work upon entrance into the program, followed by applications to the field and continued development as in-service teachers (Collins, 2006). These skills are not novel to today's educational and business settings (Rotherham & Willingham, 2009; Silva, 2009) and these skills have been integral elements throughout human history; however, how these skills are taught and developed in K-12 schools has evolved

as a burning issue (Urbani, Roshandel, Michaels, & Truesdell, 2017). Teacher education programs should be expected to start this process by facilitating pre-service teachers' exploration and reflection on these competencies to apply them within their classrooms, so they continue to develop and learn throughout their careers (Darling-Hammond, 2006).

## Brief Country Profile in Teacher Training

UNESCO-ILO (2010) stated that teacher quality is an important consideration in student achievement, and although defined differently by different people, it continues to be a central concern of those responsible for teacher education. India has the world's third largest educational system and is among the largest systems of teacher education in the world (Kumar & Azad, 2016). National Curriculum Framework (NCF) 2005 places

different demands and expectations on the teacher, which need to be addressed both by initial and continuing teacher education and the importance of competent teachers to the nation's school system, can in no way be over emphasized (NCFTE, 2009). Mohanty (2015) said quality teachers are products of quality teacher education programs, policies and practices but it continues to be a challenge for every nation to produce well prepared and effective teachers. Recently 'Sarva Shiksha Abhiyan' or 'Education for All'(SSA), and implementation of 'Right to Education act' (RTE, 2009) coupled with Sustainable Development Goals (UNDP) have produced a huge requirement of teachers and to meet this new challenge, our country needs good teachers in large numbers (Kumar & Azad, 2016). In several past studies show that Indian teacher education is infested with numerous problems like, institutional inertia, brand inequity, quality crisis, overgrowing establishment, rare humane and professional teachers, poor integration of skills, alienated and incompatible modes of teacher education, little contribution to higher education, domain pedagogy mismatches, identity crisis, rare innovations, stake holders' non-alignment, inadequate technology infusion, little choice base, poor research scenario, vision and vision mismatches, non-scientific manpower planning, illusive laboratories, over activism of distance/open universities, invalid recognition and accreditation, poor monitoring, privatisation, lack of dedication among would be teachers, and no robust teacher education policy (Chand, 2015; Desai, 2012; Jamwal, 2012; Desai, 2012; Goel, 2012; NCTE, 2009; Chowdhury, 2017). NCFTE, (2009) also observed in the same line that rapid expansion of teacher training countrywide has taken a heavy toll on quality parameters of infrastructural provision, faculty qualification, learning resources and student profile. Verma Commission (2013) observed around 90 per cent of pre-service teacher education institutions are in the non-government sector, and most of the states of the east and the north-east are facing an acute shortage of

institutional capacity of teacher preparation vis-à-vis the demand. Thus Indian teacher education system has been suffering from several needs and malnourishment that need urgent and dramatic changes in policy and practice. In this regards, Goel & Goel (2012) rightly mentioned in their study that certain skills as life skills, techno-pedagogic skills, info-savvy skills, emotional skills, human developmental skills and spiritual skills need to be integrated in the teacher education programmes and there should be simultaneous focus on the creative thinking, critical thinking, self and social management skills as country's present teacher education system fails to integrate these skills within learners, similarly Jamwal (2012) stressed on the deep incorporation of ICT in educational activities of trainee teachers, Khirwadkar (2014) stressed on the pedagogical aspects of ICT integration, Kaur, (2013) stressed on the need of professional expertise and skills needed for a good teacher and inculcate them within 21st century students. In this line of research the current study is of immense importance as it will depict a picture of developing 21st century skills and the formation of the reflective teachers from among the Indian trainee teachers.

## Method

This study followed descriptive survey method within ex-post-facto research design; the details regarding the method of research design, sample, research instruments, procedure of data collection and statistical technique were reported in this section.

## Sites and Participants

The study was conducted following a stratified random sample comprising of 300 male and 200 female trainee teachers pursuing the same Bachelor of Education (B. Ed) program in 2016-18 session in 50 different teachers' training colleges of India, out of which 25 were government managed and 25 were privately managed. A stratified random sampling technique was used to give

representation of different cultures, zones and geographical locations with an aim to get a holistic picture. The actual names of the participants and the colleges were withheld following ethical issues. In course of the study 40 trainee teachers (20 from government and 20 from private colleges) were interviewed to help in-depth analysis of their perception and to find a reason behind such perceptions. The demographic detail of the participants is presented below in Table 2.

**Table 2:** Demographic information of the participants

Variables	Frequency	%
Gender		
Male	250	50
Female	250	50
Age		
20–25	275	55
26–30	185	37
More than 30	40	8
Academic qualification		
Graduate	125	25
Post-graduate	375	75
Year of study		
2nd Year/Final year	500	100
Management		
Government	250	50
Private	250	50

## Tools

The following research tools were used in the present study for collection of data. The tools were selected by applying benchmark of relevance, appropriateness, reliability, validity and suitability. Brief descriptions of the tools are hereby presented.

**Questionnaire:** A researcher made questionnaire was used to collect opinion of the trainee teachers regarding 21<sup>st</sup> century skills having 25 question items in 5 domains-Creativity skill, Critical thinking skills, Communication skills, Collaboration skills and IMTS skills (Appendix-I). The questionnaire was standardized taking help of experts and overall reliability measure

Cronbach's alpha found 0.83 and 0.85, 0.81, 0.86, 0.82, and 0.83 in its five domains respectively. This self-report measure is scored on a five-point Likert Scale, ranging from "Strongly agree" to "Strongly disagree", with higher scores indicating better perception of skills.

**Interview:** To help in-depth analysis of their perception and to find reasons behind their perceptions an interview protocol was also developed and 40 trainees (20 from government colleges and 20 from private colleges) were interviewed in face-to-face mode. There had been both open ended and closed ended questions. Interviews with the student teachers were conducted in venues of their choice away from any form of distraction and for the purposes of confidentiality. Each interview lasted for not more than half an hour. With permission from the research participants, all the interviews were audio recorded so that the researchers could listen to them carefully for more insights.

**Observation:** An in-depth observation was also taken into the classrooms specially computer labs and current teaching modules for B.Ed colleges including National Curriculum Framework for Teacher Education (NCFTE, 2009).

## Data-collection

The researchers explained the 21st century skills to the research participants to have a clear understanding of those skills. A pilot version of the surveys was initially administered to a limited number of respondents with different characteristics to establish the effectiveness of the designed tools. Testing the survey design helped ensure that the used terms were easily perceived, as well as to check for validity (i.e. the items were asking what we wanted to learn) and consistency. One-on-one, face-to-face semi-structured interviews were used in this study to get an in depth insight into the issues. The principals of the selected colleges were communicated for his/her permission to allow collecting the relevant data, and

data were collected by administering the above-mentioned tools on the subjects under study in accordance with the directions provided in the manual of the tools. Three to four days visit to each college was taken for data collection and all 500 respondents were served questionnaires and all 500 questionnaires were carefully collected and the response rate was 100%.

## Data Analysis

Data were analyzed in accordance with each research approach and results were presented in several tables. Descriptive as well as inferential statistics and underlying relationships between the variables were found out by computing appropriate statistics with the help of SPSS-20.0 software. Descriptive statistics (mean and SD) were used to evaluate trainee teachers' perception of skills. Independent Samples t-tests were conducted to find out the statistical significance of the differences in perception between male and female trainees and government and private college trainees and reported in APA formats. Two statistical hypotheses were also formulated as mentioned below.

## Hypotheses

The following statistical hypotheses were framed to and tested before reaching statistical inference.

- I. There is no difference in perception of 21<sup>st</sup> century skills between male and female trainees.
- II. There is no difference in perception of 21<sup>st</sup> century skills between government and private college trainees.

## Results

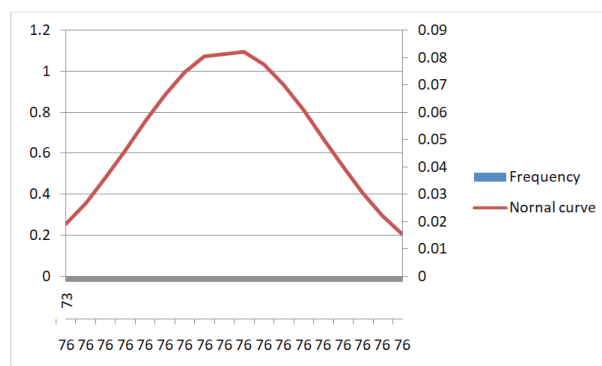
The results of this study, the overall perception of the trainee teachers' regarding ingestion of 21<sup>st</sup> century teaching skills are presented in this section including 5 domains, supported by data tables where necessary.

## Overall Perception of Skills

The overall perception of Indian trainee teachers in 21<sup>st</sup> century teaching skill is found moderately high ( $M=81.2$ ,  $SD=4.8$ ) in the range of scores (Min-25, Max.-125) which is found positively skewed ( $Mean=81.2 > Mode 76$ ) that indicates maximum scores fall towards the lower side of the scale and there are very few higher scores. The Figure 1 shows the distribution of the scores is close to normal distribution.

**Table 3:** Trainee Teachers' Perception of 21<sup>st</sup> Century Skills

Variables	Mean	Std. Deviation
Gender		
Male	82.32	4.35
Female	82.23	4.6
Management		
Government	81.84	4.75
Private	80.77	4.88
Overall	81.2	4.8



**Figure 1:** Frequency distribution of perception scores

Further analysis reveals that there is no mentionable difference between male ( $M=82.32$ ,  $SD=4.35$ ) and female ( $M=82.23$ ,  $SD=4.6$ ) trainees and the slight difference that is observed is not statistically significant as the t-test result in Table 4 shows  $t(494) = 2.23$ ,  $p=0.81 > 0.05$  (critical value) and the 1<sup>st</sup> Null hypothesis is accepted and there is no statistically significant difference in perception of 21<sup>st</sup> century skills between male and female trainees.



**Table 4:** Perception of male trainees compared to females on 21st century skills

	Mean	SD	t-cal	t-crit	df	p	Decision
Male	82.32	4.35	2.23	1.38	494	0.81	Accept
Female	82.23	4.6					

To test the 2<sup>nd</sup> Null hypothesis another t-test was conducted and the findings are reported in Table 5 that shows  $t(494) = 2.4$ ,  $p = 0.004 < 0.05$  (critical value) and the 2<sup>nd</sup> Null hypothesis is rejected which means there is statistically significant difference

of perception in 21<sup>st</sup> century skills between government and private college trainees and the perception of skills is better among government college trainees ( $M=81.83$ ) than their mates in private colleges ( $M=80.8$ ).

**Table 5:** Perception of government college trainees compared private on skills

	Mean	SD	t-cal	t-crit	df	p	Decision
Government	81.83	4.75	2.4	1.65	496	0.004*	Reject
Private	80.8	4.88					

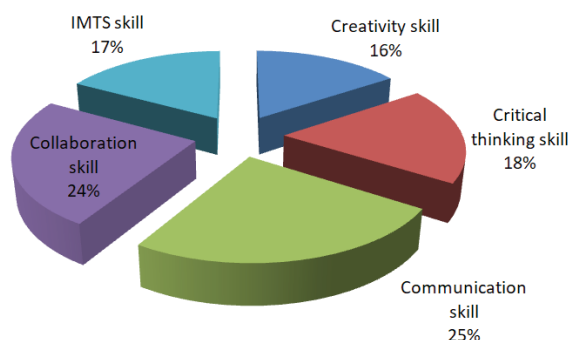
\* $p=0.004 < 0.05$  (critical value)

### Perception in different Domains of Skills

A further division of skill perception in five different domains as shown in Table 6 reveals that Indian trainee teachers have comparatively high perception in certain domain like Communication skill ( $M=21.16$ ,  $SD=2.36$ ), Collaboration skill ( $M=20.62$ ,  $SD=1.98$ ) while in other domains they are found low perception like Creativity skill ( $M=13.32$ ,  $SD=2.03$ ) Critical thinking's skill ( $M=15.65$ ,  $SD=2.15$ ) and IMTS skill ( $M=14.52$ ,  $SD=2.24$ ) which is further made evident in the pi-diagram in Figure 2 that shows trainees have the highest level of perception in Communication skill (25%) followed by Collaboration skill (24%), Critical thinking skill (18%), and IMTS skill (17%).

**Table 6:** Trainee teachers' perception of 21st century skills in different domains

Domains	Mean	SD
Creativity skill	13.32	2.03
Critical thinking skill	15.65	2.15
Communication skill	21.16	2.36
Collaboration skill	20.62	1.98
IMTS skill	14.52	2.24
Overall	81.2	4.8

**Figure 2:** Pie-diagram of perception in different 21<sup>st</sup> century skill domains

An analysis of the raw scores reveals that 53% respondent trainees disagree with the proposition in Item No. 1 in the questionnaire that their program is efficient to develop critical thinking in them and only 21% show agree while 26% remain neutral. In Item No. 5, 65% respondents show disagree that their program allows 'six thinking hats' which is tool for group discussion and individual thinking during micro-teaching, while only 19% show agree. In Item No. 9 regarding respondents' overall perception of nourishment of critical thinking faculties in their program which unequivocally shows respondents are dissatisfied with the existing opportunities in their program to develop this 21<sup>st</sup> century skill when 53% respondents show disagree,

26% remain indecisive and only 19% show agree with the statement. In Item No. 10, 46% respondents show disagree that their program gives opportunity for inquiry and questioning and 25% show agree. In Item No. 25 of the questionnaire majority of 55% respondents disagree when we asked them if their program is helpful in developing their confident in using ICT during classroom instruction. In Item No. 22, 62% respondents disagree on the question of using ICT during micro-teaching classes and in Item No. 23, 61% respondents show disagree on the question of mandatory use of media and ICT during practice teaching.

## Discussions

This section discusses the findings according to each research question following the research theme of the study.

**Question 1:** How is the perception of Indian trainee teachers regarding 21<sup>st</sup> century teaching skills being integrated in their course?

The study found that the Indian pre-service training teachers' overall perception of 21<sup>st</sup> century skills is of moderate level having enough place of improvement and the perception of government college trainees were better than their colleagues in private colleges and this difference was found statistically significant. But no statistically significant difference of perception between male and female trainees was found. Few skills like Communication skill and Collaborative skill were found partially integrated but other skills like Creativity, Critical thinking and IMTs skills were found poorly integrated.

## Partially Integrated Skills

From the responses of participants it is evident that the majority of them think they have incorporated with the skills like Communication and Collaboration, still the study found in all parameters of these two skills, a significant number of respondents

remain 'neutral' which is an impediment in accepting that the program is successful in developing students' Communication and Collaboration skills among trainee teachers. Besides a large number of trainees were found disagree which can't be ignored and in the parameters of Interpersonal skills (Item No. 13) or Cross cultural awareness (Item No. 14) majority of respondents found disagree. Participants also noted that skills such as global and cross cultural awareness and interpersonal skills are not effectively learnt. It was particularly emphasized that interpersonal skills are very important for a democratic society. Participants seemed to suggest that as prospective teachers; they need to learn how to relate with others and in this context one interview participant said,

"... I think teachers should have strong interpersonal skill to relate to his students and the society outside to create a robust learning environment for his students."

Another participant said,

"...to teach the students in this globalised era, teachers need interpersonal and cross-cultural communication skills but I feel our course is less inventive in this respect, and I personally felt no tips to inspire these skills among student teachers."

The participants believed that it is very important for teachers to be culturally and globally aware. This validates the argument made by Stewart (2014); Young, Grant, Mounbriand and Terriault (2001); Haciomeroglu, (2013) that students have to be internationally prepared with international knowledge, strong training in languages, and deeper cultural understanding. For this reason, participants seemed to suggest that overall communicative and co-operative skills including interpersonal skills need to be emphasized in the curriculum to allow teachers greater exposure to in this globalised era and to make them effective agents for social transformation as NCFTE (2009) claimed that learning is not confined to the four walls of the classroom and for this to happen, there is a need to connect

knowledge to life outside the school and enrich the curriculum by making it less textbook-cantered.

### Poorly Integrated Skills

From the participants' response it is evident that 21<sup>st</sup> century skills like Creativity, Critical thinking and ITMS are found poorly integrated in the said training program as evident from Table 5. In all parameters whether it is brainstorming or research or giving constructive feedback, trainee teachers showed dissatisfaction with their program. In Critical thinking skill also, respondent student-teachers found dissatisfied as majority of them neither get opportunity for inquiry nor get the opportunity to participate in debates in regular intervals and this finding was also echoed in NCFTE (2009) that recommended in favour of developing 'reflective teacher' with creative potential, positive attitudes, values and skills for the craft of teaching. Regarding ITMS skill also respondents showed dissatisfaction. In all the five question items (Item No. 21-25) respondents found disagree with clear majority margins while ITMS or ICT skills are very essential in a 21<sup>st</sup> century classroom. Respondents were, however, quick to note that computer skills are very important in today's world and especially when India is rapidly advancing in technology integration especially in Information and Communication Technology (ICT), and information explosion is very high (Bharadwaj, V., 2007; Kundu, et. al, 2018; Bindu C.N., 2019). With the onset and proliferation of ICT, there is a growing demand that it be included in school education but NCFTE (2009) also found it has become more of a fashion statement to have computers or multimedia in schools, the result being that in spite of its potential to make learning liberating, its implementation is often not more than cosmetic.

**Question 2:** What are the possible challenges in conceptualising these skills in their training course?

From the survey results it is evident that 21<sup>st</sup> century teaching skills are not

satisfactorily nurtured in Indian teacher education program. Now we went to find out the possible challenges in conceptualising these skills during the interview with the participants because finding those challenges could help in the better integration of those skills into the teachers' training programme. Therefore, the interview protocol was formed focussing on the discernible challenges. From interview outcomes we came to learn that, even though participants believed that such skills are very crucial, but the curriculum seems to not successfully match with the skills requirements. It was observed that trainees had to cover too many course modules per semester. As such they spent most of the time memorizing the subject matter so that they could pass the exams with a good score rather than internalize or thinking about the skills. Here the remark of one trainee is worth mentioning, who said-

"...in our country assessment of skill comes later and what comes forefront is the marks, without which a trainee will never be offered with a job, therefore, we focus more on gathering marks than gathering those soft skills."

The respondents stated critical thinking and knowledge application skills as difficult to develop since they rush through and memorize content in order to pass the examinations; they had to give preference on knowledge over wisdom, baffling the high idealism as guided by NCFTE(2009) that teachers need to be prepared to care for children, enjoy to be with them, seek knowledge, own responsibility towards society and work to build a better world, develop sensitivity to the problems of the learners, commitment to justice and zeal for social reconstruction. However, one would think that because they cover many subjects per semester, one could become a more critical thinker, more creative and more imaginative since he/she has to think, study and work hard in order to make sense and successfully navigate through the courses but Henry, Nyaga & Oundo (2014) showed in their study that examination oriented teaching may not help students to achieve their academic aspirations because here teachers concentrate on the cognitive

domain; equipping learners with knowledge and theoretical skills through examination oriented teaching which would enable them pass examinations instead of providing a holistic educational experience.

Another challenge is that Indian teacher education program focuses more on theory and less on practice which is mentioned in several past studies as well (Jamwal, 2012; Desai, 2012). Moreover, the time for practice is not sufficient to prepare the teachers for working in the field. In this context one respondent trainee said-

"....duration of the practice teaching we get in our curriculum is very short to develop those skills or consolidate them by practicing in a real situation."

Another trainee said,

".....during practice teaching we are not allowed to use any ICT device and we follow the pedagogy used by the teachers in the respective school and no scope for inventive pedagogy practice."

Teacher education programmes need to help teachers appreciate the potential of hands-on experience as a pedagogic medium both inside and outside the classroom; and work as integral to the process of education (NCFTE, 2009). Verma Commission (2013) also observed and recommended in the similar manner that every pre-service teacher education institution should have a dedicated school attached to it as a laboratory where student teachers get opportunities to experiment with new ideas and hone their capacities and skills to become reflective practitioners. This observation goes in line with that of Darling-Hammond (2006) who also observed that strong teacher training programmes among other things are those that have an extended period of internship. But teacher education programmes in India are not aligned with teaching practice and thus do not appeal to the 21<sup>st</sup> century teaching-learning. All these hamper the development of a 'reflective teacher' and transmission of 21<sup>st</sup> century skills.

It was also found that the Indian way of teaching is a challenge to successful

integrationsuch skills in the teaching-learning that most teachers follow the same old lecture methods that do not make students get involved, and teacher educators' is no exception. They also follow the note based exam oriented pedagogy and trainees are to follow him without questioning since a threat perception prevails in the teacher-student relationship. Admitting this drawback one trainee teacher of a government college said-

"....most of our teachers follow a lecture method based on note demonstration, and we are to copy them because these are going to be set in the examination question."

Thus the reality is awe-inspiring and seems difficult to come out of the strong traditionalism and reactionary attitude, omnipresent in life around us. These colonial norms even in the teacher training colleges deprive trainees' chances of individual thinking, research and group discussions, and minimising education to a task of 'copy-paste'. Making students involved in the learning process would allow them to learn intercultural skills, communication skills, team work, critical thinking, imagination and leadership skills which are necessary for the 21<sup>st</sup> century classes. Korthagen, Loughran, & Russell(2006) also said that teacher education programmes are being accused of misalignment between teacher training and reality in schools where they note that there is too much reliance on lectures during theory work. Even though document analysis, during observation, showed that university training modules of National Curriculum Framework for Teacher Education (NCFTE) for teacher education show a clear commitment to increasing opportunities for teachers to develop the requisite competencies, this seems to only appear on paper.

## Conclusion

The findings of this study reveal that the Indian teacher education program is not effective in developing the 21<sup>st</sup> century teaching skills among trainee teachers up to the satisfactory

level. Out of the five discussed skills in this study, Communication and Collaboration skills were shown getting moderate level of success in respect of their ingestion whereas Creativity, Critical thinking and ITMS skills were found to be poorly integrated. The acquisition of such skills would enable the teacher trainees to be able to deal with the ever changing terrain of the contemporary teaching profession (Msiska & Salik, 2016). The study further investigated the challenges in conceptualisation of these skills and it came out that following a rote based teacher centered approach, age-old exam oriented curriculum, lack of motivation on the parts of all stakeholders, lack of infrastructure and a reactionary mindset towards technology integration in teaching are some of the prominent challenges that hamper the acquisition of these skills. There are, however, several areas where the Indian teacher education programmes need to improve that include skills of nurturing creativity, technological skills, as well as cross cultural and global awareness skills. Teaching practice period is not enough to adequately prepare teachers for the skill

development and need to extend and focus on the teaching practicum. There is also need to strengthen cross cultural awareness, interpersonal and other skills that have not yet been integrated into the Indian teacher education programmes so that the teachers are fully equipped for the 'reflective teacher'. The Indian teachers' teaching methodologies also need to change deserting the individualistic teacher-centric traditional methods which Lemley and Schumacher (2014) note that are fast becoming irrelevant, and by adopting interactive and innovative approach adapting to new collaborative, team-centered methods that appeal to the 21<sup>st</sup> century learning environment. Trainee teachers need guidance in applying their knowledge to learning activities for their students as well as support in how to do so in various educational contexts. Teacher education programs need to provide more hands-on experience with technology and guidance on how to implement IMTS into teaching. Therefore, teacher educators need to consistently integrate new technologies to enhance their instruction and model these techniques for their students.

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37

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## Appendix: I

<b>Questionnaire</b>						
<b>Perception of 12<sup>st</sup> century skills</b>						
<p>The following are 25 questions on few vital skills a teacher needs to teach in a 21<sup>st</sup> century class. Please find those skills and report your perceptions on those skills how far those skills incorporated in your B. Ed program are or how far your course gives you confidence in attaining and integrating those skills in your teaching, in the 5-point scale provided at the right end of each question. Please show your perception by putting a Tick (✓) on the appropriate number where 1= Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree and 5= Strongly Agree. If you have not experienced this feeling, or if the item is inappropriate for your position, circle number 1 (no strength; not noticeable).</p>						
		1	2	3	4	5
<b>Creativity skill</b>						
1	I think my program is efficient to develop critical thinking in you.					
2	I get constructive feedbacks regarding my performance.					
3	My program encourages me to participate in projects or researches.					
4	My program arrange regular brainstorming session					
5	My program allows 'six thinking hats' during the micro-teaching sessions.					
<b>Critical thinking skill</b>						
6	My program gives opportunity for inquiry and questioning.					
7	My program encompasses regular debates or seminars.					
8	My program focuses on understanding and interpreting knowledge.					
9	My program is helpful for developing my critical thinking faculties.					
10	My program follows problem solving approach.					
<b>Communication skill</b>						
11	My program gives opportunity for ample interaction between teachers and students.					
12	My program gives freedom to express your ideas.					
13	My program gives scope to learn interpersonal skills.					
14	My program helps me in developing a global and cross cultural awareness.					
15	My program gives me scope to communicate with school students.					
<b>Collaboration skill</b>						
16	My program endorses group work activities among students.					
17	I get adequate peer support.					
18	My program encourages 'gallery tour' or 'reciprocal teaching'.					
19	I share course related ideas with my colleagues.					
20	I think my program is strongly built to develop collaborative mindset in me.					
<b>Information, Media, and Technology Skills (IMTS) skill</b>						
21	My program encourages computer and ICT skill development.					
22	I use ICT during micro-teaching classes.					
23	My program encourages a mandatory use of media and ICT during practice teaching.					
24	My program has adequate provisions for ICT classes.					
25	My program is helpful in developing my confidence in using ICT during classroom instruction.					



# Implementation of Vocational Education in the State of Haryana: Some Insights from the Field Visit

## Abstract

*This paper attempts to share the experience and insights gained on vocational education during the field visits to schools of Haryana. Vocational education was piloted in the year 2011-12 in 40 schools of Haryana, covering 8 districts with 4000 total number of students enrolled and slowly multiplied in many schools. The planning, implementation, coordination, evaluation of vocational education and associated issues and concerns are highlighted in the paper. The concerns raised by the teachers, students and parents also find place in the paper. On the basis of which, measures to strengthen vocational education in the schools of Haryana have been suggested.*

## Introduction

The Skill Development Mission of India has envisioned the target of skilling 500 million people of the country by the year 2022. As one of the measures for achieving this target, vocational education has been integrated into the general education system by launching National Skills Qualifications Framework (NSQF). The vocational courses under this policy were introduced as pilot project in the state of Haryana. Subsequently, under the Centrally Sponsored Scheme, almost all states have introduced vocational courses under NSQF.

NSQF will pave the way to strengthen Technical Vocational Education and Training (TVET) system by linking vocational education to higher education, which in yester years was up to +2 stages. The objectives of NSQF include:

- To create a workforce empowered with the necessary and continuously upgraded skills, knowledge and internationally recognized qualification to gain access to decent employment and ensure India's competitiveness in the dynamic global market.

- To increase the productivity and employability of the workforce (wage and self-employed) both in the organized and the unorganized sector.
- To increase the participation of youth, women, disabled and other disadvantaged sections and to synergism efforts of various sectors and restructure the present system with the enhanced capability to adapt to changing technologies and labour market demands.

The NSQF has proposed 10 levels, from Class IX to Ph.D. programmes in particular vocations. TVET at higher levels (from L-5 onwards) will become a part of the university system and will have opportunities for trade specific research. A list of 20 sectors was identified by Planning Commission, Government of India (2010) for vocational education.

The pilot NSQF unveiled in Haryana in the year 2011-12 in 40 schools, covering 8 districts with 4000 total number of students enrolled. The sector covered under NSQF in Haryana included sectors like Agriculture; Apparels, Made ups & Home Furnishing; Automotive; Beauty & Wellness; Banking, Financial Services & Insurance;

Construction; Electronics; Food processing; Health care; IT/ITeS; Retail; Physical Education, Plumbing, Private Security, Telecom, Tourism & Hospitality, Media & Entertainment. Further, it is scaled down to almost all districts of the state in terms of schools and subjects provided. It is very interesting to learn the planning at state and district level involving various academic, administrative and certifying bodies like National Skill Development Corporation (NSDC), the Sector Skill Councils (SSC), School boards, Open Schools, Boards of Technical Education, AICTE and UGC. The skill gap analysis carried out by NSDC in some high growth sectors and then mandated with the constitution and notification of the Sector Skill Councils (SSC), which will lay down the National Occupational Skill Standards (NOSS) for the respective sectors. Awarding bodies ensure that the curriculum design and delivery is in conformity with the national standards prescribed by the NSQF. It is very encouraging to know that central and state governments and employers, including private, will need to amend the recruitment policies, rules and procedures for giving preference to persons with competencies in conformity to the NSQF.

### Planning of Vocational Education Programme

It is rightly said “Well planned is half done”. There is a need for comprehensive planning and coordination among various academic bodies, Boards and organisations involved in planning, training, implementing and assessing the programme. Before the implementation of any policy or framework it is very essential to prepare the system for its implementation in terms of resource availability, infrastructure, trained human resources, etc.

- Development and supply of curriculum, syllabi and textbooks in various languages, especially in English and regional languages to facilitate learning.
- For effective instruction, availability

of minimum required facilities and instructional materials and their maintenance is essential. Exhaustible materials are not replaced from time to time in the Labs. Many vocational subjects, like IT, Retail were taught without adequate number of computers, raw materials and allied primal matter in the school.

- Resources for maintenance; basic facilities like water supply, electricity, internet facility, tools, equipment etc. are the basic facilities for any practical oriented course. Shelf life expiration of equipments & irregular supply of electricity resulted in not conducting practicum properly which affects expected skill development process among the students.
- Decision regarding the number of vocational subjects is made at higher level. Freedom should be given to all the institutions in providing number of optional subjects to the students depending upon the demand of the subject in the locality. It is suggested that provisions be made for smart classroom for each vocational subject in every school.

### Teacher Preparation

Whatever be the quality of the prescribed curriculum, it is the teacher who is responsible for the training of students.

- Teachers need to be prepared and must be ready for any implementation/exigency. Just creating awareness of the course may not suffice; if left to ‘time or tide’, will unquestionably tantamount to ‘crying for the spilled milk’.
- Vocational education teachers are mostly Post Graduate/Graduate/Diploma holders with no experience of teaching. However, The Pandit Sundarlal Sharma Central Institute of Vocational Education (PSSCIVE), Vocational Training Provider (VTP), subject experts helped in training and they have updated their subject knowledge. As vocational subjects are

practical oriented, the teachers handling them should be skilled in pedagogy and assessment. But teaching learning process in the classrooms was far from expected standards. The focus of teacher training should not only be on the acquisition of the knowledge and skills, but also on use of an integrated approach to develop entrepreneurship and soft skills required for the vocation among the students.

- It is suggested by the state officials that UGC and NCTE should work on Pre-service teacher training to address this perspective. Vocational Subjects should be introduced during B.Ed. for Vocational Teachers/trainers.

### **Coordination Between Academic Bodies & Examination Boards**

Planning again in terms of checking whether there is provision for vertical mobility in the regions or state is most essential. Vertical mobility is the chief aim of NSQF, but due to lack of coordination with higher education agencies (UGC), universities, colleges; students passing out L4 are unable to take up L5 as the degree program in that vocational area. Hence, the purpose of NSQF is defeated and certificates of L1 – L4 are being wasted. School Education, Technical Education and higher education need to harmonize their fields of expertise in order to provide opportunities to have vertical mobility in the area of interest of the students. Mapping of skills under RMSA and RUSA have to be done for ensuring vertical mobility.

### **Implementation of Vocational Education**

1. Freedom to choose the vocational subject
  - Are our students not capable of selecting the vocational subjects? Existing mechanism of selection of vocational subjects to school and students for the subject in Haryana is as follows: - The schools are requested

to send data regarding student enrollment, proximity of the industry, Aptitude of the students, Skill Gap, School Infrastructure etc. and also details of the skills that is proposed to be introduced. Accordingly the schools were allocated the vocational subjects as per the data collected.

- When interacted with students, most of them selected the vocational subjects based on the guidance and counseling provided by the vocational teachers. Added to this, the selection was also gender based, the girls were provided with either Beauty & Wellness or Retail as one of the vocational subjects and boys were given IT / Security/ Health. Students need to be given opportunity to choose the vocational subject in which they are interested.
  - The system failed in foreseeing the issues related to providing vocational education as equal to that of other optional courses. Two skills are introduced in each school. The scheme provides enrollment of 25 students per skill, being practical based skill. Putting the vocational subject in the basket of other optional subjects created administrative, academic and other problems. Since it is to be taken by choice, this may be made an independent additional optional subject by choice.
2. Setting up of labs and procurement of equipments  
There needs to be flexibility under which the state needs to be empowered to change a particular skill approved by MHRD Govt. of India, keeping in view peculiar situation such as enrolment, aptitude of the students in a particular schools as well as ceiling in fact.
  3. Encouraging admission of Children with Special Needs (CWSN)  
There were hardly any children with special needs enrolled in the vocational subjects. This would have been great

opportunity to CWSN to get skilled in one of the vocation.

4. Monitoring the programme with a view to improve the situation

- Development and updation of textbooks and other course materials: Vocational subject being a very dynamic subject with ever changing role expectations, one has to identify the skill gaps continuously and hence needs curricular/syllabi/textbook up-dation. Otherwise, the skill sets demonstrated by the students at the end of the year would be out-dated and not suitable to the market. In the study conducted at Haryana, a few employers have responded positively and expressed that the syllabi is not updated and skills are not matching with the demands of the market due to out-dated equipment at schools. For instance, in retail sector, students have to work on different & latest software at work place which is not in tune with softwares at schools.
- Smooth fund flow mechanism: For effective implementation of any scheme or policy, most vital prerequisite is smooth and timely fund flow. Many of the schemes do not function as expected due to untimely or delayed fund flow which leads to compromising quality instruction and ultimately resulting in negotiated quality of education.
- Performance assessment of teachers: All the vocational coordinators monitor the performance of vocational teachers in their respective subjects. It is done through self-appraisal, visits, daily diary and monthly reports. They visit the schools, observe classes and lab maintenance, go through the reports, assess the activities carried out by the students, etc. They provide feedback to the principal and also appraise the district level functionaries. They visit school on quarterly basis to review the implementation of vocational education in schools.

It was learnt that from the Vocational coordinators that vocational teachers are used as substitutes in the absence of regular teachers and also are involved in co-curricular activities. These teachers are involved usually in the activities like maintenance of overall records of the class as an class In-charge ; students enrolment process; as a substitute teachers; substitute clerical staff; maintenance of school accounts related to NSQF and most of the times in feeding data in MIS Portal(especially Vocational Teachers from IT/ITes skill).

- Organizing field visits/guest lectures: Regarding the field visits, they are promptly carried out in IT/ITes, Beauty and Wellness, Patient care assistance and retail. Guest lectures are arranged in various areas many times in a year.
- Apprenticeship: Looking into the importance and ensuring skill development in the vocational subject, it is suggested that provision for internship/ apprenticeship may be made mandatory for every student to provide experience and exposure of the real world of work situation.
- Teacher related concerns: Teacher recruitment, salaries and training is most essential for success of any educational endeavour in schools. The salaries and increments to the vocational teachers were not provided on time. It is a matter of great concern that salaries of all the vocational teachers/trainees (VTs) are not at par. Different VTPs are paying different amounts; vocational teachers appointed by state department are getting higher salaries. This issue can be resolved at the state level before the implementation of the scheme at schools at planning stage.
- Treatment of vocational subject as an optional subject: Overall Vocational subject is also offered as an optional

subject along with other optional subjects including Applied Learning Skills. If the students fail in academic subjects but get through in vocational subjects, he cannot be promoted to the next class. This indicates that a vocational subject has still not been accepted at par with other subjects viz. Mathematics, Science etc.

- **Streamlining MIS and e-portal for effective implementation:** Various problems/issues may be shared through e-portals of all the stake holders so that solutions or guidance may be obtained quickly and without holding meetings which are difficult to organize frequently.

Management Information System (MIS) may also be updated and data/information from all the concerned offices may be uploaded. This will also enable to take stock of situation and implementation could be streamlined.

There is no systematic student tracking mechanism in the schools to know the employment or vertical mobility of alumni. Some of them expressed that they track the progress of alumni through telephone, emails, records maintained by vocational training providers and schools.

### Issues Related to Coordination

The state has evinced the problems due to lack of coordination between the schools, SSC Board and other academic bodies in implementing the programme. There should be clarity in roles and coordination amongst the bodies conducting and certifying the courses. A long delay in providing certificates is witnessed especially on successful completion of level 4 by students due to lack of coordination.

- **For Tracking Mechanism:** Another lapse due to poor coordination is that there is no tracking mechanism to discern whether the students are employed after completion of level 4. Most of the students opt for higher education and a very few

choose employment after level 4. Only 25 students were enrolled in level 1 for a vocational subject in a school, however till class 12 the number sharply declines to 4-8 students per vocational subject.

- **For Providing Exposure to Industry And Placement:**

At the time of completion of Level 4 examination, most of the students do not attain 18 years of age thus are not eligible for employment. Moreover, Campus placements/recruitments are also not common. Therefore, the content needs to be designed to provide the students basic knowledge and the specialized knowledge. Added to this, a specialized training if given to students after 10+2 would help them to enter world of work in a smooth way. Due to poor coordination and linkages between service providers, employers and educational institutions, arranging On-Job-Training is a big challenge. System failed in Liaisoning with industries due to absence of organizational support.

- **For Higher Education**

It is also witnessed that there is no academic linkage or support in terms of vertical mobility/pursuing higher education in the same field, the scheme turned out a flop; reason being that there is no linkage and coordination among school vocational education, University/UGC & MHRD.

### Problems Related to Evaluation and Certification

The examination is conducted by Board of Secondary Education, Haryana and for the practical examination district wise assessors are appointed by Sector Skill Council (SSC) under NSDC. The certificate for skill development is issued by the NSDC at each level. But the certificates never reached the students on time and usually get delayed. The resultant consequence brunt impact was faced by the students, as they do not get certificates for vocational subject along with board results.

## Placement of Students

Students passing out 12<sup>th</sup> class i.e. Level 4 of the vocational trade are less than 18 years of age; hence they cannot be absorbed or placed for employment. It is therefore suggested that the students after obtaining Level 4 certificate may be placed for apprenticeship, which should be mandatory for VTPs to make arrangements. It is suggested that SSCs may provide support in the placement of students after passing level 4. Students and parents demanded to make provision in the scheme which would lay the foundation for vocational pass-outs to develop into entrepreneurs.

## Strengthening the Participation of Industries

There is lack of desired participation of industries through SSCs in the implementation of NSQF. The state was facing problem in organizing industrial visits to students. Also, students are not able to undertake training at industries, as most industries hesitate to/do not allow students. It is in this context, SSCs role may be strengthened and VTPs may ensure strong linkages for NSQF implementation. It is also suggested that stronger coordination is required between all the agencies at the centre and state level, responsible for the implementation of NSQF. These include NSDC, PSSCIVE, SSC, State Board of Examinations, Department of School Education (RMSA), Schools offering vocational subjects, Principals, VTPs, VTs etc.

## Parents' Reactions Towards Vocational Education

Both the parents and the students were found to be happy with the vocational subjects as these courses are job oriented. They are contented with the training provided in the schools. When interacted they even said that their children tend to apply whatever is learned in the vocational subject in different contexts, and in this way propagate their skills in society. For instance:

*“Students who opted for retail were found to fight with shopkeeper for extra charged bills after reading bar-code on each article. Students share their knowledge at home like importance of expiry date, MRP, first aid kits, skin care, nutrients and diets, hygiene, mobile applications, computer knowledge, security aspects, repairing automobiles, type of lubricants and oil used in automobiles etc.”*

When parents were asked about the problems or difficulties faced by their children while studying vocational education, their responses were as follows:

- Children studying IT were struggling due to lack of adequate computers at school and unavailability of computers at home. As a result the students had no proper practice. There are instances where IT subject is taught with no lab but only with one computer / one computer and a projector
- When the Placement Mela is conducted, jobs offered are in faraway places with a salary up to Rs. 7,000/- only and sometimes the names of the students are noted or announced but were not appointed. They felt that it was a ‘namesake affair’.
- Government should provide financial support to these students for their start-up/ own business.
- Colleges /Universities should offer these vocational subjects in higher number and students should be given direct admission in them.

When met Alumni, most of them revealed that these vocational subjects have helped them in developing confidence, communication skills and positive attitude towards work, education and life. Every alumnus acknowledged change in their personality after studying vocational subject. They also pointed out that lack of computers in some schools, discontinuous power supply, no water supply in the labs were other hindrances for the conduct of practicals in vocational subjects. They suggested that more industrial visit, OJTs and practicals should be conducted during the course.

## Summary of Suggestions to Improve Vocational Education

Vocational subjects must be considered as a compulsory subject along with the other core subjects. A bridge course may be started to tackle the problem of less enrolment in Level-3 & Level-4 in particular vocational subject under NSQF. The institution having less enrolment may be allowed by the state to offer only one vocational subject to enable access to vocational education.

To improve the quality of vocational education, linkages between NSDC, SSC, Boards, and Department of school education need to be strengthened. Effective implementation of NSQF leads to achieve the objective of skill development through stronger industry-institution linkages for field visits, practical, OJT and evaluation by the industry. It is therefore suggested that Vocational Training Provider need to monitor the above mentioned areas and these may be taken up as per provisions made in the scheme. It is also felt that Industry should absorb level-4 students who are less than 18 years of age for apprenticeship.

For the students to get equipped with skills, government should provide more facilities & placements. The labs have to be updated with new instruments/equipment. Study materials have to be provided to the students in time. Moreover, simulation training should be given. Further regular teachers for vocational subjects with pedagogical knowledge need to be appointed. Involving members of sub-committee of SMDC for Vocational Education in creating awareness among parents; reviewing of infrastructure like labs and classrooms; monitoring of project and funds allocated to

the vocational education; classroom training and field visits; Job fair, organization of Exhibition of schools etc. would facilitate smooth functioning of the system.

## Conclusion

The NSQF system is expected to achieve goal of skilled human resource under country's skill development mission to train 500 million youth. This skill development initiative will enable students to develop certain skills and competencies during the school life. It will prove to be beneficial to a large population of students dropping out from the school system. The Public Private Partnership (PPP) model under NSQF system will enhance industry participation in skill development resulting in reducing mismatch between demand and supply of skills and competencies. The state of Haryana evinced a high impact of introduction of NSQF on Enrolment rate, retention rate, development of employment skills and reduction of dropout rate in general education. The quality of vocational education may be monitored periodically by updating the course curriculum, textbooks, labs and liaisoning with other associated functionaries.

**Acknowledgement:** *The paper is based on the observations and reflections gathered by the author during her visit to the schools of Haryana as a part of the research project under the PAB funding by Ministry of Human Resource Development. The author is thankful to the authorities concerned for providing the opportunity and also the teachers, students and their parents and other stake holders with whom the author had an opportunity to interact.*

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## **Pedagogical Practices in D.El.Ed. Programme of DIETs of Odisha: An Exploration**

### **Abstract**

*The paper tries to explore the pedagogical practices of Diploma in Elementary Education (D.El.Ed.) programme of Odisha with specific reference to foundation courses, pedagogy courses and practicum. A mixed method was used wherein convergent parallel design has been employed. By using stratified random sampling technique, six District Institutes of Education and Trainings (DIETs) were selected-two each from the three revenue divisions of Odisha. From each DIET, all student teachers who were pursuing 2nd year D.El.Ed. programme and all teacher educators available during the time of data collection were taken for the study. In total 384 student teachers and 41 teacher educators participated in the study. The pedagogical practices were classified under 3 categories-inside class room, outside classroom and institutional practices. Rating scale was administered to student teachers of DIET to understand student teachers' perceptions on pedagogical practices. Classroom observation, Interview and Focus Group Discussion (FGD) are the other tools/ techniques used in the study for data collection. Data was analysed both quantitatively and qualitatively. Frequencies and percentages were calculated and in addition, content analysis was used to analyse interview and FGD data. It was found that a majority of student teachers expressed favourable response to pedagogical practices of D.El.Ed. programme. Teachers claim that a variety of methods are used to transact the curriculum. Analysis of data revealed that though some of the postulates of National Curriculum Framework for Teacher Education (NCFTE)-2009 are reflected in the overall pedagogical practices, more efforts are required in this direction to make process based elementary teacher education available at DIETs.*

### **Introduction**

India has witnessed enormous changes in the field of elementary education in the last few decades. There were lots of efforts suggested by policies, commissions and schemes to provide quality education to all children up to elementary level. The enactment of the Right of Child to Free and Compulsory Education Act in 2009 had changed the policy landscape and opened up possibilities to have a series of opportunities to strengthen the quality dimensions of elementary education in India. Considering the exponential growth envisaged in elementary education, quality has become a central point in any discussion concerning elementary education. To

achieve quality, there are several inputs that are prerequisites. Undoubtedly, one of the mandatory parameters in ensuring quality elementary education is quality pedagogic process in schools. It is also widely accepted that 'teacher quality' becomes a primary factor that determines efficient curricular transaction and ensures pedagogic processes at schools that elevate quality of elementary education. Evidently the quality of elementary education is a direct consequence and outcome of the quality of elementary school teachers. In the absence of an effective teacher all efforts will prove fructuous so far as pupils' learning is concerned. The role of the teacher has rightly been emphasized in the Programme of Action

(POA) of National Policy on Education, 1986 by arguing that the teacher is the principal means for implementing all educational programmes and for the organization of education. About teachers, the Education Commission (1964-66) observed that the teacher is undoubtedly the most important of all factors that determine quality of education and its contribution to national development. In this context, a well-planned teacher education programme for very significant in the generation of quality teachers or pedagogues.

Pedagogical practices or activities organized by the Institute are the central elements that determine the quality of schooling or of teacher education. The term encompasses learning, teaching and education as well as didactical issues. An important area is the relationship between the pedagogue's work and the learning processes. The term pedagogic practices can be referred to as an area of knowledge that deals with organised activities with the aim of leading to individuals' learning- it could be inside classroom, outside classroom or general institutional practices.

## Context and Rationale

The National Policy on Education (NPE) 1986 and allied Programme of Action (POA) envisaged a district level institute to support elementary education that came into existence in the shape of DIETs. One of the major responsibilities of DIET is to empower/enrich pre-service elementary school teachers with pedagogical content knowledge. That is equip them with necessary knowledge and skills and motivate them to think of innovative teaching-learning process and eventually develop 'teacher identity' among them. DIET is conceived as the academic lead institutions for other educational institutions of the district in terms of meticulous, efficient and effective planning and execution by acting as a strong interface between school education and elementary teacher education. Therefore DIETs are

expected to reflect the changes in the school education which is undergoing tremendous changes in this knowledge economy adopting constructivist approach. This concern is reiterated in then formulated policies and curriculum frameworks including National Curriculum Framework (NCF)-2005 and NCFTE-2009. Accordingly recommendations are made to revamp the elementary teacher education programme in terms of its content, mode of transaction, assessment etc. On this line, states wise efforts were made to revise the existing D.El.Ed. curriculum to prepare quality elementary school teachers.

In the light of the recommendation of NCFTE 2009 and NCF 2005 and the model curricula developed by NCTE, the D.El.Ed. curriculum was revised by State Council of Educational Research and Training (SCERT), Odisha in 2012 and the revised curriculum has been introduced in the state from academic session 2013-14. The three major components of D.El.Ed. curriculum are Foundation courses, Pedagogy Courses and Practical Courses. From transactional point of view, the curricular inputs are mainly of three categories such as theoretical inputs, school based practicum and the workshop/project. In Odisha, SCERT had taken the lead role in developing D.El..Ed. curriculum and this has been published by the Board of Secondary Education in 2012 and implemented in 2012-13 session (Joint Review Mission (JRM) report, 2013). The JRM report mentions that the understanding of the teacher educators' regarding the basic tenets of NCF 2005, NCF-TE, 2009 is quite superficial. More importantly, the absence of an understanding of the roots of child centred education within the disciplines of philosophy and psychology is a major issues related to the academic processes in teacher education institutes. It is imperative to analyse the classroom pedagogic practices of D El Ed programme to understand the extent to which it reflects the ethos of curriculum changes envisaged by the NCTE. This would provide inputs for designing appropriate interventions to bring

quality changes to the D.El.Ed. curriculum as well to the transactional modalities for the same. To build a strong knowledge base in teacher education, well-structured in-depth researches are essential. It is observed that research focussed exclusively in the area of pre-service elementary education especially in Odisha is very sparse. The present study had been undertaken this gap with financial assistance from NCERT.

### Objective of the Study

To study the pedagogical practices of D.El.Ed. programme of Odisha with respect to

- a. Methodology
- b. Resource material management
- c. Classroom management
- d. Learner Involvement
- e. Assessment

### Methodology

A mixed method has been selected so that both quantitative and qualitative data, together, provide a better understanding of the research problem than either type by itself. After analyzing the rationale of using mixed method that both types of data have equal value for understanding a research problem, it was decided to use a convergent parallel design wherein quantitative and qualitative data are collected concurrently. The two data sets were analysed separately and then the two databases were interpreted together by merging the results during finalisation and sometimes even during data analysis. All DIETs of Odisha state are considered as the population of the study. But by using stratified random sampling technique, six DIETs were selected—two each from each of the three revenue divisions of Odisha. The six institutes selected were Khordha, Baripada, Jeypore, Tikabali, Sambalpur and Sonapur DIETs. From each DIET, all student teachers pursuing 2<sup>nd</sup> year D.El.Ed. were taken. In total 384 student teachers and 41 teacher educators participated in the study as sample.

### Instruments Used

The following tools were used for the present study:

- *Rating Scale*: This was used on the student teachers to study and rate their views about the pedagogical practices adopted in their institutes
- *Observation Schedule*: This tool was used for teacher educators as well as student teachers for observing their pedagogical practices in the classroom.
- *Interview Schedule*: This tool was used for seeking the views of teacher educators regarding pedagogical practices in their institute and difficulties for transacting D.El.Ed. Programme in the expected manner.
- *Focus Group Discussion Schedule*: This tool was used for seeking the views and suggestions of student teachers regarding the pedagogical practices of the institute.

### Analysis

The data was analysed as per the objective of the study. The data collected using rating scale and classroom observations were analysed using percentage whereas interview with teacher educators and FGD with student teachers were analysed qualitatively based on various dimensions considered in the study. Interpretation was on the basis of the analysis of both the quantitative and the qualitative data.

### Analysis of Overall Pedagogical Practices in DIETs

It indicates the student teachers' perception about overall pedagogical practices is different in different DIETs of Odisha. More than 50% students of all DIETs expressed that they often perceive favourable pedagogical practices in their DIETs. Approximately 14% student teachers of one DIET and 12% student teachers of another expressed that they never perceive favourable pedagogical practices in their DIETs.

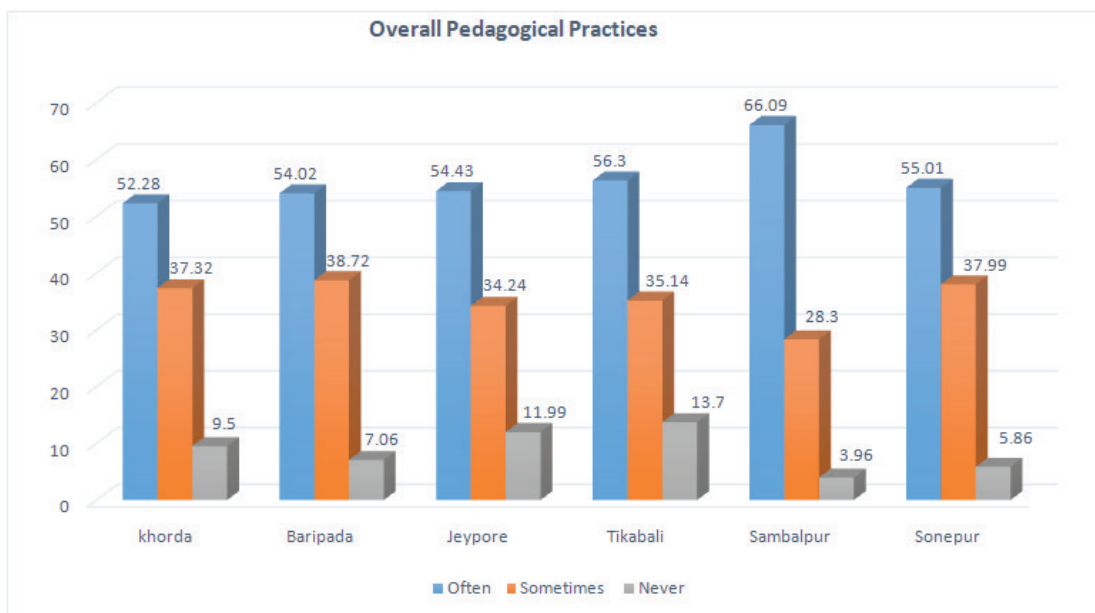


Figure 1: Overall pedagogical practices

### Methodology

It indicates the perception of student teachers of different DIETs of Odisha about the methodology adopted for transaction. More than 50% student teachers of all DIETs expressed that they often perceive

favourable methodology inside classroom and the percentage is maximum at DIET, Sambalpur with around 62% whereas 10% student teachers of DIET, Jeypore never perceived the methodology is favourable in their Institute.

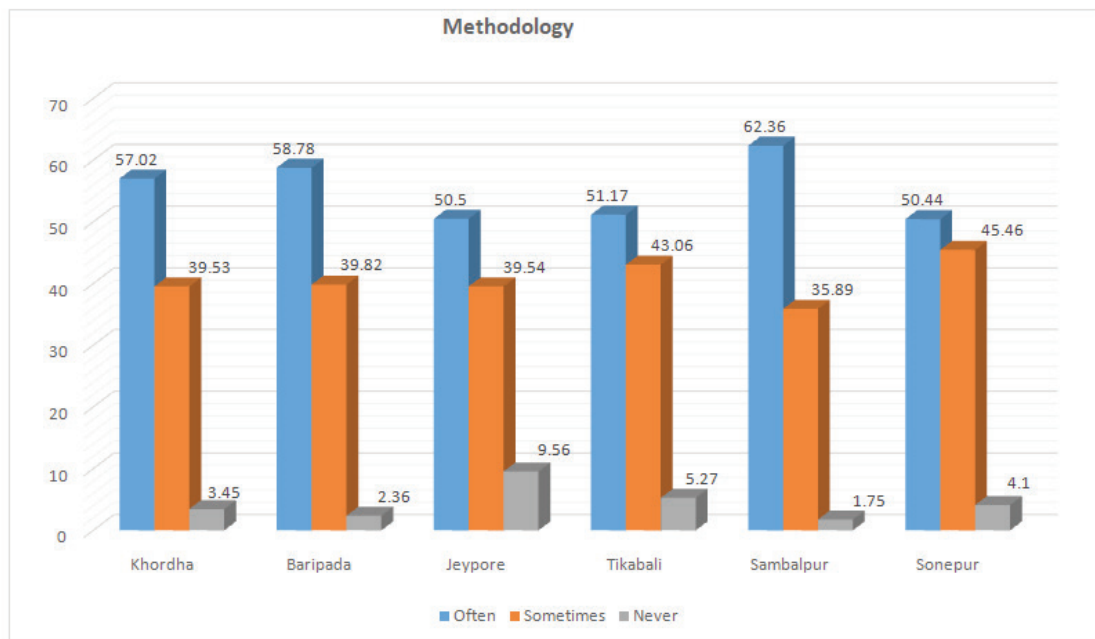


Figure 1(a): Methodology

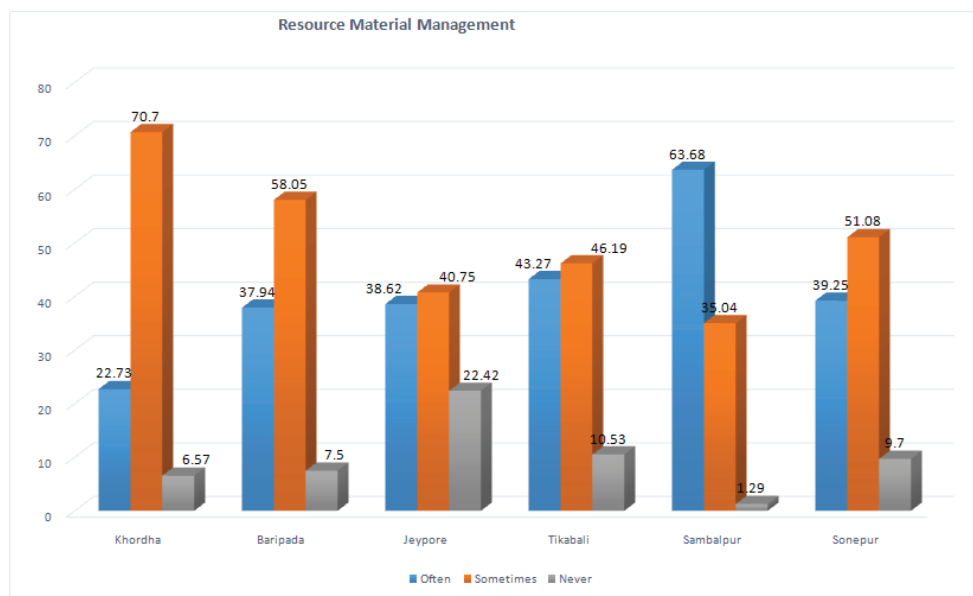
The analysis of the pedagogical practices within classroom was done using dimension-methodology. The process was analysed based on the methods used to introduce topics in the classroom. The topic was introduced by reviewing the lesson in 53.4% of the classes observed. Introduction through posing a problem or using power point was observed only in 5% of the classes. In 29% of the classes, it was observed that teacher educators narrated a situation to introduce the topic. In Sambalpur DIET, approximately 86% classes started the lesson by stating the topic whereas none of the teacher educators of Sonepur DIET introduced the lesson by stating the topic. Only in Khordha and Sonepur DIET, posing a problem was used as a strategy to introduce a lesson. 90% of the lessons of Jeypore DIET started by reviewing the previous lesson. In DIET, Khordha, it is observed that lessons were introduced mainly by reviewing the topic or by narrating a situation. The most commonly observed method of transaction was lecture method with question and answer session and group discussion. Group activities except discussion were not very commonly observed. In comparison to foundation courses more group activities were arranged in pedagogic courses. Inquiry –based learning, Role Play etc as strategies were absent in the classes observed in all DIETs. Other transactional modalities such as document analysis, brain-storming sessions, debate, presentation by students, experimentation, document analysis, video analysis were not followed regularly in the classroom. It was observed that approximately in 83% of classrooms, questions were asked to test the understanding of learners. Out of 58 classes observed, only in one class of Khordha, DIET, questions to generate reflection among student teachers were asked. Application based questions were also rarely found in classes across DIETs. Efforts to encourage creativity and innovation among student teachers in classrooms are negligible. Only in Khordha DIET, in two classes, there was scope for students to express innovative

ideas or to respond to higher order thinking questions.

Analysis of the responses of the teacher educators on the use of different methods in classroom reveals that they believe that participatory, activity centred methods are commonly used across all DIETs. They claim that they emphasize on interactive approach such as case study, situation analysis, problem solving and demonstration. They also said that collaborative learning approach is widely used wherein discussion, group activities, group discussion and peer teaching are tried out. ICT based strategies were also mentioned by teacher educators; however, ICT integrated lessons were delimited to the power point based lecture cum discussion and the showing of video clippings in the classroom.

However, in the response to the question on ways of ensuring student teachers' participation in class, 'question and answer method' emerged to be the commonly used strategy used to involve students in the teaching-learning process. Project work, group work and presentation also were identified as methods to involve students in the teaching-learning process in few cases. When the discussion was on the topic of commonly used methods, activity method was cited by student teachers. However, to elaborate on the activity based methods, student teachers expressed that group work and discussions, play way method and lesson plan preparation were conducted in their class. Only Khordha DIET and Sonepur DIET student teachers mentioned ICT based methodologies as commonly practised methods. Laboratory activities were mentioned only by student teachers of Sonepur DIET and none could explain field based reflection as one of the transactional modalities. Inquiry based approach was also not followed in any of the DIETs as mentioned by student teachers. Though group work and group discussions were cited by many DIET students, self-study was never followed except in the form of assignments.

## Resource Material Management



**Figure 1(b):** Resource Material Management

The table indicates the perception of student teachers of different DIETs of Odisha on resource material management inside classroom. Except for the student teachers of DIET, Sambalpur in the other DIET's less than 50% student teachers of other DIETs often perceived favourable resource material management. This could be compared with findings of a study conducted by Mehera (2010) who found that in general, most of the colleges that offer pre-service teacher education programme have less than appropriate level of resources in terms of infrastructure, basic amenities, quality of teaching-learning process etc. A similar finding could be seen in a study conducted by Azim Premji Foundation to understand D.Ed. colleges in Karnataka (Rishikesh, 2009). The study found that resources like library and computers are available in all colleges, however their usage is poor.

Black Board was used as a resource in 86% of classes, the next highest is text book with 51.7%. In Baripada DIET, in all the classes, black board was used and text book in half of the observed classes. Teacher educators of Jeypore DIET depend heavily on black board and text book. Though it was found that

in 92 % classes, black board was used in Sonepur DIET, however, use of text book in the class room was very minimal. No Chart or OHP were used in any of the classes. Only in Khordha and Baripada DIETs, use of LCD projectors and videos were observed. The response to the question on use of learning resources in the classroom are categorised under themes-ICT resources and non-ICT resources. It is evident from the table that 32% of teacher educators opined that they use learning resources as per need of the topic. 37% of teacher educators say that they use ICT resources in the classroom whereas 35 % say they use non-ICT resources. The non-ICT resources mentioned were charts, pictures, materials collected from local environment, science lab materials, models, globe etc. 15 teacher educators said that they use power point as ICT resource. Only 2 said they use video clippings in the classroom. All the teacher educators of Tikabali DIET said they use learning resources as per need, though did not specified the resources; only one opined that PowerPoints is being used. In addition to this however, more than 80% of teacher educators of Khordha and Baripada claimed that ICT resources were used by them.

## Classroom Management

The graph presents the perception of student teachers about classroom management. More than 50% student teachers of the DIETs studied said that they often perceive

favourable classroom management. This was maximum at DIET, Sambalpur with 69%. However, 13% student teachers of DIET Khordha never perceived favourable classroom management in their DIETs.

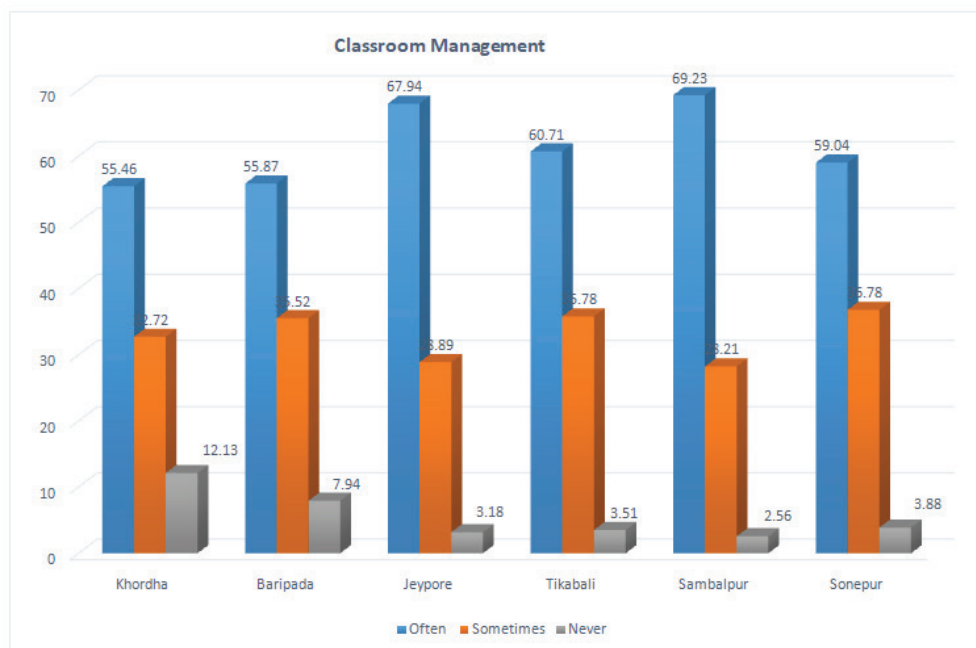


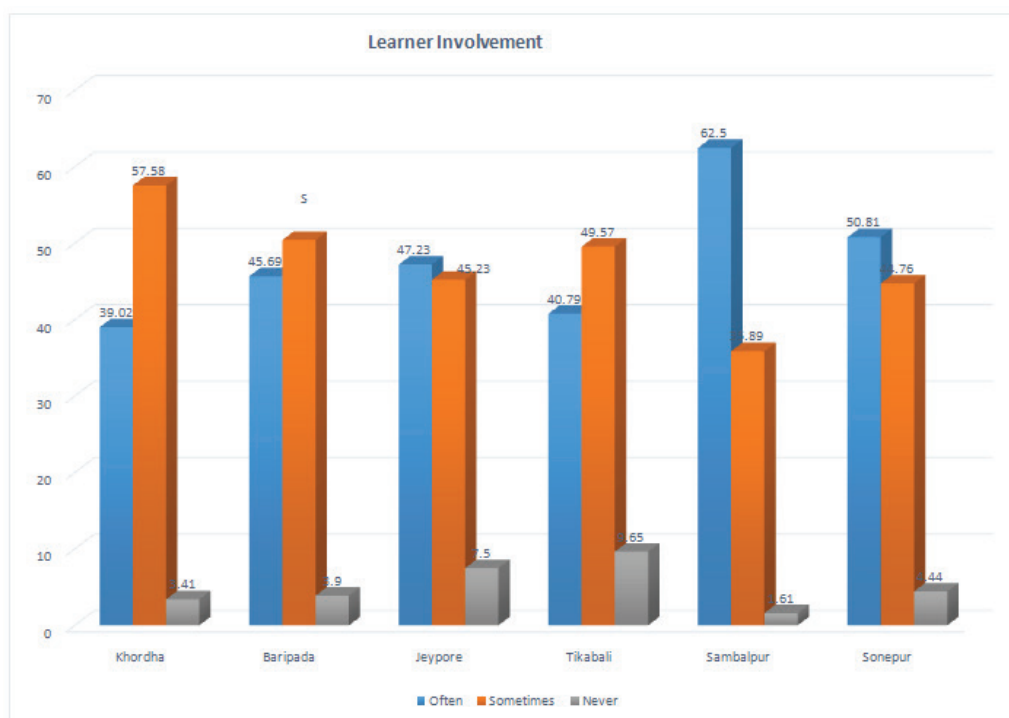
Figure 1 (c): Classroom Management

When the item-wise analysis was done, it was found that more than 70% learners perceive equal opportunities and positive climate in the classroom and expressed that healthy interaction exists between student teachers and teacher educators. Approximately the same percentage expressed that student behaviour and work during group activities are often monitored by teacher educators. 53.38 % student teachers expressed that appropriate classroom management strategies were adopted often. During classroom observation, it was found that except in one of the classes in Tikabali and Sonepur DIETs, democratic practices were followed wherein freedom was provided to student teachers to express freely in the classroom. In none of the classes, differentiation based on gender was observed and in all

the classes, gender sensitive behaviour was ensured. It was also found that student teachers are treated with respect in all the classes observed.

## Learner Involvement

This analysis reveals the perception of student teachers of the studied DIETs about learner involvement inside classroom. Except in DIET, Sambalpur and Sonepur, not more than 50% student teachers perceive favourable learner involvement often in their classes. In DIET Sambalpur, 63% student teachers of DIET, Sambalpur perceived favourable learner involvement whereas 10% of the student teachers of DIET, Tikabali never perceived favourable learner involvement in their DIET classrooms.



**Figure 1(d):** Learner Involvement

During classroom observation, it was found that in 65.51% classes, collective answers were provided by students to the questions raised by teacher educators. In all the classes observed in DIET, Baripada, students who volunteered were given opportunities, but in 83.34 % of classes, students were seen giving collective answers. In none of the DIETs, individuals who did not volunteer were being encouraged to answer or participate whereas in 55.17% of classes, individuals who volunteered to respond were given opportunities. In 46% classes student teachers questions were intended to seek more clarification. It is observed that only student teachers of DIET Khordha and DIET Sambalpur asked questions based on their reflections. 71% student teachers of Sambalpur DIET sought more information on the topic under discussion. Except in Tikabali and Sambalpur DIETs, students raised only certain kind of issues relating to the topic.

It was observed that except in Tikabali and Jeypore DIET, teacher educators elicited

student teachers' reflection on various issues related to schooling and teaching-learning process. However the percentage of classes where this opportunity given was very low only 12.06. The data does indicate that student teachers were encouraged to ask questions in the class. In all the observed classes of Sambalpur and Sonepur DIET, teacher educators tried to encourage student teachers to ask questions. Except in Jeypore DIET, it is observed that student teachers were encouraged to ask questions in more than 50% classes.

### Assessment

This part of the data indicates the perception of student teachers of DIETs on assessment inside classroom. Less than 50% student teachers of Jeypore and Tikabali said that they often perceived favourable assessment inside classroom whereas 67% student teachers of DIET, Sambalpur expressed that they often perceived favourable assessment process inside classroom.



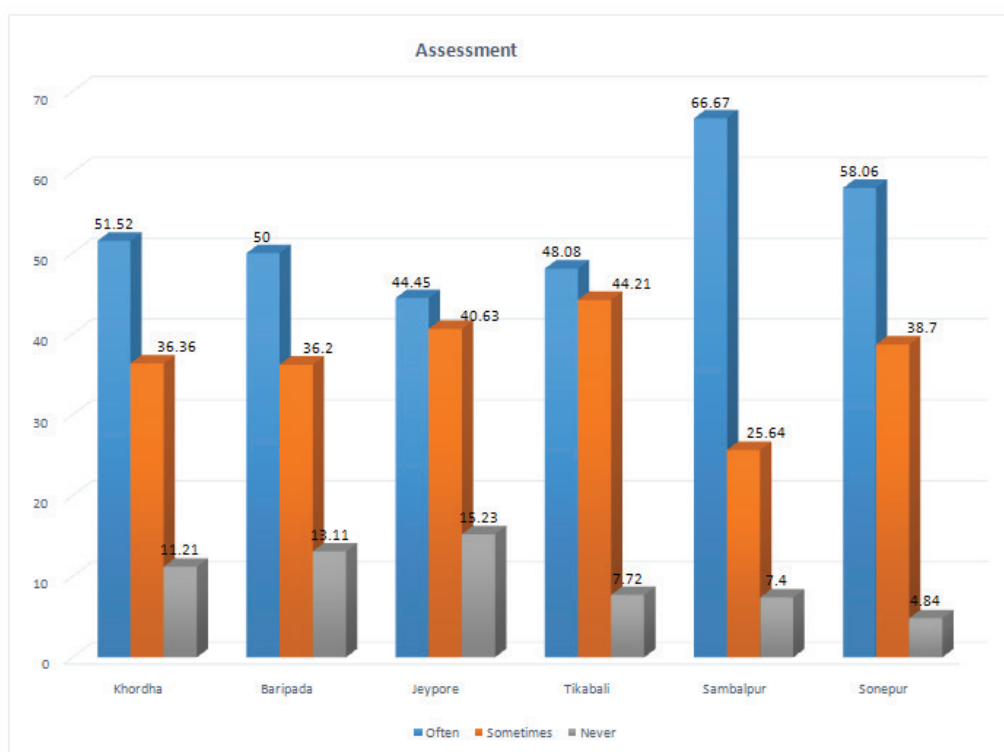


Figure 1 (e): Assessment

It was observed that tests (31.03%) and oral questioning (24.13%) were the two strategies commonly used by teacher educators to assess the progress of student teachers. Assignment and worksheets were not used even in a single observed class of DIET Jeypore, Tikabali and Sambalpur. Though in one class of DIET Sonepur, worksheet was used as an assessment strategy.

Only in 37% classes, it was observed that assessment was done throughout the lesson where as in 63% classes; there were no effort to assess the progress of learning continuously in the classroom

The responses of teacher educators of each DIET were analysed separately to understand the context specific pedagogical practices. The responses of the teacher educators were noted down in the field notes and were coded and categorised. 54% of teacher educators use written test for assessing progress of children where as 41% said that assignment and projects are used as assessment strategies. Only 22% considers

questioning as an assessment strategy. For the item- 'how do you ensure participation among students?' the responses mainly concentrated on 'questioning'; however teacher educators don't perceive questioning as an assessment strategy, they rather see it as a tool in developing a lesson with students' participation. Only 5% said peer evaluation can be considered as an assessment strategy. No innovative assessment strategies such as worksheet, rubric, and portfolio were mentioned by any of the teacher educators. From students' expression, it appears that tests, questioning and assignment are the prominently used assessment strategies, though project and group discussion were also mentioned by student teachers during FGD

## Findings

It is found that more than 50% students of DIETs expressed that they often perceive favourable pedagogical practices in their DIETs. It is also found that more than 50%

student teachers of DIETs expressed a favourable pedagogical practices with respect to the dimension -Inside classroom; more than 45% with respect to the dimension-outside the classroom; 60% or more in the case of dimension- institutional practices.

Majority of student teachers expressed that teacher educators often use a variety of methods for transacting the content. A majority of student teachers felt that participatory learning through group work was often encouraged in the class. . Very few (14.58%) student teachers said that ICT tools and techniques are integrated in the teaching – learning process as a common practice. The student teachers’ also indicated that group work and discussion, play way method and lesson plan preparation were conducted in their classes. In spite of this to a larger extent lecture method was followed. While there is a high range of variation in the rating by students’, classroom observation show that the most commonly observed method of transaction is lecture method with a question and answer session or a group discussion. Group activities other than discussion were not very commonly observed in foundation courses but were relatively more frequent in the pedagogic courses. . In contrast to the claim of teacher educators’ that interactive, participatory and collaborative learning approaches including case study, situation analysis, problem solving and demonstration are used as per the need such transactional modalities were rarely in the observed classes. This has to be read with another finding that no significant efforts had been taken to encourage creativity and innovation among student teachers in classrooms. This was cited as a major concern expressed by student teachers during FGD. They wanted a link between theory and practice and classes to be in an interactive mode; ICT integration was another need expressed by student teachers.

1. Majority of student teachers said that a positive climate exists in the classroom and a healthy interaction exists between student teachers and teacher educators.

They are encouraged to and given sufficient time to ask their doubts without fear. When triangulated with classroom observation and FGD, it was seen that a democratic atmosphere is maintained in the classrooms of DIETs and students are free to express their responses. 53 % student teachers expressed that often appropriate classroom management strategies were adopted. However, classroom observation revealed that many a times, student teachers who volunteered to answer were given more opportunities than the rest of the group.

2. Another concern expressed by student teachers with reference to pedagogical practices was Resource material management . While, a majority of student teachers expressed that the learning resources were often used appropriately inside classroom, the Classroom observation revealed that black board and textbooks are the most commonly used resources. (Except in one DIET, no ICT or any other resource was used.)
3. While only some student teachers said that opportunities were provided to reflect on social and pedagogical issues or for deeper discussion and critical reflection were often available in the class, majority opined that student teachers were often encouraged to bring own ideas and experiences. But many times, the questions were aimed at comprehension by students than their reflection on the topic. Most of the students’ questions were also aimed at clarification of the topics rather than being reflective in nature.
4. A majority of student teachers across all DIETs said that teacher educators were well prepared in terms of clear explanation of concepts and doubt clarification. Most teacher educators prefer lesson plans/diary/notes as part of preparation than any other mode.
5. Majority of students agreed that a variety of assessment techniques are followed in the classroom. However, it is observed that written test and oral ques-

tioning are the two strategies that are commonly used by teacher educators to assess the progress of student teachers. Performance based assessment or worksheet based assessment or project based assessment were rarely observed in the classroom. This was also a point made during FGD by the students. Also tests, questioning and assignment the prominently used assessment strategies were mostly theoretical in nature.

6. Poor and poorly maintained infrastructural facility is a concern in DIETs.
7. A positive relationship between and among student teachers and teacher educators of DIETs was also found out. However, it was also found very little collaboration between institutes.

## Result and Discussion

### Engagement with learners in real life situations along with theoretical inquiry

One of the major principle in NCFTE-2009 is the need to critically engaging student teachers with theory and bringing practices within its perspective.. In DIETs of Odisha, engaging learners with real life context is heavily dependent on internship programme. Student teachers get opportunity to interact with school, teachers and students during practice teaching as part of Internship. Across two years. They teach various subjects during this generating conceptual knowledge based on experience and observation in the process. With mentored guidance they relate theory with their own experience. However, to make it more structured, a detailed post internship programme may help. From classroom observation and student responses it appears that some real life examples are integrated with theory in the classroom but they are not enough and mostly theoretical perspectives are dealt in an isolated way with no link with field reality. Besides this case studies depicting theoretical underpinning were rarely discussed in the classroom.

An exposure programme to schools from varied contexts may also be useful in connecting real life. Absence of such a programme makes student teachers remain less likely to adapt the pedagogical knowledge and address diverse contexts through critical reflection. D.El.Ed. programme has to gear towards building capacities in the student teachers to construct knowledge, to deal with different contexts by providing multiple experiences other than practice-teaching. The D.El.Ed. programme should engage student teachers with children in real context under varied situations and in many ways. It should help them to understand the psychosocial attributes and needs of learners, their special abilities and characteristics and their preferred mode of cognition. Towards this, student teachers can do a case study at school during practice teaching. The case studies can be discussed with a bigger group once students are back in the DIET so that critical reflection on each case may lead to deeper learning.

The theory linked with field experiences would help students to view knowledge to be actively constructed during learning, not something to be memorized. The currently inadequate use of technology to bring the context to classroom also needs to be increased and new ideas explored. The assignments given by teacher educators must also change from being based on theoretical content to include understanding of the field reality.

### Pedagogies Appropriate for Adult Learners

Our observation that the commonly used pedagogical strategies in DIETs are lecturing, question-answer sessions and whole group discussion is in agreement with the study on pre-service teacher education programme of almost all the states/UTs by Yadav (2011). In our study we also found that the methods used by educators were planned with less scope for reflection among student teachers and that foundational courses are mostly dealt as 'fixed content' with little

scope for re-examination. The application of ideas of theory to various contexts were not discussed and very little effort was made to hold discussions in small groups to share reflections and consolidate them for collective consideration. While freedom was provided to express views and opinions, this freedom was not channelized productively and the points of discussion revolved around the points given in the text book. Goel and Goel (2012) in their article on teacher education scenario in India mentioned that poor integration of skills, domain pedagogy mismatches, rarity of innovations, inadequate technology infusion are some of the major problems and concerns in teacher education institutes. Therefore effort has to be made to evoke responses from students and to engage them in deeper discussions and reflections. It seems that while the teacher educators felt that they were using innovative, reflective, participative and collaborative methods, the student teachers did not feel so. These also did not show up in observations either. It is therefore important to help teacher educators understand the other modes of transaction with scope for integrating theory with real life and how they can be used in a planned way in the DIETs.

### **Engaging Student Teachers with Deeper Discussion and Reflections**

Majority of questions by teacher educators test understanding of student teachers and higher order thinking questions are almost absent. Even in group discussions not many critical situations are presented for student teachers to reflect and contribute meaningfully. As the study by Chauhan (2015) shows critical reflection in practicum of pre-service teacher education that student teachers come to teacher education program with a set of beliefs and preconceptions about teaching-learning process as well as of learners based on their own experiences as student, through critical dialogues and guided practice student teachers can examine their and others' pedagogical beliefs and transform them. It emerges

therefore, that more opportunities have to be created in D.El.Ed classrooms as well as during internship wherein student teachers are more rigorously engaged and deeper discussion are possible.

### **Development of Social Sensitivity & Social Consciousness**

NFTE 2009 suggests provision for learning spaces to examine students' own position in society and their assumption as part of classroom discourse. While the teacher educators said that activities to develop social sensitivity like mixed group seating in the class room, awareness campaign, street play, celebration of days of significance such as AIDS day and orphanage visit, socio-cultural programmes etc. do take place they did not talk about integrating these with topics in the courses.; The number of activities to develop social sensitivity and social consciousness among student teachers need to be sharply increased.

### **Comprehensive Assessment**

The methods commonly used for assessment are oral questioning in the class, tests and assignments. The evaluation system followed are quantitative in nature. Assessment was basically meant to examine conceptual and pedagogical aspects. Efforts have to be taken to assess attitudes, dispositions, habits and interests of a teacher. Innovative ways of assessment was not explored much in DIETs and field based topics were rarely given for assignment. Most of the times, assignment was based on theoretical perspectives.

### **Educational Implications of the Study**

1. Since, lecture-cum-discussion and question and answer method are some of the prominent methods in transacting D.El.Ed. curriculum, there is an urgent need to orient the teacher educators on process based teacher education programme and its modalities.
2. At the time of the study the curriculum and textbooks had not been updated teacher educators found it difficult to

revisit the process. There was therefore, a need to revise both curriculum and textbooks of D.El.Ed. Curriculum. This process has now been completed in state of Odisha.

3. Teacher educators must make an effort to link theory and practice through field based activities and make field based assignments as well. Reflection is currently not the main focus of the teaching-learning process in D.El.Ed, steps have to be taken to incorporate reflection in all the activities of the programme.
4. Internship programme may be geared towards developing teacher identity among student teachers. Internship has to be revised to include multi placement programmes. It should be redesigned as a monitored activity with scope for pre and post reflection from student teachers
5. The lack of infrastructural facilities such as library, laboratories hinders quality learning process in the DIETs. Adequate infrastructural facilities such as libraries, spacious classrooms and labs need to be provided.
6. Teacher educators need to be oriented on research methodology with specific focus on action research. They will then be able to better guide and monitor action research activities of the students as well

as conduct action research to improve their pedagogic practices

7. Systematic effort from SCERT and principals of DIETs to network and collaborate with each other must be made.
8. Training programmes on the integration of ICT resources in teaching-learning process may be designed for teacher educators.

## Conclusion

The research was aimed at exploring pedagogical processes in DIETs of Odisha with specific reference to the recommendations of NCFTE on pre-service teacher education programme. Majority of the student teachers responded positively to the pedagogical practices in the D.El.Ed. programme but pointed out that varied modes of transaction and resources have not been incorporated in the pedagogical processes. Though some of the postulates of NCFTE-2009 are reflected in the overall pedagogical practices, more efforts are required in this direction for making elementary teacher education programme in DIETs of Odisha process based.

**Note:** The study was conducted in the year 2016-17 before the D.El.Ed. curriculum for the D.El.Ed. programme in Odisha was revised in 2018.

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## Improving Practice Teaching in Primary Schools for School Internship Programme

### Abstract

Today, school education has shifted from being teacher centric to child centric. This has prompted a change in the role of teachers to that of a friend, facilitator and guide. With a change in role of the teacher, the Teacher Education Programmes have also been re-structured. In the light of the NCTE Regulations 2014, the field of Teacher Education is presented with many challenges like quality of teachers, preparing the teachers for inclusive classrooms, implementation of ICT in learning, gender issues etc. The School Internship Programme forms an essential part of the pre-service teacher education. The aim of this paper is to suggest strategies for making teaching practice for school internship more effective and divided in three phases i.e., Pre internship phase, Interactive Phase and Post Internship Phase. These strategies would help in improving practice teaching and developing the professional skills desired by the changed school system.

**Keywords:** School Internship programme, practice teaching, Primary Schools

### Introduction

Teacher Education is a programme that is related to the development of teacher proficiency and competence that would enable the prospective teacher to meet current requirements and prepare them to face any challenges of the profession in future. It provides the student teachers with the relevant subject knowledge and skills to make the process of teaching-learning more effective, enjoyable and meaningful.

All teacher education programs are comprised of Teaching Skills, Pedagogical Theory and Professional Skills and a balanced combination of these helps in the holistic development of prospective teachers.

However, from time to time many education commissions in India have reviewed teacher education programmes and expressed their concern regarding the most important component that is the practical aspect of the programme- practice teaching. The University Education Commission (1948-49) found a lot of variation in teaching practice

and the number of supervised lessons across universities varied from ten to sixty. Besides, recommending that more time be allotted to teaching practice and selection of appropriate schools for training, it also suggested flexibility of course and adaptability to local circumstances. Secondary Education Commission (1952-53) suggested that methods of teaching should be practised in at least two subjects and the practical part of training should include practice teaching, observation, demonstration and criticism of lessons. Pires Committee (1956) suggested that the practical work should be given a weightage equal to the theory papers whose number must be reduced to four. According to Education Commission (1964-66), investment in teacher education can yield very rich dividends. It further pointed out that “for qualitative improvement of education, a sound programme of professional education of teachers was essential.” National Commission on Teachers-I (1983-85) noted that the most crucial part of the programme, the practice teaching, was also the most

neglected one. It suggested that practice teaching should be replaced by internship in teaching instead of delivering prescribed set of isolated lessons in classrooms.

The NPE (1986) and POA (1992) stressed that to bring a qualitative improvement in education, revamping of teacher education programme is of utmost necessity. Report of the Committee for Review of National Policy on Education, 1986 under the chairpersonship of Acharya Ramamurti (RCRNPE, 1990, p.270) observed that the linkage between theory and practice is rather weak in the internship model of teacher training (as cited in Srinivas, K. 2015). Bhatnagar (as cited in NCERT, 1991) reviewed 39 studies between 1952 and 1978 in the field of teacher education and concluded that practice teaching was the weakest component in teacher education programme. Justice Verma Commission (2012), also criticized the present of teaching practice. It had observed that Practice teaching was ritualized and mechanical with a fragmented approach having no reflection on content of the lesson during planning. It noted, "Student-teachers spend hours decorating their lesson plans rather than reading and reflecting on what to teach, why and how?" The duration for practice teaching was only 5-6 weeks.

Besides these other curriculum frameworks have also discussed the inadequacies of internship in teaching. National Curriculum Framework for Quality Teacher Education

NCFQTE(1998) observed that Practice teaching cannot be confined to teaching of school subjects only. Rather it requires more time and reflection in preparation and guided supervision. National Curriculum Framework for Teacher Education NCFTE (2006) pointed out the need for reform in the existing internship/ teaching practice such that focus is on improvement of school rather than delivering only specified number of isolated lessons. NCFTE (2009) observes that the curriculum is theory dominant and practice teaching suffers from many inadequacies like following a mechanical

routine, rigid lesson plan formats, inadequate supervision, lack of context specificity etc. Comprehensiveness and qualitative evaluation for professional attitudes and values is also missing. Besides this, evaluation protocol is also theoretical, too quantitative and lacks comprehensiveness.

Report of the International Seminar on Teacher Education MHRD (2010, pg9) highlighted that School Experience Programme (SEP) has remained more focussed on teacher performance. A lack of coordination between student teachers and school faculty is seen during transaction of syllabus in classrooms and student teachers were rarely provided with free time to interact with school students to help them understand their needs.

The findings and suggestions of various commissions on education help us in understanding the grave situation of Practice Teaching and School Internship as a whole. The next section on review of literature analyses various studies to create a holistic picture and a deeper understanding of the same.

## Review of Literature

The review of literature of various studies both from Indian and global contexts point out towards certain common themes that were found across all studies. The review of literature section is therefore organised according to various themes highlighted in different studies.

## Problems of Student Teachers

Panda and Nayak (2014) conducted a cross sectional study for three years to find out problems that student teachers faced in internship during three academic sessions. It was found that designing activities, management of school students and disciplinary problems gained highest votes in terms of problems faced during internship in academic sessions 2011-12, 2012-13 and 2013-14 respectively. Language barriers were also a major concern that emerged in



the study. Aniruddhan (2005) investigated into problems faced by natural science student teachers during practice teaching programme. The major problems revealed in the study were (i) Natural science student teachers were not satisfied with the existing system of practice teaching programme. (ii) Student teachers were not allowed to use resources at the cooperating school (iii) Overcrowded classrooms did not allow student teachers to use activity method effectively. Tok (2010) in his study found that planning, subject matter knowledge, using instructional material, motivation, communication and time management skills were reported as the major problems. Exploitation by the cooperating school staff, split between theory and practice, the feeling among students that student teachers do not hold responsibility for actual teaching, assessment processes crippled by school regulations were some problems brought to light by Alkhwaldh (2011). Azeem (2011) investigated the problems of 100 B.Ed student teachers of Lahore during teaching practice. Major findings indicate that no timetable was prepared for student teachers and they were not informed about rules and regulations of co-operating schools. Mapfumo, Chitsiko and Chireshe (2012) found finances, workload, shortage of resources and shortage of teaching learning material as the stressors in their study on student teachers in Zimbabwe.

### **Inadequate Time Period for Teaching Practice**

Report of the Committee for Review of National Policy on Education 1986 under the chair-personship of Acharya Ramamurti (RCRNPE, 1990, pp.266-67) had observed that practice teaching period allotted is not adequate in terms of duration and experience gained. (as cited in Srinivas, K. 2015). Yadav (2011) in a comparative study of pre service teacher education programme at secondary stage in Bangladesh, India, Pakistan and Sri Lanka found that teacher educators reported that duration for practice teaching was less.

Aniruddhan (2005) investigated into problems faced by natural science student teachers during practice teaching programme. He found that duration for practice teaching was not adequate and suggested three months duration with a gap of one month. Arya (2004) compared the two year B.Ed Degree of Regional Institute of Education, Ajmer with one year B.Ed. programme of Maharishi Dayanand Saraswati University, Ajmer and reported that a larger number of students from the one year programme preferred the two years programme when compared with students of two years course preferring the one year program. Ekundayo et al (2014) in their study on Nigerian students were of the view that time period for teaching practice should be increased.

### **Co-operating school-Training College/University Partnership**

Report of the National Commission on Teachers – I (NCT, 1983-85, p.89) noted, ‘the preparation of a teacher must be regarded as a joint responsibility of the co-operating school and the College of Education. This recommendation was first made by the Education Commission (1964-66) nearly twenty years-ago but no attention has been paid to it’. It also noted that most schools resent co-operating. Yadav (2003) reported the weak link between teachers of co-operating school and teacher educators, minimum facilities in the co-operating school and use of only lecture methods by method teachers as the major constraint in teaching programme. Yadav (2011) in a comparative study of pre service teacher education programme at secondary stage in Bangladesh, India, Pakistan and Sri Lanka reported that school authorities didn’t fully cooperate in organising practice teaching in their schools. Yan and He (2010) stated that a lack of support from the practice schools highlights the importance of School- University Partnership in enhancing internship programme. Mtika (2011) also suggested focusing on school-college partnership for improving teaching

practice. Menlah (2013) in his study in South Africa found that School Principals feel that University does not recognize them as important participants contributing to the success of the programme. Mohanty (as cited in Fourth Survey NCERT, 1991, p 964) found that school-college collaboration was poor in almost all the institutions included in the study. Rai (1995) in his study stated that Headmasters / Headmistresses of Uttar Pradesh reported that they faced problem of 'dealing with student teachers who are more interested in practicing their methods and not covering the courses.' 40% of Headmasters / Headmistress of Gujarat pointed towards the problem of establishing good relationship with training colleges.

### **Role of Co-operating Schools**

Ranjan (2013) conducted a qualitative study on experiences of the student teachers of B.Ed. programme of Sardar Patel University. Lack of cooperation from cooperating schools, lack of resources and class management issues were also reported. It was suggested that student teachers should not be alienated from activities conducted in cooperating schools. Bodula (2011) noted that student teachers hardly got opportunities to learn from staff meetings, helping in conduct of exam, preparation of results etc. They hardly know how to deal with children with special needs. They also rarely get a chance to know and improve upon the assignments or their follow up or how to check student assignments and plan remedial teaching. Shahid and Hussain (2011) also reported that student teachers had high expectations and passion but there was a lack of cooperation from school teachers. Jumani (2013) states that data indicates that student teachers were not allowed by schools to implement their learnt teaching strategies. Ntsaluba and Chireshe (2013) reported in his study that the key players from University and school were not involved in planning teaching practice or collaborative planning and better communication was suggested. Ekundayo et al (2014) in their study on Nigerian students

reported that the instructional material wasn't readily available in schools. Damodar (1976) reported that the schools offer their cooperation unwillingly as they think that the trainees disrupt their normal working and made no positive contribution. Dekhtawala et al (1991) in their study reported that the student teachers couldn't get cooperation from the principals as they considered that the practice teaching was not at time convenient for the school while the subject teachers lent them good help. Khirwadkar et al (2012) in their study found that majority of the school principals opined that attaching a teacher with the student teacher helped the institutions in organising various curricular and co curricular activities and also got support in other administrative works like proxy classes, register maintenance, taking attendance etc.

### **Supervision and Feedback**

Yadav (2011) in a comparative study of pre service teacher education programme at secondary stage in Bangladesh, India, Pakistan and Sri Lanka found that practice teaching was not supervised properly. Sukhiya (as cited in SERD, 1979, pp 450-451) highlighted that supervisors devoted about eight minutes to observe an actual period of about forty minutes. Shahid and Hussain (2011) also reported in their study that student teachers expressed that University teachers were more interested in supervision than cooperation and guidance. Mohanty (as cited in NCERT, 1991, p 964) also reported that supervisors did not observe lessons completely and rarely discussed their observations in lesson plan journals of student teachers. White (2007) observed that specific spoken feedback was that most consistently given and useful mode of feedback. However, Percara (2013) found that all student teachers interviewed for the study preferred verbal feedback over written feedback as the role of assessment gets minimized in the former while the latter may lead to miscommunication. The study also revealed that student teachers suggested

that feedback should be given immediately after the lesson is delivered. Akkan and Tatar (2010) found that University supervisors encouraged reflection during post lesson conference and evaluated their lessons critically. Khirwadkar et al (2012) stated 'written directly in text feedback sessions conducted towards the end of the day were very useful for bringing positive change in the teaching'. Kothari et al(2010) in their study highlighted that 87% of student teachers were of the opinion that supervisors observe very few lessons and grade without observing other things, while 82% agreed that feedback by peers was rational. 84.02% also agreed that feedback helps in improving lessons.

### **Peer Observation**

Sivan and Chan (2009) reported a lack of school support for conducting onsite peer observation. Shahid and Hussain (2011) observed that student teachers had written very 'inventive and versatile paragraphs' during peer observation sessions. It was evident from the Interview data that they learnt from each other's experiences and observation.

### **Classroom Management**

Tokmak and Karakus (2011) reported difficulty in classroom management of the student teachers. Kirbulut, Boz and Kutucu (2012) in their study on pre service teacher's expectations and experiences in School Experience course showed that the student teachers were anxious about classroom management and using teaching method. Mapfumo, Chitsiko and Chireshe (2012) found discipline issues as one of the stressors in their study on student teachers in Zimbabwe.

### **Theory and Practice Mismatch**

Shahid and Hussain(2011) reported theory – practice mismatch in their study. Tokmak and Karakus (2011) in their study revealed

that the student teachers reported that they could not apply different teaching strategies in different contexts. Ramaligela (2012), in a case study on how student teachers of mathematics prepare and present lesson plans, found that student teachers failed to ideate the plan and lacked action oriented knowledge that could help them translate the prepared lesson plan into real classroom situation. Ntsaluba and Chireshe (2013) pointed out that student teachers were confused because the school teachers got a ready-made plan from the district and that maybe different from the one the University required them to prepare.

An interesting observation that can be made from the above studies is that despite differences in national and global contexts with the respect to policies and curriculum of teacher education, the issues of concern have had very common grounds as reflected in the above section. Also some studies older than twenty years are also relevant till today as the problems they focused on have shown little improvement with time.

Various studies reveal that the experiences of student teachers during teaching practice have an effect on shaping their outlook towards the profession. Kirbulut, Boz and Kutucu (2012) concluded that the harmony between pre service teachers' expectations of and experiences in the school experience course had an influence on their opinions relating to the teaching profession. A similar conclusion was drawn by the study of Mushoriwa and Mavuso(2014). They opined that student teachers' experiences in the school experience programme mediate their beliefs, opinions, views and convictions about the teaching profession making them like or dislike the profession.

It is evident from the above discussion that there is a need for improving teaching practice in schools to make internship run smoothly and also to help cooperating schools benefit from the programme. Strategies for the same are therefore suggested in the next section.

## Phases of Effective School Internship Programme for Improving Teaching Practice.

The steps for improvement of School Internship Programme are divided into 3 phases. These are as follows:

- 1. Pre Internship phase:** In this phase the student teachers are taught various teaching skills which helps them to plan and impart instruction combined with pedagogical knowledge. This includes various strategies like orientation program, workshops, simulated teaching practice etc.
- 2. Interactive phase:** In this phase the student teachers are assigned a school where they carry out responsibilities in the capacity of a teacher. They learn through direct experience and are guided and supervised by faculty members of the school and also by their teacher educators. This includes transaction of curriculum and its assessment, reflection on teaching practice, self and peer assessment etc.
- 3. Post Internship phase:** This is the last phase where student teachers discuss and try to seek solutions to problems faced during school internship.

## Strategies for Effective School Internship Programme

In order to make practice teaching more effective, the following strategies are suggested under different phases:

### Pre-internship Phase:

- i. Orientation Program:** Orientation of student teachers was suggested in studies on problems of student teachers faced during internship (Panda and Nayak, 2014, Shahid and Hussain, 2011 and Ekundayo et al, 2014). The student teachers should be given proper orientation regarding School Internship Programme to make them understand its need, objectives, preparation of

lesson plans, assignments, duration of programme etc. This will help them to form a more comprehensive picture of the teacher education programme.

- ii. Knowledge of Aims of teaching a subject with reference to NCF 2005:** Gafoor and Farooque (2010) found that one out of five of the student teachers included in their study had difficulty in identifying instructional objectives. The student teachers should therefore be taught about the aims of teaching different subjects in the light of NCF 2005. Emphasis should also be laid on the shift in focus in approach of classroom learning. This will help them develop a holistic understanding about the general aims of teaching a particular subject. Based on this understanding the student teachers can plan their lessons for effective classroom teaching and evaluation.
- iii. Workshops on preparation of teaching learning material:** Studies indicate that some schools lack facilities in terms of teaching learning material (Ranjan, 2013, Mapfumo, Chitsiko and Chireshe, 2012, Gafoor and Farooque, 2010, Kiggundu and Nayimulli, 2009, Dekhtawala et al, 1991). Workshops should be organized by subject experts for student teachers. Through this they will not only learn how to prepare teaching learning materials in an innovative manner, but also how to make them cost effective and also how to use it in an inclusive classroom settings.
- iv. Appropriate use of teaching learning material with a teaching strategy:** Student teachers were not equipped with practical training of different methods of teaching before starting practice teaching (Azeem, 2011). Gafoor and Farooque (2010) found that one out of five of the student teachers included in their study had difficulty in using appropriate teaching method and choosing life experiences and illustrations to motivate students regarding the lesson. Besides different methods that are taught

in theory of subject pedagogy, student teachers should also be guided to choose teaching learning material appropriately and how to use it judiciously in a teaching strategy. Over or under use of materials makes learning less effective and uninteresting.

- v. Preparation of Lesson Plan:** The way student teachers prepare their lessons has an effect on classroom presentation (Ramaligela, 2012). Lack of reflection in lesson planning was highlighted in Justice Verma Commission (JVC) Report (MHRD 2012). Field observations showed that student teachers were very keen to know various models of lesson plan (Shahid and Hussain, 2011). The student teachers should be guided to make effective lesson plans under the guidance of subject experts and should be encouraged to work with peers. This will be beneficial and help them to socialize with their peers and use this experience to organize group activities during classroom teaching.
- vi. Effective classroom management techniques:** Management of students and disciplinary problems were voted the highest among problems faced during internship in academic sessions 2012-13 and 2013-14 respectively (Panda and Nayak, 2014). Ranjan (2013), Kiggundu and Nayimuli (2009), Alkhalwaldeh (2011) also reported similar findings. Effective classroom management techniques should be discussed with the student teachers to deal with the problems of indiscipline and simultaneously help them engage and motivate their students ensuring maximum participation of the students leading to meaningful learning.
- vii. Simulated Teaching Practice:** Simulation means role playing or rehearsal in which the process of teaching is carried out artificially. Simulated teaching before internship should be implemented (Panda and Nayak, 2014). The main aspect of simulated teaching is introduction of student teacher to non stressful teaching conditions. Therefore through simulated teaching student teachers will be able to know their mistakes and overcome fears of facing classroom situations for the first time.
- viii. Orientation of Principals and teachers regarding School Internship:** School principals do not include school based teacher education as a part of their professional responsibility (Smith and Ari, 2005). Schools and colleges lacked any form of collaborative partnership for promotion of teaching practice (Mtika, 2008, Yan and He, 2010). A Memorandum of Understanding (MoU) between the cooperating school and the teacher training institute could be made and delineate specific aspects allowing both institutions to benefit from the collaboration was a recommendation made by Poonam Batra Committee Report on Implementation of JVC recommendations (NCTE, 2014). The Principals and teachers of concerned schools should be oriented regarding the School Internship Programme in terms of the assignments and activities that need to be carried out during the School Internship Programme tenure in the school and how the student teachers and faculty members of the school can work collaboratively to chalk out plans so that the objectives of these activities and assignments can be fulfilled and the benefits can be shared by the co-operating schools too.
- ix. Timing for School Internship in the academic calendar of the training school:** Practice teaching should not be conducted before and after examinations in schools as learners don't cooperate with the student teachers thereby defeating the purpose of practice teaching (Ranjan, 2013). For hassle free internship of student teachers there should be an appropriate place in the annual academic calendar of the co-operating school. This could be previously chalked out by mutual consent of the faculty and

administrative staff of both the school and teacher training institute at the beginning of the academic session.

- x. Pre-decided curriculum to be transacted during Teaching Practice:** The student teachers reported that practice teaching started too late in the year when most teachers had almost completed their syllabus and were busy doing revision in preparation for annual exams (Kiggundu and Nayimuli, 2009). As there will be a place in the school academic calendar for school internship programme, the curriculum to be transacted during the internship can also be mutually decided by student teachers and faculty members of the school.

## Interactive Phase

- i. Observation of regular classroom with a regular teacher:** According to the NCTE Regulations 2014, it is mandatory for each student teacher to spend the initial one week observing a regular classroom with a regular teacher. Khirwadkar (2012) reported that student teachers found observing teacher's lesson in the classroom before teaching practice to be very useful. This activity may act as an ice breaking session for both the student teacher and the students of the class.
- ii. Supervised Teaching Practice:** Incomplete supervision and feedback is a major challenge in teacher education. (Kumar and Azad, 2016, Yan and He, 2010). Practice teaching was not supervised properly and it was difficult to observe the natural behaviours of student teachers during the internship programme (Yadav, 2011). Supervision by teacher educators should be done at least four times to evaluate and suggest remedial steps for improving teaching practice (Aniruddhan, 2005). Cooperating teacher's feedback was found to be more situation specific in relation to the classroom while teacher educator's feedback allowed the student teachers to reflect and evaluate their lessons

critically (Akkan and Tatar, 2010).

All student teachers should be supervised either by their Teacher Educator or by the class teacher. Under no circumstances the student teacher should be left unsupervised as they may also make conceptual mistakes while delivering the lesson plan either due to lack of confidence or inexperience. The supervisor should also ensure that all lesson plans are checked by subject experts before being delivered them in the class.

- iii. Cooperative or collaborative learning:** This is a teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a topic/concept. Each member of the team is responsible not only for learning what is instructed but also for helping teammates learn, thus creating an atmosphere of achievement.
- iv. Use of material available in school as a resource:** Student teachers were not allowed to use resources at the cooperating school (Aniruddhan, 2005). In most schools kits are available for teaching science, mathematics to primary classes. Student teachers should be allowed to teach with the help of items in these kits. For teaching concepts of environmental studies gardens, playgrounds, helpers of school can be used as resources. For developing basic skills in language conversations in daily life can be used as a resource.
- v. Use of Community Resources:** Schools may not have the resources to facilitate teaching learning process (Kiggundu and Nayimuli, 2009), therefore, student teachers should be allowed to use community as a resource. For example a parent of some student could be a doctor who could demonstrate to the students maintenance of personal hygiene or prevention from communicable diseases. Similarly an interactive session with a farmer can help the students learn about

various tools, agricultural practices and challenges of this field.

**vi. Incorporation of ICT in classrooms:**

The Indian classrooms have gone hi-tech today. Kumar and Azad (2016) have suggested development of competencies in student teachers to carry out educational activities using ICT. The student teachers must learn how to incorporate ICT judiciously in their lesson plans. Incorporation of videos as teaching learning material helps in understanding and retention of the concept for a longer time. Use of educational activities, interactive games, puzzles makes classroom teaching interesting. Such tools can also be used for assessment of learning also.

**vii. Assessment of learning:** Introduction to different evaluative devices, tools and their usage and also to designing of good question papers and tools for internal assessment and using the same with fair objectivity was one of the objectives in 'Student Teaching and Evaluation Handbook for Secondary Colleges of Education' NCERT (as cited in Damodar, 1976, pp.10-11). The curriculum transacted during the internship period should be assessed by the student teachers themselves. The choice of appropriate tools can be made under the guidance of teacher educator and the concerned faculty members of the school. Thus, the student teachers shall also practically learn about responsibilities of assessment and evaluation and precautions to be taken while assessing the level of learning with respect to the learning outcomes for that particular subject and that particular age group.

**viii. Reporting the Results to parents:**

Equipping the student teacher for interpreting evaluation results of assessments and reporting pupil's progress was a part of one of the objectives in 'Student Teaching and Evaluation Handbook for Secondary Colleges of Education' NCERT (as cited

in Damodar, 1976, pp.10-11). The results of assessment of learning should be communicated to parents/ guardian. The student teacher should organize parent teacher meeting twice after taking pre and post tests. After the pre-test the student teacher should identify problems in learning individually if they exist. For example some students may not be weak in social science at primary level but might possess poor basic reading skills. This will affect comprehension of the written word in every subject. The student teacher should therefore devise / select appropriate tools for assessment so that the level of learning of individual can be assessed in the light of previous performance of the learner. Interacting with parents / guardians will help them in understanding the need of the learner in a better way and they can choose appropriate strategies for classroom teaching.

**ix. Peer Observation:** Chennat (2014) has also suggested this as a measure for improving internship programme. However, student teachers highlighted a lack of school support for conducting onsite peer observation (Sivan and Chan, 2009). The student teachers should be involved in peer observation for better learning. This helps them to improve their teaching and classroom management skills (Shahid and Hussain, 2011).

**x. Reflection on Theory-Practice Integration:** Teacher education programmes provide little scope for student teachers to reflect on their experiences. (NCF 2005 and NCFTE 2009). Interestingly, student teachers have also reported that they enjoyed practice teaching as they were able to apply what they studied in classroom situations (Ranjan, 2013, Kiggundu and Nayimulli, 2009). The student teachers should maintain reflective journals and reflect on their teaching methods with a special focus on the relationship between educational theories, psychological

principles and their practical implementation.

- xi. Self assessment:** There is no opportunity for teachers to examine their own biases and beliefs and reflect on their experiences as part of classroom discourse and enquiry (NCF 2005 and NCFTE 2009). The student teachers should maintain a diary where they write about their experiences and the way they see themselves growing as teachers. They should recognize their strengths and weaknesses besides identifying opportunities to hone their professional skills. This will help them in self assessment.

### Post internship phase

- i. Feedback session: One of the recommendations by SCERT Andhra Pradesh (2011) was that** teachers from SEP schools should be involved in student teacher assessment.. A feedback session should be held between the academic staff of the co-operating school and that of teacher training institute for discussing issues and challenges faced during the teaching practice and suggestions for improvement of the same.
- ii. Critical reflection of School Internship Programme:** A lack of feedback system

is pointed out as a major challenge in teacher education regarding changes and planning for that at all stages (Kumar and Azad, 2016). Student teachers were exploited by the cooperating school staff (Alkhawaldeh, 2011).

After the School Internship Programme is over the student teachers with their teacher educators should discuss their experience of School Internship Programme, the problems they faced in the field, measures and suggestions to overcome them. The student teachers should also be encouraged to share their thoughts about their growth and perceptions as teachers. Many student teachers are more confident while facing classes and show an improvement in interpersonal skills by the end of the School Internship Programme.

### Conclusion

It can therefore be concluded that teaching practice in schools forms the backbone of pre-service teacher education. In the light of the revamped syllabus of the teacher education programme there are many challenges in the implementation of the school internship programme. The aforementioned strategies may help in making leaning during classroom transactions more successful.

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## Perceptions of Teachers Toward Nature of Science (NOS) and Attitude toward Teaching Nature of Science (NOS)

### Abstract

*The present research aimed to study the perceptions of teachers towards the Nature of Science (NOS) and their attitude towards teaching about the Nature of Science (NOS). In the study all the participant teachers exclusively belonged to the different science disciplines of higher education level i.e. college and university teachers of Mizoram University, Aizawl, Mizoram for the academic year 2019. Sample comprised of randomly selected 50 teachers out of a total 145 population of science teachers. The perceptions of participants towards NOS and their attitude towards teaching NOS were measured through VOSE (Views on Science and Education) questionnaire. On an average teachers held good perception toward NOS and a positive attitude toward teaching about NOS to their students. It was also found that the teachers' perception on NOS differed significantly about their discipline of practice. This result was supported using Student 't' test and one-way ANOVA analysis. However, teachers' perception on NOS did not differ significantly with regard to their teaching experience and gender. Similarly, teachers' attitude toward teaching NOS did not differ significantly with regard to their discipline of practice, teaching experience and gender.*

**Keywords:** Nature of Science (NOS), Perceptions of Teachers towards NOS, Attitude toward Teaching NOS

### Introduction

Research indicates that the concept of Nature of Science (NOS) is very vague among the students, teachers, researchers and the general public. Bell (2008) rightly puts it as the way of knowing / doing science which has a strong philosophical, historical and socio-cultural basis which is not understood through traditional school science. NOS is defined as the value and assumptions inherent to science and a science teacher must understand it to teach it (Lederman, 1992). There are three domains of science to be explored inside and outside science classroom experiences (Bell, 2008). The first domain refers to the huge, dynamic and ever-expanding body of knowledge which can be only glimpsed and showcased in limitations of school science. Often the inclusion and deletion of content in science

courses is subject to some vested interest of major stake holders of school education which we are not discussing here. The second domain indicates the importance of practical experiences, the laboratory culture of school science wherein students learns methodology of doing science, the wave of hands on action popularized after the American progressive movement. Finally, the third domain relates to the NOS which is still an unfamiliar and alien domain in the Indian scenario. Often it is misunderstood by the teachers and mis-communicated to the students leading to conceptual stigmas. This domain of science is poorly addressed in majority of curricular materials, and when it is addressed it is misrepresented (Bell, 2008). Right understanding of NOS has a possibility of erasing misconceptions in science and its benefits can be had by establishing connections between the three

domains which is solely the responsibility of science teachers and educators who need to redefine pedagogical approaches for the same. Abrahams (2009) suggests that research indicates of the affective component in doing science, the second domain of science as described by Bell (2008). Contradicting this, school science portrays a very insensitive image of world of science and people associated with the discipline. School science has been failing consistently to involve learner's affect into science learning which resulted into amplified state of science anxiety. NOS can be taught right from elementary years by linking it to essential process skills of science which is its' second domain (Bell, 2008). But things in reality quite contradict the real requirements of teaching and learning science. NOS is often addressed apart from real science contexts and methods and hence it becomes difficult to teach science teachers to understand and implement the nature of science instruction (Sumranwanich & Yuenyong, 2013). Student community find difficulty in understanding the real nature of science as it is the most compromised aspect of science curricula and they fall trap to the limitations of science curriculum (Bell, 2008).

The scientific community which is involved in knowledge generation endeavours is also not free from this misconception at large; however, exceptions are also equally available. The researchers in the field of science seem to be often disconnected with this philosophical underpinning associated with doing science and might consider themselves free from the responsibility of passing on the various dimensions of NOS to the larger masses. Knowingly or unknowingly NOS happens to be in a compromised state when it comes to knowledge dissemination expeditions which are largely governed by economic and political nature of the prevailing circumstances. The general public at large is the most ignorant category amongst all about the conceptions of NOS. However, they hold a very high expectation from science as a whole being very ignorant about

the limits of science. According to Nott and Wellington (1993) there are some interesting dimensions to the NOS which are relativism vs. positivism, inductivism vs. deductivism, contextualism vs. decontextualism, process vs. content and instrumentalism vs. realism. Different people may associate themselves on these continuums in a varying way all of which are influenced by their training and practice of this discipline. Differences prevail both within and outside the scientific communities.

By knowing teacher's perception of science and its nature there can be a possibility to understand the readiness of teachers for NOS, a much debatable concept with regard to its clarity amongst the academicians. There has been no such study done in this field of science education especially in context of Mizoram. As a result, the investigators have decided to take up this task to fill in the gap in understanding the status of science education through the lens of teachers' understanding of NOS. Their perception holds a key to understand the missing links responsible for consistent underachievement of students in science. Looking into teachers' lens of NOS might help the investigators to uncover the hidden mis-concepts dwelling in their minds, who happen to be the major change makers in the lives of their students. The finding of the study is expected to reveal the status of perception of nature of science among science teachers at higher education level and hopefully provide further information for strengthening and improvement of science education. Although for decades the understanding of NOS has been listed as one of the major objectives in science education (Shulman & Tamir, 1973; Chen, 2006a), it has not yet been adequately emphasized in current educational practice. The recent reforms in science education specifically asks for including components of NOS as part of school science curriculum (AAAS, 1998; House of Commons Science & Technology Committee, 2002; McComas & Olson, 1998; Burton, 2012). Science education has

accepted areas of NOS that are important for school-age students i.e. to understand that scientific knowledge is empirically based; both reliable and tentative; is the product of observation and inference, creative thinking; is subjective, to a degree; scientific laws and theories are different kinds of knowledge and not same, laws are not infallible but they can withstand the vigour of time and scientists use many methods to develop knowledge and not just scientific method (Burton, 2012).

Having said this the investigators are deeply interested to find answers to the following research questions exclusively targeting the science teaching community at tertiary level of education:

### Research Questions

1. What is the perception of science teachers at tertiary level of education towards Nature of Science (NOS)?
2. Is there any difference among teachers' perceptions of Nature of Science (NOS) with regard to their teaching experience in science?
3. Does teachers' discipline of practice have any influence on their perceptions, thoughts and views of Nature of Science (NOS)?
4. Does gender play any role in development of nature of science (NOS)?

With the aim of finding valid answers to the above mentioned research questions, five research objectives were formulated mentioned in the analysis section.

### Methodology

The purpose of the present study is to find out the perceptions of teachers towards NOS who are teaching at the tertiary level of education in various science disciplines of Mizoram University and all the colleges affiliated to Mizoram University which are offering courses in science.

*Participants:* The participants of the study are the teachers belonging to the major seven disciplines of Physics, Chemistry, Botany, Zoology, Biotechnology, Geology and

Environmental Science who were serving in Mizoram University, Aizawl and all the colleges affiliated to Mizoram University which are offering courses in science.

*Tool:* In order to study the teachers' perception towards NOS and attitude towards teaching NOS, Views on Science and Education (VOSE) Questionnaire developed by Chen (2006a) is used. Chen (2006a) developed the VOSE questionnaire standardized on Chinese population. The purpose of study was to develop a valid, meaningful, and practical instrument for creating in-depth profiles of the views of college students or policy makers in science education, parents, community members, industry representatives, educators, content experts including pre-/in-service teachers, about the nature of science (NOS), and NOS instruction (Chen, 2006a). VOSE has been found to be better in detecting the perceptions or interpretations of the items over the traditional instruments such as VOSTS (Chen, 2006a). VOSE focuses on seven aspects of NOS that are particularly relevant to K-12 science education which are i) Tentativeness of scientific knowledge; ii) Nature of observation; iii) Scientific methods; iv) Hypotheses, laws and theories; v) Imagination; vi) validation of scientific knowledge; and vii) objectivity and subjectivity in science. In addition to questions about these seven aspects of NOS, VOSE includes five questions to examine the teaching attitudes corresponding to five of the NOS topics: teaching about the tentativeness of scientific knowledge, the nature of observation, the scientific method, the relationship between theories and laws, and the subjectivity embedded in science (Chen, 2006a). Due permission was sought from the questionnaire constructor of VOSE which has been tried on various populations of students and teachers and is found to be a culture fair questionnaire as the philosophical stance dealt in it can be considered to be universal.

*Reliability and Validity of VOSE:* The VOSE yields reliable results because the items originated from the respondents'

viewpoints instead of experts' presumptions of reasonable responses. The test-retest reliability also is high, correlation coefficient, 0.82. The Cronbach's alphas of all issues of NOS in VOSE ranged from 0.34 to 0.81 (Chen, 2006a). For validity, the content and interpretation of the items were validated by two panels of experts, each consisting of six experts (Chen, 2006b)

*Data Collection:* The data was collected from randomly selected 50 teachers from the tertiary level of education working in Mizoram University and affiliated colleges of the Mizoram University, Aizawl, Mizoram. The total population comprised of 145 teachers for the academic session 2019 obtained from the institutes' websites.

*Scoring Technique:* As explained by Chen (2006b), VOSE comprise of 15 broad items under each of which are different number of responses against which choice of positions has to be made by the participants. VOSE assess both the subjects' conceptions of NOS and attitudes toward teaching NOS, as well as their underlying reasons. The conception and attitude parts consist of 10 and 5 questions (item 10, 11, 12, 13, & 14) respectively. Each question is followed by several items that represent different philosophical positions. The item is symbolized by a numerical number, indicating the question, and a letter, indicating the response for the question. For e.g. 1A stands for question 1 and letter A indicates one response for the item question.

Participants are instructed to read all items of a question before ranking each on the five-point scale. The scores go from 0 to 4 which correspond for positions strongly disagree (SD), disagree(D), uncertain(U), agree(A) and strongly agree (SA). For data coding 16 items are to be regarded as naïve conceptions and their scores are to be reversed which are 9A, 9B, 9F,7A ,7B, 3C, 3D,3E,2C, 2D, 15F, 8C, 15E, 15I,8C and 8D.

## Findings and Interpretations

### A. Quantitative Findings

*Objective 1:* To find out the perceptions of higher education science teachers towards Nature of Science (NOS).

Since VOSE gives scores separately on conceptions of NOS and Attitude for Teaching NOS, the interpretations were recorded separately.

#### a) Teachers' conceptions of NOS

Teachers were found to obtain a mean score of 120.04 with a maximum and minimum score of 151 and 67 corresponding to the item nos. 1-9 and item 15. The scores for the different issues of NOS conception were also calculated to find out the teachers' conceptions of NOS. Mean scores on each of the NOS issues as provided by Chen (2006a) were calculated which are presented in Table 1.

**Table 1:** Results of the Views on Science and Education: Philosophical Stances

NOS Issues	Mean	SD	SEM	Minimum	Maximum
Tentativeness	2.8	0.74	0.104	0	4
Nature of Observation	1.94	0.46	0.06	0.8	2.8
Scientific Methods	1.69	0.46	0.064	0.7	2.7
Theories	2.52	0.58	0.081	0.5	3.7
Laws	2.59	0.49	0.068	1.6	3.8
Comparison between theories and laws	1.61	0.48	0.07	0.5	2.75
Use of Imagination	2.52	0.71	0.101	0.6	4
Validation of Scientific Knowledge	1.59	0.78	0.109	0	3.3
Subjectivity	2.54	0.49	0.069	0.9	3.3
Objectivity	1.98	0.27	0.037	1.4	2.5

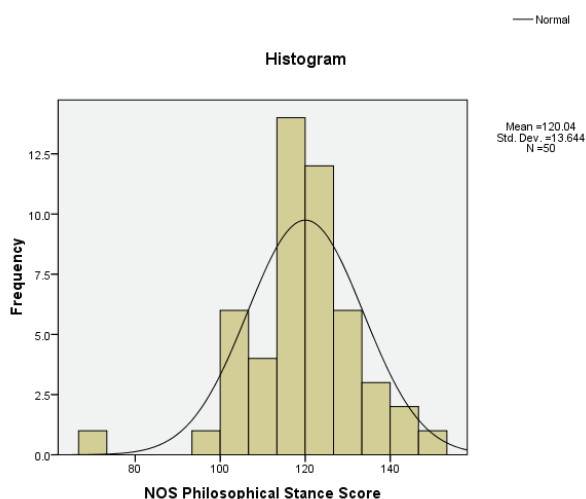


Fig 1: Normal Distribution Curve for Teachers' scores on NOS Philosophical Stance

Table 1 provides the description of the distribution of teachers' philosophical stance regarding all the NOS issues as described by Chen (2006a). The maximum possible score

for these 10 items was  $55 \times 4 = 220$ . The responses followed a normal distribution (Fig 1). Table 1 shows that maximum mean score of (2.8/4) was obtained for the philosophical stance of 'tentativeness' and minimum mean score of (1.59/4) was obtained for the philosophical stance of 'validation of scientific knowledge'.

b) Attitude toward teaching NOS

The total scores for teachers' attitude were separately calculated to find out the teachers' attitude towards teaching NOS topics to their students. Teachers were found to obtain a mean score of 72 with a maximum and minimum score of 90 and 32 corresponding to item No. 10-14.

The total scores for the different issues of attitude for teaching NOS were also calculated to find out the teachers' attitude for teaching NOS. Mean scores on each of the NOS issues as provided by Chen (2006a) were calculated which are presented in Table 2.

Table 2: Results of the views on Science and Education: Attitudes toward teaching NOS

NOS Topic	Mean	SD	SEM	Minimum	Maximum
Tentativeness	2.03	0.54	0.075	0.8	3.2
Nature of Observation	2.22	0.54	0.076	0.6	3.2
Scientific Methods	2.59	0.48	0.068	0.33	3.55
Theories and Laws	2.21	0.49	0.068	0.75	3.25
Subjectivity and Objectivity	2.66	0.49	0.068	2	3.86

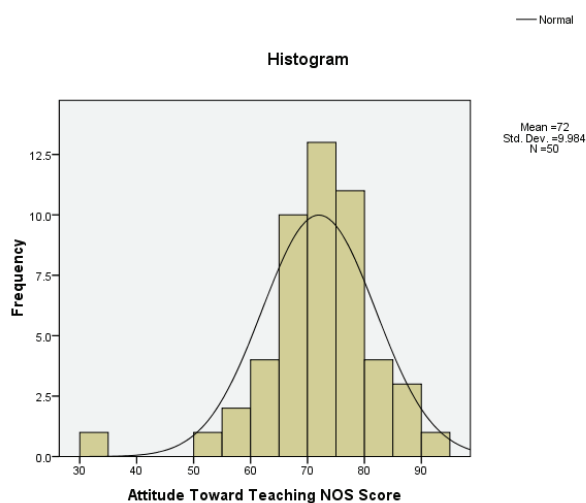


Fig 2: Normal Distribution Curve for Teachers' scores on Attitude toward Teaching NOS

Table 2 provides the description of the distribution of teachers' attitude toward teaching NOS for various issues as described by Chen (2006a). The maximum possible score for these 5 items was  $30 \times 4 = 120$ . The responses followed a normal distribution (Fig 2). Table 2 shows that maximum mean score of (2.7/4) was obtained for the philosophical stance of 'subjectivity and objectivity' and minimum mean score of (2.03/4) was obtained for the philosophical stance of 'tentativeness'.

Objective 2: To examine and compare higher education science teacher's perceptions of nature of science (NOS) with respect to their discipline of practice.



For the present study data was collected from teachers belonging to seven streams of science which are Botany, Bio-Technology, Chemistry, Environmental Science, Geology, Physics and Zoology,. For the purpose of comparison of teachers' perception of NOS, the teachers were divided into two groups broadly, one belonging to discipline of

Physical Science comprising of teachers from Physics, Chemistry and Geology streams. The other group formed the Biological Science group comprising of teachers from Botany, Biotechnology, Environmental Science and Zoology stream. Table 3 provides the numbers of teachers from each stream with respect to their gender and teaching experiences.

**Table 3:** Sample Teachers in different Streams of Science

Science Streams	Number of Teachers			
	Male	Female	More than 10 years of Teaching Experience	Less than 10 years of Teaching Experience
Botany	3	3	3	3
Biotechnology	5	1	3	3
Chemistry	3	4	4	3
Environmental Science	3	6	4	5
Geology	4	3	2	5
Physics	2	0	2	0
Zoology	5	8	7	6
TOTAL	25	25	25	25

With reference to Table 3, the Physical Science and Biological Science group comprised of 16 and 34 teachers respectively.

The comparison was separately done for two important aspects of VOSE viz.

- To examine and compare higher education science teacher's conceptions of nature of science with respect to their discipline of practice.
  - To examine and compare higher education science teacher's attitude towards teaching of nature of science with respect to their discipline of practice.
- In order to compare teachers' conceptions of NOS, statistical test of student 't' test for unpaired sample assuming equal variances was performed by calculating

the F-ratio between the higher and lower variance of the two samples as the F statistics (1.83) < F critical(2.31,  $\alpha=0.025$  for 2-tailed test) for df (15,33).

The research objective guided to propose the following null hypotheses:

**H<sub>02</sub> a:** *There is no significant difference in teacher' conceptions of NOS working at tertiary level with respect to their discipline of practice.*

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Physical Science Teachers' mean score on NOS stance &  $\mu_2$  = Biological Science Teachers' mean score on NOS stance. Table 4 depicts the t-test analysis

**Table 4:** Significance of Difference between Teachers' conceptions of NOS in relation to their discipline of practice

Nature of Science Discipline	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
Physical Science	16	126.88	10.31	2.58	2.57	48	0.013	S*	Rejected
Biological Science	34	116.82	13.96	2.39					

**Source:** Field data. \*The test suggests that the difference between the two means is significant at 0.05 level.

**Interpretation:** A reference to Table 4 reveals that the obtained t value (2.57) was found significant at 0.05 level with degrees of freedom 48, 't' critical value (2.01) for 2 tailed analysis being < obtained 't' value. It means that teachers' conception of NOS differ significantly with respect to their discipline of practice. Hence the null hypothesis is rejected. It was found that group of Physical Science teachers have better conceptions of NOS than the Biological Science group with a mean difference of 10.06. Further standard deviation is higher in biological science group.

Further an attempt was made to perform one-way ANOVA statistics by segregating the

samples into 3 groups which are Physical Science (Physics, Chemistry, Geology), Inter-disciplinary Science (Bio-Technology and Environmental Science) and Biological Science (Botany and Zoology) having 16, 15 and 19 teachers in these groups respectively. Table 5 shows the obtained F-value.

A reference to Table 5 reveals that the obtained F value, 3.20 was found significant at 0.05 with degrees of freedom 2 for numerator (df1) and 47 for denominator (df2), F critical value (3.20) being  $\leq$  obtained F ratio. It means that teachers' conception of NOS differs significantly with respect to their discipline of practice. Hence the null hypothesis is rejected.

**Table 5:** F value in relation to Conception of NOS of Physical Science, Interdisciplinary Science and Biological Science Teachers

Source of Variance	Df	Sum of Squares (SS)	Mean Square (Variance)	F Ratio	F critical	P value	Level of Significance	Decision on Null Hypothesis
(Treatments) Between Groups	2	1455.5	727.74	(MS treatment/MS residual) 4.462	3.20	0.017	0.05	Rejected
(Residuals) Within Groups	47	7666.4	163.12					
Total	49	9121.9						

Since here F-test is only providing an overall result that there is a statistically significant difference between the given group means but it does not find out which group is different from other group. A Post-Hoc test of Multiple Comparison Test was performed

since the P value is less than 0.05. Since the sample sizes are unequal, the Tukey-Kramer test was performed to determine which pairwise comparisons are significant. Table 6 provides the results of the test.

**Table 6:** Tukey-Kramer Multiple Comparison Test

Groups	Count	Mean	Comparison	Mean Difference	Q	P value
Physical Science	16	126.88	Inter-disciplinary Science vs. Biological Science	6.52	2.090	NS P>0.05
Inter-disciplinary Science	15	120.47	Inter-disciplinary Science vs. Physical Science	-6.41	1.974	NS P> 0.05
Biological Science	19	113.95	Biological Science vs. Physical Science	-12.93	4.219	S* P<0.05

The Tukey-Kramer Test indicated that the only significant comparison is that of Biological Science - Physical Science group revealing existence of significant difference with regard to their conception of NOS at

0.05 level of significance. The conceptions of NOS in the physical science group are found to be better over the biological science

b) In order to compare teachers' teacher's attitude towards teaching of NOS,

statistical test of student 't' test for unpaired sample assuming equal variances was performed by calculating the F-ratio between the higher and lower variance of the two samples as  $(1.82) < F_{critical}(2.64, \alpha=0.025 \text{ for 2-tailed test})$  for  $df(15,33)$ .

The research objective guided to propose the following null hypotheses:

**Table 7:** Significance of Difference between Teachers' Attitude towards teaching NOS in relation to their discipline of practice

Nature of Science Discipline	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
Physical Science	16	71.63	8.05	2.01	0.18	48	0.857	NS	Accepted
Biological Science	34	72.18	10.88	1.87					

**Source:** Field data. The test suggests that the difference between the two means is not significant at 0.05 level.

**Interpretation:** A reference to Table 7 reveals that the obtained t value (0.18) was not found significant at 0.05 level with degrees of freedom 48, 't' critical value (2.01) for 2 tailed analysis being  $>$  obtained 't' value. It means that teachers' attitude towards teaching NOS do not differ significantly with respect to their discipline of practice. Hence the null hypothesis is accepted

**Table 8:** F value in relation to Teachers' Attitude towards teaching NOS of Physical Science, Interdisciplinary Science and Biological Science Teachers

Source of Variance	Df	Sum of Squares (SS)	Mean Square (Variance)	F Ratio	F critical	P value	Level of Significance	Decision on Null Hypothesis
(Treatments) Between Groups	2	8.124	4.062	(MS treatment/MS residual) 0.039	3.20	0.96	0.05	Accepted
(Residuals) Within Groups	47	4875.9	103.74					
Total	49	4884.0						

A reference to Table 8 reveals that the obtained F value, 3.20 was found not significant at 0.05 with degrees of freedom 2 for numerator (df1) and 47 for denominator (df2), F critical value (3.20) being  $>$  obtained F ratio. It means that, those teachers' attitude towards teaching NOS do not differ significantly with respect to their discipline of practice. Hence the null hypothesis is accepted. Post tests

**H<sub>0</sub>2 b:** *There is no significant difference in teachers' attitude towards teaching NOS working at tertiary level with respect to their discipline of practice.*

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Physical Science Teachers' mean score on Attitude toward teaching NOS &  $\mu_2$  = Biological Science Teachers' mean score on Attitude toward teaching NOS. Table 7 depicts the t-test analysis.

Further an attempt was made to perform one-way ANOVA statistics by segregating the samples into 3 groups which are Physical Science (Physics, Chemistry, Geology), Inter-disciplinary Science (Bio-Technology and Environmental Science) and Biological Science (Botany and Zoology) having 16, 15 and 19 teachers in these groups respectively. Table-21 shows the obtained F-value.

were not calculated because the P value was greater than 0.05.

**Objective 3:** To examine and compare higher education science teacher's perceptions of nature of science (NOS) with respect to their teaching experiences.

For the above objective of study, the sample was divided into two groups. With

reference to Table 3 the sample comprised of 25 teachers having more than ten years of teaching experience and 25 teachers having less than ten years of teaching experience. The comparison was separately done for two important aspects of VOSE viz.

- a) To examine and compare higher education science teacher’s conceptions of nature of science with respect to their teaching experiences.
- b) To examine and compare higher education science teacher’s attitude towards teaching of nature of science with respect to their teaching experiences.
- a) In order to compare teachers’ conceptions of NOS, statistical test of students’ ‘t’ test for unpaired sample assuming

equal variances was performed by calculating the F-ratio between the higher and lower variance of the two samples as the F statistics (2.26 ) ≤ F critical (2.26, α=0.025 for 2-tailed test) for df (24,24).

The research objective guided to propose the following null hypotheses:

**H<sub>0</sub> 3a:** *There is no significant difference in teacher’ conceptions of NOS working at tertiary level with respect to their teaching experiences*

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Mean score on NOS stance of teachers having more than 10 years of teaching experience &  $\mu_2$  = Mean score on NOS stance teachers having less than 10 years of teaching experience. Table 9 depicts the t-test analysis.

**Table 9:** Significance of Difference between Teachers’ conceptions of NOS in relation to their teaching experiences

Teaching Experience	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
More than 10 years	25	119.59	16.22	3.25	0.25	48	0.80	NS	Accepted
Less than 10 years	25	120.52	10.79	2.16					

**Source:** Field data. The test suggests that the difference between the two means is not significant at 0.05 level.

**Interpretation:** A reference to Table 9 reveals that the obtained t value (0.25) was not found significant at 0.05 level with degrees of freedom 42, ‘t’ critical value (2.01) for 2 tailed analysis being > obtained ‘t’ value. It means that teachers’ conception of NOS do not differ significantly with respect to their teaching experience. Hence the null hypothesis is accepted.

- a) In order to compare teacher’s attitude towards teaching of NOS, statistical test of students’ ‘t’ test for unpaired sample assuming equal variances was performed by calculating the F-ratio between the higher and lower variance of the two samples as the F statistics (2.24 ) <F crit-

ical (2.26, α=0.025 for 2-tailed test) for df (24,24).

The research objective guided to propose the following null hypotheses:

**H<sub>0</sub> 3 b:** *There is no significant difference in teachers’ attitude towards teaching NOS working at tertiary level with respect to their teaching experiences*

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Mean score on Attitude toward teaching NOS of Teachers having more than 10 years of teaching experience &  $\mu_2$  = Mean score on Attitude toward teaching NOS of teachers with less than 10 years of teaching experience. Table 10 depicts the t-test analysis.

**Table 10:** Significance of Difference between Teachers' Attitude towards teaching NOS in relation to their teaching experiences

Gender	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
Male Teachers	25	72.76	11.83	2.34	0.53	48	0.59	NS	Accepted
Female Teachers	25	71.24	7.89	1.58					

**Source:** Field data. The test suggests that the difference between the two means is not significant at 0.05 level.

**Interpretation:** A reference to Table 10 reveals that the obtained t value (0.53) was not found significant at 0.05 level with degrees of freedom 48, 't' critical value (2.01) for 2 tailed analysis being > obtained 't' value. It means that teachers' attitude towards teaching NOS do not differ significantly with respect to their teaching experience. Hence the null hypothesis is accepted.

**Objective 4:** To examine and compare higher education science teacher's perceptions of nature of science (NOS) with respect to their gender.

With reference to Table 3 the sample comprises of 25 male and 25 female teachers. The comparison was separately done for two important aspects of VOSE viz.

- a) To examine and compare higher education science teachers conceptions of nature of science with respect to their gender

- b) To examine and compare higher education science teacher's attitude towards teaching of nature of science with respect to their gender.

- a) In order to compare teachers' conceptions of NOS, statistical test of students 't' test for unpaired sample assuming equal variances was performed by calculating the F-ratio between the higher and lower variance of the two samples as the F statistics (0.53) < F critical(2.26,  $\alpha=0.025$  for 2-tailed test) for df (24,24).

The research objective guided to propose the following null hypotheses:

**H<sub>0</sub> a:** There is no significant difference in teachers' conceptions of NOS working at Tertiary level with respect to their gender

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Mean score on NOS stance of Male Teachers &  $\mu_2$  = Mean score on NOS stance of Female teachers. Table 11 depicts the t-test analysis.

**Table 11:** Significance of Difference between Teachers' conceptions of NOS in relation to their Gender

Group	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
Male Teachers	25	121.24	11.49	2.29	0.62	48	0.54	NS	Accepted
Female Teachers	25	118.84	15.65	3.13					

**Source:** Field data. The test suggests that the difference between the two means is not significant at 0.05 level.

**Interpretation:** A reference to Table 11 reveals that the obtained t value (0.62) was not found significant at 0.05 level with degrees of freedom 48, 't' critical value (2.01) for 2 tailed analysis being > obtained 't' value. It means that teachers' conception of

NOS do not differ significantly with respect to their gender. Hence the null hypothesis is accepted.

- b) In order to compare teachers' teacher's attitude towards teaching of NOS, statistical test of students 't' test for

unpaired sample assuming equal variances was performed by calculating the F-ratio between the higher and lower variance of the two samples as the F statistics (0.37) < F critical (2.26,  $\alpha=0.025$  for 2-tailed test) for df (24,24).

The research objective guided to propose the following null hypotheses:

**H<sub>0</sub> b:** *There is no significant difference in teachers' attitude towards teaching NOS working at tertiary level with respect to their gender*

**H<sub>0</sub>:**  $\mu_1 = \mu_2$  where  $\mu_1$  = Mean score on Attitude toward teaching NOS of Male Teachers &  $\mu_2$  = Mean score on Attitude toward teaching NOS of Female Teachers. Table 12 depicts the t-test analysis.

**Table 12:** Significance of Difference between Teachers' Attitude towards teaching NOS in relation to their Gender

Group	Number	Mean	S.D.	SEM	t value	Df	P value	Significance of Difference	Decision on Null Hypothesis
Male Teachers	25	73.72	7.34	1.47	1.22	48	0.23	NS	Accepted
Female Teachers	25	70.28	11.97	2.39					

**Source:** Field data. The test suggests that the difference between the two means is not significant at 0.05 level.

**Interpretation:** A reference to Table 12 reveals that the obtained t value (1.22) was not found significant at 0.05 level with degrees of freedom 48, 't' critical value(2.01) for 2 tailed analysis being > obtained 't' value.. It means that teachers' attitude towards teaching NOS do not differ significantly with respect to their gender. Hence the null hypothesis is accepted.

### Qualitative Findings

*Objective 5:* To qualitatively analyze the higher education science teacher's view on Nature of Science (NOS).

The obtained data was also subjected to qualitative analysis for certain philosophical stance as explained by Chen (2006a). Chen (2006a) reports that the issue of the tentativeness of scientific knowledge could incorporate three phases in its development: revolutionary where knowledge and the way science is practiced are dramatically changed (Kuhn, 1970), cumulative where knowledge is accumulated in the period of scientific paradigm and evolutionary where the change is relatively minor, and a theory may be refined to incorporate new evidence (Popper, 1975/1998). Studies have indicated that

teachers may not take a specific philosophical stance and may even go with each of it (Gallagher, 1991; Koulaidis & Ogborn, 1989) and may change their philosophical stance when teaching in different contexts (Hodson, 1993). Considering this special issue the responses for this question were qualitatively analyzed. With regard to the distribution of teachers' stance on 'tentativeness of scientific knowledge' it is found that maximum participants (62%) agreed that scientific research will face revolutionary change, and the old theory will be replaced going for evolutionary stance about the tentativeness of scientific knowledge however 20 participants disagreed to the notion and 18 could not decide. Majority (74%) agreed that scientific advances cannot be made in a short time but is a cumulative process preserving the old theories and scientists will accept different theories as both are shaded by different perspectives. Around 10 participants disagreed to the notion and 16 could not decide. Lastly maximum participants (76%) agreed with the evolutionary nature of scientific knowledge favouring the notion that with the accumulation of research data and information, the theory will evolve

more accurately and completely, not being disproved. 8 participants did not favour the notion and 16 participants could not decide. The analysis suggests that their conceptions are not stable and are sometimes contradictory supporting the earlier studies (Abd-El-Khalick & BouJaoude, 1997; Mellado, 1997).

Another issue which may suggest an opposing and contradicting stance is that concerning the epistemological status of theories and laws. According to Chen (2006b) scientists create theories and laws to interpret and describe empirical evidence; however, some may argue that both are invented whereas other believes they discover them presuming a single objective reality. The nature of science constitutes a domain of science which is by far the most abstract and least familiar (Bell, 2008). In science, a law is a succinct description of relationships or patterns in nature consistently observed in nature. On one hand, laws are often expressed in mathematical terms and a scientific theory is a well-supported explanation of natural phenomena. Thus, theories and laws constitute two distinct types of knowledge. One can never change into the other. On the other hand, they are similar in that they both have substantial supporting evidence and are widely accepted by scientists. Either can change in light of new evidence (Bell, 2008). The nature of science strictly differentiates between laws and theories explaining evidence with different purposes and is incomparable. The questionnaire also addressed this issue and it is found that maximum participants (68%) and (76%) agreed that a theory is discovered, many participants also held the notion (70%) that theories are either discovered or invented and some participants (66%), (54%) and (42%) agreed that theories are invented as a result of scientific experimentation and can be later disproved. It is found maximum participants (88%) believe that laws are discovered as they are already out there, more than half (68%) believe that laws are discovered based on experimental facts. A

similar percentage (68%) felt that laws are sometimes accidentally discovered and sometimes invented. Rest 50% and 42% felt scientific laws are invented after interpreting experimental facts and due to lack of absolutes in nature respectively. However, 40% of participants could not decide for lack of absolutes. Participants views in comparison of laws and theories it was found maximally 78% and 84% participants agreed that theory are not stable as laws and a theory which stands many tests will eventually become law. On the contrary 46% participants agreed that some theories have more supporting evidence than some laws and only 32% participants agreed that theory and laws are different types of ideas which cannot be compared. Almost all of participants (94%) had a positive attitude towards teaching the relationship between hypothesis, theory and law to high school students as they represent the structure of scientific knowledge. Majority of participants (82%) agreed that they represent the fundamental of scientific inquiry and should be taught. However, only 18% and 22% participants agreed that teaching the relationship does not help students to understand the NOS and does not communicate definite meaning respectively.

Further another issue was analyzed based on subjectivity and objectivity in science. Scientific knowledge is mostly empirically based and scientists try to be open-minded and apply mechanisms such as peer review and data triangulation to improve objectivity however, personal beliefs, values, intuition, judgment, creativity, opportunity, and psychology all play a role in scientific activities (Chen, 2006a). It is therefore not wrong to say that there is an influence of the society, culture, background of scientists and discipline in which they are embedded or educated which is reflected in their observations, interpretations, use of imagination, and theory choice as subjectivity (Chen, 2006a). Science as a human enterprise is practiced in the context of a larger culture and its practitioners (scientists) are the

product of that culture (Lederman et al, 2002). The present study indicated that tertiary level teachers generally felt that socio-cultural background of scientists and their cultural imprints may influence them and their scientific investigations, however their stance is not clearly on one side as they agreed to notions that scientific inquiries should be free from subjective inclinations but equally participants disagreed on the notion. Moreover, they believed that it is important to consider both scientific research and social values simultaneously and their interactions should be made known to secondary school students and it is inevitable to escape from keeping the two views in isolation i.e. the subjective and objective views. On the whole participants agree that rationality is key behind doing science and shouldn't not be compromised on grounds of subjectivism. This finding is in agreement with another similar study (Burton, 2012). With regard to distribution of teachers' stance 'scientific investigations are influenced by socio-cultural values (e.g., current trends, values)' against various responses, it is found that almost 70% participants agreed that socio-cultural values influence the direction and topics of scientific investigations and almost 60% of them agreed that scientific investigations are influenced by socio-cultural values. However, around 48% participants agreed that scientists always ought to remain value-free when carrying out research. Many participants (58%) believed that objectivity and subjectivity are contrary to each other and in science objectivity overrules subjectivity.

## Discussion

The results of the present study are encouraging as teachers of tertiary level do possess moderately fair ideas on NOS philosophical stance, however few teachers scored poorly but, on an average, their composite scores were satisfactory. They

scored much better on possessing a positive attitude toward teaching the philosophical stance to their students. Based on the findings of this study, there is evidence that teachers do agree to opposing philosophical stances as well which they seem to gradually acquire by the virtue of their practice in the discipline and it has an impact on teachers' practice in teaching NOS. Triangulating both the quantitative and qualitative findings it is found that teachers at tertiary level do not differ in their philosophical positions of NOS especially with regard to their teaching experience and gender. It means even teachers with more teaching experience seem to except the popular notions about NOS such as discussed under the qualitative findings section. However the teachers from physical sciences (hard sciences) background seemed to have somewhat better understanding of the notion of NOS than the teachers belonging to biological sciences (soft sciences) which seem to encourage certain myths about NOS such as superiority of scientific method, subjectivity and objectivity in doing sciences and confusion between theories and laws. Qualitative findings further suggest that many teachers seem unable to choose their stance and reserved their responses as undecided. This indicates that the notion of NOS lacks uniformity on certain NOS issues, are more inclined to have common notion for few other issues. The present study is interesting as it is indicative of compromised state of real NOS in traditional science classroom and many misunderstandings continue to prevail. However, this study has a brighter side about teachers' attitude towards teaching NOS, teachers being more proactive toward their actions as teachers.

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# Understanding MOOCs (Massive Open Online Courses) and its Pedagogy to Use it as a Potential Solution for Learning

## Abstract

*Through the ages, the will of providing low cost and effective education has existed but we were unable to find a potential solution for it. MOOC can be a potential solution for free education but there is to understand its nature, characteristics, types and pedagogy. There are two types of MOOC -C-MOOC and X-MOOC. C-MOOC based on the theory of connectivism and X-MOOC based on behaviourist model. X-MOOC provide a structured and centralized way of delivering the content. Both types of MOOC have their strength and limitations. MOOC is becoming more and more popular with time as more than 110 million learners join MOOC but according to the Harvard University, only 6 per cent of the total candidates complete the course which shows that there is a need to explore the ideas to use it effectively. MOOC is a good source of knowledge, but we need to understand the pedagogy behind different MOOC so that it helps the teachers and learners to use it effectively and efficiently. This paper is based on the analysis of the available literature and research conducted on the effectiveness of MOOC programme in a blended mode for teacher education course by the researcher. This paper tries to find a potential solution to use MOOC in the best way for learning. It will help the learners to choose different MOOCs according to their needs, learning styles by making them understand the pedagogic difference between the types of MOOCs.*

**Keywords:** Massive Open Online Courses (MOOC), Connectivist MOOC (C-MOOC), Extension MOOC (X-MOOC), Hybrid MOOC (H-MOOC)

## Introduction

The Internet provides a great platform for life-long learning and becomes unavoidable in our daily life. The Lockdown period due to coronavirus proves it. During Lockdown period other than corona warriors people stay at home to break the chain of coronavirus and utilize their leisure time by performing different activities. Many peoples join online courses to enhance their learning, watch online videos, play online games and work from home using the internet. Online courses used the internet to deliver the content online to the home computer of the learner. In these courses student—and instructor interact online via e-mail, chat rooms, and threaded discussions. Learners get access to the best online courses from all around the world and get qualitative education with the help of internet. MOOCs stand for Massive

Open Online Courses. These are free online courses which can be easily accessed by a large number of people.

There are two types of online courses, payable/chargeable online courses and free online courses. Courses which charge a tuition fee for the online content are mostly with a limited number of seats and time-period. Content of such courses can be accessed for a limited period. These courses mostly offered a certificate for successful completion of the course which can be helpful to enrich the portfolio. Other types of online courses are free courses which do not charge any kind of tuition fee. MOOC is a free online course that offers open access to a massive number of learners. Most of the MOOC allows access to the content for free but only a few provide free certificates otherwise you need to pay some minimal charges for the certificate. This varies from

course to course. These certificates can be beneficial to enrich a profile and provide a better job opportunity.

**M** Huge Number of individuals can enrol in the course  
**O** Online registration  
**O** Open content  
**O** Free of charge  
**O** Affordable  
**O** Can be accessed with the help of the internet from anywhere at anytime  
**O** Self-paced  
**C** Flexible timing  
**C** Interaction with an online community

M Massive

O Open

O Online

C Course

Every letter is negotiable

MOOC provides world-class education, promote equity and quality; reduce expenditure in education; improve gross enrolment ratio; provide updated content; provide self-paced and individualized learning; promote collaborative and independent learning and bring innovative initiative in teaching. (Bhardwaj. K & Hooda. M, 2019)

According to Class Central survey MOOC Report (2019), the MOOC movement has reached 110 million learners (excluding China). More than 900 universities offered 13.5k courses, 180 micro-credentials and 50 MOOC based degrees.

From 2012 until now, huge growth is observed in MOOC which also reveals the craze for MOOC in this global era and makes it more important to study. MOOC is basically of 2 types C-MOOC and X-MOOC. To understand different types of MOOCs, we need to know how it evolves, which principle and theories are they based on and how it is developing. With this teacher/professional can choose among the type of MOOC which is beneficial for them and their students.

## Evolution of MOOC

In 2008, the MOOC (Massive Open Online Course) came into existence. David Cormier was responsible for coining the term MOOC. Krist mentioned that “The massive open online course (MOOC) phenomenon comes from connectivist theory”. The first MOOC is the “Connectivism and Connective Knowledge course (CCK08)” created by George Siemens, Stephen Downes and David Cormier. The first MOOC was C-MOOC in higher education which was offered through Extended Education at the University of Manitoba, Canada and the Learning Technologies Center. In this course, 25 students from the university pay the course fee who are offered credits and was opened for others to join for free who are interested to join without credit. This course brings a huge number of participants i.e. over 2000 which belong to 81 nationalities. The duration of the course is 12 weeks. This shows that even as its evolutionary phase learners show great interest.

A MOOC was developed in 2011 by Sebastian Thrun and Peter Norvig at Stanford named “Artificial Intelligence.” This course openly invites anyone to join and over 1,60,000 people joined the course from 190 countries. In January 2012, Sebastian Thrun and Peter Norvig created a company named Udacity to explore this format further.

In April 2012, Coursera was started by two colleagues of Stanford. They are Andrew Ng and Daphne Koller. MIT and Harvard joined and created the edx platform in May. This form is referred to as X-MOOC which is also called Extension MOOC. In this type of MOOC new tools were introduced for handling the large-scale collaborative learning and assessment and methodology of MOOC was improved as renowned universities came forward to create MOOC which meant professors of such renowned institutions deliver the content.

Now, more than 900 universities delivered MOOC courses and many renowned universities such as Harvard, Yale and Stanford which are internationally recognized

offered most of the MOOC courses. Some of the websites that offer MOOCs are ALISON, Canvas Network, Open Learning, Coursera, iversity, edX, Saylor, Udemy, Academic Earth, Future Learn, Peer to Peer University etc.

## The Pedagogy Behind the MOOC

According to the Oxford Dictionary, Pedagogy is the practice and method of teaching and learning in an academic discipline. It studies how skills and knowledge are imparted in an education context. Pedagogy often described as the act of teaching. Its process influence and get influenced by the political, psychological and social development of learners. Pedagogy includes teaching styles, teaching theory, feedback and assessment of teaching and learning. It includes the process or way teachers deliver the content in the classroom. Few basic approaches of teaching are constructivist approach, collaborative approach, inquiry-based approach, integrative approach and reflective approach.

MOOC seems to support inquiry-based learning, reflection, peer learning and social constructivism as students explore through questions and interactions by putting their doubts on the discussion forum. Courses are joined by a huge number of diverse audiences from all around the world. This creates an opportunity to share knowledge and different ideas without any geographical limitations. MOOC provides easy access to global resources and provides students with an idea where they stand in global competition due to unlimited enrollment across the globe. These courses create an opportunity for collaboration between learners, educators and institutions which provide them with worldwide exposure. This exposure provides an opportunity to improve pedagogical techniques and cross-cultural relationships.

MOOC promote self-directed and autonomous learning. There is less interaction between learner and teacher

in MOOC courses because of no fixed time to access the course. The structure is conceived to promote autonomous learning with many resources in the form of videos, links, documents, etc. and spaces for debate and communication.

MOOC provides time flexibility and self-paced opportunity. Most of the online courses have the flexible date of joining i.e. learner can join the course anytime but some have a fixed time of joining. Some MOOCs provide all the content simultaneously and others may offer them in fragments- week after week. Students have to go through assessments. To prevent learners from lagging and manage their pace, assessments may have deadlines.

## The basic difference between C-MOOC and X-MOOC

**C-MOOC** is also known as Connectivist MOOCs. This type of MOOC is based on the theory of connectivism. The educational content in C-MOOCs used various digital platforms to make connections with learning communities, content and learners. Social platforms, blogs, wikis are also used for learning purpose to create and construct knowledge. Connectivists such as Siemens and Downes mentioned that Connectivism is focused on the flow of information, networks, individual participants and the new forms of learning which provide result. In this teachers just provide initial learning environment and context to bring learners together. Connectivists assumes that learning occurs through reflection on its meaning and exposure to the flow of information. C-MOOC is designed to generate network effects for learning. Anyone can be the creator of the content and also provide informal feedback to other students for evaluation purposes. Students shares their knowledge with others. An online community develops the educational content for willingly shared with others in C-MOOC (Jonathan Haber). It facilitates a self-organized pattern of collaborative learning. Downes argued that "Connectedness/interactivity, openness,

autonomy and diversity” are four primary principles on which connectivist learning is based. (Margaryan, Littlejohn and Milligan, 2013, p.150). The learning experiences are decentralized, networked and open in C-MOOC. Mackness, Karousou and Williams (2011) have characterized C-MOOC as open for everyone willing to create and willingly distribute the content, collaborative, self-organized and offers emergent learning style. (p. 43).

- X-MOOC is structured and centralized in nature as compared to C-MOOC. X-MOOC is based on behaviourism. The behaviourist model is based on the transfer of knowledge from teacher to student. In X-MOOC instructor prepares content like Audio/video content, pdf, ppt, word document etc., by which student receives information. In this MOOC learner acquires knowledge in an expert-designed course. Rodriguez (2012) has argued that X-MOOC courses employ an instructive or cognitive-behaviourist pedagogical approach. These courses delivered by a professor who professionally produced video lecture series. Mostly short videos with integrated quiz are designed to maintain focus and retain the knowledge. X-MOOC offers a structured course with well-defined objectives and high-quality learning material. It also provides proper assessment and feedback. X-MOOC is an idealized form which optimizes the efficiency of knowledge and competency acquisition” (Mazoue, 2013). It follows a formalized approach which has been criticized as operating on regressive pedagogical principles (Tirthali and Hollands, 2014; Stacey, 2014; Sangra, Guardia & Maina, 2013; Rodriguez, 2012). Mackness, Waite, Roberts, and Lovegrove (2013) mention that the X-MOOC is still under review as some researches suggests that by just providing large scale content videos, notes, documents etc, learning and understanding by learners cannot be enhanced. (p. 154).

### Strength and Limitations of C-MOOC and X-MOOC

George Siemens stated, “C-MOOCs focus on knowledge **creation and generation**,

whereas X-MOOCs focus on knowledge **duplication.**” C-MOOC is a participant-driven process which includes community-generated material. This type of MOOC facilitates self-directed and self-determined learning. Studies found that C-MOOC are challenged by the low-social presence; lack of course structure, inexperienced and self-directed learners, passive participation and lack of instructor control.

In X-MOOC content is delivered by instructors from top-ranked universities or higher education colleges and, in some cases, a non-profit organization. X-MOOC which are content-based are online versions of traditional learning formats. Multiple choice questions and short answer questions formats are commonly used for assessment in X-MOOC. The course materials in X-MOOCs are pre-recorded lecture videos which are 3 to 15 minutes long, audio recordings, PowerPoint presentations, text documents, practice exercises and URLs to other resources. X-MOOC is based on Behaviorist Approach and the information transmission model. Social Constructivism is a pedagogical approach which argued that each learner constructs meanings with their understanding which creates new knowledge and integrated it with the existing knowledge. (Dron and Anderson, 2011, p.85). Social relationship with other students using discussion and chat with the help of which new skills were developed. X-MOOC also faced some challenge like low completion rate, accountability and accreditation. So, to overcome such challenges of both type of MOOC, a MOOC initiative was evolved. Many studies describe that hybrid MOOC initiatives show better learning gains in comparison to traditional approaches (Nath and Joseph, 2013; Bhardwaj and Hooda, 2019).

### MOOC Based Hybrid Initiatives

In C-MOOC, it’s difficult to keep track of student’s assignment and involvement but it can be easily handled in X-MOOC. Language can be a barrier while offering and using MOOC. For example, in India, we

have 22 constitutional languages but it's not possible to develop MOOC in all languages. Most of the MOOC is developed in English and other international languages. MOOC has not been used as a credit learning course at universities which make them less valuable for carriers but H-MOOC can make this possible. Less rate of completion and lack of interaction with the professor can also be handled in H-MOOC or Hybrid MOOC. MOOC may offer discussions, but they don't have any real-time back and forth conversations. Lack of feeling of caring from an instructor and interpersonal relations hampers the learning environment. MOOC instructional paradigm works best only for self-directed and self-motivated learners. All these challenges of MOOC can be overcome with a Hybrid-MOOC. H-MOOC use already created MOOC; it's a middle category which better aligns with theories of online learning for a wider range of MOOC applications. The goal of H-MOOC is to balance the weakness and strength of C-MOOC AND X-MOOC. The initiative of H-MOOC has benefits of face to face learning and e-learning being provided to learners. With that, the problem of low completion rate can be handled by inculcating MOOC in institutional curriculum and teacher's guidance.

Delgado et al. (2015) mentioned 6 hybrid initiatives that integrate MOOC with face to face learning. Some studies mention that these initiatives can be better than C-MOOC and X-MOOC. They are (1) Flipping the classroom, in which students first prepare content from home with the help of MOOC then go to class to reinforce their understanding; (2) Local Digital Prelude, in which first part is completely online and second is face to face; (3) Canned digital teaching in the face to face course, in which MOOC based content is used as a textbook in a face to face residential course; (4) Canned digital teaching in the face to face tutoring, in which MOOC-based content is used for exam preparation with tutoring in office hours; (5) Canned digital teaching

with remote tutoring, in which MOOC is completely online and tutoring is provided through Video-conference and (6) Remote tutoring in the face to face courses, in which digital initiative like a live session with experts are provided with the traditional course.

## Conclusion

MOOCs are free online courses designed for a huge number of participants, accessed from anywhere, anytime with the help of the internet without any pre-eligibility criteria. There are 2 types of MOOC i.e. C-MOOC (Connectivist MOOC) and X-MOOC (Extension MOOC). C-MOOC is based on Learner-centered, distributive and connectivist approaches. C-MOOC possess some limitations as it is less comprehensive. There is a chance that misconceptions and misunderstanding of information can hamper the learning process. This limitation is catered in X-MOOC which introduced new tools for handling the large-scale collaborative learning,—assessment and methodology of MOOC was improved as it provides authentic content. X-MOOC is based on behaviourist model, information transmission model where learners receive information but this MOOC also poses some limitations as it focuses more on the transmission of information and knowledge duplication. To balance the strength and weakness of both the MOOC, a hybrid initiative can be helpful. A hybrid initiative like Blended mode of MOOC in which already developed MOOC is used. MOOC with face to face instruction can be used as a better way of learning. MOOC is providing life-long learning but its completion rate is very low. Some researches show that blending MOOC with other learning methods like face to face gave better learning scores and completion rate. More models of hybrid MOOC are evolving with time which can be used as a potential solution to use MOOC in the best way for learning.

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## **Book Review**

### **Guide to Blended Learning, by Marta Cleveland – Innes with Dan Wilton, Common Wealth of Learning (COL): Canada, 2018. 80 pages ISBN 978-1-894975-94-0**

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It is very essential to relook the entire teaching learning process to help the students to learn better and develop into 21<sup>st</sup> century global citizens. Teachers need to empower themselves with skill sets that are essential to conduct teaching learning online along with face to face teaching. In this context, this book prepares an individual for the complex world of digital or online classroom also and face to face interaction in a blended mode.

As the name suggests “Guide to Blended Learning” the book offers a platform for the trainee teachers, teachers and teacher educators to design, develop and implement blended learning courses suitable in their respective contexts. It is one of its own kind by providing video introductions to each of the chapters which would trigger interest and help the readers focus on specific tasks. The author is a Professor and Programme Director, Centre for Distance Education at Athabasca University in Alberta, Canada. Her commitment to make high quality education accessible and affordable for everyone and anywhere is remarkable. The author of the book is involved in running online courses or MOOCs on Technology enabled learning, open educational resources, learning online under the banner of Common Wealth of Learning (COL). Publications of COL advocate the systematic integration of technology in teaching learning for higher education institutions through policy changes, capacity building and the use of appropriate low cost technologies.

This 80 page book is divided into 8 chapters each emphasising different aspects of blended learning practices. These range

from theoretical inputs to developing and implementing blended learning courses. This book is an essential for the readers who are interested in educational technology in general, and blended learning in particular. Chapter I of the book discusses conceptual ideas around blended learning i.e. what is it, how it emerged, how it is being used, what it has to offer. It presents the many challenges one may encounter when implementing a blended learning approach in teaching.

Chapter II provides the strong theoretical framework and comprises various theories and blended learning structures in education. This theoretical background helps the reader get acquainted with conceptual understanding before the book plunges into more details and guidelines. The Complex Adaptive Blended Learning System, the Community of Inquiry Theoretical Framework in Blended learning and SAMR Model are discussed elaborately along with seven blended learning structures in education. The seven discussed are Blended face-to-face class, Blended on line class, the flipped classroom, the rotation model, the self blend model, the blended MOOC and flexible-mode courses. Chapter III focuses on the implementation of blended learning, providing central principles for planning blended learning. It speaks of how to integrate in-class and online activities during the course. Further it elaborates on teaching principles that support blended learning.

The Chapter IV focuses on design of blended learning course. It presents ideas on how to plan a lesson starting from writing of objectives and projected learning outcomes upto assessment of the same. Chapter V



provides details of various technologies like Learning management systems, web conferencing, social media, digital textbooks, blogs, wikis social bookmarking, mash-ups, digital storytelling, simulations, E portfolios etc. These are technologies that can be used to create blended learning course or programme. Chapter VI elaborates the role of LMS, how to create activities, how to customise as per the context and learners, usage of open education resources and various learning assessment strategies in developing a blended learning course. The Chapter VII focuses on how to balance synchronous and asynchronous activities in a blended learning course. It discusses the benefits and the challenges in the way of this and analyses as to how a Community Inquiry Framework would help towards careful integration of both forms of activities. The concluding chapter VIII explores various dimensions of evaluating successful blended learning practices.

Each chapter of the book is meticulously planned and organised with an introduction and conclusion with a summary, reflective questions and resources for further learning. The beliefs of the author are reflected in first few sentences of each chapter where she tried to say why the concept is important and gives justification for it. For instance on page 9 she says: *“Grounding our practice in theory will make us better decisions when implementing blended learning and support out learners more effectively to achieve deep and meaningful learning”* (page 9). The templates of design and evaluation and other relevant documents are enclosed in the appendices. One interesting feature of

this book is its presentation. The author has presented complex concepts in such a simple manner that it will help the teachers use the rich resources in a step by step guide to develop blended courses. The concepts are explained with a lot of illustrations, pictorial representations, tables, examples and case studies. The scenarios presented are interesting and can be related to any training programme irrespective of the culture, context and facilities. Links of various web conferencing tools, online writing tools are given in the footnotes providing a ready access to the readers.

The book provided a strong research base is provided where ever there is a need to present arguments or stress or emphasises any particular aspect of online learning. The reflective questions given are very interesting and provoke the learners to think, envision, explore and learn the tools on their own. The following question is an example: *“Web conferencing tools offer much opportunity for student engagement and interaction. Google hangout, skype and big blue button are available to you and your students even if your institution doesn’t offer a web conferencing tool. Can you envision where in your blended course one of these tools might be used and what educational experience it could provide that otherwise might not be possible? Which of the three tools suggested here look user friendly and accessible to you (page. 44)?”*

Overall this book is a notable scholarship on Blended learning practices and hence would be of immense help to preservice and inservice teachers who are now in need of developing online courses.

## Can Education Change Society? by Michael W. Apple. Routledge: New York, 2012, pp. 190

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Can education change society? *It depends*, says Michael Apple in his book title with the question mark. He suggests that such questions never have simple answers as these are not independent questions that can be answered without context. Questions should allow complex thinking to emerge. He suggests the need to think through questions like; who teaches? What is being taught? how it is taught and assessed? and subsequently how the knowledge learnt is being used and for what purpose, by whom?

The first four chapters of the book discuss the relevance of the scholarship of Paul Freire, George Counts and W.E.B. Du Bois and C.G. Woodson. These four scholars focused on the connection between education and political economy and radically challenged the legitimate knowledge space. The work of these scholars, says the author, allows us to look at the unwillingness of the economy to provide for the common good and its rootedness in domination and exploitation. Teachers and educators are not immune to social-political projects and neoliberal forces. We may be progressive with regard to one issue and very conservative with regard to another. They call for a socially and politically active school for the reconstruction of the society. The author also discusses the historical portraits of women teacher activists and gives examples of the counter-hegemonic schools established and taught by women leaders. There is a continuous assertion of imagining education to be personally and socially emancipatory and the need to see the connections between class and race. They have looked at the school a space to challenge euro-centrism and advocated the

goal of education to identify talent, grow curiosity and to promote social democracy. These scholars also focused on the role the teacher could potentially play in the desired transformation of society.

In the later four chapters, he tried to problematise social change and educational action. He describes the book as a personal account based on his 40 years of experience as a parent, public activist and a teacher. It illustrates his struggles to grapple with questions of social justice and democracy through education. In this part he weaves personal vignettes of political activism to demonstrate the significance of sustained and determined political action by regular people to bring about change in a democracy. He argues that it is not only the left and the progressive forces that have considered education as the key game changer but also the right-leaning individuals and organisations that have considered education as the key ideological site of control.

He asserts that becoming a critical scholar is a continuous process and suggests the following points with which education practitioners must engage.

1. Witness to the connections between education policy and practice to domination and exploitation.
2. Documentation of agentic possibilities and counter-hegemonic actions that must be done and exist.
3. Work closely with those engaged in challenging existing relations of unequal power.
4. Keep the multiple traditions of radical and progressive work alive.

5. Reconstruct forms of knowledge to serve the genuinely progressive needs of the society
6. Develop an alliance amongst education practitioners even if there are some differences
7. Develop media skills to communicate with a general audience
8. Help those who want to contribute to the cause

In conclusion, he acknowledges the fact that teachers are called upon to deal with the complexities arising out of the differences between interest groups and upcoming neoliberal forces, and national and international level class and race politics. Having said this he calls for the

urgent need of critically reflective teacher education which presently is under attack by neoliberal forces. He asked the questions and urges the reader to further think about questions; how long can these changes last and who is using education to change society, and in this way he announces rethinking on the relationship between education and society. The book is an insightful read for students and practitioners of education who struggle to bring about change in the system and seek action points in the messy, disillusioning space of education. The book is the form of a personal narrative with episodes and moods to enter and decipher. This makes the book a smooth yet passionate reading.

## Garima—An Incentive Based School Assessment System in Odisha: The Case of Koraput District

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### Abstract

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*The success of a school can be determined based on the performances of the students. Generally, we judge the efficiency of a school according to the learning achievement of students. Learning achievement has been considered as the major outcome of quality education. In education system we devise different policies, strategies, and approaches to strengthen the support systems of education with the intention to realize the appropriate learning outcomes. For that we also experiment on many innovations and initiatives at different levels of education to enhance the learning achievements of students. Even we try to implement incentive programs to encourage the teachers and students as a little push to accomplish the goal. Because now a days the major challenge before the school authorities and functionaries is the achievement of appropriate learning outcomes by the students. It is not a problem in one or two schools or districts of the country rather it stands as major challenge throughout the county in India. In order to address this issue the government of Odisha initiated two Learning Enhancement Programmes in 2017 in collaboration with NITI Aayog. After implementation of these programmes assessment procedures were developed to find out the levels of achievements of students under Garima Programme. The programme launched by OSEPA with an objective to improve student outcomes in elementary schools through assessment based on encouragement and incentives. That programme is basically known as Garima- a school certification programme. In this paper an attempt has been made to discuss the significance of Garima programme and the implementation process of this assessment method with special reference to the prospective and challenges associated with Garima while implementing the same in Koraput district of Odisha.*

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### Introduction

Quality improvement in education can be possible only with the achievement of appropriate learning outcomes by the students. This requires variety approaches in different dimensions of education, including curriculum, pedagogy and environment. There are different Acts, schemes and programmes designed and implemented to help teachers to enable the children to meet the expectations of learning needs. In order to achieve this target different state governments always try

to bring special innovations and initiatives in the area of learning achievement. Therefore, the performance of the school has been tagged with the effective learning outcomes of students. There are different categories of learners studying in one school and achieving the same standards among all the learners of the school is a big challenge for them, particularly in government schools. In Odisha there are around 60,000 schools functioning under the Department of School and Mass Education. The literacy rate of Odisha as per 2011 Census is 72.9%, however, in terms of learning outcomes

according to the latest NAS survey, only 53% students were able to answer question on basic competencies correctly.

On this backdrop the Department of School and Mass Education, Government of Odisha launched different innovative programmes in collaboration with other agencies and institutions to improve the learning outcomes of students. In September 2017, SATH Programme was launched in partnership with NITI Aayog to improve the learning outcomes of students at elementary stage of education. Several initiatives have been launched under Project SATH in the past year. Two of these initiatives - Learning Enhancement Program (LEP) and Odisha School Monitoring App (OSMA) are particularly critical to drive learning outcomes and school improvement.

Both the programmes are being implemented in all schools, blocks and districts of the state. However, for the sustainability of the process, a comprehensive assessment method has been designed, including the components of recognition and awards to best performing schools by the government of Odisha. That programme is basically known as Garima- a school certification programme.

### Garima: An Incentive Based School Assessment System

Garima programme has been designed basically for certification of schools at different levels. The major objectives of the programme are as follows:

- To motivate teachers to bring students to achieve grade level
- To ensure quality and transparency assessment by an unbiased party
- To identify good performing schools on the basis of good academic performance
- To encourage schools to help students to accomplish grade level learning outcomes

Garima programme has been designed to create healthy competitions amongst schools in the block/district. Because the recognition system can motivate the headmasters and teachers of the schools to engage themselves in the teaching learning process in an effective way.

### Process of Certification under Garima Programme

- **Learning Outcomes are the basis of school certifications:** All elementary schools are assessed only on the basis of learning outcomes. There is a pre-certification exercise designed to check accurate reporting of a few important data points in the School Monitoring App.
- **Three levels of Certification:** Certifications are given at three levels based on the increasing levels of difficulty such as Bronze, Silver and Gold. Three levels of certification usually help the state to sustain the motivation of the schools and it also helps them to identify high performers early and handhold them to achieve higher levels of certification. The School level metrics of assessment is as follows:

Category	Academic Parameters
Bronze	80% of students of Grade 2 know basic competencies (Grade-1), Grade 3-5 know (Grade -2) basic competencies 80% of students of Grade 6-8 know Grade 3 competencies (Odia, Math and English)
Silver	80% of students of Grade 2 students know basic competencies (Class-1) 70% of students present Grade 3 students know Grade 2 competencies (Odia, Math) 70% of present Grade 4-5 students know Grade 3 competencies (Odia, Math) 70% of Grade 6-8 students know level 5 competencies (Odia, Math and English)
Gold	70% of students know grade level competencies in Odia, Math and English

- **Unbiased assessment:** Certifications also provided on the basis of a centrally prepared assessment for the nominated school. This assessment conducted by a team comprising of DIETs, as an unbiased assessor.
- **Rewards & incentives:** On achieving each level of certification, schools have been provided meaningful incentives and rewards in order to motivate them.
- **Standard Operating Procedure for Certification:** There are three rounds of Certification in a year- August, November and February for each phase in a cycle such as Nomination, Pre-verification, Assessment, Announcement of Certification.

Certain non-academic parameters like functioning of toilet, availability of drinking water facility, electricity connection, conduct of Learning Enhancement Programme, availability of LEP books are also put in place in the pre-verification phase to verify the data as per the report in the School Monitoring App for that month. A school can first apply for Bronze, once certified for Bronze then they can apply for Silver/Gold in the next cycle. If the attendance of students on the day of test is less than 70% then the school will be disqualified.

## Phases of School Certification Under Garima Programme

The phases for school certification are as follows:

### Phase-I: Self-nomination

When a school feels that it has achieved the targets defined for a particular level of certification, it may choose to nominate itself for that level of certification by informing the same to their CRCC, who can fill the nomination form. Thereafter the application will automatically be forwarded to the next level. A school has to nominate itself by the 15th of the month of the certification. On attainment of one level of certification, schools are required to wait for next cycle

before they can apply for the next level of certification.

### Phase-II: BEO/Block team pre-verification

A block team headed by the BRCC/ BEO verifies these schools who nominate themselves for certification. In this phase CRCCs of an adjoining cluster verify the list of pre-verification parameters, BEO only coordinate the process because no CRCC is pre-verifying their own school and conduct sample checks to ensure quality. The verification has to be done based on the following aspects in order to avoid any discrepancy:

- List of non-academic parameters
- Teacher attendance register for past 30 days to verify attendance criteria
- Re-checking of sample papers of latest SAI/SA2 of the students to assess if the academic parameter

If any school fails to fulfill these criteria during verification the BEOs reject the application at this stage.

### Phase-III: Assessment by District team

Only schools passing the above pre-verification are eligible for the assessment as per the level of certification applied for. The assessment generally conducted by a district team consisting of DIET faculties & students. This team conducts the assessment from the question papers prepared by the DIETs and DEOs/BEO ensures smooth implementation. DIETs prepare the question paper using the centrally prepared guideline/rubric for Bronze and central question bank for Silver and Gold. The test usually conducted for all present students, if the student attendance on the day of the test is less than 70% the test referred to the next cycle. The faculties of DIETs evaluate the test and results of the test decide the academic certification criteria of the schools.

### Phase-IV: Approval/ Rejection

After the completion of the assessment data analysis done by the DIETs and the results

declared before the 10th of the following month. Approved cases receive certification and avail the associated rewards. Thereafter the school is eligible to apply for the next level of certification in the next cycle. If rejected, the school cannot nominate itself for the next cycle.

### Significance of the Study

The literacy rate of Odisha as per 2011 Census is 72.9%, however, in terms of learning outcomes according to the latest NAS survey, only 53% students were able to answer question on basic competencies correctly. In view of that Odisha Government launched Learning Enhancement programme and Odisha School Monitoring App (OSMA) to improve the learning outcomes of children in 2017 in partnership with NITI Aayog. Both the programmes are being implemented in all schools, blocks and districts of the state. In order to recognize the efforts of the schools and inspire the best performing schools, government decided to launch the School Certification programme in 2019. The basic intention of the programme is to motivate teachers to bring students to achieve grade level competencies. Under this program, schools can nominate themselves to be assessed and certified under three categories. As per the guideline of the programme only those schools will be recognized and rewarded who will qualify the standard criteria fixed by the government. Further the assessment was done by the third party in order to ensure quality and transparency in the process of assessment. As it is a new kind of programme and implemented throughout the state it is necessary to identify the prospective of the programme. The present study aimed to find out whether the assessment programme is implemented as intended and to know the issues and challenges experienced by the important stakeholders of the programme during the certification process.

### The Area of the Study

Koraput district – a Tribal Sub-Plan (TSP) district of Odisha constitute study area

for the present study. It is declared as a district of Odisha state on 1st April 1936. After the reorganization of districts in 1992 it converted into four districts, namely, Koraput, Rayagada, Malkangiri and Nowrangpur. The entire District has been declared as a scheduled Area under the Presidential scheduled Areas Order, 1950. The district is surrounded with natural forests and mountains. Some of the villages of the district are spread over the inaccessible hilly terrains, remain in a state of near isolation and cut-off from the main stream of socio-economic development process. Most of the villages are inhabited by tribes who constitute as much as 50% of the total population of the district (Census, 2011). Koraput district occupies a unique position in the tribal map of Odisha. The major tribes of the district constitute: the Kandha, the Paraja, the Gadaba, the Kotia, the Dhurua, the Bhumiya, the Bhunia, the Bhatra, the Pentia, the Halva, and the Amantya. The literacy percentage of the district is 49.2 as against 72.9 of the state. The languages spoken by the people of this district are Tribal, Oriya, Telugu, Hindi and English.

### Objectives of the Study

The current study is undertaken with the following objectives:

- To study whether the Garima Programme is implemented as intended or not.
- To study the perception of teachers and monitoring authorities regarding the issues and challenges experienced by them during the implementation of Garima Programme.
- To study the strengths and prospective of Garima Programme towards meeting the appropriate learning outcomes of students.

### Methodology

Descriptive survey method was used to carry out the study. For this a sample of 70 teachers from different schools of the district and 15 members of school authorities were selected

by following purposive sampling techniques to know their perceptions towards the implementation of Garima programme and to explore the challenges and prospective of the programme.

The author developed a questionnaire with 10 close ended and 15 open ended questions to collect necessary information and perception of stakeholders regarding the pros and cons of Garima programme. The main objective of the questionnaire was to explore the perceptions and opinion of teachers regarding the challenges experienced by them while implementing Garima programme in schools. Some of the questions were also asked to know the strengths and prospectives of Garima programme for the development of learning outcomes among the students of elementary schools. The complete instructions were provided in the questionnaire so that the respondents find themselves free to respond. Different qualitative and quantitative techniques like percentage, frequencies were used to analyse the data.

### Implementation of Garima Programme in Koraput District

The programme is implemented in the district in 2019, however the district has completed two levels of certification. But based on the availability of data only one level of certification has been presented in the paper.

#### Phase-I: Self-nomination

There are 14 blocks and 4 urban units in Koraput district and 338 clusters have been formed by clubbing 10 to 15 schools in each cluster. The details of cluster-wise nomination of schools by the teachers and CRCCs for level -1 certification are as follows:

**Table-1:** Cluster wise Nomination of Schools for Level-I Certification

S.No	Name of the Block	Total Clusters Participated	Schools Nominated for Level -1 Certification
1	Bandhugam	9	65
2	Bioipariguda	13	55
3	Borigumma	17	64
4	Dasamantapur	13	51
5	Jeypore	11	51
6	Jepore (MPL)	4	14
7	Koraput	13	60
8	Koraput NAC	3	19
9	Kotpad	10	60
10	Kotpad Nac	1	11
11	Kundra	9	50
12	Lamtaput	10	44
13	Laxmipur	11	72
14	Nandapur	13	42
15	Naraynpatna	10	57
16	Pottangi	12	68
17	Semiliguda	11	85
18	Sunabeda NAC	4	37
	Total	174	905

(Source: Samgra Sikhya, Koraput)

Table-1 presents cluster wise nomination of schools for pre-verification for 1st level certification. After proper preparation 905 schools from 174 clusters nominate themselves for level-1 certification.

#### Phase-II: BEO/Block team pre-verification

In phase-II the block level team headed by BEO verified these schools who nominated themselves for certification. In this phase CRCCs of an adjoining cluster verified the schools based on the pre-verification parameters. The results of pre-verification process of the districts are presented in the following table:



**Table-2:** Block wise Percentage of Schools Qualified in Phase-II

Name of the Block	Schools Nominated	Qualified in the Pre-verification Stage	Percentage of Schools Qualified in the Pre-verification Stage
Bandhugam	65	51	78
Bioipariguda	55	42	76
Borigumma	64	62	97
Dasamantapur	51	42	82
Jeypore	51	47	92
Jepore (MPL)	14	14	100
Koraput	60	57	95
Koraput NAC	19	18	95
Kotpad	60	59	98
Kotpad Nac	11	10	91
Kundra	50	47	94
Lamtaput	44	30	68
Laxmipur	72	72	100
Nandapur	42	42	100
Naraynpatna	57	30	53
Pottangi	68	43	63
Semiliguda	85	84	99
Sunabeda NAC	37	35	95
Total	905	785	87

(Source: Samgra Sikhya, Koraput)

As per the Table-2 there are only three blocks where all the schools qualified in the pre-verification stage. However, 9 blocks and urban units of the district where more than 90% of schools qualified for next phase. But there are three blocks such as Narayanpatna, Pottangi and Lamtaput where less than 70% schools only found eligible for the next phase of assessment.

### Phase-III: Assessment Conducted by District team

After the pre-verification stage 87% of schools (785 in number) were declared eligible for the final assessment. The final assessment conducted by a district team consisting of DIET faculties & students. The faculties of DIETs evaluated the test and results of the test. The results of different blocks of the district are presented in Table-3.

**Table-3:** Block wise Percentage of Schools Qualified in Level-1 Certification (Bronze)

Name of the Block	Total Appeared	No. of Schools Qualified in Level-1 Certification	% of Schools Qualified in Level-1 Certification
Bandhugam	51	23	45
Bioipariguda	42	17	40
Borigumma	62	9	15
Dasamantapur	42	20	48
Jeypore	47	13	28
Jepore (MPL)	14	10	71

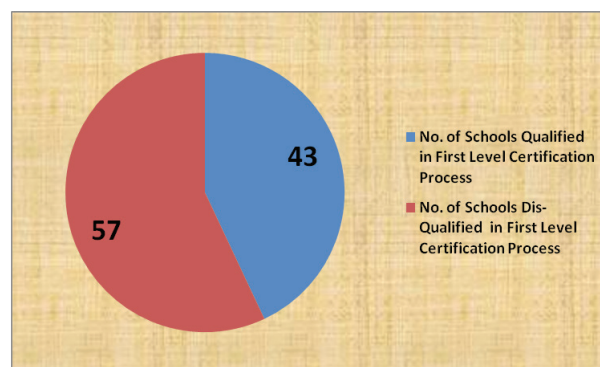
Koraput	57	48	84
Koraput NAC	18	14	78
Kotpad	59	27	46
Kotpad Nac	10	2	20
Kundra	47	4	9
Lamtaput	30	18	60
Laxmipur	72	33	46
Nandapur	42	19	45
Naraynpatna	30	17	57
Pottangi	43	17	40
Semiliguda	84	30	36
Sunabeda NAC	35	17	49
Total	785	338	43

(Source: Samgra Sikhya, Koraput)

As per the data of Table-3 only 43% of schools (338 in number) qualified in the assessment conducted by the district team in level-1 certification, i.e., Bronze award. Majority of the blocks and urban units, i.e., in 9 units where only 40% to 50% of schools qualified in the assessment. Even four blocks where below 40% of schools qualified in the assessment. However, there are 2 blocks where more than 50 to 70 schools qualified in the assessment process and three blocks and urban units where more than 70% schools qualified in the level-1 certification.

#### Phase-IV: Approval/ Rejection

After the completion of the assessment, approval cases received certificates and availed the associated rewards. Thereafter the eligible schools prepared for next level certification and the rejected schools were asked to prepare themselves to nominate for re-assessment for the next cycle. The approval and rejection cases of the district are presented in Figure-1



**Figure-1:** Percentage of Approved and Rejected Schools of the district in Level-1 Certification

#### Special Initiative by the District



During the process of certification, a special initiative has been taken by the district team with the help of few resource members in order to orient the teachers for better performance of their students. An e-resource team has been constituted consisting of the expert teachers from different subjects having technological backgrounds. The team prepared a sample set of question papers based on each competencies of the learning enhancement programmes in two to three

workshops. Sample questions have been prepared from each subject and from each class. As it was not possible to orient all the teachers of different blocks of the district. Therefore, the e-resource team prepared an App “Garima” to help all the teachers to orient themselves for the final assessment in the certification process. The App consists of the Guidelines of Garima programme and subject-wise and competency-wise sample questions. On the basis of this App most of the teachers are able to prepare their students for the test.

## Findings and Discussions

### 1. Challenges experienced by Teachers during the Implementation of Garima programme

Teachers of different schools were having opinion that they face few challenges while implementing Garima programme such as:

- i. The field investigators engaged by DIETs are required to visit the interior pockets of the district who are not well versed with the languages of different tribes of the district. The students of some of the tribal schools are not able to understand the instructions of field investigators during the conduct of the tests.
- ii. There is no scope for the teachers to involve themselves in the assessment process and the field investigators deputed by DIETs are not able to explain the process of assessment to the students. As a result, the students cannot perform better in the achievement tests.
- iii. The teachers do not have the scope to understand the question patterns and prepare the students accordingly.
- iv. In the external evaluation system teachers are not able to get immediate feedback on what pupils are learning and not learning, and thus cannot plan for subsequent instructions.

- v. This assessment process does not have any scope to evaluate skills such as oral facility or the ability to organize a hands-on project.
- vi. No feedback system for the schools those who do not qualify in the Garima certification process
- vii. One pattern of evaluation system for all the schools of the district may not determine the appropriate learning outcomes.

## 2. **Challenges experienced by the Monitoring personnel and Teacher Educators during Assessment under Garima Programme:**

During the interaction with the Teacher Educators and monitoring authorities most of them expressed some of the administrative and academic difficulties experienced by them during the implementation of Garima programme. Some of the important issues perceived by them are as follows:

- i. The DIETs of the district have been assigned the responsibility of assessment and students and teacher educators of DIETs are involved in the assessment process. They are responsible for quality of data and reporting the results. As a result the DIET students are required to spend lots of time for the assessment of schools in different blocks and not able to focus on their studies. The regular teaching learning process of DIETs hamper a lot.
- ii. Monitoring authorities of the district are not a part in the assessment process as a result they are not able to provide necessary support to the teachers to enhance the learning outcomes of students.
- iii. Preparation of questions for each cycle of certification process and coordinating the entire assessment process of the district is a time-consuming process with limited human resources of DIETs.

- iv. The field investigators get minimum amount to manage their TA and DA during the assessment process. Most of the time they experience lots of difficulties while visiting the interior and distant pockets of the districts.
- v. There is no mandatory rule to involve all the schools in the assessment process as a result most of the schools are excluded from assessment process and teachers are also not interested to take risks.
- vi. There is a gap in the review of results and follow up by the monitoring personnel at school level for improvement of the learning achievements by the students of those schools who do not qualify in the process.

## **Strengths and Prospective of the Assessment Process under Garima**

Major strengths of Garima programme as perceived by the teachers and teacher educators are as follows:

- This assessment mechanism provides the schools to assess the performance of the learners through standard assessment procedures.
- It fosters accountability for schools and school systems.
- This programme ensures attendance and achievement of appropriate learning competencies by the learners.
- Develop a healthy competition among the teachers and authorities towards the achievement of learning outcomes by the students.
- This system demands a mandatory engagement of teachers in the learning enhancement activities of schools.

## **Conclusions**

Every institution must prove their ability to lead in times of struggles. This programme provides an opportunity to the schools and authorities to work on their resources and talents and to prosper them in the right direction. This programme provides

a support and constructive criticism to the schools to improve the teaching strategies of the schools. This certification demonstrates that a school can ensure and achieve the learning of all students. It provides a scope to the institutions to inspire their students

and teachers to have complete knowledge of their potentials and skills and to use the same for their prosperity. The programme launched by OSEPA is an initiative to review on evaluation and assessment frameworks for improving school outcomes.

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## Cultural Competence of Secondary School Teachers in Relation to their Self Esteem

### Abstract

*The present study finds the correlation of cultural competence and self-esteem of Secondary School teachers. The sample for the present study consisted of 396 secondary school teachers of Varanasi district selected randomly from the different schools of Varanasi. The tools used for the study were self-constructed Cultural Competence Scale for Secondary School Teachers (CCSSST), Self Esteem Scale by Dr R.N Singh and Dr Ankita Srivastava (Revised Edition 2010) and interview schedule. The results revealed that there is significant correlation between cultural competence and self-esteem of secondary school teachers. Difference were also found in cultural competence and self-esteem of secondary school teachers with respect to mother tongue, family structure, educational qualification, school board and habitat, while no difference were found with respect to gender, religion, & teaching subject.*

**Keywords:** Cultural Competence, Self Esteem, & Secondary School Teachers

### Introduction

India is a multicultural society where people of diverse cultures coexist. In India there are a lot of differences in the living standards, dress, food habits, music, dance forms, customs, religions, castes and languages among people living in different parts of the country. Culture, includes the traditions, customs of person, geographical location one belongs to. School being a part of the society includes human beings from diverse cultural background. In school, teachers and students come from diverse cultural backgrounds. The teacher must be culturally competent to respect, embrace and interact effectively with the students. The students spend most of their waking time in the schools. Teachers are like a second parent and role model for them. The teachers have great responsibility in molding the character of children by giving quality education in the school. Cultural competence is a key factor in enabling educators to be effective with students from cultures other than their own. Cultural competence is having an awareness

of one's own cultural identity and views about difference, and the ability to learn and build on the varying cultural and community norms of students and their families. Self-esteem is an individual's feeling that he or she is an important, competent, powerful and worth-while person who is valued and appreciated. According to Rosenberg, M. (1989) self-esteem will be defined as favorable or unfavorable attitude towards the self.

### Cultural Competence

Cultural competence is the ability to effectively respond to students from different cultures and classes, while valuing and preserving the dignity of cultural differences and similarities between individuals, families and communities. According to the **National Association of School Psychologists (NASP)** "Culturally competent educators are aware and respectful of the importance of the values, beliefs, traditions, customs, and parenting styles of the children and families they serve. They are also aware of the impact of their own culture on their

interactions with others and take all these factors into account when planning and delivering services to children and their families. It is the ability to understand the within-group differences that make each student unique. This understanding informs and expands teaching practices in the culturally competent educator's classroom. Cultural competency of teacher centers on the skills and knowledge to effectively serve students from diverse cultures. Moule (2012) defined cultural competence with respect to educators as the ability to successfully teach students who come from cultures other than your own. It entails mastering complex awareness and sensitivities, various bodies of knowledge, and a set of skills that underlie effective cross-cultural teaching.

### Basic Skills of Cultural Competence

They apply to individual educators as well as the institution they work in and the educational system as a whole. Growth in one area tends to support growth in another (Adapted from Diller and Moule, *Cultural Competence: A Primer for Educators*, Thomson Wadsworth):

**Valuing Diversity** Accepting and respecting difference between different cultural backgrounds and customs, different ways of communicating, and different traditions and values.

**Being Culturally Self-Aware** Culture—the sum of an individual's experiences, knowledge, skills, beliefs, values, and interests—shapes educators' sense of who they are and where they fit in their family, school, community, and society.

**Dynamics of Difference** Knowing what can go wrong in cross-cultural communication and how to respond to these situations.

**Knowledge of Student's Culture.** Educators must have some base knowledge of their student's culture so that student behaviors can be understood in their proper cultural context.

**Institutionalizing Cultural Knowledge and Adapting to Diversity.** Culturally competent educators, and the institutions they work in, can take a step further by institutionalizing cultural knowledge so they can adapt to diversity and better serve diverse populations.

### Self Esteem

Self-esteem is an individual's feeling that he or she is an important, competent, powerful and worth-while person who is valued and appreciated. According to Rosenberg, (1989) self-esteem will be defined as favorable or unfavorable attitude towards the self. Gerring & Zimbardo (2005) defined self-esteem as collection of beliefs about one's basic nature, unique qualities and typical behavior. Many theories suggested that self-esteem is a basic human need or motivation. American psychologist Abraham Maslow (1943), included self-esteem in his hierarchy of needs. Self-esteem of teachers are affected and developed by various social cultural factors like family, parent's attitude, and place.

### Review of Literature

Passi and Sharma (1982) studied the relationship between teacher competency and their demographic variables and found male and female differ in their teaching competency. Leighton and Harkins (2010) investigated teacher's perception towards cultural competence. The study explored the relationships between teacher's characteristics and cultural competencies of teachers. Also, it was determined that school level and workshops accounted for most of the variance in overall total cultural competency scores. Evola (2012) studied the cultural competence of teachers to determine whether elementary school teachers and school administrators experienced an improvement in their level of cultural competence, as a result of their participation in the Multicultural Mosaic, a school-wide multicultural curricular initiative, developed

by the teachers themselves. Dharshni & Subha(2015) studied the cultural competence of educators and found that cultural competence is a key factor in empowering educators to be effective with students from different culture. Kategari (2017) study the relationship between cultural competence & psycho-social variables of secondary school teachers and found there is no significant relation between cultural competences, cultural awareness of socioeconomic status of secondary school teachers, but cultural skills have positive relation with socioeconomic status of secondary school teachers.

Srivastava and Joshi (2014) investigated the relationship between academic self-concept and self-esteem of urban and rural boys and girls in both high and low facility schools. Teachers' self-efficacy is assumed to be affected by self-esteem and teachers' general self-efficacy. Joshi & Srivastava(2009) investigated the self-esteem and academic achievement of urban and rural adolescents and examined the gender differences in self-esteem and academic achievement. Beri(2016) conducted a study to find the job satisfaction of primary school teachers in relation to their self- esteem. It is evident that most of the research literature on self -esteem deals with the individual's total thoughts and feelings.

The review of research studies revealed that much of the previous investigations on cultural competence focused on its relation to cognitive abilities, intelligence, personality factors and communication styles of teachers and were done mostly abroad. Even few researches also correlate secondary school teacher's cultural competence with student's self-esteem (Latha, 2014) & student's engagement (Robinson, 2012). Self-esteem is also correlated with job satisfaction and teaching competency. Apart from these studies, rare studies show relationship of teacher cultural competence with their own self -esteem, age, habitat, experience, qualifications, socio economic condition and current status remains unclear as the

findings are inconsistent and thus further research is necessitated in this regard. Further few studies have correlated cultural competence of teacher with psycho-social variable at secondary level.

### **Need of the Present Study**

Beginning the journey toward increased cultural competence requires teachers to rethink their assumptions and consider life's issue through the lenses of people who come from cultural backgrounds different from their own. Cultural competence is not treated as an essential skill where the teacher trainees must be trained for teaching. As a student at school, the investigator can very vividly remember facing several problems associated with cultural differences. Compared to any other stages of education, the secondary stage is the most critical period in the life of students. They are in the threshold of becoming independent persons though still deficient in maturity (National Curriculum Framework, 2005.) Therefore, cultural competence of secondary school teachers has a significant meaning for students at this stage. To prove the strength of our educational system we need culturally competent teachers who are aware of their own culture and about other cultures for the overall development of a child. Unfortunately, while the need for teachers who reflect the cultural diversity of the student population has grown, the percentage of culturally diverse teachers has declined. Also, as a teacher at school, the investigator observed many students suffering psychologically and academically because of migration, language and cultural differences. Various studies were found in relation to teaching competency but rare studies on cultural competence were found in relation to their psychological variables and demographic variables. Therefore, the researcher wants to ascertain the relationship between the cultural competences of secondary school teachers with their self-esteem.



## Objectives of the Study

1. To study the cultural competence of secondary school teachers.
2. To study the cultural competence of secondary school teachers with respect to their Gender, Mother tongue, Family structure, Religion, Educational qualification, Board of school, Teaching subject and Habitat.
3. To study the self -esteem of secondary school teachers.
4. To study the self -esteem of secondary school teachers with respect to their Gender, Mother tongue, Family structure, Religion, Educational qualification, Board of school Teaching subject, and Habitat.
5. To find out the relation between Cultural Competence of Secondary School Teachers and their Self Esteem.

## Methodology of Study

Mixed research method was used in this study. The population of the study consisted of all secondary school teachers of Varanasi district of academic year 2016-2017 of CBSE & UP Board. In the present study research random sampling technique was used for selecting schools. All secondary school teachers of 20 selected schools were considered. The sample of the study consisted of 396 secondary school teachers of UP and CBSE Board of Varanasi district.

## Tools for the Study

The tools used in the study were self-constructed Cultural Competence Scale for Secondary School Teachers (CCSSST), Self Esteem Scale by Dr R.N Singh and Dr Ankita Srivastava (Revised Edition 2010). Interview Schedule was done to know the cultural competence of secondary school teachers, the researcher took structured interview of 40 teachers from selected schools.

## Data Analysis

Cultural competence of secondary school teachers was taken by CCSSST, Self-esteem of teachers were taken by Self-esteem scale by Dr R.N Sharma and Dr Ankita Srivastava and triangulation was done through interview schedule to know cultural competence of secondary school teachers. Descriptive statistics such as mean, median, mode, standard deviation (SD), skewness, kurtosis, were calculated to test the normality of data. t-test and Annova was used to test the hypotheses. Pearson's coefficient correlation statistical technique has been used for knowing cultural competence of secondary school teachers in relation to their self-esteem.

## Findings of the Study

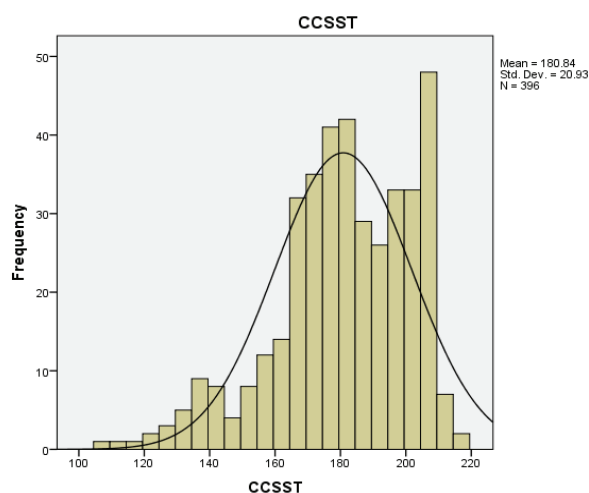
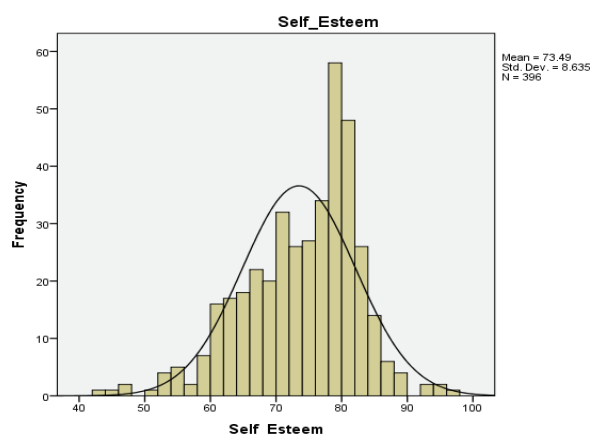


Figure1: Frequency Distribution of Scores on Cultural Competence of Secondary School Teachers



**Figure 2:** Frequency Distribution of Self-Esteem Scores of Secondary School Teachers

**Table 1:** To study correlation between cultural competence and self-esteem of Secondary School Teachers

Variables	Coefficient of Correlation	Interpretation
Cultural Competence	0.647	Significant at 0.05
Self-Esteem		

Finding shows that 19.19% of secondary school teachers possess high cultural competence, while 12.62 % possess low cultural competence. Cultural competence of secondary school teachers was mostly affected because of less understanding the dynamics of cultural interactions. Difference were found in cultural competence of secondary school teachers with respect to mother tongue, family structure, educational qualification, school board and habitat, while no difference were found with respect to gender, religion, & teaching subject. 11.36 % of secondary school teachers have high self-esteem, while 14.14% of secondary school teachers have low self-esteem. Difference were found in self-esteem of secondary school teachers with respect to mother tongue, educational qualification, board and habitat, while no difference were found with

respect to gender, religion, family structure & teaching subject.

## Conclusion

Positive relation was found between cultural competence of secondary school teachers and their self-esteem. Out of four skills of cultural competence, understanding the dynamics of cultural interaction was mainly responsible for low cultural competence of secondary school teachers. Difference were found in cultural competence of secondary school teachers with respect to their mother tongue ( $t = 5.376$ ), educational qualification ( $f = 13.248$ ), school board ( $t = 6.464$ ) and habitat ( $t = 6.002$ ) while no difference were found with respect to their gender ( $t = 1.857$ ), religion ( $t = 1.686$ ), family structure ( $t = 6.002$ ) and teaching subject ( $f = .797$ ). The result reveals that difference was found in self-esteem of secondary school teachers with respect to their mother tongue ( $t = 5.317$ ), educational qualification ( $f = 6.537$ ), school board ( $t = 4.796$ ) and habitat ( $t = 3.790$ ) while no difference were found with respect to their gender ( $t = 1.849$ ), religion ( $t = 1.119$ ), family structure ( $t = 1.117$ ) and teaching subject ( $f = .636$ ). The reasons for the difference in variables in relation to self-esteem and cultural competence are almost same may be because teachers were from same locality. The pre-service teachers should be given teaching experiences in school with students from diverse background. Workshop and orientation programs need to be conducted for teachers from diverse backgrounds to enhance their cultural competence. New teaching methods such as constructivism, mastery learning, co-operative learning and experiential learning should be used by teachers in classroom with diverse background students. Therefore, teachers with cultural competence can make a great difference in the lives of children who are the future torch bearers of the country.

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## Vocational Education in Schools: A Tool to Overcome the Drop-Out Rate in Public Funded Institutions

### Abstract

Access to quality education is the fundamental right in India and it is the foundation for sustainable development. Indian education system after independence has made great progress, and is now accessible to a large segment of the society. The government has set up various educational committees, right from Dr. Radhakrishnan committee 1948-49 to the proposed National Education Policy 2020 with an objective to address the challenges of education. These have recommended comprehensive steps to improve education system in India. The broad objective of all educational policies has been to address the questions of access, equity and quality apart from other issues as per the then existing needs. A special focus has almost always been also on the universalisation of School education and achievement of 100% Gross Enrollment Ratio (GER) at national and state level. The UDISE report says that "India has made remarkable strides in recent years in attaining near universal enrollment in Primary schools, according to U-DISE data GER in 2016-17 for grades 1-5 was 95.1%. The data indicates some serious issues in retaining children in the schooling system for later grades. For classes 6-8 GER is 90.7%, while for Grades 9-10 and 11-12 it was only 79.3% and 51.3% respectively" (U-DISE). Furthermore, the report indicates that a large proportion of students - drop out after 8th class. Policy makers have been concerned about how to retain these students in the educational fold. The present study has attempted to find what the dropped out students are doing after discontinuation of the studies and to suggest few strategies to prevent further students from dropping-out. The study was done in Hyderabad District, which is the capital of Telangana state. The data is collected from the parents or guardians of dropped out students who had been studying in government schools. Purposive sampling technique is adopted and the addresses of the students were taken from the schools located in the study area. It is concluded that the most of the families whose children are studying in Government schools, Hyderabad migrated from rural to urban areas in search of livelihood. Moreover, according to the U-DISE data for the year 2016-17 Telangana State witnessed almost a double dropout rate up-to class VIII during 2016-17 compared to previous year.

**Keywords:** Gross enrollment Ratio (GER), Dropout rate, School Education, U-DISE, Government schools.

### Introduction

India is a young nation with around 1.3 billion population, out of which 26.98 % of the population is under 14 years – (Indian Demographic Profile 2019). To ensure that this young population proves to be our future demographic dividend, it is of utmost importance that they are provided quality

education. The various policy initiatives of the government strive towards providing accessible, affordable and quality education to the citizens.

The Education system in India is broadly classified as School Education and Higher Education. Since independence several educational policies were made and implemented in 1968, 1986/1992 and

at present a draft National Educational policy (NEP) 2020 is for the approval of the government. The main objectives of all educational policies and government initiatives were to create infrastructure and develop mechanisms for providing quality education that is accessible and affordable, apart from having a special focus on Universalisation of School Education.

## National Education Policy-2020 (Proposed)

This policy aims at equitable and inclusive education for every child in the country with special focus on under-represented groups. The policy also aims to universalize pre-primary education by 2025 and provide fundamental literacy for all by 2025. It also proposes to achieve universal access and retention with 100% GER for school education by 2030. It suggests a new curricular and pedagogical structure with 5+3+3+4 design covering the children with age group 3-18 years instead of 6-14 years under RTE act.

## Budget allocation on School education at India level and State level:

In 2020-21, the Department of School Education has been allocated Rs. 59,845 crore, a 5.9% increase over the revised estimates of 2019-20” (MHRD, 2018; PRS). This amounts to 60% of the total allocation to the ministry. The expenditure as a percentage of GDP was high at 3.1 percent in 2014-15 thereafter moved downwards to between 2.8 and 3.0 percent in 2016-17 and 2018-19. Figure 1 shows the allocation of the Department of School Education and Literacy over the past 10 years (2010-20) (MHRD, 2018; PRS). During 2015-16, the allocation was reduced by 9%.

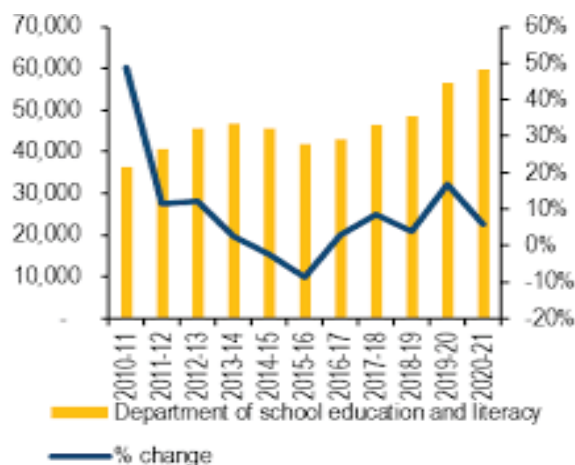


Figure 1: “Budget Allocation to Department of School Education and Literacy (2010-20) (in Rs crore)”

“**Note:** Revised estimates have been used for 2019-20 and Budget estimates for 2020-21.

**Sources:** Union Budgets, 2010-20; PRS”.

## GER and Drop out rate scenario in India

One of the primary goals of Indian education system must be to ensure that children are actually enrolled in and attending school. According to U-DISE data a large proportion of students drops out after class 8<sup>th</sup>.

The drop out rate, as the 2019 Economic survey points out, becomes very high at Secondary and Higher Secondary level. This is contributing to a never ending stream of under-educated, low-skilled young people in millions entering an increasingly technological driven economy.

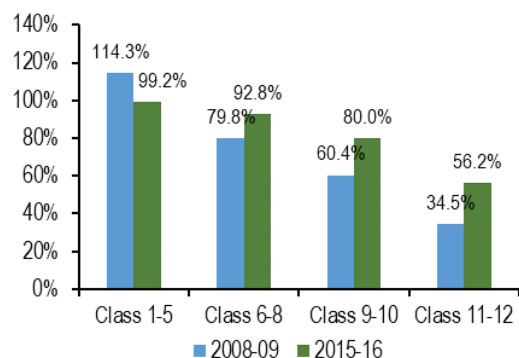
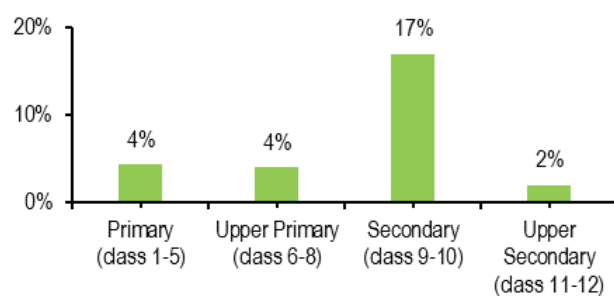


Figure 2: Changes in GER in school education during 2008-09 and 2015-16

**“Sources:** Education statistics at a glance, Ministry of Human Resource Development, 2018; PRS”

## Transition and Dropouts

The above figure shows that dropout rate peaks at the secondary level (class 9-10). It is at 17% as compared to 4% in elementary school (class 1-8) and is 2% in the senior secondary school (class 11-12) (see Figure 3). This is also reflected in the transition rates in school education where the lowest transition rate is at the secondary level (class 9 to 10) at 66%. Note that a transition rate below 100% indicates that the students are held back or have dropped out of school” (MHRD, 2018; PRS).



**Figure 3:** “Dropout rate in school education (2014-15) (%)”

**Sources:** Education statistics at a glance, Ministry of Human Resource Development, 2016; PRS.

## Vocational Education In India

With 17 different ministries in India currently engaged in some sort of skill development schemes, the revamping of Vocational education in Secondary schools has led to a newly revised policy of Vocationalisation of Secondary and Higher Secondary education with the launch of the new National Skills qualification framework (NSQF) in the year 2013. Under the Vocational education component of *Samagra Shiksha*, different vocational courses are taught to the students from Class 9<sup>th</sup> to 12<sup>th</sup>. Since then efforts have been made to connect classrooms with industry to create a skilled workforce along with formal education at school level. Every year, a provision for a separate budget

is made for vocational education and skill development. The government allocated Rs.3016 Crores in 2017-18, Rs.3400 crores in 2018-19, Rs.2989 Crores in 2019-20, and in 2020-21 and about Rs 3,000 crore have been allocated for skill development. Integration of vocational education with School education may help decrease dropout rate and be a tool for an increase in GER.

## Review of Literature

Earlier studies reveal that socio-economic status plays an important role in the education outcomes of students (Bahrudin & et al, 1998). They also show that management is a key factor in the success of academic achievements of the students (Stoner, & et al., 2000). We know interestingly that a person’s educational status is closely linked to the chances they can have in their lives and affects their income, and well-being (Battle & et al, 2002). In the earlier research study it was revealed that the “School environment factors, such as school size, neighborhood, and relationship between teachers and students influence test scores (Crosnoe, & et.al, 2004). Private schools lead to better academic performance because of surplus funds and more access to resources such as computers, which have been shown to enhance academic achievements (Crosnoe, & et al, 2004). Moreover, physical activity is a very important tool for academic achievement and earlier research studies have shown that physical activity could increase neurotic activity in the brain (Tomporowski, & et al, 2008). the fast growth of tertiary education is partly due to the development of post-secondary vocational education and training (PSVET). PSVET programs are typically organized between upper secondary and longer more academic post-secondary programs. PSVET institutions are absent from the global rankings of Universities. The universities that find places there are research intensive, attract the topmost achieving students and staff, and provide access to the most prestigious jobs” (Jaana. P, 2012).

Zeiger pointed out that an excellent teacher understands that teaching involves a number of teaching skills to ensure that the school day runs smoothly and all the students receive a quality of education (Zeiger, 2014). There is great variety in the funding, info and organizational measures that has facilitated the success of the earlier study in Europe. A countless variety in the policy instruments countries have been used to increase study success. There have been over 170 national and institutional policy instruments identified in 35 countries across Europe. These instruments can be grouped into 22 typical police types falling under three main policy headings: 1. Funding and financial incentives, 2. Information and support for students, and 3. Organization of higher education (Hans Vossensteyn & et al, 2015). Leaving the education and training program early (The phenomena is known as Early leaving of education and training ELET) is at EU level recognised as a failure to complete upper secondary education or a failure to gain qualifications equivalent to a school leaving certificate. It (ELET) can lead to a vicious cycle of unemployment, social exclusion and poverty, with costs for the individual and society that include reduced levels of economic activity, higher unemployment, poorer health outcomes and demands on state welfare systems (Joachim. J. C, 2016). In some earlier investigation, it was found that the issues that explain university failures included in them, the investment decision models too. Researchers had clustered those determinants into four main categories, such as, students characteristics, abilities and behavior; parental background and family networks; characteristics of tertiary education system & institutions; labor market performance, (Carmen. A, et al., 2018). It has been argued for quite a while that school should start some technical courses to overcome the problem of unemployment (Samiullah, & et al., 2018). Earlier research study had recommended that to increase school enrollment, schools should organize parent teacher meetings and should provide a learning environment

and schools should offer some scholarships and some technical courses to overcome unemployment and poverty issues for the students (Samiullah, & et al., 2018).

## Research Gap

After going through various studies concerning the Dropout rate, Gross enrollment ratio and Vocational education in India, it is found that most of the studies are addressed at trying to find the reasons for drop out of the students and the reasons for decrease in GER and the Vocational courses being offered by the Government. There was no study found on what dropout students do after discontinuation of their studies and to find out if they are interested in some type of Skill courses being offered in Schools along with the regular academic program.

## Need and Justification of the Study

Education is a national agenda and is the catalyst that can transform the future of the children and youth. The Government of India has implemented the Right to Free and Compulsory Education Act, for children of age group 6 to 14 years. To examine the extent of achievement of this objective, there is a need to ensure access to education, to gender parity in school enrolment, ensure retention and to an overall increase in enrollment and the quality of education being imparted. During the past decade out of the budget allocation for Education Sector made by the government of India around sixty percent is for School education.

In spite of all efforts made by the Government a significant drop out of students at Secondary and Higher Secondary levels is seen. A review of the literature gives supported evidence about the drop out from schools. This study was aimed at finding out what dropouts are doing subsequently and what they would like as course possibilities. This may help to find the needed vocational courses to be offered in schools along with regular academic programs.

## Objectives of the Study

The main objective of the study is

1. To find out the engagement of drop-out students after discontinuation of their studies.
2. To know the impact of vocationalisation on dropout rate.

The other Objectives are

- To find the Profile of Drop out Children and their Parents / Guardian.
- To find out the Reasons for discontinuation of Studies.
- To find out the effect of Demographic profile on the dropout rate of students.
- To know the Involvement of dropouts in type of Job / Training.
- To find out the Perception of Parents / Guardians regarding Vocational training.

## Hypotheses

1. Reason for drop out is independent of Demographic profile of parents / guardians.
2. Vocationalization of School education will have an impact on drop-out rate.

## Methodology

Detailed data was collected with the help of some structured questionnaires. The questionnaires were tested for reliability and internal consistency and the Cronbach's alpha value was found to be 0.812 indicating reliability. The researcher herself approached the respondents to collect the information. The respondents were the parents or guardians of the drop-out students of Urdu and Telugu

Medium government secondary schools located in the city of Hyderabad. One of the reasons for selecting Hyderabad for study is that most of the families whose children are studying in Government schools have migrated from rural to urban areas in search of livelihood.

For selection of schools the purposive sampling technique was adopted. In the chosen schools the addresses of drop-out students were taken from school records. The government schools were selected as the dropout rate was expected to be lower in the private schools for various reasons not to do with the school. 15 secondary schools were visited to collect the addresses of drop-out students and data is collected accordingly from 218 parents/ guardians whose children left the school in the preceding 3 years. Among the respondents 94 were Telugu medium and 124 Urdu medium drop outs. For data analysis descriptive statistics like mean, percentages were used and for inferential statistics like Chi-Square and t-test is used. SPSS software has been used for data analysis.

## Data Analysis and Findings

### Demographic Profile of Respondents

The respondents are the parents/guardians of the drop-out students. In the table -1&2 given below, we show the information obtained from the respondents about themselves and their wards- the drop out student. The variables included gender, medium of study, and respondents Education qualification, Occupation, Size of the family and their Native place (Domicile).

**Table 1:** Profile of Drop out Children

S.No.	Gender	Medium			Class last studied			Total
		Telugu	Urdu	Total	8th	9th	10th	
1	Male	77	85	162 (74%)	46	64	52	162
2	Female	17	39	56 (26%)	19	27	10	56
<b>Total</b>		<b>94 (43%)</b>	<b>124 (57%)</b>	<b>218 (100%)</b>	<b>65 (30%)</b>	<b>91 (42%)</b>	<b>62 (28%)</b>	<b>218 (100%)</b>



From Table-1 we can see that 30% students dropped out after studying only till 8<sup>th</sup> class and 50% students dropped out from school after studying till 9<sup>th</sup> class and 28% students discontinue their studies after studying 10<sup>th</sup> class.

**Table 2:** Demographic Profile of Parents/Guardian

Education	Uneducated	Upto 5 <sup>th</sup>	Upto 10 <sup>th</sup>	Upto 12 <sup>th</sup>	12 <sup>th</sup> & above	Total		
	73 (33.5)	89 (40.8)	41 (18.8)	14 (6.4)	1 (0.5)	218 (100%)		
Occupation	Unskilled / Daily wager	Skilled labor	Petty Business	Own Shop	Pvt. Employee Salaried	Govt. employee	Nothing / unemployed	Total
	46 (21.1)	49 (22.5)	59 (27.1)	16 (7.3)	30 (13.8)	4 (108)	14 (6.4)	218
Native Place (Domicile)	Urban		Rural		Total			
		51 (23.4)		167 (76.6)		(100)		
Family Size	Upto 4 members	4-6 members	6-8 members	More than 8 members	Total			
		32 (14.3)	82 (37.6)	82 (37.6)	22 (10.1)	218 (100)		

Above table 1 & 2 reveals that among the majority of dropout students (74%) are Males and among the total dropouts, 41% discontinued their studies after 8<sup>th</sup> Class. Among respondents only 7% of parents had completed 10<sup>th</sup> class. The remaining were either illiterate or had not gone beyond 10<sup>th</sup> class. With regard to occupation, more than 70% were involved in petty jobs or were daily skilled /unskilled work. Data shows that around 77% respondents had migrated from rural to urban in search of livelihood and 75% of the families consist of 4-8 members as dependents.

### Reasons for Discontinuation of Studies

Majority (55%) of the children, especially Boys, discontinued studies due to the reasons related to School. The reasons related to school were location, infrastructure, ineffective teaching, School timings, no transport facility. Many students said they are interested in technical studies as there are no jobs after studies. Data is shown in table-3

**Table 3:** Reasons for discontinuation of Studies

S.No.	Gender	Reasons related to school	Reasons related to Parents	Reasons related to Children	Total
1	Male	98	30	34	162
2	Female	22	21	13	56
	Total	120 (55.1)	51 (23.4)	47 (21.5)	218 (100)

From Table-3 we can say that on the average 55% students drop out for reasons related to school and 23% for reasons related to parents and 22% for reasons related to themselves.

**Hypothesis testing:** The Chi-square test was conducted to know whether the demographic profile of the parents is the reason for dropout or discontinuation of studies.

**Accordingly Null Hypothesis is Ho1:** Reasons for drop out is independent of the demographic profile of the Parents/Guardian included in the study.

Results of the hypothesis tested at 5% level of significance shows that Ho is accepted i.e the reasons for School dropout is independent of demographic profile of the

Parents / Guardians . it means the reason for dropout is not the demographic profile of the parents/guardian. The demographic profile is however not reflective of the total population in that area and is restricted to students coming to these govt schools. The analysis is shown in table-4.

**Table 4:** Chi-square test result of Demographic profile and Reasons for drop out of students.

S.No	Demographic Variable	Value	df	Significance (2-tailed)	Result
1	Education of the parents	8.349	8	0.400	Accept Ho
2	Occupation of the parent	14.596	12	0.267	Accept Ho
3	Size of the family	6.99	6	0.321	Accept Ho
4	Native place	1.533	2	0.465	Accept Ho

\*tested at 5% level of significance

### Engagement of Children after discontinuation of studies

the discontinuation of the studies. Whether they are engaged in doing a job or training.

Table 5 shows what children are doing after

**Table 5:** Engagement of children after discontinuation of studies

S.No	Gender	Job	Training	Nothing	Total
1	Male	78	68	16	162
2	Female	17	14	25	56
Total		95 (43.6 %)	82 (37.6 %)	41 (18.8 %)	218 (100 %)

From Table-5 we can say that the from the children who dropped out from schools

43.6% are doing job 37.6% are doing are doing training and 18.8% are doing nothing.

**Table 6:** Involvement in type of Job / Training.

Sl. No.	Category of work	Male	Female	Total
1	Plumber	6	--	6 (2.7 %)
2	Carpentry	1	--	1 (0.4 %)
3	Electrician	28	--	28 (12.8 %)
4	Automobile	34	--	34 (15.5 %)
5	A.C. Mechanic	18	--	18 (8.2 %)
6	Beauty Parlor Mehndi	--	10	10 (4.5 %)
7	I.T/ ITES	6	4	10 (4.5 %)
8	Sales / Marketing	33	8	41 (18.8 %)
9	Tailoring	4	7	11 (5 %)
10	Mobile Repairing	7	--	7 (3.2%)
11	Self Business / Other	9	2	11 (5 %)
12	Nothing	16	25	41 (18.8 %)
<b>Total</b>		<b>162</b>	<b>56</b>	<b>218</b>

Table 6 shows the type of job or training they are engaged in doing. Responses show that around 80% of the children are doing some kind of job or Training. Majority of the girls (44.6%) are not doing anything and were found to be engaged in household work.

It was found that while most of the Male children are engaged in skilled work like

Electrician, Automobile (Mechanic), and girls are into tailoring and Beautician work. A significant thing noted was that no one is engaged in formal training offered by the government or private agencies. They do not also have knowledge about skill development courses. The details are shown in the following tables.

### Perception of Parents / Guardians regarding Vocational training

**Table 7:** Perception of Parents / Guardians regarding Vocational training.

Response	Awareness of vocational training	Willingness to join vocational training	Vocational training along regular studies
Yes	60 (27.5)	150 (68.8)	188 (86.2)
No	158 (72.5)	68 (31.2)	30 (13.8)
Total	218	218	218

Respondents were asked about the awareness of vocational training being offered by the government, more than 70% of the respondents were not aware and had not heard about Vocational / Skill development courses being offered under various schemes. Majority (68%) showed their willingness to join Vocational training courses if offered

and more than 85% parents said it would be better if vocational courses are offered in School itself along with the formal education. They were of the opinion that Vocational courses in schools may help in increasing the retention rate of the students. Details are shown in table-7.

**Table 8:** Result of t-test on Impact of Vocationalisation on Dropout rate of children from School.

S.No.	Statement	t- value	df	Sig (2 tailed)	Result
1	Willingness to join vocational training	41.715	217	.000	Reject Ho
2	Vocational training in school along with regular studies	48.645	217	.000	Reject Ho

\* tested at 5 % level of significance.

**Hypothesis Testing:** To know whether the Vocationalization of Secondary education will help in decrease of dropout rate of the children, t-test is conducted with the framing of Null Hypothesis as Ho: Vocationalisation of School education will not have impact on dropout of children from School, as the null hypothesis is rejected at 5% level of significance it is concluded that parents seem to feel that Vocationalization of School Education can have impact on dropout rate. i.e vocationalization will help in decrease in dropout rate. Analysis is shown in table-8

### Conclusion

It is seen that Majority of the dropouts are after eighth standard and studies are discontinued mostly due to school related reasons like Location, Lack of good infrastructure, good teaching etc. Many students said they are interested in technical studies as there are no jobs after studies. It is evident from the study that the majority of the students who have dropped out are engaged in some kind of job or training that is related to Vocational training / Skill development course. Hence, awareness regarding Vocational courses

being offered by the government and integration of vocational courses with formal education at Secondary School level may help decrease dropout rate at Secondary School level and may also help in achieving the targeted Gross Enrollment ratio.

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## **A Correlational Study of Home Environment and Adjustment With Reference to Adolescence Students**

### **Abstract**

*The present study was conducted to assess the correlation between home environment and adjustment of adolescent students of Raipur City. A sample of 120 students, age group between 13-18 years had been taken from randomly selected schools, out of which 8 secondary schools. The sample was collected by using simple random sampling technique. Descriptive survey method was used to collect data. The tools used for this study were (1) Home Environment Scale developed by A. Akhtar and S. B. Saxena (2011) and (2) Adjustment Inventory developed by A K Singh and A. Sen Gupta. After the data analysis and interpretation it is concluded that, there were found a good correlation between adjustment problems on all dimension of home environment.*

**Keywords:** Home environment, Adjustment, Adolescent Students, Secondary Schools.

### **Introduction**

Home is the first and the most significant place for the child's inclusive growth and development. It provides not only the hereditary transmission of basic potentials for the development of the child, but also the favorable environment in terms of interpersonal relationship and cultural pattern. The home environment inspires children to get new information and also helps them to learn skills through various activities. The adaptability of the home's environments serves to arouse their curiosity. Unfortunately, home environments change from moment to moment. In some homes there is a lot of activity, such as working in computers, playing games and puzzles, reading books, etc. that help children to be active. Parents may be heavily invested in their children's cognitive development, and spend time with them on learning. Other homes do not have these resources and adults in the environment may pay little attention to children's education. Shukla and Bhanot (2017)<sup>[a]</sup> found that many home

environment factors played significant role to influence various dimensions of adjustment of the adolescent girls. Singh and Mathew (2018)<sup>[b]</sup> was found that the congruence of the home environment of students in government and private schools is helpful in their emotional adjustment. On the other hand, families which had strict discipline negatively affected the social and emotional adjustment of the students. Adjustment is the process through which a person tries to strike balance between his requirements (need, desires, and urges) and varying life situation. "It is the establishment of a satisfactory relationship, as representing harmony, conformance, adaptation or the like" (Webster, 1951)<sup>[c]</sup>. "It is the process of finding and adopting modes of behavior suitable to the environment or the changes in the environment".

It is a process that helps a person to lead a happy and contented life while maintaining a balance between his needs and his capacity to fulfill them. However home environment which is considered to be an important factor for education has rouse hind of influence

on the whole process of adjustment. In the present Indian society have lots of changes in home environment. It is directly affected the adjustment of adolescents. So there is a need to develop the good mental and physical health in adolescent students as well as in their parents through the education.

### Objectives of the Study

1. To study the correlation between home environment and home adjustment of adolescent students.
2. To study the correlation between home environment and educational adjustment of adolescent students.
3. To study the correlation between of home environment on emotional adjustment of adolescent students.
4. To study the correlation between of home environment on social adjustment of adolescent students.

### Null Hypothesis of the Study

**H<sub>0</sub>1:** There is no correlation between home environment and social adjustment in adolescence.

**H<sub>0</sub>2:** There is no correlation between home environment and educational adjustment in

adolescence

**H<sub>0</sub>3:** There is no correlation between home environment and emotional adjustment in adolescence.

**H<sub>0</sub>4:** There is no correlation between home environment and home adjustment in adolescence.

### Methodology of the Study

The researcher has adopted descriptive survey method to collect the data of the study.

### Population of the Study

The population of the study consists of the Adolescent Students studying in schools of Raipur City.

### Sample and Sampling Technique of the Study

For the present study 120 students have been selected. Random sampling technique has been applied for the selection of adolescent students (on social, emotional, educational dimension). For the sampling 8 schools have been taken from Raipur district (C.G).

S.no	Name of the School	Status	Students
1	Pt. R. D. Tiwari, H.S. School, Raipur	Govt.	15
2	Pt. Ramshay Mishra H.S. School, Mahoba Bazar, Raipur	Govt.	15
3	Shri Ram Krishna Vidhyalya, Raipur	Private	15
4	Adarsh Vidya Mandir, Near Gurudwara, Raipur.	Private	15
5	Naveen Kanya Shala, Purani basti, Raipur	Govt.	15
6	Vipra Public School, Raipur.	Private	15
7	Ma. Sharda Vidya Mandir H. S. school, Raipur	Private	15
8.	K. B. Higher Secondary School, Raipur	Govt.	15

**Tool:**

The researcher used following tools for the study:

- Home Environment Scale developed by A. Akhtar and S. B. Saxena (2011) was used to find out the level of home environment.
- Adjustment Inventory developed by A.K Singh and A. Sen Gupta provides for measures of adjustment viz, home, social, emotional, and educational.

**Statistical Techniques used in the study:**

The statistical mean and co-relation are applied for analysis of data.

**Data Analysis:**

**H<sub>0</sub>1:** There is no co-relation between home environment and social adjustment in adolescence.

**Table – 1**

S. No.	Variables	Mean	Sample	Co-relation Co-efficient	Result
1	Home Environment	162.02	120	0.8765	Rejected at 0.05 significant level
2	Social Adjustment	3.825			

**Table Number 1** shows that the mean of home environment is 162.02 and the mean of social adjustment is 3.825. There was correlation found due to value of 0.8765 at 0.05 level of significance. Hence, H<sub>0</sub>1 is

rejected.

**H<sub>0</sub>2:** There is no correlation between home environment and educational adjustment in adolescence

**Table 2**

S. No.	Variables	Mean	Sample	Co-relation Co-efficient	Result
1	Home Environment	162.02	120	0.9060	Rejected at 0.05 significant level
2	Educational Adjustment	4.7166			

**Table Number 2** shows that the mean of home environment is 162.02 and the Mean of educational adjustment is 4.7166. There was correlation found due to value of 0.9060 at 0.05 level of significance. Hence, H<sub>0</sub>1 is

rejected.

**H<sub>0</sub>3:** There is no co-relation between home environment and emotional adjustment in adolescence.

**Table 3**

S. No.	Variables	Mean	Sample	Co-relation Co-efficient	Result
1	Home Environment	162.02	120	0.8985	Rejected at 0.05 significant level
2	Emotional Adjustment	5.0416			



**Table Number 3** shows that the mean of home environment is 162.02 and the mean of emotional adjustment is 5.0416. There was correlation found due to value of 0.8985

at 0.05 level of significance. Hence,  $H_0$  is rejected.

**H<sub>0</sub>4:** There is no co-relation between home environment and home adjustment in adolescence.

**Table 4**

S. No.	Variables	Mean	Sample	Co-relation Coefficient	Result
1	Home Environ-ment	162.02	120	0.8765	Rejected at 0.05 significant level
2	Social Adjust-ment	3.825			

**Table Number 4** shows that the mean of home environment is 162.02 and the mean of home adjustment is 25.675. There was correlation found due to value of 0.9287 at 0.05 level of significance. Hence,  $H_0$  is rejected.

environment is the basic factor for the development of the students.

## Conclusion

In this study researcher found that home environment plays a very significant role in adjustment of the students. There was very high correlation found between educational, emotional, social adjustment and home environment. The result shows that adjustment is that which strikes a balance between his/her requirement and varying life situations and home environment should be very peaceful and cooperative so that there is no restrictions in the developmental stage of an adolescence students as home

## Suggestions

1. A technique of group discussion and other curricular activities can be organized in the classroom-activities.
2. Yoga and meditation can be part of our day to day activities to be included in the school curriculum which can improve the adjustment of students.
3. The good relationship between the teacher and the students will enhance the adjustment of the students.
4. Various programmer like NCC, NSS and some other cultural activities will helpful for students to improve their adjustment level.
5. Parents should cooperate with their child very calmly and maintain peaceful environment in home.

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## Status of Teachers Working in KGBV in Selected Districts of Madhya Pradesh: An Explorative Study

### Abstract

KGBV schools are meant to promote girls education especially among SC, ST, OBC, minorities and girls belonging to BPL families. There are almost 3600 odd KGBV schools operated by central and state government funded through SSA budget. Teachers a vital component of school system are often not permanently recruited and they have the load of not only carrying usual academic and administrative roles but other work has been assigned like of hostel warden. Studies related to KGBV in other states present a dismal picture. Teachers are underemployed, services conditions are pathetic, no social protection schemes are present, paltry sum of money as salary, employed as daily wage earner etc. Madhya Pradesh is the pioneer state in terms of introduction of contractual teachers' in education system way back in 1997 through EGS scheme. Presently, it is estimated that almost 26000 teachers working in government schools are contractual teachers. The KGBV scheme is operated in MP since inception of the scheme. In MP state model-III of KGBV is functioning wherein largely teachers are appointed on contractual basis. So, it was necessary to take a stock of teachers working in KGBV residential in Madhya Pradesh. From the present survey of KGBV residential, it was found that teachers are not only contractual but they are getting paltry sum of Rupees 2500 against the sum of Rupees 5000/- as per the revised norms of central government. This sum of rupees 2500 is maximum if it happens to be zero absence from the duty. Normally they are called remedial teachers where such nomenclature is absent in the actual norms. They are not given any kind of appointment letter or any kind of leave, they have no service conditions, and they are at the mercy of SMC/DEO and other local authorities. Even after serving for more than five years or more in many cases, they do not get any kind of experience certificate to show that they are working in the school system. There is nothing called professional training for these teachers. These teachers are regularly taking normal classes often of strength 50 fifty students per class in the name of remedial teaching but majority of them are untrained. There is no difference between untrained and trained teachers in terms of salary and other benefits. So, it is needed that these teachers at least get some respectable salary along with few incentives including certain kind of leaves.

### KGBV Scheme: A Step towards Equity and Inclusion of Girls in Education System

The decade of 1990-2000 was landmark in Indian elementary education, as central and state governments focused their attention towards expanding elementary education to almost all parts of India. As a result, of this the focus was more on universal provision, enrolment and retention of learners to the school. Universalization of Elementary Education (UEE) was the national goal and

efforts were made by the central and state government to achieve it. Government of India started Sarva Shiksha Abhiyan (SSA) new nomenclature of UEE in 2001. The main objective was to continue with efforts of access, enrolment and retention of students in school till completion of elementary education. Targets were set to universalize provision by 2003 and elementary education completion by 2010. But, Census (2001) and other national reports revealed huge disparities in the educational provision, enrolment, retention among states,

between genders, among socio-religious groups. Based on the Census 2001 data, it was found that there is a wide gap in the literacy level among males and females across India. National government identified Educationally Backward Blocks (EBB) (Census, 2001) wherein female literacy is lower than national average and gender gap in literacy is higher than the national average. A special scheme was launched in 2004 focusing on promoting girls education in the country called Kasturba Gandhi Balika Vidyalaya (KGBV) after the name of freedom fighter and Mahatma Gandhiji wife. These schools were opened mainly in the blocks having high concentration of tribals, scheduled castes, OBC, minorities and BPL categories girls' population along with large number of out of school girls or drop outs, so as to bridge the existing disparities especially among SC/ST, OBC and minorities girls. A purely residential school education wherein girl children of different socio-religious

groups are given every kind of facilities right from free education to vocational education, health and hygiene training, life skill training including self-empowerment. Government of India bears the entire cost of their education and living. This scheme was launched to strengthen the existing scheme of SSA, National programme for Education of Girls at Elementary Level (NPEGEL) or Mahila Samkhakhya (MS). This scheme is an excellent example and effort made by the national government for girls' education to increase their access to education, participation and completion of elementary education. This scheme will not only help to bridge the existing gender gap but also help females to mainstream. The Madhya Pradesh state is one of the BIMARU states whose indicators of human development were among the lowest in the country. This is evident from the literacy level, poverty and health care sectors.

**Table1:** Comparison between India and MP on Various Educational Indicators

S.No	Indicators of Education Status	2001	2011
<b>A. Female Literacy Rate</b>			
1.	India	53.7%	65.46%
2.	Madhya Pradesh	50.29 %	59.24 %
<b>B. Gross Enrollment Rate</b>			
1.	GER India	72.4	103.3%
2.	GER MP	94.3*	116.3%
<b>C. Dropout Rates at Elementary Stage(I-VIII)</b>			
1.	India	57.7%	41.17
2.	Madhya Pradesh	50.11**	44.92**

Source: Census, 2001, 2011 & Various Annual School Education Report and Educational Statistics at a Glance and UDISE

\*RSK(2008). Approach paper for Education for All, Govt. MP.

\*\*CEIC Global data base

If we look closely the above table indicates various indicators related to female educational status, national female literacy census (2011) was 64.5% whereas in MP it was 59.24 % but in 2001 the female literacy figure was 53.7% whereas in MP it was 50.29%. The gap between the female literacy has been widened in the last decade

(2001-2011). The GER of female at national level is 103.3% at elementary education and in MP it is 116.3% much higher than the national average. But the area of concern is the dropout rates among girls which is 41.17% at national level whereas it is 44.92% at MP almost 3% higher than the national average. In spite of high enrolment

rate at primary level, the higher percentage of drop out among girls was the concern for MP. That's why state government focuses on enrolling the girls at class VI the stage where the dropout was significantly high. With the launch of the scheme, it improves the girls' enrolment and retention rate at upper primary level among the girls of disadvantaged section. The KGBV scheme was started in MP in 2004 along with rest of India. Out of the 207 KGBVs only four remains to be opened. 12 KGBVs were opened in last year. As stated earlier most of the KGBV are type-III model schools having an annual intake of 50 students at class VI which means an average of 150 students studied in one KGBV school. Thus, on an average 25000 girls belonging to SC/ST/OBC, minorities and BPL categories are studying in these schools. Increase in number of KGBV not only increases the access to school education but also help girls' students to have higher rate of completion of education at elementary stages which is very important for the state like Madhya Pradesh where school education in general and girls education have taken a back seat prior to 2001 census. The dream of going

or continuing school education for girls has been fulfilled by the KGBV. KGBV has been able to reach to the blocks and pockets of Madhya Pradesh where access to elementary education for the marginalized sections was difficult at one point of time but now it has helped girls' to not only re-enrol themselves in school education, but continue and able to complete it. In the National Evaluation Report (GoI, 2007) it was reported that in MP state, KGBV had created access to education for disadvantaged as well as for drop out girls' (older). The report said that "the scheme has been able to create access to schooling facilities among the most disadvantaged. Though there is a mix of different age-groups of the girls enrolled, most of the States have more of the older girls who were dropouts" (GoI, 2007, p.iv). The recent data suggest that except few KGBV in MP all are running with full capacity (29054 students enrolled) (MHRD, PAB 2019-20). As KGBV are meant for girls education belonging to disadvantaged sections of society, the following table describes how the education of girls' in the state consonantly increased from 2007 to 2019.

**Table 2:** Comparative Enrolment of Different Social-Religious Group in MP

Year	Total Number of KGBV (operational)	Total Enrolment	SC-Number & % (Parentheses)	ST- Number & % (Parentheses)	OBC- Number & % (Parentheses)	Minority-Number & % (Parentheses)	BPL-Number & % (Parentheses)
2007	105	5368	1140 (21.2)	2587 (48.19)	1353 (25.20)	708 (13.18)	1153 (21.47)
2010	200	27137	3958 (20.15)	9979 (50.7%)	5103 (25.9%)	829 (4.2%)	7268 (37%)
2013	207	28800	4741 (16.46)	16258 (56.45)	6608 (22.94)	281 (0.98)	912 (3.17)
2019	207	29054	NA	NA	NA	NA	NA

Source: GoI, National Evaluation Report 2007, 2009, 2013b, PAB-MHRD(2019)

The teachers who are appointed in KGBV in MP state are all contractual and working on paltry sum of Rs 2500/(NITI Ayog, 2015). These teachers, though they are called part time teachers but many of the teachers not only teach the students in the hostel but also help the students to complete their

homework. Besides that, various non-academic works while residing with girls students like hostel management and other non-teaching activities like kitchen and food management, procurement of ration, vegetables etc.

## Review of Related Literature

There is a volume of research regarding working conditions of schoolteachers in India and across the globe. It is difficult to present all the studies and therefore some of the researches which are carried out at national and global level conducted are presented below:

National Centre for Education Statistics (1996) conducted a study on working conditions of teachers in the USA from 1970s to 1990s and reported that on average teacher devotes 40 hours a week in teaching but their average salaries was less than what of many other professionals though their salaries were adjusted in relation to the inflation but still it was lower than the national average income. Public schools have larger class strength that's why they face more problems in terms of policy implementation, management, discipline etc. But public teachers were higher paid than the private teachers. Teachers working in the schools with children coming from low socio-economic status possess serious challenges to teachers. On the other hand Colley (2002 Cited in Allen, Amy Ballet, 2014) in his research found out high rates of attrition among newly recruited teachers was due to low pay, assignment to the most difficult classes, feeling isolated and unsupported, being required to supervise or sponsor extra-curricular activities, and feelings of low professional status. Similarly, Benham-Tye and O'Brien (2002 Cited in Allen, Amy Ballet, 2014) reported that low salary, lack of professional growth in vertical order is the main reason for quitting the teaching profession. Helen F. Ladd (2009) revealed in the study that working conditions emerge as highly predictive of teachers' stated intentions to remain in or leave their schools, with leadership emerging as the most salient dimension. Centre for Budget and Policy Studies (2011 Cited in Minni, Puja; Jha, Jyotsna 2015) conducted a study on Teacher Motivation in Bihar identified that school environment, leadership (support from Head Master and

community), structured recruitment, salary, payment, processes, nature of employment and transfer policies, rewards and appraisals and systematic redressal mechanisms contribute to motivation. Similarly, UNICEF (2011) conducted a regional study on the recruitment, development and salaries of teachers in the CCECIS region found that pre-service teacher education was very popular in CCECIS region but few transit into the teaching profession. The reason surfaced from the research was low salary of teachers. Chadhuri, Kashyap & Amin(2012) and Deore, Jogam & Shankarrao (2013) studied the teachers and their working conditions of KGBV and found teachers were academically qualified and had certification in teaching but they were dissatisfied with the salary. Moreover, regarding in-service training related to use of TLM in classroom teachers reported that they did not get any sort of training from CRC or BRC. Government of India did conduct an evaluation study of KGBV (2013b) and reported that teachers were appointed either on contractual basis or on deputation basis. Contractual teachers were not qualified as per RTE norms. There is lack of in-service training among teachers. Salary of contractual teachers is as low as rupees 2000 and teachers were involved in non-academic activities including working as warden. Dolton et al (2013) did a global survey on Global Teacher Status Index showed stark differences across 21 countries. Teachers in China, the Republic of Korea, Egypt, Singapore and Turkey had higher status than those in countries of North America and Western Europe (except Greece). Countries like Turkey and China encourage their youth to become teachers by almost 40% and 50% respectively but in Germany less than 20% of people encourage their child to become a teacher. Though cultural issues play a vital role but in these countries, teachers are revered like anything. Silova et al (2015) surveyed the status of teachers across 15 countries that participated in Teaching-Learning International Survey reported that the status of teaching as a profession has declined. Less than 33% of

lower secondary teachers believed teaching to be a valued profession in society in 2013, a substantial decrease from 60% in 2008. Similarly, **Vasileios Symeonidis (2015) conducted a global study of 55 nations on the Status of Teachers and the Teaching Profession: A Study of Education Unions' Perspectives** reported that status of teachers is specifically related to socio-cultural and economic contexts, job security, salaries and working conditions teachers' professional development opportunities, representation of the teaching profession, professional autonomy, social dialogue and involvement in decision making. The main factors which affect the status of teachers were: pay, benefits, and working conditions proved to be some of the most critical factors which affect the status of teachers in the society. The survey revealed that as the teachers are employed contractually therefore, there is a proportionate decline in salaries of the teachers. The social security measures like allowances and benefits had been withdrawn making it the least lucrative profession in the countries. Even the working conditions in the schools declined. Programme Evaluation Organization (PEO) of NITI Aayog (2015) studied the status of KGBV schools across India. Study was conducted on 18 states. The study revealed that most of the KGBV are running through society called SSA society except in few states wherein Mahila Samakkhya(MS) and other NGO's are running the KGBV. If we look at the teacher component, in Model I and II, teachers are appointed on full and part time basis whereas in Model III teachers are appointed on part time and contractual basis. Salary of full time teachers is higher than the part time. In some of the state's KGBV teachers are permanent whereas in others they were contractual. In some states, teachers were appointed on contractual basis. On an average a permanent teacher get a monthly salary of Rs. 19162 to Rs. 26382, and temporary/contractual teachers get between Rs. 5624 to Rs. 10584. Almost 69% of teachers received training at either CRC/BRC/DIETs. The highest qualification

of teachers working in KGBV is doctorate. Maximum numbers of teachers were having graduate degree with B.Ed degree. It was further reported that majority of the teachers are engaged in non-teaching activities. As far as adequacy of teachers, states had variation especially related to number of teachers as well as subject teachers. Rao, GVSR Prasad; Minni, Puja; Jha, Jyotsna (2015) did national level studies on working conditions of teachers in Jharkhand and Karnataka. They reported that Jharkhand has a huge force of contractual teachers with academic qualification ranging from secondary level to doctoral. Most of them are getting a paltry sum of 6700/-per month and doing more amount of work than the regular teachers. Unlike regular teachers they are engaged in election process right from BLO to conducting elections. Apart from election related duties, contract teachers are also deputed for different types of government surveys. Salaries for contract teachers are often delayed. However, there is no system of annual increment in the salary for contract teachers. Like regular teachers they also performed both academic and non-academic duties including related to maintenance of records of various social schemes. In case of Karnataka number of contractual teachers is insignificant in number in comparison to the total workforce of teachers.

Thus, it can be concluded from these studies whether social status of teachers is pitiable mainly because in majority of the countries teachers are lowly paid and they are given in addition to teaching responsibilities more of the responsibilities which are non-academic.

### Rationale of the Study

Teacher is the epicenter of all educational process and play a pivotal role in nurturing and nourishing the young children. They are like parents who always stand beside them in the time of thick and thin. In the initial formative years of children, teachers' give warmth, love, protection, affection but as the child grows older teacher's counsel,

advice, socialize, develops the innate potentialities, helps the child to harmonize with surroundings, inculcates the values and made aware about the social norms. In brief, teacher helps the child in socialization process. So, teacher performs the various role-parents to a counselor, facilitator etc; role and responsibilities beyond what the society have entrusted and expected. Their relentless efforts help the children to achieve what they want to achieve in their life. But, in the entire process, teachers' voices are seldom heard. Their demands are seldom met. Government of India Report on Education and National Development popularly known as Kothari Commission almost 50 years ago said in the report that "Destiny of the nation is being shape in the classroom (GoI, 1966 p.2)" and in another policy document called National Policy Education (1986) almost 30 years back said 'no people can rise above the level of the teachers' (GoI, p.31). But, it is unfortunate the destiny maker itself lives in pitiable conditions especially ones who are working in contractual system. They carry out their task in conditions (physical and social) which are sometimes pathetic and woeful. It is often heard in economic theory that education has directly link with the rate of returns. But, in case of teachers this truth does not hold. It is often being debated in the country to raise the minimum wage and provide suitable working conditions for a worker but it should also be matter of discussion what will be the minimum wage and working conditions of a school teacher (trained)? Education system appoints teachers for a paltry sum of money in comparison to the task which the system expects from them to do. A teacher not only carry out its normal task of classroom teaching, but also do administrative works like maintaining records of various social welfare schemes, surveys of all types including census, election and its related works, disaster management, health and other social sector schemes etc. In such circumstances, performing the role of teacher in the classroom or in school requires more than self-less commitment, high morale and utmost dedication. Mark

Goldberg while referring to Qualities of Great teachers" has mentioned teacher must possess the following qualities: 1. Willingness to put in the necessary time; 2. Love for the age group they teach; 3. Effective classroom management style; 4. Positive relationship with other adults; 5. Consistent excellence, 6. Expert use of instructional methods; 7. In depth content knowledge; 8. Capacity for growth; 9. Steadiness of purpose and teaching personality 10. Ability to integrate technology in the classroom teaching. But to look out for these qualities, it is necessary that teachers pay, work conditions and social security measures should be provided. We often compare our education system with best of the world countries like Finland, Switzerland, Norway etc but it is necessary to see what kind of social and economic status teachers enjoy in these countries. If country wants to improve the quality of education being offered to the children then country and society must be pay back the status which they enjoyed almost 40 years ago.

It is also important that teachers must recognize that they are integral part of the education system. Their stake will be high only if they possess high quality of knowledge and training, mastery over the subjects and excellent competencies in teaching. This can be achieved only by upgrading their existing professional knowledge so that they can able to justify their position in school system and also make the education system realize they are the makers of the "Destiny of a Nation".

KGBV scheme was of such programme specially launched to promote girls education in the country and thereby reducing gender disparity and promoting equity and inclusion to the girls belonging to most underprivileged sections SC/ST/OBC/Minorities residing in difficult areas. It is a residential schooling programme and provides school education from class VI to VIII. Now under Samgra Shiksha scheme it has extended to Class XII. Thus each EBB blocks have at least one KGBV residential school so that smooth transition from upper primary to secondary and senior secondary level will take place.



The scheme was initially started as separate scheme in 2004 but later on in 2007, it was integrated with SSA. After the implementation of RTE, 2009 from 1st April 2010, the SSA implementation framework was revised and incorporates the suggested changes made in RTE act. The KGBV component of SSA was implemented in context to child rights and child entitlement which is in complete harmony with spirit and stipulations of RTE act (GOI, Revised Guidelines of KGBV Scheme, 2010 p.1). KGBV was introduced in those educational backward blocks (identified based on 2001 census) where female literacy is lower than national average and gender gap in literacy is higher than the national average focusing mainly on the blocks having high concentration of tribal and large number of out of school girls. Similarly, for other social categories like SC/OBC and minorities and /or for large number of out of school girl children. Later on in 2008, criteria of EBB blocks was revised and includes EBB having literacy rate of female less than 30% and towns/cities having minority concentration with female literacy less than the national average. In 2010-11, further revision in the criteria and it extended to all EBB having female literacy less than national average. Three models of KGBV were proposed. Type I model is one having school with hostel facility (minimum intake of 100 girl students), type -II is having school with hostel facility with minimum intake of 50 students. Type-III building of hostel in existing school. The total number of EBB blocks in the country is 3453 and out of it 2784 blocks are present in only 8 states which is almost 74% of the total share of EBB. Madhya Pradesh is one of the eight states in the country which has 201 EBB out of total 313 blocks which represents 64% of the totals blocks (Sanghi & Sinha, cited from at <http://ssamis.nic.in/dashBoard.do>, 2016). There are 207 KGBV schools in 201 blocks. Madhya Pradesh has type-I and type III models of KGBV. Most of them are functioning under type-III model. KGBV has been opened to provide quality education which cannot be possible without teachers. All the teachers working in it are contractual

in nature and paid the lowest salary among the many states (NITI Aayog, 2015). In KGBV, whatever studies have taken place it is centered on students, infrastructure, enrolments and access to education, etc. There is no such a study wherein teachers, their status and their problems related to pay package, service rules and condition, nature of appointment etc as have been studied. So, the plight of teachers has hardly been part of the research.

**Research Questions of the Study:** Following were the research questions of the study:

- What is the existing practice of appointing teachers in KGBV?
- What is the academic and professional qualification of appointed teachers in KGBV?
- What are the different academic and non-academic responsibilities of teachers?
- What are the working conditions of teachers in KGBV?
- What are the problems faced by the teachers?
- Whether there exists grievance redressal system?
- Whether teachers are receiving in-service training programmes?
- What are the numbers of teachers working and is it adequate in terms of requirement of students?

**Objectives of the Study:** Following were the objectives of the study:

- i) To study the prevalent practices of recruitment of teachers in KGBVs
- ii) To study the academic and professional profile of KGBVs teachers.
- iii) To find out the non-academic responsibilities assigned to the teachers
- iv) To study the problems of the teachers in KGBV.
- v) To examine the grievance redressal system exists, if any for teachers.
- vi) To study the status of in-service training programme for teachers.
- vii) To find out subject wise adequacy of teachers in KGBV.

## Operational Definition

**Teachers:** In the present research teachers here refer to “those persons who are performing the task of teaching in the KGBV residential hostel”.

**Status:** In the present research status refers to the “working conditions limited to appointment, academic and professional qualification, salary, task performed, training, grievance redressal and other academic and non-academic activities”

**Design:** In regard to research design as it is a status based study therefore survey research design was adopted.

**Population:** Madhya Pradesh had in all 207 KGBV schools operated at different parts of state. All the teachers working in the KGBVs were the population of the study.

**Sample:** MP is divided into 51 districts. Out of that, 11 districts were identified by investigator to conduct research. Three tribal districts (Burhanpur, Dhar and Khandwa) were selected where the population was more than 25%, one district where concentration of Muslim minority (Bhopal) (more than 25%) was selected. Three districts having female literacy rate higher than the national average (Indore, Gwalior and Hoshangabad) five districts having female literacy rate lower than the national average (64.5%) (Dewas, Ujjain, Sehore, Chhatarpur). These districts were selected keeping in mind also the financial limit and also they are nearer to the working place of investigator. Thereafter, schools were selected based on the proximity of the district headquarter.

**Tools:** A semi structured questionnaire was constructed to obtain the status of teachers working in KGBV. The areas covered were i.e. nature of service, responsibilities entrusted, non-academic duties, in-service training programme, service conditions including structure of salary, benefits, number of teachers, adequacy of teachers as per the subjects taught etc. Interview schedule used to get detailed information about the recruitment policy, service conditions, salary and others related to status of teachers were obtained. The final questionnaire was comprised of 39 items. Questions were arranged more or less in a sequence without any perceptible order or pattern. Care was taken to keep related or similar statements at some distance from one another. Thus, the

final form of the scale of social adjustment scale was preceded with an introductory note carrying instruction for respondents.

## Findings of the Study

### To Study the Prevalent Practices of Recruitment of Teachers in KGBVs

KGBVs scheme was started as a standalone scheme which was centrally sponsored by government of India since 2004-07 but in 2007 it was merged with SSA programme. SSA department looked after the KGBV of Madhya Pradesh. But as far as the recruitment process in KGBVs, it was mostly done at local level. It was found out of sample of 48 teachers, 17 teachers were appointed by district education officer, 6 of them were appointed by warden and majority of the teachers were appointed by School Management Committee (SMC). It reflected that even at local level no uniform recruitment policy is adopted. The reason was that most of the teachers were appointed on temporary (contractual) basis and local authority either SMC, or district level officer has the power to appoint these contractual teachers. In some of the schools where warden of the hostel was acting as an authority to appoint teachers was due to the either DEO or SMC had given the power to appoint the teachers. All these teachers were appointed under SSA/KGBV scheme as salary provided to them was from the fund of KGBV as decided by Central/State government norms. The method of appointment of teacher was either based on qualification (11) or qualification and interview (37). It was found out from the research that majority of the sampled teachers (38) were working in KGBV for the past five years in the same school whereas minority (10) of them were working for 5-10 years. It was also found that more than 50%(28) teachers were always remain under fear that they would not be reappointed by the authority as the appointment takes place through local level and local influences works at the appointment of teachers. It was quite an astonishing to know all the

sampled teachers got their renewal of their appointment in the beginning of the academic session but renewal was more verbal than an in any official order form. While discussing with the warden, they told that though official order of appointment was with SMC/Warden/Headmaster but it was never given to the teachers. Further, while with focus group discussion with teachers, it was surprised to know that teachers were not even given experience letter of teaching the students, as a result they while applying elsewhere they never showed to the other schools or anywhere else they had a working

experience. Even while in appointment of “Samvida Shikshak” at Panchayat level they could not able to show their past experiences of teaching.

**To study the academic and professional profile of KGBVs teachers. In order to achieve the objective, questions related to teacher academic profile and professional profile were constructed in the questionnaire. The academic and professional profile is presented below in a tabular form:**

**Table 3:** Educational Qualification of Teachers

Qualification	Number with Percentage	Educational Qualification				Other
		Science	Commerce	Humanities	Social Sciences	
Post Graduate	18 37.5	6 33.33	2 11.11	5 27.77	2 11.11	3 16.66
Graduate	26 54.16	8 30.76	1 3.84	11 42.30	5 19.23	1 3.84
12 <sup>th</sup> Pass or Less	4 8.33	1 25%	0 0	0 0	1 25%	2 50%
Total	48	15 31.25	3 6.25	16 33.33	8 16.66	6 12.5

It is quite evident from the Table No 1, out of the 48 sampled teachers, 26(54.16%) teachers were having a graduate degree whereas 18(37.5%) of them were having post graduate degree and only 4(8.33%) of them were having an academic qualification of 12<sup>th</sup> pass or less. Thus as per the recruitment rules for elementary teachers in Madhya Pradesh, majority of the teachers had higher academic qualification than what was prescribed in the norms.

Out of total 26 graduate teachers, it was found out those 11 (42.30%) teachers were graduates' in humanities discipline, 8(30.76%) teachers were holding graduate degree in science discipline, 5(19.23%) teachers were holding a graduate in social science discipline, and 1(3.84%) teacher each was commerce and other discipline.

It also evident from table No. 1, out of total 18 teachers holding a post graduate degree, 6 i.e. 33.33% teachers were holding postgraduate degree in mathematics, 5(27.77%) teachers were holding degree in humanities out of which 2 teachers each were holding postgraduate degree in Hindi and Sanskrit and 1 in Sociology, 2 teachers were holding post graduate degree in economics, 2(11.11%) teachers were holding post graduate degree in social sciences with degree in history and 3(16.66%) teachers were holding post graduate degree in other disciplines. Further it is evident from table No.1 that out of 4 teachers who were 12<sup>th</sup> pass or less two of them they had their academic qualification in social science subjects, one each in science and humanities.

From the table it is further evident that out of the sampled 48 teachers, 15 i.e.31.25% teachers belong to science discipline, 33.33% (16) teachers were having a background of

humanities discipline, 8 i.e. 16.66% teachers have social science as academic background, 3 and 6 teachers have commerce and other discipline as educational background.

**Table 4:** Teachers with Professional Qualification in KGBV

S.No	B.T.C/D.El.Ed	B.Ed	Four B.A B.Ed/ B.Sc. B.Ed	B.Ed(Two Years)	Other	No train- ing	Total
Number	9	10	3	0	1	25	48
Percentage	18.75	20.83	6.25	0	2.08	52.08	100%

From table No. 2 it is evident that, out of 48 teachers, 23(47.91%) teachers were professionally trained in teacher education whereas 25(52.08%) teachers were working in the KGBV having no degree in teacher education. Out of it, 20.83%(10) teachers were having B.Ed (one year) degree, 18.75%(9) of them were holding diploma degree in teacher education, 6.25%(3) of them had completed four year of integrated programme and one teacher was having nursery teacher training. This indicates that in KGBV majority of the teachers working were not having any professional qualification in teacher education and inspite of that they were being appointed and teaching to the students.

1. To achieve the third objective of finding out the academic and non-academic responsibilities assigned to the teachers, it was found out that all the 100% teachers reported that they prepared their lesson plan before going to teach in the classroom. While having discussion with teachers, it was come to know that teachers maintain diary and therein they wrote the topic and the main points concerning the topic to be taught in the classroom. It's not in the formal structure which they had learnt in the teacher education programme. This pattern of making lesson plan was followed irrespective the teacher had formal training in teacher education or not. In regard to the usage of TLM in classroom, almost 99% teachers reported that they did use some or other form of TLM in teaching. While in focusing group discussion, they told the

researcher that children better comprehend the topics while teaching with TLM, though they also reported that TLM were most often used but sometimes in place of TLM they do some activities in teaching the content or topic.

While seeking response related to what kind of other academic activities they are generally carrying out in the KGBV, 20 teachers reported they exclusively took remedial classes, 5 teachers did all kind of list academic activities i.e. curricular activities, examination work, TLM preparation, remedial teaching, 11 teachers perform work related to examination and remedial teaching whereas 5 teachers performed task academic work related to curricular activities, examination and remedial teaching. It is also reported that on one teacher each perform the task related to curricular activities, examination and one teacher related to TLM and examinations. Two of the teachers did not perform any kind of academic activities as reported by them. Regarding the non-academic activities, since the teacher was appointed on contractual basis and part time basis, therefore they did not carry out any non-academic task. The computer teacher wherever appointed take care of the computer classes and the computer lab, otherwise all the task were taken care by Warden and Assistant warden of KGBV.

2. To achieve the objective of finding out the problems faced by the teachers of KGBV,

it was through focus group discussion with teachers it was found out that teachers were appointed contractual and part time and they were only given paltry sum of rupees 2500 for teaching of VI/VII/VIII . Though, it was reported that teachers get their salary on time and through account transfer but there was no increment in salary years after years as a result it was difficult to run the family. Also they did not take tuitions to support the family. The reason on being asked that students studying in the nearby government schools were belong to Economically Weaker Section (EWS). It was quite surprised to know that teachers did not had any knowledge related to their increased pay which is rupees 5000/- per month (as per the revised KGBV norm from 1.04.2014). On being asked whether they were satisfied with the salary, 28 teachers responded in negative whereas 17 teachers responded partially whereas only 3 teachers were satisfied by the salary they were getting. Moreover, they were not given any kind of appointment letter or experience letter to show their experiences. Though, they started teaching from the beginning of the academic session but until their appointment was approved formally either through DEO/SMC they were not entitled to get salary of the teaching months/days. They only get the salary from the date on which their appointment was approved rather from the retrospective date. Teachers also reported that they are not entitled to get any kind of leave and if at all teacher remain absent from the duty their salary was deducted day wise. As a result monthly salary they get approximate Rs. 2000 in a month. Teachers also complained that at the local level Panchayat appoint the teachers for local government schools called “Samvida Shikshak”, their too their experiences did not count and they want government should take into give some weightage to the experiences of their teaching unlike

other state like Delhi, Uttar Pradesh government is doing for the guest teachers working in state governments schools. They also want that equal work and equal pay should be implemented. They also reported that those teachers who are working for more than five years in KGBV should be regularized. Some of the teachers who commented on the problems and grievances of teachers were:

Madam, we are working for so many years but government does not pay heed to it. How one can I work with such low salary? We request you to convey our message to government.

One the salary is too low and if one abstains from the duty then there is deduction of day salary. At least one should get one day off in a month.

Madam, I teach for 10 months but I get salary for 8 months. I do not get two months' salary as every year new approval for the appointment usually takes two month and till you do not get approval your are teaching their free of cost.

Madam, neither we get any appointment order nor experience certificates. We cannot show our experiences. In MP regular appointments of teachers do not take place for so many years, so how can we left this job.

Majority of the trained teachers were dissatisfied with kind of parity in salary between trained and untrained; highly qualified and low qualification; more or less experience: They shared:

Trained graduate teachers are getting the same salary as untrained teachers. Whether teacher is 12th passed, graduate or post graduate, salary is same. Is it fair? Government should fix the salary as per the academic qualification, trained or untrained and experienced or in experienced teacher.

To achieve the objectives of grievance redressal system, cent percent teachers reported that KGBV had grievance system in place, 6 teachers reported that it was

at the block level but rest 42 teachers reported that it was in place at warden level. On asking what kind of grievances they had, they mentioned- poor salary structure, no experience certificate, no written appointment letter, and above all these grievances no provision of training in the subject they are teaching, those teachers who are untrained government did not make any provisions for their training. For example recently NIOS had made public announcement and advertisement for the untrained teachers to be trained through distance mode wherein they had to submit experience certificate of working in the school but unfortunately as they do not get any experience letter and appointment letter so they cannot take benefit of this scheme. It was their complaint that government did not promote it for their own teachers working in KGBV.

3. To attain the objectives regarding the status of in-service training programme attended by the teachers, inspite of teaching the subject classes of VI/VII/VIII, cent percent teachers reported that they did not undergone any kind of training in last three years. Thus, it indicates that 20 teachers who were untrained and teaching school subjects neither they had any formal training degree in teacher education nor CRC/BRC or any other education authorities are being concerned of training these untrained teachers. This year Madhya Pradesh government has introduced NCERT books for all the subjects yet, they did not receive any kind of training from educational authorities working at local level irrespective of teachers having training degree or not. This indicates that the capacity building measure of contractual or part time teachers working in KGBV was not a priority area of government (KGBV, 2007; 2013 & 2015).
4. To find out subject wise adequacy of teachers in KGBV, it was found out that majority of KGBV had equal number of teachers working to what was sanctioned

by the SSA department. This was verified through portal of KGBV, except in two KGBV wherein sanctioned post was of seven teachers from the government but only 5 of them were working. On being asked about the adequacy of subject teachers 13 teachers reported that in their KGBV they did not subject wise teachers whereas 34 teachers reported that they had in their KGBV subject wise teachers. Thus, KGBV wherein subject wise teachers were there they were taking their subject classes whereas in those KGBV where subject teachers were not fully there, there teachers were teaching multiple subjects. It is mentioned here that teacher who can teach computers and vocational subjects like art and craft, sewing is must for KGBV. So any teacher who can teach vocational subjects or can teach computer were performing additional task. Somewhere, government had given computer teachers especially to KGBV which are in urban areas. It was corroborated from the fact that only 6 teachers were taking subjects of two different disciplines whereas 2 teachers were teaching two subjects of allied disciplines whereas 39 teachers were teaching only single subject like Mathematics, Science, English, Hindi, Social Science, Computer and Sanskrit.

## Excerpts of Teachers from Interview

### Case-I

I am working for last seven years, neither there is an increase in the salary, nor I get any leave or any kind of facilities are extended to me. We even sit for strikes but of no result. I am also aged enough that nowhere else I can get the job. Even we do not get any experience certificate for working in the school. Every school think that I have not worked nowhere before. With this paltry sum of money, it is difficult to manage the house. If government increase of our salary and fixes in between 6000-10000, then we can think of decent

living. Mam, if you convey our message to government, we would be thankful to you.

## Case-II

My age is around 40 years. I am working in this school with a ray of hope that tomorrow government might made by job permanent. I am working in KGBV for last five years and only get sum of Rs 2500/-. This paltry sum of 2500/-is not enough to sustain oneself. Half of the amount spends on travelling to and from school. As a teacher I am doing all kinds of work. If government gives at least 250/- per period it amounts to 8000-10000. Moreover, absence from a day duty means deduction of the day salary.

Most of the teachers had almost similar kinds of problems related to their pay, working conditions, leave, holidays etc.

## Suggestions and Recommendations

1. Most of the teachers working in the KGBVs of Madhya Pradesh are contractual teachers' also known as remedial teachers, who took classes of standard VI/VII/VII of almost 50 students in each class. Teaching 50 students is not the concept of remedial teaching, so KGBV system should consider them as full time teachers rather than part time teachers.
2. 2-Since Madhya Pradesh government is operating Type-III model of KGBV, and KGBV are special type of schools exclusively meant for girls students who are coming from mostly under privileged families, therefore, there should a be hike in the salary as per the revised latest central norms i.e.5000/ per month. To attract best talent in the teaching profession salary structure must be revised as per the state governments' norms (Basic +DA). Their service conditions should be improved. This will help the teachers to sustain themselves and remain motivated.
3. There should be increment in the salary even if it is not year wise at least once in two years as many of the teachers running their families with this small amount of money.
4. Teachers should be given appointment letter before the academic session begins, because it has been found out from research most of the teachers working in KGBV are without formal approval from SMC/DEO as a result when the approval from SMC/DEO comes, it is already delayed by two months or so. In that case though they have worked for two months but did not get any salary of that teaching as salary is disbursed from the day of approval of DEO/SMC. Moreover, this appointment letter will also solve the problem or grievances of them and they can show it elsewhere.
5. Teachers should be given experience letter of their work as it helps them either in re-employment or employment in else institution or help in getting admission to training courses as in the case of NIOS.
6. It was found out that majority of the teachers are untrained but while appointing teachers, DEO/SMC must give more weightage to students who are having teacher education degree. In case it is not found in local areas then teachers with higher qualification should be given priority.
6. Teachers teaching in KGBV residential are not entitled to have in-service training. Government should provide training at the BRC/CRC level so that new content can be taught with new pedagogies/ techniques/strategies with ease.
7. There is no uniform policy followed for the appointment of teachers. State should devised new methodologies of appointing the teachers in KGBV because in many of the KGBVs it was found unqualified teachers are appointed, in some cases few of the family members are working as teachers in same KGBV.
8. As the teaching of the girls at KGBVs needs special skill, there is a need to create a cadre of teachers specially trained for teaching the girls of KGBVs.

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## **Pre-Service Teacher Education in India: Some Apposite Issues**

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### **Abstract**

*Teacher quality and educating high-quality teachers have emerged as the fundamental problems to be solved by nations since the correlation between education and economy is becoming more apparent, and the principal factor in student achievement is teacher quality (Cochran-Smith, 2008). Teacher quality has been a continual issue in the field of education (Wang, 2011). Considering teacher education as the bedrock for the national development of our country, the issues gripping teacher education deserve attention from all the stakeholders. In this paper, the writers have made a modest attempt to highlight the concerns gripping one of the largest teacher education systems of the world.*

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Indian traditions and the mythology have always accorded a high position to the teachers, owing to the influence they have on the society, directly and indirectly. No selection of words can appropriately justify the role teachers' play in a student's life. These days we demand high quality teaching and learning from teachers. It is often said that determinants of quality of education rests upon the quality of teachers which in turn depends upon the knowledge and skills repositories of teachers and how efficiently and effectively teachers use the knowledge and skills during interaction with learners. Thus, teacher should be a practitioner of effective pedagogical skills and assessment practices to ensure high quality education. This has been highlighted by several educationists and researchers in their work. In their work, King and Newman (2001) highlighted that, "Since teachers have the most direct, sustained contact with students and considerable control over what is taught and the climate for learning, improving teachers' knowledge, skills and dispositions through professional development is a critical step in improving student achievement." (p.89)

All this discussion brings a lot of focus on teacher preparation. Traditionally teaching has been considered as an 'art' as well as 'science' and the teacher must acquire some skills which are 'tricks of the trade' (Bajwa & Chabra, 2010). However, UNESCO (1972) has emphasized that 'what once as an art – the art of teaching – is now a science, built on firm foundations, and linked to psychology, anthropology, cybernetics, linguistics and many other disciplines'. Thus, the importance of teacher education has been well accepted now. In fact, teacher education is being recognized as a vital component in economic competition and growth (Tang and Tan, 2015). Post Independence India has set up many commissions and committees which recommended various suggestions to improve the quality of school education in India. The suggestions meant to improve the quality of school education had its direct bearing on teacher education.

Teacher education is a fundamental constituent of the Indian education system. With almost 20,000 recognized teacher education institutions at different levels, India has one of the largest systems of teacher

education in the world. However, teacher education system in our country has been a matter of serious concern for some decades now. The University Education Commission, Secondary Education Commission, Chattopadhyay Committee Report, Acharya Ramamurthy Committee and several seminars and study groups that were set up to discuss improvements in elementary and secondary education, from time to time expressed concern over the poor quality of teacher education. The Twelfth Five (2012-2017) year plan had envisaged a whopping investment of Rs 7786.91 crores over these five years in teacher education scheme in the country. The numbers indicate that there is concern and need felt about the status of teacher education in the country. Besides the monetary investment, there are certain other daunting issues which need attention from all the concerned. In the following paragraphs some aspects are discussed:

### **Distance Between Technology and Teacher Education**

School education is witnessing major changes in the way teaching-learning is taking place using information and communication technology (ICT). These are visible not just in private schools, but even in the government setups also. The Government of India just launched Operation Digital Board (ODB) at school level. However, such changes are not visible in teacher education especially at pre-service teacher education institutions. The use of technology in teaching requires the integrated knowledge among technology, pedagogy, and subject content, and this highly blended knowledge is developed through method courses of a teacher education program towards improving pre-service teacher's technological skills (Zhou & Xu, 2013). The present teacher education curriculum has components of ICT, but they are just components and not well integrated into the curriculum. On the other hand, educational technology experiences in teacher education programs should place heavy

emphasis on learning the content-specific uses of technology that can be transferred to future classroom experiences (Ottenbreit-Leftwich, 2012). The Working Group Report on Elementary Education and Literacy for the 11<sup>th</sup> five-year plan highlighted that ICT is necessary for bridging the digital divide between government and private teachers, rich-poor, urban-rural, by providing opportunities to effectively use technology to further educational objectives. Sahay (2016) in her research pointed out that ICT has become a prominent part of education, but tendency to assume that teacher education programmes adequately prepares teachers to integrate technology into teaching needs to be questioned. Further, the use of ICT and other newer technologies should not be limited to pre-service teacher education, but should also be extended to explore other avenues like in-service teacher education and continuous professional development. The gamut of these can be especially widened using newer forms like mobile learning, web-based learning. The advent of MOOCs in this sphere is a welcome change.

### **Teacher Education and Inclusive Education**

*As proposed by Sarva Shiksha Abhiyan (SSA) and envisioned by Right to Education Act (RTE), inclusion assumes that the overall system of education becomes effective in order to encourage 'Schools for All'. Inclusive education is no more something desirable, but the law makes it mandatory. Inclusion is necessary from both the philosophical and sociological perspective of educational opportunities. However, despite the policy level changes, inclusion has not been able to significantly expand itself in India. Lack of human resources is cited as one of the major reasons for the same (Mani, 2010). There are two facets of this lack of human resources. Though inclusion happens in general school setting, but it requires special educators. Also, it requires general teachers to be more prepared to handle diversity in classrooms. When we*

talk about the presence of special educators in schools, CBSE vide the circular no. Acad-31/2015 dated 25<sup>th</sup> June circular to all the heads of school to appoint special educators for children belonging to different categories like - physical, sensory, developmental and children with specific learning disabilities like dyscalculia, dysgraphia, dyslexia, etc. to aid them in their learning. CBSE in the same circular also has requested to provide special teachers for gifted and talented children. This is in accordance to what India's commitment towards inclusive classrooms as well as removing all kinds of barriers and disparities in providing education to these children. As per the census 2011, almost 61% of children between 5-19 years are attending schools. Thus, a sizeable population of children who are in the schools require special teachers. As per 8<sup>th</sup> All India Education Survey Published by NCERT in 2015 almost 21% (2,74,445) of schools promote inclusive education and this proportion declines as one moves from primary (60.47%), to upper primary (28.33%) to secondary (6.59%) and finally to senior secondary (5.07%). What is more astonishing is that total number of teachers (80,942 out of 58, 76,632 i.e., 1.32%) who were given training for inclusive education of two weeks is miniscule in number to the total population of teachers working in school education. Also, almost 42% schools were there where no special educators ever visited. Further, total number of special educators prepared by the teacher education institutions in comparison to the total number of teachers required in the schools (1:10) are mismatched i.e., there is huge gap between demand and supply of special educators in schools. The norms say that the ratio of special educators to children with special needs is 1:10 at the primary level and 1:5 at the secondary level.

Falling back on the second aspect of human resources in inclusive classrooms, our teacher education curriculum is not preparing our teachers enough for handling diversity in classrooms. Most of the universities have added a paper on inclusion in classrooms in their teacher education programme; however,

its transaction is largely theoretical. The pupil-teachers are generally not given any kind of experiential training to handle and teach children with special needs. The reason might be many of the teacher educators working in the teacher education institutions did not have any orientation or practical exposure of teaching in an inclusive classroom at school or at higher level nor they are exposed to children with special needs and therefore, they are unable to prepare prospective teachers. This leaves pupil-teachers almost unprepared for the real-life classroom situations.

### Gap between Practice and Policy

It is always understood that theory and practice always go hand in hand, at least that's the way they should. In other words, practice should follow the theory. In education, policy considered to be the theory (off course derived from research) based on which plans are to be prepared and executed at the ground level. Honan (2007) called this gap as binary, which needs to be integrated rather segregated to be effective at the ground level. But it was often found that there was the educational theory proposes often being not carried out or executed in the way it must be. That's why often it is noted as "apparent intellectual segregation of educational theory and pedagogical practice" (Dhingra, 2004 cited in Flessner, (2012)). Pre-service teacher education is supposed to be the first crucial stage in the professional journey all prospective teachers embark on. Over the years the curriculum of pre-service teacher education has been increasingly influenced by academic developments in allied areas of psychology and sociology among others, which to an extent has led to sounder and more theoretical teacher education curriculum; at the same time farther from the ground realities of the teaching-learning life of the school. Several studies have shown that the school principals have voiced out their dissatisfaction with the novice teachers. Chabra (2016) found in her study that school principals hold an unfavourable perspective of effectiveness of the secondary

teacher education programme. According to her research a staggering 59% of school principals hold the B.Ed programme as not at all effective with another 23% calling it somewhat ineffective in preparing teachers as per needs of school. It has been true that over the years that classrooms have been diversified and because of that one finds differences in students learning and achievements. This led to structural adjustment in instructional policies to suit the needs of each group of diversified learners. Teachers be it in pre-service or in-service are very much concerned about the changing instructional policies and tries to innovate to find out the teaching strategies that works well in the diversified classrooms helping them to be a lifelong learner as well as “be the change to see the change” (Munthe & Rogne, 2015, Brouwer & Korthagen, 2005). The teacher education curriculum and our teacher educators need help in understanding the demands placed on our students and in making decisions that will affect our teacher education programs. According to Westbury, Hansén, Kansanen, and Bjorkvist (2005) teacher education

institutions must involve/engage the pupil-teachers in all types of academic as well as non-academic works including working in groups with peer teachers, coaching and mentoring students of general and special needs, and most importantly help students in solving their problems (social, academic, personal, etc.) and resolving intra and inter-personal conflicts.

### Imbalance between Government and Self-Financing Institutions

The increasing demands on education in view of social, political, industrial and economical changes, and changes in the Government policies, the private sector was given an opportunity to participate in higher education. As a result of that India has seen a significant increase in number of teacher education institutions in general and ‘mushrooming’ of secondary teacher education institutions (Chabra, 2016). *The following table clearly evidences the gaps between number of teacher education institutions run under Government and self-financing mode.*

**Table 1:** Details of secondary teacher education institutions recognized by NCTE (as on 15-03-2013)

State	Number of districts	Number of Institutions		Intake Capacity	
		Government	Private	Government	Private
<b>Eastern Region</b>					
Arunachal Pradesh	14	0	6	0	600
Assam	23	9	43	660	3725
Bihar	37	6	131	610	14700
Jharkhand	22	4	91	400	9350
Manipur	9	2	5	330	600
Meghalaya	7	1	3	100	300
Mizoram	8	2	0	150	0
Nagaland	8	2	4	200	380
Odisha	30	20	0	2025	0
Sikkim	4	1	2	100	200
Tripura	4	1	3	150	400
West Bengal	19	8	194	808	19600
TOTAL		56	482	5533	49855

Western region					
Madhya Pradesh	48	5	464	500	46900
Maharashtra	35	19	556	1900	55500
Gujarat	25	11	345	1100	34500
Chattisgarh	16	2	135	200	12660
Goa	2	0	4	0	360
Daman and Diu	1	0	1	0	70
Dadar and Nagar Haveli	1	0	0	0	0
TOTAL		37	1505	3700	149990
Northern region					
Haryana	19	19	468	2740	60400
Himachal Pradesh	12	3	87	300	8845
Punjab	17	6	225	1200	23925
Rajasthan	32	8	769	800	79800
Uttar Pradesh	70	4	1136	250	113750
Uttarakhand	13	46	33	4600	3280
Chandigarh	1	2	2	200	410
Delhi	9	3	54	2680	5082
TOTAL		91	2774	12770	295492
Southern region					
Andhra Pradesh	23	5	583	500	62321
Karnataka	27	10	391	1000	39100
Tamil Nadu	29	10	674	708	150110
Andaman & Nicobar Islands	2	2	0	120	0
Lakshadweep	1	0	0	0	0
Puducherry	4	0	36	0	3750
Kerala	14	15	177	1500	17700
TOTAL		42	1861	3828	272981
TOTAL (India)		226	6622	25831	768318

A *large majority* of teacher education institutions are managed by private bodies followed by State governments and a few universities as departments of education. The presence of private institutions is market driven and urban dominated. Though the presence of private sector has helped in expanding capacity, it is characterized by imbalances leaving much gap for the regional disparities. Further it has also influenced the quality of teacher education being offered to the prospective teachers. These

institutions compromise on the attendance of the prospective teachers during the two-year period, which undoubtedly impacts the quality.

### Variation in Institutional Capacity for Teacher Preparation Across States

RTE2009 requires availability of professionally qualified teachers at elementary level of school education. According to the Report of

the working group on teacher education (12<sup>th</sup> plan) submitted in 2011, at that point of time around 5.23 lakh teachers nationwide vacancies were in elementary schools, another 5.1 lakh teachers were required to meet RTE norm of 1:30 and approximately 7.74 lakh professionally untrained were working in school education system. Report further admitted that an inter-state variation in terms of untrained teachers, vacancies and institutional capacity of training the teachers do exist. States like Bihar, West Bengal, Assam Chhattisgarh, J&K, Jharkhand, Uttar Pradesh and Orissa accounts for 6.06 lakhs professionally untrained teachers working in the system and almost 9.73 lakhs vacancies (GoI, 2011 p.15) exist. Table 2 in this section clearly shows the institutional capacity for teacher preparation across states and number of untrained teachers in the school system. As soon as Right to Education (RTE) Act, 2009 was implemented across India (except then J&K), one of the mandatory aspects of the act was teachers have to be professionally trained to teach the children from Class I-VIII. At that point of time almost 10.6 lakhs teachers which rise to 12 lakhs in 2017 and need professional training (School Report Card, NIEPA, 2017). As per the MHRD circular, these teachers need to be professionally trained within five years of the implementation of RTE Act i.e., 31<sup>st</sup> March 2015. States like Bihar, Uttar Pradesh, Jharkhand, Orissa, West Bengal Chhattisgarh as well as North Eastern States suffers from dual problem: one insufficient number of teacher education institutions and second high percentage of untrained teachers in school education system (Batra, 29<sup>th</sup> August 2017). With the passage of amendment bill, central government given a time frame till 2019 to trained the teachers working in school education. Prof. Poonam Batra in her article further reiterated that many of the states started hiring contractual teachers and some of the states have

stopped recruiting permanent teachers like MP and Bihar. In one of the Proposal Approval Board (PAB) meeting (held in 2016-17), Tripura had almost 12000 untrained teachers in the school system which needs to be professionally trained in phased manner with collaboration of IGNOU. In another PAB meeting held on 2019-20 on 9<sup>th</sup> July while appraising the situation of the state, MHRD's concern was that still 3401 untrained elementary teachers are working in state government schools. A similar PAB meeting was conducted for RMSA concerning about untrained teachers in secondary education. It was found out that only 9.6 % (43 out of 448) teachers have B.Ed. qualification in Tripura. The number of teacher education institutions in NER is lesser in number in comparison to other states. So, they always face a shortage of professionally trained teachers for school education. Apart from it, many of the states reel under acute shortage of teachers as appointment of teachers normally takes years to complete. As per MHRD, *the total post sanctioned under SSA and under State government at elementary stage is 51,81,791 but the total post filled 42,74,206 (MHRD, EAG-108). This means a shortage of 9 lakhs (17.51%) teacher posts are lying vacant both under state and SSA scheme.* States like Bihar and Jharkhand had almost more than 30% vacancies whereas states like Uttar Pradesh, Punjab, Delhi and UT Chandigarh had more than 20% vacancies (MHRD-EAG, 2018). Some of the states which have large number of untrained teachers in the school education system are shown in table along with the intake capacity of the teacher education institutions. Since majority of the bigger and populous states like Bihar, West Bengal, Jharkhand, Chhattisgarh, and North Eastern states do not have adequate number of teacher education institutions, therefore, to train the untrained teachers it would take quite a number of years.



**Table 2:** State wise Number of Untrained Teachers working in the School Education system from Primary to Sr. Secondary Level

S.No	State	No. of Untrained Teachers
1	A& N Islands	64
2	Andhra Pradesh	5577
3	Assam	2,12,483
4	Arunachal Pradesh	11186
5	Bihar	2,47,131
6	Chandigarh	105
7	Chhattisgarh	65824
8	Dadra & Nagar Haveli	219
9	Daman & Diu	114
10	Delhi	0
11	Goa	367
12	Gujarat	203
13	Haryana	10,029
14	Himachal Pradesh	4144
15	J & K	75,051
16	Jharkhand	46823
17	Karnataka	17647
18	Kerala	6011
19	Lakshadweep	39
20	Madhya Pradesh	1,37,904
21	Maharashtra	7282
22	Manipur	23413
23	Meghalaya	36751
24	Mizoram	339
425	Nagaland	21277
26	Orissa	64494
27	Puducherry	16
28	Punjab	22562
29	Rajasthan	39,926
30	Sikkim	7785
31	Tamil Nadu	13731
32	Telangana	5741
33	Tripura	28039
34	Uttar Pradesh	266285
35	Uttarakhand	14409
36	West Bengal	268256
37	Total	1201613

**Source:** School Report Cards, 2016-17 (NIEPA)

So, in 2017, central government started to train all the teachers through distance mode and entrusted the responsibility to NIOS to launch two-year diploma in elementary education. With the help of infusion of technology, NIOS completed the 18 months diploma programme with the enrolment of more than 12 lakhs which is equivalent to the total number of untrained teachers present in school education as provided by the NIEPA in their report (2016-17). But out of the 12 lakhs untrained teachers, almost 1.5 lakh teachers could not pass the examination and they are still in the system and another lakhs did not fulfill the norms of 50% marks in class twelve.

### **Uncertainties in Policy Formulation Regarding Teacher Education Programmes**

The shift from one-year programme to two-year programme and now moving towards an integrated four-year programme within a short span of 3-4 years has rocked the colleges and shaken the teacher educators too. This has largely affected the number of entrants who are applying for different courses also. The first session of the two-year programme saw a large drop in number of students seeking admission to the programme. Large number of colleges had bare minimum admissions to survive the cost of running the programme. In such situations the kind of students seeking admission is also varied in its approach.

### **Absence of Professional Rigor in Teacher Education Institutions**

Time and again questions have been raised about the effectiveness of teacher education programmes. Poor and dismaying results of different teacher eligibility exams have honked about their effectiveness. However, we have seen teachers who do not perform well on these mandated tests, yet are great teachers. And, of course, they 'are not' allowed to teach unless they can pass the tests if the schools follow norms. This is quite a dilemma.

### **Rising Cost of Pursuing Teacher Education Programmes**

Almost 85% of institutes offering B.Ed. programme are running under self-financing mode. It can be arguably said that majority of the teachers are prepared by self-financing colleges. There is a huge gap in the fee structure of the government and self-financing institutes. With the advent of two-year B.Ed. programme, the cost has increased at least double and this has affected the number of students seeking admission to teacher education courses. The past two years have seen significant fall in number of admissions. If the demand from the students' side is low, then probably many of the institutes will shut down automatically which will create a kind of mess in the country where there is already huge shortfall of trained teachers (Dutta, 2018).

### **Quality Assurance and Internal Efficiency Issues**

To assure quality and strengthen internal efficiency in teaching profession, academic and emotional qualities of intending candidates for teacher education are critical. In Indian teacher education institutions, an uncomfortable trend has been observed that candidates who apply for teacher education are those who have either been denied admission in their choice areas of study or are basically looking for an easier job. The usual shortage of applicants seeking admission into programs that would prepare them as teachers in universities is a pointer to why admission and placement in education programs is not as rigorous as it is in other programs. This contrasts with the international standards for teacher selection. For example, the International Labor Organization (ILO) recommends that teachers should be selected based on moral, intellectual and physical qualities. Also, in more developed countries like United Kingdom, applicants are compulsorily expected to possess certain intellectual qualities and personal characteristics before

they are admitted for training (Lassa, 1998). This is a concern at the initial stage of teacher education.

## Overview

India has a large force of teachers in school education system. To have continuous supply of teachers in the school education, India needs large number of teacher education institutions. Since last two decades, especially after the launch of Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and more with emphasis on PTR ratio of 1:30 in elementary level and almost 1:40 secondary level, the existing level of vacancies in school education system is almost 17% at elementary level and must be higher at elementary level. Thus, teacher preparation for school education needs not only increase in institutional intake capacity, but also have a strong and robust quality

teacher preparation system. Curriculum prepared at the national level by NCTE (2014) and proposed integrated curriculum for four years will be best among the global. But what is needed that teacher education institutions must transform themselves into real professional institutions where rigor, academic excellence, professional preparation, autonomy and accountability of institutions in teacher preparation should be given top priority. The issues of teacher induction, teacher preparation and teacher appointment should be monitored at each point of time so that quality can be ensured. Policy framing bodies, policy implementation bodies and policy monitoring bodies should be in sync so that expected outcomes (teachers) should be able to lead the light as it is being said that “future of nation is breeding in classrooms” so destiny maker must be professionally trained and equipped for multiple challenges of the classrooms.

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## Factors Affecting Females' Occupational Aspirations: A Synthesis of the Literature

### Abstract

*The concept of occupational aspiration appears within career developmental theories as an important milestone in adolescents' career development; required for seeking careers that are compatible with their self-concepts. Many researches consider occupational aspiration as significant career motivational variable that is capable of predicting levels of future career attainment. Many studies suggest that gender is a significant factor in predicting students' levels of occupational aspiration. Gender is clearly one of the most powerful of all influences on vocational behavior (Osipow & Fitzgerald, 1996). This paper is an attempt to synthesize career literature that shows females' occupational aspirations are lower than their male counterparts. With the synthesis of literature, this study attempts to find out those factors that are responsible for lower occupational aspirations of females. The lower occupational aspirations of females may be explained in terms of understanding factors that influence occupational aspirations - factors such as gender, race, socio-economic status, parents' occupation, their educational level, and parental expectations. The study further suggests what measure could be taken to enhance females' occupational aspirations.*

*Keywords: Occupational Aspiration, Females' Occupational Aspirations, Factors affecting Females' Occupational Aspirations*

### Understanding Occupational Aspiration

Occupational aspirations are the feelings, thoughts, fantasies, and goals that people have about their work. These feelings and goals affect people's decision-making process and motivation with respect to their occupational choices. A lucid and comprehensive definition of occupational aspiration has not yet been given in spite of significant theoretical and field work in the area. Rojewski (2005) regards occupational aspirations as career choices and goals that a person has expressed. Johnson (1995) thinks that an individual's occupational aspirations are the communication of his/her present occupational goals. In many studies occupational aspiration is regarded as an important career variable which can

predict students' career achievement in future (Chung, Loeb, & Gonzo, 1996). The significance of occupational aspiration in adolescents' career development can be understood from its essential reflection in most career theories and in the extensive research carried out in second half of the twentieth century (Rojewski, 2005). Within career developmental theories, occupational aspiration seems to be a significant state in adolescents' adolescent life where they can choose careers according to their self-concepts. Therefore, adolescents should take into account their abilities, interests and values in making their occupational aspirations (Super et al. 1996). They should also transform their occupational aspirations from previous fantasy aspirations to tentative, and then final expectations.

## Level of Aspiration

The Level of Aspiration can be defined as "orientation towards a goal". Likewise, level of occupational aspiration can be said as orientation towards an occupational goal. Level of occupational aspiration is a "function of the individual's range of aspirations for various goals" (Haller and Miller 1967). He reports that idealistic occupational aspiration is the one which an individual would choose, whereas realistic occupational aspiration is one which an individual is sure about of getting it. (this sentence seems to be contradicting, could you please check this?)

## Females' Occupational Aspirations

Many researchers report gender as predicting variable for students' occupational aspiration. Osipow & Fitzgerald (1996) considers gender as a factor that has significant influence on career variables. Kalita (2014) also reported differences between male and female's occupational aspiration. Many studies demonstrated that boys had higher levels of occupational aspiration than girls (Uplaonkar, 1981; Hudgins, 1987; Brooks & Redlin 2009; and Hoover, 1998). Hudgins (1987) concluded that girls chose those careers which were in the traditional middle groups (e.g. social services, education, music) of the occupational prestige hierarchy whereas boys opted for the careers that were on the higher side of the occupational prestige index. Creed & Hood (2009); Patton & Creed (2007) found in their study that boys are more likely to aspire for professional jobs like a doctor, accountant, archaeologist, teacher, bank manager, psychologist, engineer, architect, lawyer etc. whereas female students are likely to aspire for semi-professional jobs like a singer, musician, dress designer, social worker, receptionist, cashier, child care worker etc. In a study conducted by Khor & Peter (1994), it has also been reported that boys generally preferred male-dominated jobs (like pilot, soldier, police, postman, sales

manager, technician, taxi driver) and sex-neutral jobs which were not regarded being associated with any particular gender in the society, whereas females preferred sex-neutral occupations (like photographer, singer, teacher, journalist, social worker, translator, librarian) when given the freedom to choose. Males are reported to show increased awareness of jobs and industry (McMahon and Patton, 1997). Boys were more interested in work tasks and work conditions whereas girls were more concerned about work environment.

## Factors affecting Females' Occupational Aspiration

In spite of growing educational changes, cultural beliefs, and societal expectations, young females are still being prevented from achieving their goals (Alfred-Liro, Frome, & Eccles, 1996). The lower occupational aspirations of females may be explained in terms of factors such as gender, parents' occupational and educational level, socio-economic status, and parental expectations (Khallad, 2000; Watson et al., 1997). Many studies suggest that family, personality, parental level of education, school and peers, socio-economic status, are few of the factors which affect girls' occupational aspirations (Crockett & Bingham 2000; Wilson & Wilson 1992). These factors along with other significant factors responsible for low occupational aspirations of girls are presented ahead that draw support from various studies in the field of literature.

## Parents' Occupational & Educational Level

It has been reported in many of the studies that parents had a significant influence on their teens' career choices (Knowles 1998; Mau & Bikos 2000; Wilson & Wilson 1992). Several studies show that the role of the family has been important in their children's career decision making (Guerra & Braungart-Rieker, 1999). These studies have demonstrated that parents have immensely influenced their

children in getting exposure to the world of work and in gaining career opportunities. Researches show that every adolescent is influenced by his/her parents' educational qualifications, aptitude, expectations and social system while making career decisions (Bandura & Barbaranelli, Carpara & Pastorel, 2001). Bhattacharya, 2013 feels that parents' role in the career choice of an individual cannot be denied.

While appraising the career counselling research in their Developmental Approach theory, Ginzberg, Ginsburg, Axelrad, & Herma (1951) have appraised researches in the arena of career counselling in their Developmental Approach theory. In this theory, they have reported that career decision-making is a chain of various steps taken over a period of time. As illustrated in the theory, children get exposure to different occupations from their family and start role-playing of these occupations early in the life. Females' educational level and their occupational status is greatly influenced by their parents' occupational aspirations and career choices. Adolescent females' occupational aspirations and career choices are particularly influenced by their mother's occupations (Burlin, 1976). Wahl & Blackhurst (2000) has also found similarity in parents and their children's occupational aspirations.

### **Parenting Styles And Guidance**

The personality formation of girls largely depends on the parenting styles of parents (Bhatia, S. & Babu, N., 2019). Parents' mindset restricts them to consider girls as potential earners (Nair 2010). Subsequently they socialize their girls in the same way. Parents who are supportive and provide career guidance, their children are highly motivated and explore various careers themselves (Phillips, Blustein, Jobin-Davis & White, 2002). Kumar (2016) views that when parents impose their wishes on their children, they become passive towards career preparation.

### **Gender Role Socialization**

The process of socialization and the shaping of personality are two major functions of the family. Gottfredson (1997) concluded that adolescents make or discard occupational choices on the basis of sex type and prestige level of the occupation. For instance, females might not select occupations usually considered to be too masculine e.g., a career as a miner. Various factors that play a vital role in restricting females into stereotyped role occupations include social and familial influences, less awareness of non-traditional alternatives, unacceptable environment in many men-dominated fields, and discrimination in many career fields (Domenico & Jones, 2007). Due to factors like gender role socialization and gender discrimination, females aspire for different types of occupations than males.

### **Cultural Beliefs**

The occupational choices and aspirations of girls are largely affected by their cultural beliefs. A research carried out by Oxford University's Career Service (2015) reveals that boys are significantly more confident about their career possibilities in comparison to girls. Correll, S. J. (2001) in her study provides that cultural beliefs about gender channel boys' and girls' career choices into significantly different directions to the extent that they start acting on different gendered perceptions when making career decisions. Also, girls do not want to break the good-girl image set by the society. This is the reason that they adhere to cultural beliefs and hardly aspire or decide to get into male-dominated careers. The formation of occupational aspirations has become more complicated and uncertain for adolescent females because of their preference to family over work (Hakim, 2002).

### **Socio-economic status**

Various researches show that family's socio-economic status influences individual's occupational aspiration. Herr & Cramer (1996) reported that socio-economic status

influences information about work, work experience, and occupational stereotypes, which affects occupational aspirations. Students' aspirations and their family's socio-economic and educational status were found positively correlated (Mau & Bikos, 2000; Signer & Saldana, 2001). Children's career choices are based on parents' occupation, socio-economic and educational status (Burlin, 1976, Wahl & Blackhurst, 2003 and Alike & Egbochuku, 2009). Trusty (2002) reported that low socio-economic status leads to decreased and unrealized parental expectations. Sellers (1999) et al. concluded in their study that children from high socio-economic status showed greater knowledge and interest in choosing professional occupations. On the other hand, Brown & Barbosa (2001) discussed in their study that the career choices of girls from low socio-economic status were greatly influenced by the career choices of their family and friends.

### **Peers**

Various studies show that peers also have a vital role to play in career choice of students. Stuart (2000) found that peers' attitudes toward gender may increase or decrease a person's confidence in choice of a career. Adolescents get influenced by their peers easily because they trust their friends to provide validation of the career choices they make. A girl may easily be swayed with the thoughts and feelings of her peers. If her peers think that mechanical engineering is not suitable for girls, she also tends to think the same way.

### **Women choose more flexible careers for the sake of family**

Another factor behind low occupational aspiration of girls may be that women weigh the cost and benefit of a career to their family lifeworld choosing occupations (Corder & Stephen, 1984). It is reported that females tend to choose stereotyped female professions because they provide females enough flexibility to combine work and family roles more easily (Sales & Frieze, 1984; Ware

and Lee, 1988). Society's expectations from women, i.e. to be the primary caretaker of the home and children, have led women to choose more flexible careers for the sake of family. Nair (2010) states girls' education is affected by gender segregation, gender stereotyping and their economic dependence onto males. Consequently, they aspire for careers which can be suitable for their work-home life balance. Nair (2010) further states focus of women has largely been on domestic roles rather than on roles that can prove productive for them and for the society as well. While looking for jobs, women tend to search for a job which requires a fixed and lesser number of hours so that they can manage their familial responsibilities also (Etzkowitz, Carol, Michael, Brian and Joseph, 1994). Girls generally do not aspire for careers which require high risk or high responsibilities or require them to work full time. That's why they generally choose semi-professional jobs in comparison to men.

### **Women's low Self Concept**

In addition, women's self-concept of their abilities is inclined towards more stereotyped feminine occupations or people-oriented occupations, such as helping people; whether or not these are actual representations of their abilities (Eccles & Hoffman, 1984; Eccles, 1987; Lips, 1992; Marini, 1978). If women feel that they don't have skills in male-typed occupations, they will not consider those occupations for themselves and will not select them for their future career. Behavioural Psychology suggests that girls have low self-efficacy. Due to low efficacy they give up on subjects which they feel require tough competition with boys or in which obtaining high marks is bit difficult (Van de Werfhorst & Mijs, 2003; Wilder & Powell, 1989). Researches undertaken regarding academic gender segregation or distinct academic field choices of girls and boys suggest that girls generally avoid competition and are risk-averse, that's why they tend to choose less few money-making subjects (Booth & Nolen, 2011).



### **Discrimination & sexism**

Few decades back, females had even lesser occupational choices due to factors such as discrimination, sexism, and little education. Many researches revealed that females had limited occupational aspirations and they generally opted a narrow range of occupations (Looft, 1971; Mendez & Crawford, 2002; Wahl & Blackhurst, 2000). Sex differences in occupational aspirations develop early in childhood (Looft, 1971) because parents usually encourage their boys' educational and occupational aspirations but not of their girls' (Heins et al. 1982). Studies conducted in last two decades reveal that females have expanded the horizon of their occupational choices, yet their occupational aspirations are comparatively low, particularly for male dominated and high status jobs (Wahl & Blackhurst, 2000). As we see, nowadays more and more girls are studying Science and technology courses; still their willingness to work in real job world is very low. Even if they are willing, their absorption in the job market is also quite low. As Epiphane (2002) states regarding French School System- 'Gender is generally considered to be an important factor for explaining disparities in the school-to-work-transition. Indeed, gender-based difference in labour market entry may be observed at all training levels, and almost always in the favour of the young men.'

### **Career Guidance Measures for Enhancing Girls' Occupational Aspirations**

As the studies reveal that female students have low occupational aspirations, girls particularly need to enhance their occupational aspiration. For this, not only girls but in many of the cases their parents would also need counselling for letting their girls make their own career decisions, particularly in the cases where girls are not allowed to study courses or take up occupations that are considered male-dominated in the society. They should be

given adequate occupational information and awareness. Research can be conducted on vocational guidance-based strategies to increase occupational aspiration of female students. From class 6<sup>th</sup> onwards female students should be exposed to the career related information, career magazines, and career newspapers so that they may be able to enhance their level of occupational aspiration. School programmers should also ensure maximum utilization of school counsellors to enhance occupational aspiration of female students.

Intervention programmes to provide career guidance in terms of career choice, career development, occupational information, career attitudes etc. can be conducted to help female students to make appropriate occupational aspirations. Hughes & Karp (2004), in their study show that students who were enrolled in a career course, showed increased outcomes on most career-related variables. The results of another study conducted by Sirohi (2013) pointed out that children studying in schools with vocational guidance and counselling provisions exhibited higher self-awareness and occupational information in comparison of not having these provisions. Self-awareness and occupational information are the prerequisites for making suitable occupational aspirations. In a meta-analysis of various career interventional studies, Oliver & Spokane (1988) reported a positive influence on participants' career decision-making, understanding of careers and career-related adjustment. Various studies report that college students who completed intensive career courses showed enhanced occupational aspiration and career decision-making as compared to students in the control group. O'Hara (2000) also reported that career exploration intervention increased students' career planning and career exploration competence. On the basis of these studies we can conclude that Career Intervention Programmes based on occupational information, occupational awareness, career choices, career maturity and career decision making etc. play a

significant role in increasing students' occupational aspirations. Therefore, special career programmes may be designed for increasing girls' occupational aspirations.

Other than career guidance, one long term suggestion for enhancing girls' occupational aspiration could be to achieve equality for

men and women in all spheres of life where men and women both can share home and outside responsibilities, where women are also encouraged to know their self-worth and to utilise their education and skills.

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# Teachers Perception towards Problem of Learning Social Studies among Students at Upper Primary Schools nearby Slum area in Maharashtra

## Abstract

*This paper focuses on teachers' perception towards the problems of learning social studies among students from slums and children of socio-economically backward parents at upper primary level. It analyses the perception through interview of social studies teachers (SST) teaching in schools near a pre-dominantly slum area of Mumbai Urban and Suburban district of Maharashtra State. The paper also highlights problems faced by teachers in pedagogical processes and explores their reflective practices and their attempts to improve the process of teaching and learning in the classroom. The data collected through different sources have been triangulated to understand the problems of learning social studies through thematic analysis of responses on different characteristics of sample schools. It is suggested that all SSTs should be reflective practitioners and improve the quality of education through action research and solve the immediate problems of teaching and learning social studies inside the classroom. Evidence has been derived from the transcription of teacher interview to reflect on the way of teaching and learning and develop the skill of creative thinking and critical thinking among learners through the activity-based learning.*

**Keywords:** Teachers Perception, Problems of Learning Social Studies, Reflective Practice of SST

## Introduction

Learning of school subjects in children at the elementary level is a major concern in the context of the present educational system. The issues of learning social studies are also an important aspect of the educational discourse in the present times. Since, children have to be more critical, creative and need higher order thinking skills etc., the teacher must teach in a manner that develops these abilities, but in reality most teachers are unable to facilitate this in their classrooms. The children therefore require not only a suitable platform in the schools but also a conducive socio-cultural environment at home. It is through this that they can develop skills to become a responsible citizen of India. However, the students coming from slums face major challenges in learning social studies. The slum being an overcrowded area the living conditions are often not good. They

may have problems like disease due to living conditions.

Social studies is an important subject at the upper primary level and is concerned with the behaviour of "human beings as members of society". This behaviour of human beings and societies varies frequently. This poses a great challenge to the teachers/social scientist whenever they need to establish some hypotheses based on observation and assumptions. The changing nature makes it difficult to generalise statements that show the existence of cause and effect relationships between observables. Therefore, a teacher cannot teach a child in the modern era, but simply bring out what is inside the children and facilitate in the process of their learning while teaching.

Government of India has initiated many programme and policies to improve the quality of education. In the National Seminar

on 'Research in Social Science Education in Indian Schools', organised by Department of Education in Social Science, NCERT, March 15-17, 2017, some questions associated with classroom practices and processes adopted by different teachers and schools in the teaching of social sciences were raised. These include important questions such as: To what extent these practices promote active participation of students in the process of generating knowledge? How does dialogue with community help in improving the quality of learning experiences? To what extent do the classrooms encourage alternative thinking and questioning by students and allow going out of the classroom to engage with social reality around them?

Social science classrooms are not static or uniform. They change with the topics being taught. Indian classrooms are also seasonal in the sense that their nature change with the time of the year. In the initial months of the academic year, social science teachers spend more time to explain concepts and provide scope for discussions and exploration of knowledge outside the classroom. As the academic year ends, teachers and students grapple with examinations. They spend more time on revision and reinforcement of concepts. Besides in the context of social sciences as well the nature of classroom becomes complex when different teachers teach one course. Every teacher brings in different perspectives of their subject. Other questions that deserve exploration are: How students cope with different teachers teaching one course? How much time teachers and students talk in the social science classes? What is the nature of questioning by students and teachers and why? What kinds of materials are available to students and teachers for use in the social science classroom? How are they different from other subjects? Social sciences are sought after in some school systems and marginalized in a few others. Does this affect the way social science teachers and students get engaged in schools? Social science classrooms are not far removed from political, social and

educational ideologies. Research is required to understand how teachers and students deal with and resolve various political and cultural perspectives inbuilt in social science syllabus and textbooks (NCERT, 2017).

One of the very few exceptions to the lack of qualitative research on faculty satisfaction is the one by Ambrose et al (2005), which set out an agenda for qualitative research approach to assessing faculty satisfaction. By "qualitative" they mean semi-structured interviews that can be coded and compared and then used as the basis of more qualitative analysis. As they pointed out that although survey research has the benefit of statistical power and structural modelling, the interview method allows faculty to identify issues in their own words so that they are not over emphasised. They suggest that qualitative research work is not only enhanced by the use of semi-structured interviews but also other methods of qualitative research like ethnographic field work and participation observation.

With this background, an attempt has been made in this paper to study "Teachers' Perceptions" on the problems of learning social studies at upper primary level in schools of a slum region.

## Database and Methodology

*Operational Definition:* Learning is the acquisition of knowledge or skills through study, experience or being taught. It is the process of acquiring new or modifying existing knowledge, behaviour, skills, values or preferences. The sample schools have been purposively selected and are Mumbai Corporation, State and Central Board schools near L-Ward slum dominated area of Mumbai Urban and Suburban district of Maharashtra.

*Objectives of the Study:* (1) To identify teachers' perspective on reflective practices in the classroom and highlight the problems faced by them in the pedagogical process; (2) To analyse the perception of teachers through interview of social studies teachers

of schools near slum areas of Maharashtra; and (3) To give an account of teachers perception towards the problems of learning social studies among the students in upper primary schools of this area.

*Source:* Data has been collected from both primary and secondary sources for the study. The primary data was collected by using the method of Personal Interview of teachers through well-structured open ended interview scheduled and extensive survey of teachers in sample schools. The secondary data was collected from RAA Mumbai, SCERT, Pune and the school records. Other government publications such as Primary Census Abstract, District Census Handbook, books journals, newspapers etc. Were used as well.

*Sample:* In this study, the sample of L-Ward slum dominated area of Mumbai Suburban districts of Maharashtra State was purposively selected. As per the database of District Census Handbook-2001& 2011 the slum has the population 5.85 lakhs. The location and information about three sample schools under study were obtained from Regional Academic Authority (RAA), Mumbai Office. The respondents were 5 class-VIII social studies teachers from three schools and the principals of the schools. Two teachers from a KV, two teachers from a private school and one from a BMC School participated. The conversations took place as per their availability during the period of data collection.

*Variable:* In order to achieve the purpose of this study, some aspects are to be taken into account to identify teaching and learning difficulties of students of the sample schools. These include inclinations of teachers to teach social studies, problems faced in communicating content of social studies, conducting activities during teaching-learning process, participation of student of different socio-economic backgrounds in activities, organisation of group work inside the classroom, giving freedom to students to ask questions, clearing students' doubt during the teaching-learning process,

giving opportunity to students to present their views inside the classroom, taking all students to visit the nearby famous historical and geographical place, taking extra classes for students who are weak in social studies, problems faced while teaching social studies to socio-economic backward students; use of ICT/Internet/ppt to explain concepts; their participation in training programmes of social studies. There were question asked like- how do you assist learners to learn social studies; what are the strategies of teaching and learning that you use in social studies; what challenges of teaching and learning you have experienced in social studies; what are the problems that hinder teaching of social studies at upper primary; what can contribute to improved performance of learners etc.. We also asked about their contribution to educational reform to support learners with poor academic performance and also asked if change in curriculum leads to under-performance of learners in social studies; and finally what are their suggestive measures to solve the problems of learning social studies.

*Tools:* A structured questionnaire for Teacher's Interview Schedule and a Principals' information schedule for school profile were used.

*Technique & Method:* In order to accomplish these tasks and identify factors responsible for problems of teaching and learning social studies among the socio-economic backward students, the Qualitative Data collected through teacher's interview schedule was transcribed and thematically analysed. Data triangulation was used to analyse qualitative data that included views, opinions, observations, philosophical ideas etc of the teachers and principals.

### **Profile of Sample Schools**

All these three schools are headed by female teachers and are co-educational institutions. They are upto different levels, till senior Secondary in KV, up to Secondary level in the private school and up to elementary level in the BMC School. The KV and BMC School

have a nice campus with availability of classroom and financial and administrative support to initiate different innovative ideas, access learning resource and provide in-service teacher training programmes etc. These are not available to the same extent in the private school.

All three schools have provision of electricity, safe drinking water and separate toilets for boys and girls and availability of playground and sports and game materials. However, in private school, there is no library and also a shortage of classrooms when compared to KV and BMC School. A majority of the teachers in all the schools under study are female.

In the private school (30.19%) and the BMC School (29.25%) there are many children from the slum area but in KV it is only 2.83%. The academic performance of the private and BMC School were low as compared to KV. In general, the infrastructural development

with regard to educational opportunities of private school is very less in comparison to KV and BMC schools.

### Teacher's Perceptions About Social Studies Teaching and Learning

Ideally, the teachers of social studies should be reflective practitioners and understand the problems and learning difficulties of the students in the social studies classroom. Since, the main objective of the reflective practice of a teacher is to improve the quality of education and solve the immediate problems of learning social studies inside the classroom, the teachers dealing with social studies must understand the issues in this regard. Theme-wise responses of the questions by the 5 teachers are given in Table 1.

**Table 1:** Response of the Teachers towards Social Studies Teaching and Learning

Q.N	Question	KV		Pvt. School		BMC School		Total
		Yes	No	Yes	No	Yes	No	
1.	Do you like to teach social studies?	2	0.00	2	0.00	1	0.00	5
2.	Do you face problems in communicating content of social studies while teaching to the socio-economic backward student?	2	0.00	2	0.00	1	0.00	5
3.	(a) Are you conducting any activities during teaching-learning process?	2	0.00	2	0.00	1	0.00	5
4.	(b) whether the socio-economic backward students are participating in the activities?	2	0.00	2	0.00	1	0.00	5
5.	(a) Are you organizing group work inside the classroom?	2	0.00	1	1	1	0.00	5
	(b) whether the socio-economic backward student participating in the group work?	2	0.00	1	1	1	0.00	5
6.	(a) Are you giving freedom to students in asking questions?	2	0.00	2	0.00	1	0.00	5
	(b) Do socio-economic backward student ask questions?	1	1	1	1	1	0.00	5
7.	(a) Are you clearing student's doubt during the teaching-learning process?	2	0.00	2	0.00	1	0.00	5
	(b) Do the socio-economic backward student's get their doubt cleared during the teaching-learning process?	1	1	1	1	0.00	1	5



8.	(a)Are you giving opportunity to present their views inside the classroom?	2	0.00	2	0.00	0.00	1	5
		1	1	1	1	0.00	1	5
9.	Are you taking all the students to visit the nearby famous historical and geographical place?	2	0.00	0.00	2	1	0.00	5
10.	Are you taking any extra classes for the students those who are weak in social studies?	2	0.00	2	0.00	1	0.00	5
11.	Do you face any problems while teaching social studies to the socio-economic backward students?	2	0.00	2	0.00	1	0.00	5
12.	Are you using ICT/Internet/PPTs to explain social studies concepts?	2	0.00	0.00	2	1	0.00	5
13.	What are the training programmes attended by you in teaching social studies?	1	1	0.00	2	1	0.00	5
14.	How do you assist learners to learn social studies?	2	0.00	1	1	1	0.00	5
15.	What teaching and learning strategies do you use in social studies?	2	0.00	1	1	1	0.00	5
16.	What are the challenges of teaching and learning that you have experienced in social studies?	2	0.00	2	0.00	1	0.00	5
17.	How does an educational reform contribute to the poor academic performance of learners?	2	0.00	0.00	2	0.00	1	5
18.	What are the problems that hinder the teaching of social at upper primary school level?	2	0.00	2	0.00	1	0.00	5
19.	Do you have any contribution towards the improvement of learner's poor performance?	2	0.00	0.00	2	0.00	1	5
20.	Do the changes in curriculum contribute to the underperformance of learners in social studies?	2	0.00	2	0.00	1	0.00	5
21.	Can you give some suggestive measure to solve the problems of learning social studies?	2	0.00	2	0.00	1	0.00	5

### 1. Do you like to teach Social Studies?

All respondents said they were interested in teaching social studies. The reasons for this ranged from- social studies has appeared *interesting from schools days and since I studied it upto a Master degree in some of its areas and for some because the subject contained cultural, social and environmental issues. One*

teacher said her interest in the teaching of social studies was because it provides historical facts and current information. In this regards Aditya (2018) has argued for embedding education for sustainable development(ESD) across subjects and school curricula. It should be given a cross-curricula priority, so that the liking

and interest of the teachers as well as students could be increased in teaching social studies.

**2. Do you face any problems in communicating content of social studies while teaching to the socio-economic backward students?**

All teachers of the schools under study were facing problems in communicating social studies content to socio-economic backward children from the slum areas. *The social studies teachers view was that 'students of the slum areas lack general knowledge about the surrounding; don't understand English, and also lack of concentration in the class due to lack of awareness of the importance and relevance of education'. The same view was expressed by private school social studies teachers, they opined that sometimes students don't have books in Geography; are not interested to study as most of them belong to low social and economic background.* The BMC School social studies teacher had similar experience. In this context, Bellack et al, (1966) talk about a classroom study and identify two ways in which teaching is similar to playing language games. First, teaching in classroom is a social activity in which teachers and students feel diffident but give each other a complementary role. Second, teaching is generated by certain basic rules that guide actions of the participants. The study explores the different form of verbal action made by teachers and students, and then the rules that govern these actions.

**3. Are you conducting any activities during teaching-learning process?:**

All teachers said many activities were conducted during teaching-learning process. This is a good practice because when teachers emphasized more on activities than on content and given importance to students, then it would be useful for students both inside and outside the school (NCSS, 2002:12). *KV teachers said they give children map work, newspaper clip collation, group discussion, tasks on importance of natural vegetation, skits on*

*discrimination, election activity in the class by acting different ministerial role, role play of famous personnel role etc. Teachers from the private schools mentioned activities like role of different planets while teaching lunar eclipse. The BMC School social science teacher spoke about activities like drama, storytelling, general knowledge competition and game of flash cards etc. They felt that activities during teaching-learning process increased the involvement and interest of the students in the theme and the concerned subject. Singh et al (2016) also reflect on the key challenges of teaching profession in the present context. The social studies teachers also said that they touch upon some less talked about issues of teaching and the opportunity of improvement through self-up gradation and wilful involvement in students learning through participation in activities.*

**4. Whether the socio-economic backwards students are participating in the activities?**

*According to the teachers interviewed, all socio-economic backward students participate in the activities organised in the classes of their respective school. The SSTs of KV stated that the socially and economically backward students are participating in activities like preparation of charts, albums, projects, participation in group discussion etc. Similarly, private school teachers pointed out that the students from slum region have also participated in activities. In BMC School, as well the teacher stated that all activities are participated by each of the background of the students in the teaching learning process.*

This implies that there is recent improvement of learning among all of children including from slum. However, there is hope to further improve if the teachers and teacher educators feel responsible for shaping heart and mind of the nation and transform the young generation into well-informed citizens. The teacher education programme must not only empowers and provide skills for jobs; it

also teaches how to live together in a conflict world. Similarly, Wankhede(1999) also studied the social and educational problems of deprived section of the society (SCs) in India and the underlying the principle of equality and social justice supported by constitutional provisions. However, various studies shows that the educational progress made by the SCs is marginal,. It however, differs from state to state and caste to caste and is necessarily urban based.

**5. Are you organising group work inside classroom?**

The teachers of all schools under study stated that the group works are organised by them inside the classroom, with participation of socio-economically backwards students in learning. *However, one of the teachers in private school stated that the socio-economically backward students have some constraints and rarely participate in the group work. The teachers of KVK and BMC School said that socio-economically backward students actively participate in all group work. For this simply organising group work in the classroom is not enough. Desai(1989) pointed out the need for a holistic approach to education of disadvantaged children based on their contextual realities and their family backgrounds. Similarly, Rath & Kar (2017) point out that activity based approach (child-centred approach) is very effective in social studies and has a better impact than a teacher-centred approach. The activity based approach increases interest among students, they are thereby able to gain basic ideas, know the management of teaching learning materials and how to learn from peers during group work etc. In the same vein Dubey (2019) focussed on using peer learning as a classroom process.*

**6. Are you giving freedom to students in asking questions?**

All the teachers from different schools under study said there is freedom and opportunity for students to ask questions in the class. However, one of the SSTs of KV said socio-econom-

*ically backward students do not ask any questions, because they do not have interest in learning.* The problem here is from both sides, the *teachers blame socio-economically backward students but do not take proper initiative to motivate students. The teacher must try to find out why socio-economically backward students do not ask questions.* Vijaysimha (2019) in her study suggested that teachers can promote inquiry by asking open ended questions that provoke student's thinking and conceptual development. This implies a change in the regulative discourse to facilitate appropriate instructional process. In this regards, Surehatia (2017) has also highlighted that there are various approaches which help understand the cultural diversity of children in schools. Addressing the cultural diversity of children remains a challenging task. ol participation and learning of children from different cultural diverse groups.

**7. Are you clearing students' doubts during the teaching-learning process?**

Social Studies Teachers of all sample schools stated that they clear doubts of students during the teaching learning process. *One private school teacher said doubts of all students were cleared ' by simplifying the language. Likewise, the BMC school teacher said they clear doubts of students by showing video clips and pictures in the classroom. One KV teacher said that some time the teacher fails to clear the doubt of socio-economically backward students as they do not have interest. We feel teachers must attempt to find the cause of the disinterest of socio-economically backward students.*

**8. Are you giving opportunity to students to present their views inside the classroom?**

Teachers of all schools under study stated that the opportunities to all the students are provided by them to present their views in the classroom. *One private school teacher opined that even though they encourage socio-econ-*

*nomically backward students to present their self-expression in the classroom, students give less views and many times do not express. In this respect, the students require the skill of debate and sharing of their views and opinions in discussion. To participate in the class debate and discussion, the students have to develop their life skills as identified by World Health Organisation(WHO). According to WHO, the life skills are the abilities for adoptive and positive behaviour of human being that enable the individual to deal with effective demands and challenges in everyday life of any situation. As Pahuja (2018) pointed out life skills are essentially those skills that help promote overall well-being and competence. Children learn their life skills from parents, teachers and others significant person, who act as their role model. That is why, the Life Skills Programme as school-based programme should be imparted in schools.*

**9. Are you taking all students to visit nearby famous historical and geographical place?** All the Social Studies Teachers of sample schools under study stated that students were taken by them to visit nearby famous historical and geographical place. The social studies teachers of KV said they took students to visit different places like the Nehru Science Museum and Kolhapur. The BMC school teacher stated that students were taken to visit Tajmahal, Kutab Minar and Red fort, etc. However, the private school SSTs said it was difficult to take children to visit different places for long duration because of the large number of girl students in the schools and as there is shortage of fund and resources etc.

**10. Are you taking any extra classes for weak students in social studies?** Teachers of KV stated that the extra classes taken by them for weak students in social studies. The Private school teachers said that they take extra classes sometimes for extremely weak students (those who do not know reading and writing). The BMC

*School, teacher provides time for extra class from 12 noon to 1.00 p.m every day to clear the doubts in all subjects. So far as the improvement of learning among the weak students are concerned, the activity and project-based approach could be used to motivate students to adopt a sustainable lifestyle while teaching. In this context, Selamat, Esa, Salleh & Baba (2012) who studied the Smart Secondary School, of Johore, Malaysia found that majority of students felt that attending extra classes can improve their academic performance. They also discovered that students' perception towards the effectiveness of extra classes is highly positive.*

**11. Do you face any problems while teaching social studies to socio-economic backward students?** Social studies teachers may have come across several personal difficulties while teaching the subject. For example, a teacher may realise that some of students are not keeping pace with her/his method of teaching social studies. In such a situation, social studies teachers require to introspect and come out with meaningful solutions through action research. The teacher should also explore the way in which teaching-learning process can be organised in social science classrooms. In the changing scenario, why is there a need to bring changes to pedagogical practices of social sciences? The teachers must seek answers to the questions related to several pedagogical issues encountered by them. *The KV teachers were faced problems because students do not complete their homework; do not understand the concept, and have careless attitude towards class work and homework They keep losing books and notebooks. Such students never participate on their own in any discussion and teachers have to force them to take part. They have also stated that a very poor performance of such students and felt their performance would improve if they make more effort. The private school teachers said that many stu-*

*dents have family problem and also don't have proper homes to stay. The BMC school teacher were said that the test performance of the slum students was low because many parents send their children for outside work to earn some money.*

In this respect, the life skill of human being is indispensable to promote the overall well being and competence in young people as they face the realities of life. A study conducted by KEÇE (2014) detected that social sciences' teachers suggest that problems arise from lack of physical conditions and weekly course hours. In the study done by Acar (2003), it has been said that ignoring the students' levels while developing the content is seen as a problem by the teachers.

**12. Are you using ICT/Internet/PPT to explain social studies concepts?** In all sample schools under study, the ICT, internet and power point presentation is used by social studies teachers to help the students in explaining different concepts of social studies. However, in the private school ICT has been used by teachers once in a month. Sridevi (2019) has argued that simply using ICT tools in classroom is not useful, the teacher need to integrate learning of how to use technology in the classroom with content and pedagogy orientation. It is observed that during the process of pre-service and in-service teacher training technological knowledge remains separate from the main content and other parts of the course. These teacher training programme fail to develop a nuanced and meaningful understanding of the applications of technology and how to link content with pedagogy through it. The author also argued that pre-service teachers are not confident of using technology in the classrooms. Any effort towards integration should be strongly connected with other basic knowledge domains of teachers' i.e. content knowledge and pedagogy knowledge. Further, it is suggested that the exposure, updating and practice would help

in strengthening the knowledge base of teachers. By providing opportunity to share, explore and contemplate on practices would improve their teaching learning process.

**13. What training programmes are you attended in teaching social studies?** The need for in-service education of teachers cannot be underestimated. If teachers are to perform their functions effectively and efficiently, it is imperative for them to have training in new skills and modern methodology. It is argued that higher the level of educational attainment by teachers, the higher would be the level of educational standard in the country (Osamwonyi, 2016). However, for the KVS teacher who *was working on contractual basis, no in-service training programme was possible.* The permanent Social Studies Teacher had attended two in-service courses provided by KV at Rajkot in 2007-18 and Nagpur (Kampte) in 2011-12 and one social science workshop for preparing question bank at KV in 2017. The private school teachers were untrained and were pursuing B.Ed, B.A (Special) Geography, B.A History (Special), B.Ed (History). The BMC School had attended drama training programme and history subject training programme. This is not sufficient in the light of the discourse on Continuous Professional Development (CPD). Awasthi(2018) highlights the importance of CPD, to make teachers responsible and aware about their own professional development. Teachers can become reflective practitioners through the formation of Professional Learning Communities (PLCs). Developing teacher capacity is critical and requires a fine blend of pedagogical skills and competencies, knowledge, attitude, positive learning, organisational conditions and culture etc. More than all this it also needs a reflective dialogue of teachers that can lead to lifelong learning and passion for the teaching profession. Similarly, Aditya (2018) stated that as a teacher plays a crucial role in

the classroom process, where there is a need to ensure that teachers have proper knowledge of the subject and are aware of the different pedagogies to transact and equip with required competencies. Contextualisation of social studies concept in education can help students relate to sustainable practices. Activity and project-based approach could be used to motivate students to adopt a sustainable lifestyle. Bose (2018) also suggested that practice of reflection is pivotal for teacher development, therefore, its importance in a Teacher Education programme cannot be undermined.

**14. How do you assist learners to learn social studies?** *The KV teachers said that learners of social studies are assisted through ICT and group discussions. Remedial classes and mixed groups of slow learners and bright learners are formed and the learners encouraged and motivated to learn. One teacher from the private school assists students by making groups and providing suitable examples. The BMC school teacher assist students by providing a time slot from 12 noon to 1.00 p.m to solve problems of all subjects. Raj & Fatima (2018) have pointed out that the teacher-taught relationship at elementary level is important for children to achieve better academic results. This is from their study in three districts of Himachal Pradesh. They found statistically significant positive relationship between the teacher-taught relationship and academic achievement.*

**15. What teaching and learning strategies do you use in social studies?** A strategy is an over-all plan to attack. Among other things it includes a selection of goals and objectives, a determination of priorities, a selection of tactics and procedures and a determination of resources to be employed. (Schlechty, 1969). The KV teachers stated that, *first of all the objective of the lesson is decided by teachers, and then they try to teach topics through different activities with active participation*

*of majority of students, group discussions and also given chance to students by teachers to speak more etc. One private school teacher uses example of real life situation. The BMC School teacher uses teaching aids, chart, project and lectures as strategies. Ojha (2018) has proposed a shift in teaching social studies, especially history from a mere collection of facts and rote memorisation to an effective student-centred effort, integrated at the elementary stage to enhance critical thinking skills and student engagement. The author has also pointed out that history is a written record of human experiences across time and space. The learners of history need to relate various kinds of available sources to understand historical events and concepts. She however observes that history teaching is repetition of a collection of facts, rote memorisation leading to boredom and leaves very little space for critical thinking among students. She suggests that the student-centred teaching methods provided a better understanding of history, resulting in improved critical thinking skills. The inquiry approach is more effective than memorising facts.*

**16. What are the challenges of teaching and learning that you have experienced in Social Studies?** Just as the teaching of mathematics methods has its own set of challenges, so too does social studies; teachers need to understand and respect those challenges (OWENS, 1997). *The Social Studies Teachers of KV face challenges of availability of modern infrastructures like social studies lab need to modernized, requirement of encyclopaedia, high speed network facility, E-books, AC room/chairs, irregularity of student, controlling students' lack of learning attitude in students etc. The teachers in private school face challenge as they lost their interest to teach because of lack of interest in studying geography and small number of demonstration lessons. Similarly, the challenges of the BMC school teacher*

is to motivate students to come to school daily and in providing the awareness of the value of education besides the lack of parents support etc. Goswami (2019) while conducting interviews of parents, felt many time that interview probing pushed the parents to think about concerns, but they may not have thought earlier and felt obligated to justify their choice when they became aware that this was not quality education according to them. However, OWENS(1997) found other challenges confront by social studies teachers are lack of interest in students for social studies and in discussing various sociological issues,.

**17. How does educational reform contribute to the poor academic performance of learners?** According to the KV teachers, educational reform should help students to be disciplined, become good citizens and have better life ahead in the society.

**18. What are the problems that hinder teaching of social studies at upper primary school level?** The KV teachers said that the implementation of “No Detention Policy” up to Class-VIII, hinders teaching of social studies at upper primary level, because all weak students get stuck in Class-IX standard. The private school teachers also stated that lack of students’ interest in study and the high level and vastness of the course in the social studies books is a hindrance at upper primary level. The BMC teacher pointed out student’s absence and family problems as the challenges. Keeping aside of all such problems identified by the teachers of all sample schools, instead of blaming the students backgrounds, Bose,(2018) argued that practice of reflection is pivotal for teacher development. Unless teachers foster the practice of critical reflection, they remain in narrow values, unexamined assumptions and biases, and prejudices emanating due to unquestioned judgments and interpretations.

19. Do you have any contribution towards

the improvement of learner’s poor performance?

The Teachers of KV said that improvement of learner’s performance is through motivating students in learning, forcing them to study, providing freedom to ask doubts, question, difficulties etc.

**20. Do the changes in curriculum contribute to the under-performance of learners in social studies?** The KV teachers felt that a change in curriculum has contributes a lot to under-performance of learners in social studies. They felt that the questions in the new curriculum are not clear and understandable. The private school teachers also said that change in curriculum has contributed to the under-performance of learners because the syllabus is very difficult and large. There should be less syllabus and more pictures. The BMC school teacher also said that the use of picture, visit of historical places can contribute to improve the learning achievement and academic performance of learners in social studies. This suggests that the course in social studies syllabus at state level needs to be reduced. The teachers also said that there should be only one book taking in to consideration of all relevant areas of the subjects like history, geography, civics and economics.

**21. Can you give some suggestive measures to solve the problems of learning social studies?** The teachers of KV suggested that textbook should be simplified and only one book should be there and more importance should be given to history, geography and basics of civics and economics. There should be no irrelevant lesson unrelated to real life. The Regional office of KVS should prepare question bank and circulate to students. They also said that, more importance should be given to academic work rather than other extracurricular activities otherwise teachers get less time for teaching. The BMC school teachers suggested that there should be Social Studies Lab and Geography Lab like Science

Lab. Funds should be provided to school to organise field visit for many historical and geographical places. Syllabus should be arranged in a sequence and reduced. Audio-video programme should be promoted in the teaching learning process.

### **Discussion, Suggestion and Policy Implication**

From the study we learnt that social studies is liked by one teacher from the school and by another due to having studied for a Master degree in history and geography. Some research studies have also suggested that a cross-curricula studies may increase the interest of the teachers as well as students in social studies. This is not possible with an overloaded syllabus. It is suggested that the areas of social studies be divided in to two groups one Language, Geography and Economics (LGE) and the other Language, History and Political Science (LHP). Such groups should also be available at undergraduate level, especially for the Four Year Integrated B.A.B.Ed programmes. Two Social Studies Teachers (SSTs) one from each group ( LGE and LHP) could be appointed at different level of school education. This would interest of the teachers in the social studies and improve the effectiveness of the teaching learning process.

Sometime teachers also face the problem in communicating the content of social studies to the students belongs to slum areas. This is not due to the culture and background of the family but many other things including the rules and regulation which guide the classroom processes. It is important for the teacher to be involved in students learning through participation in activities. Clearly, the organisation of activities in the classroom is an improved teaching learning process.

While, the teachers of the schools studied organise group work, yet the socio-economically backward children rarely participate. It is suggested that peer group learning and cooperative learning would improve the pedagogical process. Similarly,

teachers are giving opportunity and freedom to ask questions and in the classroom, but some children are too reticent. So, addressing the cultural diversity of children remains a challenging task for the teacher at present. Teachers could motivate and promote inquiry by asking open ended questions that provoke student thinking and conceptual development. This implies a change in the regulative process in order to facilitate the possibility of an appropriate instructional discourse. Towards this, Hegde (2006) urges need for critical engagement with positions of constructivism, not to argue for one or other constructivist positions, but to understand how question of scientific knowledge and truth in social science methodology and learning may be addressed.

When faced with a difficult situations, teachers should tend to think critically, analyse all the pros and cons of the situation and think of out of the box solutions for the seemingly difficult problems. In the study it has also been observed that there is shortage of qualified teachers, especially in the Mahila Mandal Sanchalit Madhyamik Vidyalaya, to deal and deliver the vast syllabus through modern pedagogical approaches of teaching to the socio-economic backward students. In this context, Govinda and Verghese, (1993) suggested that a trained teacher makes a considerable difference in terms of teaching style and classroom management. They also opined that the improvement in learning level of children depend not only on expansion of schooling provision but also on availability of ample instructional time and its effective use. It is the teacher who plays an important role in effective use of instructional time. Similarly, challenges to education quality arise from a variety of factors including: (i) inability to staff and finance a rapidly expanding education system; (ii) research-based evidence of low levels of learning in basic skills; (iii) new demands for advanced language and computer skills; and (iv) financial crises that have had an adverse effect on education budgets – in some cases reducing internal efficiencies and eliminating



plans for qualitative improvement (Chapman & Adams, 2002).

We have also learnt that in order to generate interest among students, social studies teachers must relate their teaching with the real life of the children. It is necessary that teachers must understand the child properly like their interest, abilities and background etc. Hence, it is essential to orient teachers so as to change their perception towards children of slum areas and make them realise that they can learn if proper opportunity will be provided. We also learnt that students from slum area have multiple problems in learning social studies and these directly or indirectly hamper learning. These include factors of home, surroundings or the school location and the resources there.

Teachers suggest that teaching and learning of social studies at upper primary level can be improved if there is a Social Science Lab and if the syllabus and materials are reduced. They suggest that curriculum and syllabus should not change frequently and the total content should be less and simpler with less content according to age and level of students. Text books should have relevant pictures and diagram to make social studies learning interesting. Only one book instead of many books and more importance should be given to history, geography, basic of civics and economics only. They also suggest activities outside the classes like trips to historical places, legislative assembly, municipal office, gram panchayats, primary health centres, anganwadis, consumer courts, banks, farm lands etc. Research suggests that in the classrooms teachers must highlight the connection between text and context of the children. The teacher should provide space for articulation of thoughts of the students in the classroom. The age old practice of dictating answers or marking them in the text book should be gone away. Learners must be encouraged to express their views and write answers on their own. Trained

teachers should be appointed and in-service training and orientation of latest curriculum and pedagogical approach should be provided to all teachers in a regular interval. The PPT, e-learning device, play and drama on different topics should be integrated in the teaching learning process.

## Conclusion

From the above analysis and discussion we can argue that the identification of problems in social studies through the investigation of the perception of the teachers is necessary for the development of skill and pedagogical practices. They need to become aware of the changing pedagogies. This awareness can help them make classroom process more effective and vibrant. In order to make teachers reflective practitioners and independent learners, different pedagogical practice can be adopted. The improvement of learning for children from socio-economic backward and slum dominated areas is a great challenge. This needs to be addressed for the development of nation with a good citizen. Learners need to develop the skills of learning in terms of creative thinking and critical thinking by themselves through the facilitation of teachers to become considered as independent learners. Such children would be able to build their capacity in a way that could improve the quality of education at upper primary level.

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