EDUCATIONAL RESEARCH JOURNAL

Message from the Director, SCERT, Assam

In the realm of education, research-based interventions have now attained the status of an essential tool, deemed indispensable for ensuring the quality of education. Conventional and stereotypical educational endeavours have proven to yield meagre outcomes in terms of advancing the educational landscape of a nation. Hence, it becomes imperative that our state embraces innovative, research-driven actions to propel itself forward in alignment with the contemporary advancements within the educational domain.

Since its inception, SCERT, Assam, has consistently underscored the importance of research and activities rooted in research, particularly pertaining to school and teacher education. It is with great pride that the Department of Research and Evaluation at SCERT, Assam, presents the Fifth volume (No. II) of its Educational Research Journal. This compilation showcases research contributions from scholars engaged in diverse educational spheres.

It is my anticipation that this enlightening journal will effectively facilitate the dissemination of research findings amongst educational practitioners. Moreover, I believe it will serve as a valuable resource for teachers, teacher educators, educational planners, and administrators, aiding them in comprehending the current status of school and teacher education. Furthermore, it will empower them to formulate pertinent, outcome-oriented strategies for the advancement of these domains.

I extend my heartfelt gratitude to all the diligent contributors of research papers, the esteemed members of the editorial board, the discerning reviewers, the assiduous editors, and the unwavering support group. Their painstaking efforts have culminated in the publication of this volume.

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Dr. Nirada Devi
Director, SCERT, Assam, Ghy-19
Chief Editor

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Editorial

The imperative integration of research-derived discoveries for the enhancement of quality control within educational endeavours is now an undeniable necessity for every educational institution. Through research-oriented planning, various indicators of quality education can be rigorously assessed, thereby formulating strategies for the judicious and optimal utilization of available educational resources. While research seminars and conferences have garnered favour among academicians in our state recently, the publication of research papers in the form of a journal remains considerably limited. Consequently, the constrained dissemination of findings from these research inquiries curtails their potential utility.

In an effort to address this shortfall, the Department of Research and Evaluation at SCERT, Assam, is pleased to present the Fifth volume (No. II) of its educational research journal, complete with an ISSN. This endeavour not only aims to disseminate the findings of these studies among educational stakeholders but also to instil motivation among educational practitioners to delve into research endeavours tackling diverse educational challenges within the state. Recognizing the scarcity of such opportunities in Assam, a concerted effort has been made to include a substantial number of research papers, fostering the proliferation of research-driven actions for elevating educational quality.

The editorial board has undertaken minor revisions, ensuring coherence in language and clarity of the content, while retaining the essence of the original submissions. Although individual researchers have undertaken studies, a systematic approach has often been underutilized, potentially due to a lack of orientation or awareness about methodological rigor in research. Consequently, those engaged in educational research should be equipped with proficient research techniques, allowing their comprehensive studies to effectively inform the formulation of education policies. While a significant portion of studies conducted are either action research or applied research, there is an evident need for fundamental and foundational studies across various dimensions of education to uphold quality standards. Thus, appropriate authorities are encouraged to provide comprehensive exposure to individuals driven by research motivation, offering grant schemes that facilitate meaningful research endeavours.

A notable observation pertains to the fact that implementing departments are often less inclined toward research objectives. Consequently, even if high-quality research is conducted, the outcomes tend to languish within university libraries or other repositories, with limited accessibility for those who could enact these findings in practical educational contexts. It is essential to infuse a conducive research environment within the State, nurturing an appetite for innovative methodologies and techniques that yield superior outcomes. This involves continuous orientation of researchers and updates regarding evolving research paradigms from academic organizations.

In this edition, an earnest endeavour has been made to present a peer-reviewed journal, benefiting from the expertise of distinguished educational specialists, particularly in the realm of research. I extend my heartfelt appreciation to Prof. Daisy Borah Talukdar at Dibrugarh University; Dr. Yeasmin Sultana, Assistant Professor at Tezpur University; Mayuri Sharma, Associate Professor at Gauhati University; Prof. Nil Ratan Roy at Tezpur University and Dr. Angel Rathnabai, Assistant Professor at CIET, NCERT, for their commendable contributions, instrumental in refining the papers for publication.

Furthermore, I seize this moment to express my gratitude to the dedicated researchers who have contributed their papers to this journal, the members of the editorial board for their rigorous efforts, and the supportive group for their unwavering commitment in realizing this comprehensive volume of the educational research journal.

Dr. Jayanta Kr. Sarmah,
Editor

CONTENT

A Study on the Status of Residential Girl's School:
Special reference to Kasturba Gandhi Balika Vidyalaya, Darrang district, Assam

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Abstract

Kasturba Gandhi Balika Vidyalaya (KGBV) is a flagship program of the Government of India aimed at providing quality education and empowerment to girls from marginalized communities. This study focuses on the status of Kasturba Gandhi Balika Vidyalaya in the Darrang district of Assam.These residential schools in the district have been established with the objective of bridging the gender gap in education and empowering girls through academic and skill-based training. The research study is conducted by descriptive survey method and Primary data collection method was used in the study. Researcher talked with the samples and interacted with them by using questionnaire method.The interview and focus group discussion were also conducted. The KGBV in Darrang district has focused on providing holistic education to its students. The schools have been successful in enrolling a substantial number of girls from economically disadvantaged backgrounds.In addition to regular academic subjects, the curriculum includes vocational training, life skills development, and awareness programs on various social issues.Despite these achievements, challenges still exist. Adequate funding, teacher recruitment, and community involvement remain important areas for improvement. The KGBV in Darrang district requires sustained support and collaboration from the government, local communities, and stakeholders to continue its efforts in empowering girls through education.

Keywords : *Vocational, empowerment, flagship, residential, holistic, skill-based.*

Introduction

The Kasturba Gandhi BalikaVidyalaya (KGBV) scheme was introduced by the Government of India in August 2004, then integrated in the Sarva Shiksha Abhiyan program, to provide educational facilities for girls belonging to scheduled castes, scheduled tribes, other backward classes, minority

communities and families below the poverty line in educationally backward blocks in India. The present study presented a detailed analysis of status of KGBV in the district.

Kasturba Gandhi Balika Vidyalaya (KGBV) is a prominent initiative undertaken by the Government of India to empower and educate girls from marginalized communities. These residential schools aim to bridge the gender gap in education by providing quality education and comprehensive support to girls who face socio-economic barriers. This introduction focuses on exploring the status of Kasturba Gandhi Balika Vidyalaya in the Darrang district.

Darrang district, located in the northeastern state of Assam is home to several KGBVs that have been instrumental in transforming the lives of countless girls. These schools have emerged as beacons of hope, empowering girls through education and equipping them with the skills and knowledge necessary for their personal and professional growth.

The status of Kasturba Gandhi Balika Vidyalaya in Darrang district encompasses various aspects including enrolment rates, educational outcomes, infrastructure and facilities, curriculum and teaching practices, support systems for students, challenges faced and the overall impact on the empowerment of girls. Understanding the current state of these schools is crucial to assess their effectiveness and identify areas for improvement.

Over the years, the KGBV in Darrang district have witnessed significant progress in terms of enrolment and retention rates. The KGBVs in Darrang district have focused on holistic education ensuring that the girls receive not only academic knowledge but also practical skills and life-oriented training. Vocational programs, life skills development, and awareness campaigns on social issues are integral components of the curriculum, aiming to equip the girls with the tools they need to succeed in various spheres of life.The infrastructure and facilities of the KGBVs have also undergone improvementsemphasizing the importance of a conducive learning environment. Adequate classrooms, libraries, computer labs, and sports facilities have been provided to create a well-rounded educational experience. Efforts have also been made to address the girls' health and well-being, ensuring access to clean water, sanitation facilities and nutritious meals.

While the KGBVs in Darrang district have achieved remarkable milestones, challenges remain. Adequate funding, teacher recruitment, community involvement, and sustaining long-term impact are areas that need continuous attention and improvement. By analyzing the current status of KGBVs in Darrang district, valuable insights can be gained to enhance the effectiveness and impact of these schools.

In conclusion, the status of Kasturba Gandhi Balika Vidyalaya in Darrang district highlights the remarkable efforts being made to empower girls through education. The comprehensive approach, infrastructure improvements and focus on overall development have positively influenced the lives of girls in the region. However, recognizing the challenges and addressing them effectively will be crucial in ensuring the sustained success of KGBV in its mission to create a brighter future for girls in Darrang district.Efforts have been made to ensure the well-being and safety of the girls attending the KGBV. Residential facilities are equipped with appropriate security measures and provisions for nutritious meals. Trained staff members and mentors play a crucial role in providing guidance and support to the girls, fostering a nurturing and inclusive atmosphere.Though education is a vital part of a living being whether it is boy or a girl, it seems that the dropout rate of girl child is higher than boys. Educating the girl child leads to every perspective of education that strives at improving the skill and experience of girls.

Rational of the study

The directive principles of state policy through Article 45 states that the state should provide free and compulsory education to all children of age 14. Article 46 of our constitution states to promote the educational need of weaker sections of the society. As per the constitutional obligations through national policy of education various steps are taken for the girl education in our state. A number of centrally sponsored scheme are being continued, Kasturba Gandhi Balika Vidyalaya is one of them for improving girl child education of ST, SC, OBC, BPL and educationally backward classes. The NEP also has several provisions aimed at promoting girls' education such as introducing gender- sensitive education, raising awareness about the importance of girls' education, providing scholarships and other financial assistance to girls and strengthening the infrastructure of schools in rural areas.

The reasons for the increasing dropout rate for girls include economic hardship, gender discrimination, early marriage, safety concerns and lack of access to quality education among others. Girls who receive an education are less likely to marry young and more likely to lead healthy, productive lives. They earn higher incomes, participate in the decisions that most affect them, and build better futures for themselves and their families. There will be an increase in socio- economic equality and country's future will be brighter and better.

The main aim of this study is to know about educational facilities and problems faced by the girls of KGBV in the district.

Statement of the problem

The focus of the study is "The status of residential girls school withspecial reference to Kasturba Gandhi Valika Vidyalaya, Darrang district, Assam"

Objectives

(i)   To examine the participation of Muslim girls in the KGBV in terms of enrolment and retention.

(ii)   To assess the availability and quality of infrastructure and other facilities in the KGBV operationalised in the district.

(iii) To assess educational outcome of students of Kasturba Gandhi Balika Vidyalaya.

(iv)   To understand the life style of hostel dwellers of Kasturba Gandhi Balika Vidyalaya.

(v)   To know whether vocational training and extra-curricular activities are provided to girls or not.

(vi)   To know the status of teacher's professional development.

Research questions

In order to achieve the objectives, the following research questions were formulated:

➢   Are the objectives of the KGBV scheme being met in the KGBVs in the district?

➢   What is the participation of Muslim girls in terms of their enrolment and retention?

➢   What are the activities and vocational courses offered in the KGBV to make girls self-reliant?

➢   What strategies are made to make teacher's professional development?

Delimitation of the study

It is not possible to cover up all the issues in totality in a single study. The present study has some limitations as:

➢   This study is delimited to collect data from 30 teachers and 90 students of three KGBVs of the district.

➢   The investigation had to complete the field work within a short period of time.

➢   The study is confined to Darrang district only.

Review of Literature

A researcher cannot carry out his or her research without reviewing the works already done in the field of study by previous researchers. The researcher has to base his or her research on the foundation of knowledge already laid by eminent researchers. A brief review of related literature has been provided to understand the educational status of girl education especially belonging to Muslim minority.

Wadhwa, Anand (2021) analyses satisfaction of adolescent girls with school resources with special reference to Kasturba Gandhi Residential Schools in Rajasthan. From study they found that there was a significant difference in the satisfaction scores of student groups enrolled in Type-1, Type-II1 and Type-1V KGBVs. This difference was observed due to relevantly dissimilar nature of implementation of scheme at school level.this made it more challenging for students in terms of access to resources, making them less satisfied with the educational and infrastructural resources.

Samantaroy, Rath (2019) analyses the status of Kasturba Gandhi Balika Vidyalaya in Ganjam district. The result of the study showed that the enrolment of students in KGBV was more than satisfactory in case of SC,ST and OBC, but so far as BPL category was concerned the enrolment status was not upto the guideline. Various educational facilities like study material, classroom teaching and toilet facilities were provided to all KGBV.

Gogoi and Goswami (2015) evaluated infrastructure facilities in KGBVs in Assam. They adopted multi stage sampling design. They found that 44% of the KGBVs were functioning in their own building and 55% of the KGBVs were functioning in rented accommodation. Although they have the permission to have their own building but it was either under construction or the construction was yet to begin due to several administrative problems. Infrastructural facilities and KGBV buildings need reconsideration. More number of rooms is required for the girls and teachers for comfort stay in KGBV.

Qureshi, (2010) studied the causes of educational backwardness of Muslims. He observed multiple factors responsible for their educational backwardness. But the influence of factors varies from state to state and within a state from one community

to another. Prominent among them are poverty, lack of basic infrastructure facilities, lack of Urdu medium schools and other incentives such as scholarship, school policies etc.

Karol, (2010) analysed the educational status of Muslims in Goa. Analysis revealed that Muslims are behind both scheduled cast and scheduled tribes in enrolment in primary education in Goa. There are multiple reasons for their educational backwardness. Most of Muslim girls acquire their primary school education in Urdu and face a lot of problem when they are enrolled in other mediums. Again, most of the educational institutions are located in non-Muslim concentration areas.

Methodology

The method adopted for the study

The research study is conducted by descriptive survey method and Primary data collection method was used in the study. Researcher talked with the samples and interacted with them by using questionnaire method. The interview and focus group discussion were also conducted regarding various facilities provided to them and different problems faced by the girls in the hostel. After collection of data, the researcher compiled the data and analysed the information by using percentage statistical method.

The population of the study

A total of three KGBVs are present in the Darrang district and all the three schools are situated at the Dalgaon- Sialmari educational block. There are approximately 414students present in the three schools in the academic year 2023-24.

Sample of the study

The researcher had picked up 90 numbers of samples randomly for the present study.

Tools used for the study

For collection of data, the researcher prepared questionnaire for the sample groups. The interview and focus group discussion were also conducted.

Statistical techniques used

The collected data was organized, consolidated and tabulated by using Microsoft excel sheet and analyzed systematically. The preliminary analytical devices expressed in frequency and percentage were used.

Analysis and interpretation of data

Researcher visited the schools during May and June,2023 for collection of data. The researcher personally met the students of KGBV and collected data through a questionnaire. The researcher foster interested with the Headmistress and teachers of KGBVs and collected information by using questionnaire. The questionnaire comprises school profile and various facilities, services and problems of KGBVs. The researcher conducted a pilot study and modified the questionnaire as required.

Enrolment status of the KGBVs

At the primary level the emphasis is on the slightly older girls, who are out of school and were unable to complete primary schools. At the upper primary level, emphasis is to enrol girls,especially adolescent girls who are unable to go to regular schools. 75% of the enrolment is for girls from SC, ST, OBC or minority communities in such residential schools and 25% girls from families below the poverty line are admitted.

The researcher studied enrolment status of all the KGBVs for past five years. Table1, Table2 and Table3 shows student strength of different classes of all the three KGBVs. The data in the table reflects thatdespite school closures during the pandemic, overall enrolment figures of girl child has been gradually increased in all the three KGBVs. The rise in female enrolment indicates an improvement in the relative access to higher education for females which leads to better health, economic growth and reduced poverty rates.

Table 1

Kasturba Gandhi Balika Vidyalaya, Dalgaon, Dalgaon- Sialmari education block:

Year	Class VI	Class VII	Class VIII	Class IX	Class X	Total
2019-2020	17	15	18	15	15	80
2020-2021	22	20	16	14	15	87
2021-2022	23	27	13	15	13	91
2022-2023	26	25	20	17	14	102
2022-2024	21	28	24	20	16	109

Yearwise Enrolment of Total Students
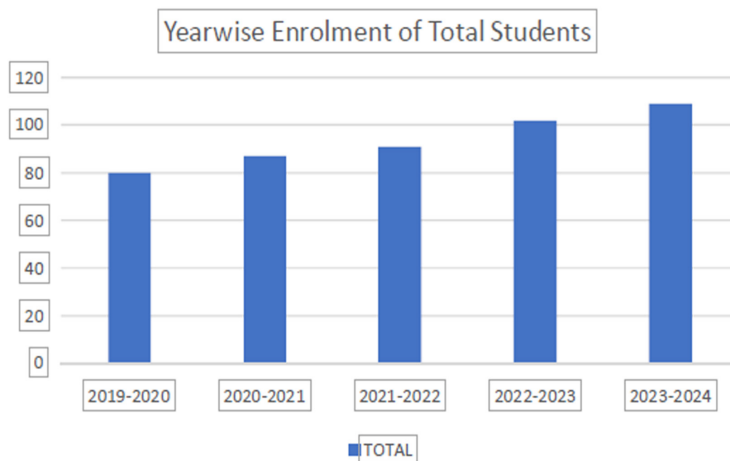
Table2

Kasturba Gandhi Balika Vidyalaya, Pub-Mangaldai,Dhula, Dalgaon-Sialmari education block

Year	Class VI	Class VII	Class VIII	Class IX	Class X	Total
2019-2020	25	22	22	07	-	76
2020-2021	20	21	24	07	04	76
2021-2022	22	26	23	07	07	85
2022-2023	29	27	29	18	07	110
2022-2024	25	32	21	32	17	127
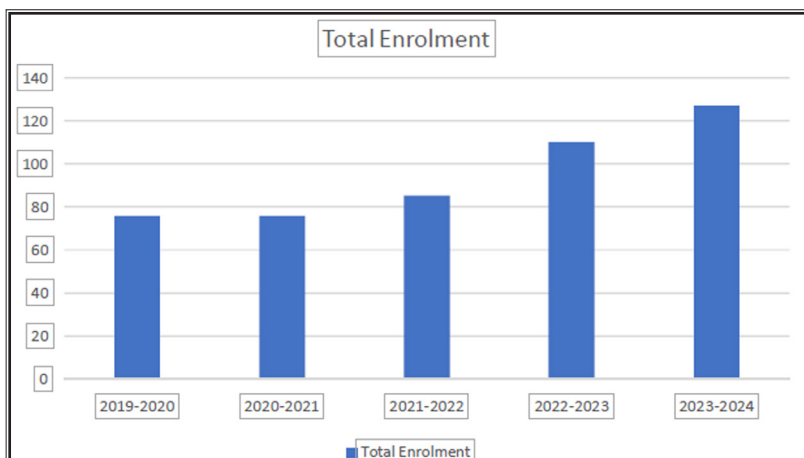
Table 3

Kasturba Gandhi Balika Vidyalaya, Bechimari, Dalgaon- Sialmari education block

Year	Class VI	Class VII	Class VIII	Class IX	Class X	Total
2019-2020	21	20	09	23	13	86
2020-2021	14	23	19	08	23	87
2021-2022	28	24	18	07	23	100
2022-2023	35	30	34	12	10	121
2022-2024	43	34	37	19	12	145
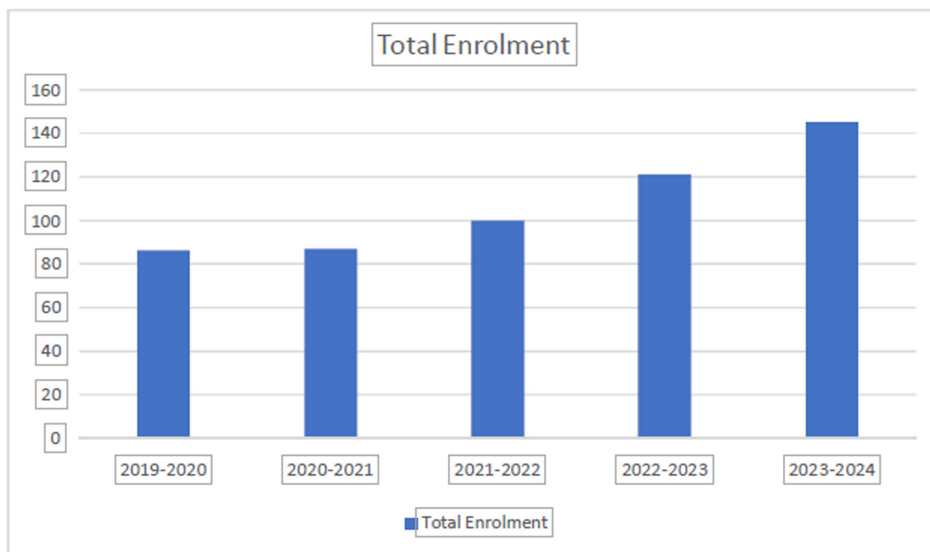
Infrastructure facilities in KGBVs

Almost 100% of respondent expressed that they were provided a good and healthy educational environment in their schools. The role of school buildings, whether new or partly refurbished, can facilitate learning. All the three KGBV has good building with sufficient space.From table 4, it has been seen that 67% of the respondent claimed there is lackof availability of sufficient rooms for teaching, staff and storage etc. It has been observed from survey that there are sufficient numbers of table-chairs, desk-benches in classrooms. But there was no provision of table-chairs in their bed rooms. Besides there are sufficient beds, windows, ventilators and light in the rooms. During load-shedding an alternative power source, lamps, candles, generator, charging lights are available in the schools.

It has been observed during survey that there are shortage of almirahs and cupboards to keep girls belongings. Probably due to lack of space in the KGBV, such materials are not provided to the girls. It has also been observed that there are double decker beds in the rooms. Beds are very closely placed in the room which does not allow sufficient light to enter. It may create eye problems of the girls. There are no separate library and laboratory rooms in the school campus. However, 100% of respondent said that there are separate ICT room, kitchenand sufficient utensils in all the three KGBVs.

Distribution ofstudents responses on availability of different infrastructure facilities in the KGBV

Table 4

Different infrastructural facilities	Frequency (3)	Percentage(%)
Availability of school building Yes	3	100
Availability of teaching and staff room Yes No	1 2	33.3 66.7
Availability of desk bench Yes	3	100
Availability of beds Yes	3	100
ICT room Yes	3	100
Separate kitchen Yes	3	100
Sufficient utensils in KGBB Yes	3	100
Separate library No	3	100
Separate laboratory No	3	100

Material for recreation

Table 5 indicates that 100% of the respondent expressed they have sufficient play materials in the KGBVs like ludo, chess, carom board, badminton set, football etc. These are used by the girls in their leisure time. They have audio-visual aids like radio, TV, tap-recorder,CD etc. for girls' entertainment. The land area both for academic activities and co-curricular activities was sufficient in all three KGBVs.

Besides these all the students take part in morning assembly and prayers irrespective of their cast and religion. Yoga and meditation classes are done in regular basis in the school premise. Girls of KGBV are imparted self-defence training which help them in building discipline, courage, confidence and empowerment.

KGBV students in all three schools with the guidance of staff developed kitchen garden, flower garden in their campus. This developed good habits of girls and the production of kitchen garden added nutritious food items for them.

Important days like Independence day,World environment day, Teachers day, Childrens day are observed with various competitions like essay, quiz, art, dance etc. 100 percent of respondent expressed that there are no any vehicle facility available at KGBVs. When needed for any kind of emergency, field trip or for educational purpose they hired vehicle.

Table-5

Distribution of studentsresponses on availability of different materials in KGBV

Different play materials	Frequency (3)	Percentage(%)
Playground Yes	3	100
Play items like ludo, cricket,football, carom, badminton . Yes	3	100
Television Yes No	1 2	33.3 66.7
Video games No	3	100
Yoga and meditation class		

Yes	3	100
Physical Exercise Yes	3	100
Celebration of special days Yes	3	100
Martial art and self defence Yes	3	100

Provision of using Library books and registers

It can be revealed that 100% of the respondent expressed they have no extra library room in the school campus. Book almirahs are kept in the staff room. There are sufficient books in the almirahs, books are provided for promoting reading habits of students of KGBVs. A review of content and quality of books is required.

All the three KGBVs maintain attendance register for girls and employees, movement register for girls and visitor register. Besides library and laboratory register, accounts register, health register, visitors register, training register, children profile register, mid-day meal register, evaluation register, P-T meet register, material receipt register, etc. are maintained.

Distribution of studentsresponses on availability of separate library, books and registers in KGBV

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Table-6

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Library books and registers	Frequency (3)	Percentage(%)
Availability of books in book almirahs Yes No	 2 1	 66.7 33.3
Book issue register Yes	3	100
Students and Staff attendance register Yes	3	100
Child profile register		

No	3	100
MDM register Yes	3	100
Visitor register Yes	3	100
Accounts register Yes	3	100
Material receipt register Yes	3	100
Vocational training register Yes	3	100
P-T meeting register Yes	3	100

Health and sanitation

In the study it was observed by the researcher that kitchens were pucca, clean and hygienic.100 percent of respondent said that they were provided with a healthy and nutritious food in their schools. Eggs, fish curry, milk, chicken were included in their food routine. They were also provided rice, dal, tarka, salad, panner, vegetables as per the menu.

Medicines for Preliminary medical treatment and first aid facilities are available in all the three KGBVs.Health screening were conducted in all three schools in association with NHM/ Health department. As per need, children were given Vitamin A and D, Iron and Folic Acid for girls suffering from anaemia.

Almost 100 percent respondent expressed that there were sufficient numbers of bathrooms and toilets for girls and staff in all three KGBVs. During visit it was observed that toilets and bathrooms were hygienically maintained by school authority. Besides,100 percent students revealed that they have proper sanitation during their periods. There have the facility of proper disposal of sanitary pads in the campus. There were also proper water systems in the bathrooms and toilets. Water was supplied for 24 hrs in all the KGBVs.

Table 7

Distribution of studentsresponses on providing health and sanitation in KGBV

Health and sanitation	Frequency (3)	Percentage (%)
Provision of healthy environment		

Yes	3	100
Provision of nutritious food Yes	3	100
Provision of first aid facility Yes	3	100
Provision of first aid facility Yes	3	100
Availability and proper disposal of sanitary pads for girls Yes	3	100
Availability of water system in toilets Yes	3	100

Provision of vocational training

Vocational education and skill development are essential for personal and economicgrowth. One of the strongest pointof KGBVs are their vocational proficiency in different types of activities. They equip the girls with practical skills, knowledge and valuable life skills enabling them to secure employment and adapt to changing work environment.

According to their interest and abilities, the girls were trained up with various vocational training. Some girls were learning songs, some were taking up dance training, some of them were undergoing tailoring, embroidery and knitting training. Art and craft training including toys making,puppetry making, jewellery making, weaving, pot painting, screen printingwere also provided to the girls in the KGBV.

Table 8

Distribution ofstudents responses on providing vocational training in KGBV

Vocational training	Frequency (3)	Percentage (%)
Singing Yes	3	100
Dancing Yes	3	100
Tailoring,knitting and embroidery Yes Art and craft Yes	3 3	100 100

Evaluation and Result of Gunotsav

Gunotsav has played a crucial role in identifying and addressing challenges faced by the government schools, leading to better quality education and improved learning outcomes for students. Besides Government/ Provincialised schools, Gunotsav is being conducted from 2023 in tea garden model schools, KGBVs, Adarsha Vidyalaya, Netaji S.C.B Avasiya Vidyalaya. All the three KGBVs of the district have got 'A grade' in Gunotsav for this academic year. It has been observed that educational achievement in Gunotsav,'23 in all the KGBV is satisfactory. It will help in designing and implementing remedial strategies based on the identified learning gaps. Besides, the system of examination and evaluation in these schools are supposed to be quite satisfactory. Both short term and long term evaluation are used to maintain continuity of the system.

Professional development of teachers

For capacity building of teachers on girl education, a number of training programmeswere undertaken. Major themes of trainings were Gender issues in education, Vocational education for empowerment of girls, Issues and concerns of Adolescence education, Cyber safety, Menstrual hygiene management,Self-defence for girls, Life skill education, Child marriage, Protection of women, ICT education etc.

Findings

It was found from my visit that KGBVs are running smoothly and these are successful educational institutions in the case of rural and backward woman education. The education provided by these schools are of high qualitative value and it has vocational bias.

The infrastructure and facilities of the KGBV in Darrang district have also seen improvements. Besides academic support vocational training, self-defence, computer knowledge and sports facilities have been provided to create a conducive learningenvironment. The schools have also emphasized the importance of hygiene and sanitation, ensuring that the girls have access to clean drinking water and proper sanitation facilities.

Suggestion

➢   There should be enriched curriculum for girls in KGBV. Girls need to be trained on adolescent and social issues as well as on life skills to equip them to cope with stress, emotions and to fight violence. Self -defence techniques should be taught in more rigorous manner rather than limiting it to karate training.

➢   Some expert parents can be involved to teach local skills and art. Parents and community participation can help girls in learning enhancement. Community can motivate some economically better off member of the village to contribute towards the maintenance of KGBVs.

➢   The girls should be trained on leadership qualities for their holistic development.

➢   Teaching learning materials should be gender sensitive and related to their local needs. Sufficient computers should be provided to all KGBVs.

➢   More teachers need to be appointed for smooth functioning of KGBVs.

Conclusion

Girl education is crucial for building a better world. Educating girls not only empowers them, but also has far -reaching effects on families, communities and societies as a whole.

The Kasturba Gandhi Balika Vidyalaya in Darrang district has played a significant role in providing education and empowerment to girls from marginalized communities. With its comprehensive approach to education and focus on overall development, the KGBV has made a positive impact on the lives of girls in the district. However, continued efforts and support are necessary to address the remaining challenges and ensure the sustained success of the program.

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A Study on Current Educational Status and Curricular issues of SC, ST and Tea Tribe children in Assam.

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Abstract

Education is considered as the basic right of every citizen irrespective of his/her socio-economic status. Besides, it is a key to any developmental process. Considering the role of education in a country's development, successive Governments of post independent India has been taking numerous measures to improve educational status of its citizens. But it is seen that some marginalized group of people such as Scheduled Caste (SC), Scheduled Tribes (ST) and Tea Tribes, etc to mention a few are still lagging behind in receiving education owing to their different socio- cultural context. This paper deals with the 'Current educational status and curricular issue of SC, ST and Tea Tribes children' of 7 districts of the state and it aims to understand their on- going educational status and provision of Government intervention, challenge they face and provide suggestion for their educational development. This study drew its sources from primary and secondary data. After analyzing the collected data the study revealed that the education of SC, ST and Tea Tribes children are still not at the desired level. Multi pronged strategy would be required to bring them to be at par with the neighboring other social groups.

Key words : *Educational development, SC, ST and Tea Tribe children of Assam*

Introduction

Education influences and gets influenced by the development process. There is hardly any field of activity or sector of development which is not influenced by education. Mahatma Gandhi had visualized education as a means of awakening national conscience to injustice, violence and inequality in the social order. The subsequent education policies launched in the post independent India also elaborated Mahatma Gandhi's educational policies in the changed socio- political context.

Schools are expected to provide education to all children in a conducive environment. There are groups of children in the society who remain at disadvantage position due to their social, cultural, economical, geographical, linguistic, gender and some other factors. Educating children belonging to different backgrounds such as scheduled tribe, scheduled caste, tea tribes, minorities, economically weaker section,

transgender, girls, disability, etc require care and attention to be at par with others.

The RTE Act 2009 laid down the path for providing quality education based on principle of equity, non discrimination and inclusion to all children up to elementary education level. The Samagra Shiksha Abhijan (SSA), 2018 envisaged to improve quality of education, ensuring equity and inclusion at all levels of education till senior secondary stage.Different initiatives at the national and state levels in India, over the past few decades have helped improve access and enrolment at the elementary stage. However, the delivery of quality education and accomplishment of learning outcomes continue to be major challenges. The National Achievement Surveys (NAS) of recent years (2017 & 2021) show exponential decline in accomplishment of learning outcomes at elementary stage is a matter of grave concern for all.

Review of related literature

Jha and Jhingran, D (2002) have strongly advocated the use of the mother tongue / home language as medium of instruction in early stages of education. This assumes greater significance in the context of education of tribal children because their mother tongue is often quite distinct from the prominent languages in the state or regional languages. Thus, it is desirable to have a local teacher from the tribal community to carry forward education amongst them. **The Praitichi Committee Report (2002)** identifies cost of schooling, lack of motivation of teachers, lack of inspection and increasing dependence on private tutoring to be the main hurdles in the path of education for tribal children. **Bora (2002)** surveyed the existing facilities of primary education in tea gardens of Dibrugarh District and found that schools in the tea garden area failed to create congenial atmosphere to motivate the students. Infrastructural facilities of the school are found not satisfactory whereas low percentage of enrollment of girl children in the schools was found due to parents' illiteracy and early marriage of girl child. The study conducted by **North Eastern Social Research Centre** on primary education of Plantation Labours Children in Assam during 2002 – 2003 for SSA, Assam observed poor infrastructure in the primary schools of the tea-gardens. Economic situation though is a major constraint

for low participation in primary education among tea tribe children, the unattractive school atmosphere; untrained teachers are also important causes for not sending the children to school. **Lal, M (2005)** found that among all school dropouts, the largest groups amongst them are girls. Education thus for the weaker sections of the society needs to become the panacea and an inclusive growth strategy for their economic and social upliftment. It is further stated that, education has special significance for the SCs and STs who are facing a new challenge in the development process. **Basumatari** and **Gayatri,P (2013)** in their study on educational status of tea plantation women worker in Assam stated that the educational facility is not sufficient for tea garden workers' children specially for girls because of non availability of nearby schools and prevalence of child marriage system among the community. **Devi.P(2014)** analyzed socio-economic status of the tea garden women worker in Sonitpur districts of Assam and identified that the number of family member is so high and the education level of women workers is very less. **Gupta, N.K and Brahma, Ajanta (2016)** made a study on constraints and strategies in promoting education amongst Scheduled Tribe Children in Assam with focus on Karbi tribes of Karbi Anglong district of Assam and found that the school curriculum used in the districts is State Curriculum and the teaching community of the Karbi Anglong District feels that the existing school curriculum is not relevant for their children as because there is hardly any reflection of their culture in it. Besides, irregular attendance of the tribal children of the area seemed an important factor for slow education development amongst them.

Objectives

1.   To understand the status of educational development of SC, ST and Tea Tribe students at elementary and secondary stage of education in Assam.

2.   To find out issues relating to school access, equity in curriculum transaction in respect of SC, ST and Tea Tribe students.

3.   To find out the factors hindering their educational development and suggest measures for ensuring quality school education to SC, ST and Tea tribe students of Assam.

Hypotheses

➢ SC, ST and Tea tribe children of Assam love to come to school and perform well in Grade appropriate learning outcomes.

➢ Schools have received various incentives schemes from the Government for educational development of SC, ST and Tea Tribe children.

➢ SC, ST and Tea Tribes children received the facility for online learning during Covid 19 pandemic.

➢ Specific constraints of SC, ST and Tea Tribe children towards learning understood by the stakeholders and measures to overcome them are taken care of accordingly.

Method: Descriptive Survey method was adopted in the present study.

Sample

Category of children	Districts	Educational Blocks	Schools
SC	Cachar	Narsingpur & Salchapur Blcoks (2)	16 no. of school (8 upper primary and 8 secondary school)
ST	Chirang (Bodo)	Borobazar & Sidli blocks (2)	16 no. of school (8 upper primary and secondary school)
	Morigaon (Tiwa),	Mayong block (1)	8 no. of school (4 upper primary and 4 secondary school)
	Dhemaji,(Mising)	Murkongselek Block (1)	8 no. of school (4 upper primary and 4 secondary school)

Tea Tribe	Tinsukia	Hapjan & Margherita Blocks (2)	16 no. of school (8 upper primary and 8 secondary school)
	Dibrugarh	Lahowal Block (1)	8 no. of school (4 upper primary and 4 secondary school)
	Sonitpur	Dhekiajuli Block (1)	8 no. of school (4 upper primary and 4 secondary school)
Total no of district = 7, Blocks =10. **Total number of school=80; students = 800.**			80 (40 upper primary and 40 secondary schools)
10 students per class (male and female)* Total number of students (80 x 10 = 800)* 40 Upper Primary and 40 Secondary Schools			

Tools & Procedure of data collection

Both Primary and Secondary sources were considered for collection of information related to the study.

The Primary sources

i.   Questionnaire for parents, teachers, students and stakeholders.

ii.   Assessment tools for the students.

Secondary source - office records, study reports, other reading materials like textbooks, newspapers, magazines, annual reports, journals, data from internet, Government website, etc.

Survey method was used for collection of data for this study.

Statistical techniques

        Data of each student for each class were tabulated and expressed in percentage (%) which was later on depicted in bar and pie-diagram for easy understanding of all.

Findings and discussion

After analyzing various data collected through primary and secondary sources, following findings have been arrived at which is discussed in two broad issues, viz. Academic and other which are discussed below-

A) Academic issue

I.   The performance of majority number of sample SC students of **Cachar district** of Salchapara block in both the classes (VIII & X) was poor in L1, L2. Performance of a few sample students was however found to be slightly better in Science in comparison to Mathematics.

The sample students of class VIII of Narsingpur Block performed very poorly in all the 3 subjects on which test were conducted. Performance of the sample students of class X of the same Block was however better in Science subject in comparison to other subjects. But, they performed very poorly in English (L2).

Difference between the Home language and school language, irregular attendance of the learner in schools are said to have led to poor performance of the learner in these 2 Blocks of Cachar district.

II.   On academic matters, the ST students of 3 sample districts namely, **Dhemaji, Morigaon** and **Chirang** the following findings have been observed-

➤ Majority students of **Dhemaji** district could not perform well in L1 and Mathematics.

➤ Majority students of **Morigaon** district performed slightly better in L1 (Language) and Science in comparison to L2 (English) and Mathematics.

➤ Majority sample students of **Chirang** district showed better performance in L1 (Bodo) in comparison to other subjects. The performance of class X students of Borobazar block is slightly better in Science than Mathematics. However students of class VIII of Sidli block performed very poorly in Mathematics.

Lack of subject wise teacher especially in Mathematics and English are said to have impacted the performance of the sample students in Chirang District. On the other hand, due to difference between the Home Language and School Language, the sample Mising students of Dhemaji District could not perform well at the desired level on the test conducted in different school subjects.

III.   The performance of sample tea tribe students of **Sonitpur, Dibrugarh &** **Tinsukia** districts in the academic areas have been observed as the followings--

- ➢   Majority of class VIII students of **Sonitpur district** could perform well in L1 (Assamese) and L2 (English).But, majority students of class X have shown better performance in Science, Language 1 and English (L2) in comparison to Mathematics.

- ➢   Students of both the classes of class VIII and X of **Dibrugarh Diatrict** showed good performance in L1 (Assamese) in comparison L2, Mathematics and Science.

- ➢   The students of **Hapjan block of Tinsukia district** could perform slightly better in Mathematics and L1 (Assamese) in comparison to Science and English (L2). However, the students of **Margherita** block of **Tinsukia district** performed well in L1 (Assamese) than in other subjects.

- ➢   Almost majority of the sample students study from their own, they don't get extra support to enhance their learning as their parents are mostly illiterate and financially weak so, none of the sample students could do exceptionally well in any of the subject on which test was conducted.

B. Other Issues

➢   It is revealed from the data that all students received textbooks, uniforms, mid day meal, academic calendar etc. in timely manner. A few sample students of secondary stage also received bi-cycles, umbrella, annual grant for purchasing equipments of games and sports, construction of boundary wall, additional classroom etc.

      However, there is still lack of sufficient number of desk-bench, adequate number of class rooms, and subject wise teacher in some sampled schools.

➢   It is reported from Dhemaji district that due to amalgamation of schools some students are dropping out due to distance of schools from their homes.

➢ Difference between Home language and Medium of instruction of schools has been reported to be a challenge for a few sample schools of Tea Tribe and ST students (Mising tribe). This fact has also been reflected in the Cachar district due to which majority students could not perform well in Language I and English (L2).

➢ Poverty and illiteracy of parents and guardians are one of the main hinders in the educational development of SC,ST and Tea Tribe students as opined by teachers and stake holders of this study. Maximum number of parents of sample students was poor and illiterate to support their children in studies. Neither could they engage any extra help in studies due to their poor economic condition which ultimately impacted their performance.

　　Further, it is also observed from the data collected that, home environment of these category of students seemed also not conducive for learning.

➢ Since, past few years though ICT has been increasingly used to enhance quality of school education. But, from the data collected from sample districts it is observed that proper use of the e-content is yet to become a reality due to prevalence of various constraints in the system. Furthermore, educational support to SC, ST and tea Tribe children living in remote areas through online mode during Covid 19 revealed to be almost nil.

Suggestion

A few suggestions on the basis of the study has been put forth which are placed below-

➢ Measure should be taken to promote education not just for the students but for the parents and guardians as well. Awareness campaign should be organized on a large scale at regular interval in collaboration with different line departments.

➢ Since majority parents of sample students are illiterate, they lacked basic knowledge on sanitation, hygiene and child care. So importance should be given to launch adult literacy programme along with knowledge on health and sanitation in these areas. The emphasis of NEP 2020 towards development of National Curriculum Framework for Adult Education (NCF-AE) will go a

long way in solving adult illiteracy and problem related to it.

➢ Importance should also be given to open and distance mode of education, so that those students who work part time and school dropout could continue their education as per their convenience.

➢ There should be one window for the distribution of incentives/ scholarship to this category of students so as to avoid delay in providing these incentives to the clients in time.

➢ Language seemed to be playing as a barrier in quality education amongst a few ST and Tea Tribe students due to difference between home language and school language. In order to overcome this constraint, bridge material/ learning package should be introduced specially at the Lower Primary stage to overcome the gap of learning. There is an urgent need to address this issue through continuous capacity building of teachers to handle multilingual issue in the classrooms for enhancing learning on continuous basis. SCERT, DIET, CTEs and other teacher training institutions of the state have responsible role to play in this regard.

Conclusions

To sum up, it can be stated that instead of making policies over policies, primary focus should be given in bringing awareness amongst the community members for attracting them towards school education. The school schedule and calendar can be made in accordance to the local communities in the ST and Tea Tribe context which would make them feel a sense of belongingness resulting in more participation in teaching learning process. Locally relevant materials and languages can be incorporated in the textbook and curriculum for better understanding of the subject matter. Above all, it is very important to build a partnership between the community, school and the government so as to make education a lot more sustainable and effective especially for marginalized section of people. Better strategies should be taken up to develop and asses the skills and competencies of the teachers in motivating the students and parents; strengthening and sustaining the educational development of areas inhabited by these category of students. More emphasis should be given on recruiting efficient and competent teachers who can imbibe right to education among the children and are willing to work for the upliftment of the SC, ST, Tea Tribe community and other vulnerable

sections of the society. SCERT, DIET and other TEIs of the state have to play bigger role in the capacity building of the teachers under their jurisdiction. They should conduct action research to understand the ground reality and adopt suitable measure accordingly so that with their support, teachers can play their enhanced role effectively and thereby pave the way towards quality education for all in general and SC, ST & tea Tribe students in particular.

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A Study on the Impact of Activity Based Learning on Development of Empathy with Historical Characters among Eight Grade Students of a School at Mangaldai, Darrang District of Assam, India.

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Abstract

History is an important school subject which conveys invaluable lessons from the past and whose worth transcends regional, national and cultural boundaries. Such a subject needs to be taught effectively in order to make learners gain deep appreciation of the relevance of their learning. However, it has been observed that students at the school level consider the subject to be an uninteresting collection of facts and information. As such, the traditional methods used in teaching history like Lecture method and Story- telling method have not been very effective in motivating students towards the subject. Through this action research, an attempt has been made to introduce a few activity among the students and study its impact in developing their attitude towards history in general and historical characters in particular.

The study was conducted among 52 students selected through Probability Sampling that is, Simple Random Sampling method and applying Experimental Research Design and the data has been analysed through SPSS package. The findings of the study provide valuable insight on the effectiveness of activity based teaching and learning in history class. Such initiatives improve student's motivation and enhances their overall performance

Keywords: *History teaching, Activity based learning, Student Motivation, Student Achievement.*

Introduction

Knowledge of history is the pre-condition of political intelligence. Without history, a society shares no common memory of where it has been and what its core values are or what decisions of the past account for present circumstances. History is the only laboratory we have which tests the consequence of thought (Etienne Gilson). History opens to students the record of human experience, revealing the vast range of accommodations individuals and societies have made to the problems confronting them and disclosing the consequences that have followed the various choices that have been made. By studying the choices and decisions of the past students can confront today's problem with a deeper awareness of the alternatives before them and the likely consequences of each.

However, it has been observed that students at the secondary level considers the subject to be an uninteresting collection of facts and information. The teachers in the schools have been teaching the subject through traditional methods which includes lecture and story-telling method. These traditional methods do not help much in motivating the students towards the subject. In the present times, activity- based learning has proved to be much effective in various subject areas. Activity based learning provides a platform to the students to widen their horizon of experience with participative learning.

Researches indicate that activity-based learning had a positive effect on student's achievement. Students believed that activity-based learning enhances understanding, increases a sense of responsibility, creates attractive learning environment and increases achievement (Albadi,2019). The teachers are required to be adaptive to the changing classroom and students needs such that the students enjoy the course and establish goals (Anwar, 2019). Activity based learning is defined as a learning process in which students are constantly engaged (Panko.et al, 2005). These writers emphasize that activity-based learning method is different from the traditional method of teaching by a) the active role and involvement of students in the classroom and b) collaboration amongst the students in a learning environment. Churchill (2003) propagates that activity-based learning helps learners to construct mental models that allow for higher order performance such as applied problem solving and transfer of information and skills.

The trade-off between the traditional method of teaching and activity-based

learning has put many educators on the front line where they have measured the pros and cons of both the techniques (Anwar, 2019). Teo and Wong (2000) states that the traditional techniques of teaching does not incorporate utilization of previous knowledge and also does not let creativity bloom. Boud and Feletti (1999) argues that the impact of Activity based learning is a tool to motivate students to encounter the 'How' of learning using various techniques and activities. Activity based learning facilitates students towards self-direction and develop critical thinking skills for problem solving at all levels of education.

Objective of the Study

1. To improve the performance of students in history subject.
2. To motivate and develop interest among the students in the subject history
3. To develop empathy with historical characters through activity-based learning.

Research Questions

1. What is the difference between the achievement of students who were taught history using traditional method and activity- based learning method?
2. What is the difference in the achievement level between low and high ability students who were taught history using activity-based learning method?
3. What is the difference in the retention rate of students who were taught history using traditional method and activity-based learning method?

Research Hypotheses

Ho 1 - There is no significant difference between the achievement of students who were taught history using traditional method and activity-based learning method.

Ho 2- There is no significant difference in the achievement level between low and high ability students who were taught history using activity-based learning method.

Ho 3- There is no significant difference in the retention rate of students who were taught history using traditional method and activity-based learning method.

Methodology

The research had been carried out among the students of Class VIII of Mangaldai Town Girls HS School, Darrang, Assam, India. There were 102 students in the class which is the Population or Universe of the study. The sample size had been calculated with 5% margin of error- thus the sample size is determined at 52 students. From the Universe, a sample group had been selected using Probability sampling method specifically Simple Random Sampling Method.

The action research had been conducted using Experimental research design. Using Simple Random Sampling Method, the sample group had been divided into 2 groups with 26 students each. Group 1 had been treated as the Control Group and Group 2 had been treated as the Experimental group. While the Control group continued their learning process with the traditional methods of teaching, treatments were introduced in the Experimental Group. A pretest was conducted among both the groups before the introduction of the research activities. Thereafter, a four-week learning plan with various activities were introduced based on many historical figures of Assam among the students of the Experimental group. A post test had been conducted with 40 objective type questions among both the groups after four weeks. For reliability, the instrument of the tests were trial tested with Kuder-Richardson (KR21) was used and co-efficient of 0.8 was obtained.

Treatment

After observing the performance of the students in the Pre-test, the researcher tried to design fun-based activities for developing empathy with historical characters among the students of class VIII. The treatments or the interventions were applied only among the students of Experimental Group.

Teaching Through Dramatization (Role Play)

Role play is a dramatic activity in which students play different roles. This activity gives the learners maximum freedom to use their talents. It also enhances their confidence level. It involves the following stages-

Stage 1: Students are given certain task

Stage 2 : Students work in groups and discuss how they are going to perform the task

Stage 3: Students perform role play before the classroom using props as well

Stage 4: The teacher makes brief comments on the content, historical characters and roles.

Stage 5: After performance of all the groups the students discuss the points raised during the role play.

The students of the Experimental group had been further divided into 5 sub-groups. Historical characters were given to the various groups and main characters divided.

Imagining a character

In this activity, students of the experimental group were given certain characters from history. The students were divided into groups. At first, they developed a script with the help of the researcher of the key role of the historical character. Thereafter, they selected their group leader and enacted the role. The students even used props and costumes to have the feel of the characters.

Data Analysis and Discussion

After the completion of 4 weeks of introduction of treatment and intervention, post test had been conducted. The data obtained were computed using SPSS version and the result obtained presented below

Research Question 1

What is the difference between the achievement of students who were taught history using traditional method and activity- based learning method?

Null Hypothesis - There is no significant difference between the achievement of students who were taught history using traditional method and activity-based learning method.

The answer to the research question was sought employing Mean and Standard Deviation.

Table 1
Mean and standard deviation between groups taught using traditional method and activity based learning method.

Source of Variation	Mean	Std Deviation	N
Traditional Method	50.41	5.90	39
Activity Based Learning	75.43	11.93	44
Total	63.68	15.77	83

Findings: The table showed a mean score of 50.41 and SD of 5.90 for students taught with traditional method while a mean score of 75.43 and SD of 11.93 was obtained for Activity based learning group. Therefore, there is a difference in the mean scores of students between both the groups in favour of Activity based learning. In determining whether the difference was significant, ANCOVA was employed the result of which is presented in the table below.

Table 2
ANCOVA result for traditional method and activity based learning method dependent variable: post test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	12945.400	2	6472.700	69.554	.000	.635
Intercept	15110.898	1	15110.898	162.378	.000	.670
Pretest	1.415	1	1.415	.015	.902	.000
Groups	12806.403	1	12806.403	137.614	.000	.000
Error	7444.817	80				
Total	356911.000	83				
Corrected Total	20390.217	82				

a.   R Squared= .635 (Adjusted R Squared = .626)

Findings : The result showed F (1, 80) = 137.614, p= 0.000 which is significant at 0.05. Hence the null hypothesis is rejected and it is found that there is significant difference between the achievement of students who were taught history using traditional method and activity-based learning method. In establishing the effect, the value of Adjusted R Squared of 0.626 showed that activity-based learning contributed to 62.6% to student's achievement.

Research Question 2

What is the difference in the achievement level between low and high ability students who were taught history using traditional method and activity-based learning method.

Null Hypothesis - There is no significant difference in the achievement level between low and high ability students who were taught history using traditional method and activity-based learning method.

Table 3 : Mean and Standard Deviation level among low and high ability students who were taught history using activity-based learning method.

Source of Variation	Mean	Std Deviation	N
Low Ability	62.0286	16.01743	35
High Ability	64.8750	15.64449	48
Total	63.6747	15.76899	83

Findings: The table showed a mean score of 62.02 and SD of 16.02 for low ability students while a mean score of 64.88 and SD of 15.64 was obtained for High ability students using activity- based learning method. Therefore, there is a difference in the mean scores of students between both the groups in favour of high ability students. In determining whether the difference was significant, ANCOVA was employed the result of which is presented in the table below.

Table 4
ANCOVA result for low and high ability students who were taught history using activity-based learning method.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	209.902	2	104.951	.416	.661	.010
Intercept	11202.248	1	11202.248	44. 409	.000	.357
Pretest	45.906	1	45.906	.182	.671	.002
Abilities	70.904	1	70.904	.282	.597	.004
Error	20180.315	80	252.254			
Total	356911.000	83				
Corrected Total	20390.217	82				

a. R Squared= .010 (Adjusted R Squared = .014)

Findings :The result showed F (1, 80) = 0.281, P= 0.597 which is significant at 0.05. Hence the null hypothesis is retained. Therefore, it is found that there is no significant difference between low and high ability students using activity based learning.

Research Question 3
What is the difference in the retention rate of students who were taught history using traditional method and activity-based learning method.

Null Hypotheses- There is no significant difference in the retention rate of students who were taught history using traditional method and activity-based learning method. The answer to the above research question was sought employing Mean and Standard Deviation.

Table 5: Mean and Standard Deviation in the retention rates of students between groups taught using traditional method and Activity based learning method.

Source of Variation	Mean	Std Deviation	N
Traditional Method	2.05	0.78	44
Activity Based Learning	4.59	0.94	39

Findings: The table showed a mean score of 2.05 and SD of 0.78 for students taught with traditional method while a mean score of 4.59 and SD of 0.94 was obtained for Activity based learning group. Therefore, there is a difference in the rate of retention of students between both the groups in favour of Activity based learning. In determining whether the difference was significant, t- test was conducted the result of which is presented in the table below.

Table 6
t - test result of rate of retention among students for Traditional Method and Activity based Learning Method

Source of Variation	Mean	Std Deviation	N	t- value	P- value
Traditional Method	2.05	0.78	44	13.52	0.000
Activity Based Learning	4.59	0.94	39		

Findings: The result showed t (13.52)>p(0.000) which is significant. Therefore, the null hypothesis is rejected and it can be concluded that there is significant difference in the retention rate of students who were taught history using traditional method and activity-based learning method.

Findings

The major findings of the research are-

1. Students found the activity-based learning methods to be more interesting and engaging than the traditional methods.
2. When the students were given the opportunity to get involved in various group activities with their classmates, they were able to shed off their inhibitions and made efforts to participate in the group.
3. Students were self-motivated and in turn motivated each other in the group thereby improving their collective knowledge while performing the tasks.
4. It has been observed that there is not much difference in the achievement level between low and high ability students who were taught history using activity-based learning method.
5. There is a significant difference evident in the retention rate of students who were taught history using traditional method and activity-based learning method.
6. Students tend to ask more questions during the activity-based classes. This in turn leads to the increase in their inquisitiveness and thereby enhance their learning skills.

Conclusion

The analysis of data indicated a positive impact of activity-based learning method on the students of Class VIII of Mangaldai Town Girls HS School, Darrang, Assam, India . The students of the Experimental group were significantly motivated throughout the intervention period and actively participated in the activities with enthusiasm. The students of the Control group had repeatedly requested the researcher to take up their classes with innovative approach. They expressed their sadness not being included in the group activities meant for the experimental group.

Recommendations

1. Teachers should not start teaching a class right away. Instead, they should make efforts to involve students in activities which is relevant to the learning objectives incorporated in the lesson.

2. Teachers should allow the students to make mistakes while performing their task. They tend to learn better only after making mistakes and learning from them

3. Every time a student completes a task correctly, the teacher should ensure that the student receives positive re-enforcement for their work.

4. Teacher should use audio- visual aid as a Teaching learning material in the history class so that their interest is retained in the subject.

5. Teachers should ensure that every group involved in group activities include at least one slow-learner who can be benefitted from his /her peer.

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Education for Sustainable Development: A Study on Practices towards Green Life Style of Elementary School Teachers of Odisha, India

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Abstract

Climate Change is the greatest threat for living organisms including human beings all over the world. Global warming and their impacts are mainly due to human activities and their life style practices. It is the Teachers who can mold the personality of children through their behavior and life Style practices to reduce carbon foot print and save the planet. This paper studied the practices on Green Life Style of Elementary School Teachers. Survey Method was followed and data gathered from 462 Elementary School Teachers (222 Pre-Service, 240 In-Service) selected through Stratified Random Sampling technique by administering the questionnaire on practices on Green Life Style. Statistical techniques like Mean, percentage, SD, t test , ANOVA are used to analyze the data. The Result showed that the Science, Arts, Rural and Male In- Service Teachers had more favorable practices towards Green Life Style than the Pre-Service Teachers. Pre-service Teachers' Education curricula must be restructured carrying contents of Climate Change and Sustainable Development.

Key Words : *Elementary Teachers , Sustainable Development , Green Life Style*

Introduction

Rapid consumption of coal and fossil fuels in Industry and transport has led to building of green house gases such as CO2 leading to fast rise in temperature. It's impact being felt through catastrophic weather conditions, loss of biodiversity, melting of ice caps etc. To keep the Global Warming under 1.5° C by 2030 and to ensure the planet is liveable we must have to reduce the global CO_2 emissions by 45% of the levels that were in 2010.

As Education makes a man aware and teachers being the agents of change, they can play an important role in moulding the personality of children in the class room formally and people in the society informally to promote desired behaviour for climate action. Teachers' knowledge and attitude regarding climate change, their Green Life Style practices in mitigating Global Warming can motivate children to practise environment friendly Life Style. Realizing the importance of Education in General and role of Teachers in particular in creating awareness and changing the behaviour of the people in facing Climate Change challenges, this study was conceptualized to study the practices of Elementary School Teachers on Green Life Style.

Objectives of the Study

The specific objectives of the present study are-
1. To assess and compare the practices of Pre Service and In Service Elementary School Teachers on Green Life Style.
2. To assess and compare the practices of Pre Service Elementary School teachers in different dimensions on Green Life Style.
3. To assess and compare the practices of In Service Elementary School Teachers in different dimensions on Green Life Style.
4. To assess and compare the practices of Pre Service and In Service Elementary School Teachers on Green Life Style with relation to specific issues.

Methodology

The present study tries to find out the practices towards Green Life Style under four dimensions, viz., think green, save resources, manage waste and clean environment.

Design of the study

Survey method was followed in the present study. The sample was divided into two main groups (Pre Service and In Service) on the basis of teacher training program and teaching experience of Elementary School Teachers. Under each main group sub groups were put on the basis of residence(urban and rural), gender(male and female) and subject background (science and arts).

Sample

The study was carried out on 462 (222 Pre-Service and 240 In-Service) Elementary School Teachers. Stratified Random Sampling Technique was followed in the study.
For stratification subject background, gender and residence variables were taken into consideration.

Tools

Practices being culture specific a questionnaire was developed for collection of required data in the present study. The questionnaire had two parts, twenty five items were closed type questions under four dimensions and twenty two items were open type questions. The reliability and content validity of the questionnaire was done through pilot study and experts' opinion.

Data collection and its Analysis

Questionnaires were distributed to Pre Service and In-Service Elementary Teachers who were requested to fill up the necessary information desired about them. They were asked to read the questions and give their responses separately. Percentage was calculated for each possible item on the basis of the responses of pre service and in service Teachers separately. Master tabulation sheet prepared and the data were grouped into different categories and mean, percentage, t-test , ANOVA carried out following a factorial design. Categories were separated by alphabets following Duncan's Multiple Range Test (DMRT) using CROPSTAT (97-2003) software.

Findings

Analysis of Variance on Practices towards Green Life Style:

It showed that there was significant difference in the scores among service and categories of Teachers at 1% level of significance with the mean square of 22.46 and in case of different categories of Teachers, there was significant difference in the scores of 79.21 at 1% level of significance.

Table 1

Analysis of variance (ANOVA) of data on Practice regarding Green Life Style of Pre-service and In-service Elementary School Teachers of Odisha from a 8 x 3 Factorial Design

Source of Variance	DF	Sum of Squares	Mean Squares	Computed F
Replication (R)	2	9.28727	4.64364	
Service (S)	1	34.2944	34.2944	
Category (C)	7	483.809	69.1155	79.21**
S x C	7	137.152	19.5931	22.46**
Error (a)	30	26.1756	0.872521	
Total	47	690.718	14.6961	

CV (b)=1.3%

**= Significant at 1% level

*= Significant at 5% level

ns= Not Significant
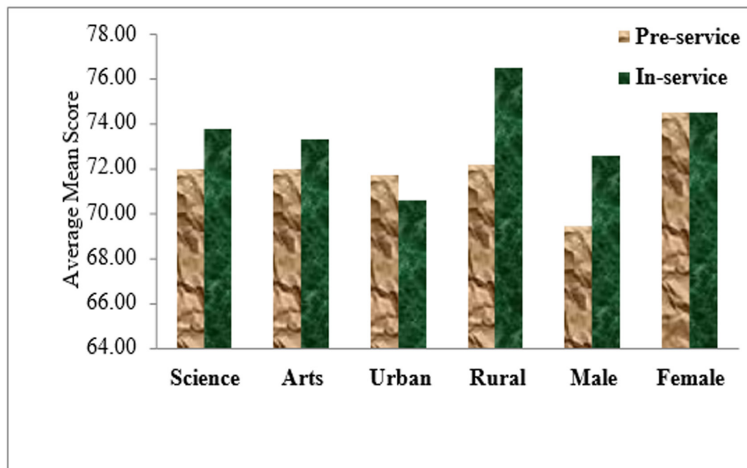
Mean Percent Score in Practice on Climate Change Issues of Pre-service and In-service Elementary School Teachers (Science and Arts; Male and Female; Urban and Rural) of Odisha

1.   Practices on Green Life Style of different category of Pre-service and In-service Elementary School Teachers:

All Pre-Service and In-Service Teachers had good practices towards Green life style. There was significant difference in the scores of the pre-service and in-service Teachers among SRM and ARM category teachers at 1% level of significance. Similarly there was significant difference among AUF and ARF category teachers at 5% level of significance.

Table 2

Mean Percent Score on Practice towards Green Life style of different Teacher Categories of Pre-service and In-service Elementary School Teachers of Odisha

Teacher Category	Percent Score		
	Pre-service	In-service	Difference
SUM	66.41^a	65.83^a	0.58 ns
SRM	72.98^d	80.21^e	7.22**
SUF	73.70^d	73.42^c	0.28 ns
SRF	74.56d^e	75.47^d	0.91 ns
AUM	70.55^c	69.57^b	0.98 ns
ARM	67.72^b	74.69^{cd}	6.97 **
AUF	76.18^e	73.39^c	2.79*
ARF	73.34^d	75.48^d	2.15*

In a column, means followed by a common letter are not significantly different at the 5% level by DMRT

For a row,

** Significant at 1% level,

* Significant at 5% level,

ns= Not significant following 't' test

S=Science, A=Arts, U=Urban, R=Rural, M=Male and F=Female

2.   Practices on different Dimensions of Pre-service Elementary School Teachers towards Green Life Style

Arts pre-service Teachers had better practices towards GLS than the Science teachers in the dimension of *think green, save resources and manage wastes.* The Science Teachers had better practice score than Arts Teachers in the dimension of clean environment. Looking into the residence, the urban pre-service teachers had better practices than their rural counterparts in the dimension of think green and save resources whereas the rural teachers had better practices than urban teachers in the dimension of manage wastes and clean environment. The male teachers had better practices than their female counterparts in the dimension of manage wastes and female teachers had better practices in the dimension of think green, save resources and clean environment.

In the dimensions background, the ascending order of pre-service elementary school teachers practices was clean environment < think green < save resources < manage wastes.

Table 3
Mean percent Score on Practices on different Dimensions of Green Life Style among Pre-Service Elementary School Teachers of Odisha

Pre-Service Teacher Category	Dimension			
	Think Green	Save Resources	Manage Waste	Clean Environment
SUM	69.69[b]	68.68[a]	70.90[a]	56.35[b]
SRM	73.18[c]	78.77[b]	79.99[c]	59.99[c]
SUF	73.71[c]	84.20[d]	76.91[b]	59.99[c]
SRF	69.13[a]	80.24[c]	76.29[b]	72.58[e]
AUM	69.44[ab]	77.77[b]	79.99[c]	54.99[b]
ARM	67.77[a]	71.10[a]	86.66[d]	45.33[a]
AUF	77.77[d]	82.95[d]	79.33[c]	64.66[d]
ARF	74.99[cd]	80.36[c]	75.33[b]	62.66[d]

In each column, means followed by a common letter are not significantly different at 5% level by DMRT
S: Science teacher, A: Arts teacher, U: Urban, R: Rural, M: Male, F: Female
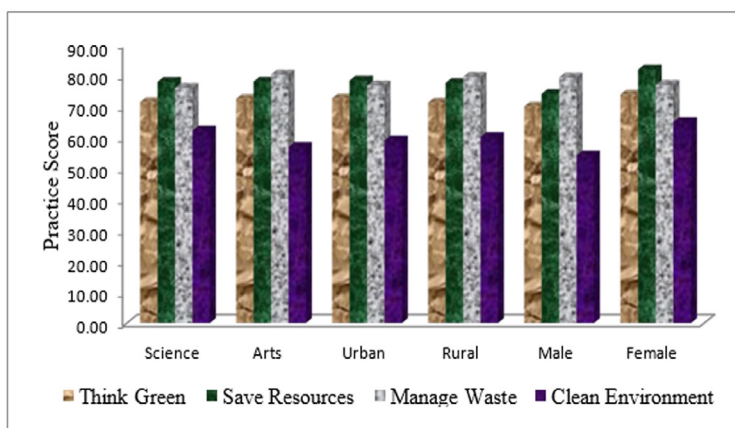
Practice Score on different Dimensions towards Green Life Style of Pre-service (Science, Arts, Urban Rural, Male and Female) Elementary School Teachers of Odisha

3. Practices on different Dimensions of In-service Elementary School Teachers towards Green Life Style

In general the ascending order of In-Service Teachers in all the four dimensions was clean environment < think green <manage wastes < save resources.

A combined mean practice scores towards Green Life Style of Elementary School Teachers showed that the science, arts, rural and male in-service Teachers had more favourable practices towards green life style than the pre-service Teachers. The urban pre-service Teachers were more favourable practices than the urban in-service Teachers. The female Teachers showed the same practice scores. The total practice score of science, rural and female Teachers were better than arts, urban and male Teachers respectively.

Table 4

Mean Percent Score on Practices on different Dimensions of Green Life Style among In-Service Elementary School Teachers of Odisha

Pre-Service Teacher Category	Dimension			
	Think Green	Save Resources	Manage Waste	Clean Environment
SUM	66.66[a]	66.66[a]	65.00[a]	65.00[d]
SRM	80.55[d]	82.96[d]	84.66[d]	72.66[f]
SUF	72.21[b]	81.48[cd]	83.33[d]	56.66[b]
SRF	79.99[cd]	82.58[d]	79.99[c]	59.33[c]
AUM	71.25[a]	75.92[b]	79.99[c]	51.10[a]
ARM	78.32[cd]	81.10[c]	73.99[b]	65.33[a]
AUF	81.93[e]	74.99[b]	78.33[c]	58.32[c]
ARF	77.21[c]	80.73[c]	75.33[b]	68.66[e]

In each column, means followed by a common letter are not significantly different at 5% level by DMRT.

S: Science teacher, A: Arts teacher, U: Urban, R: Rural, M: Male, F: Female
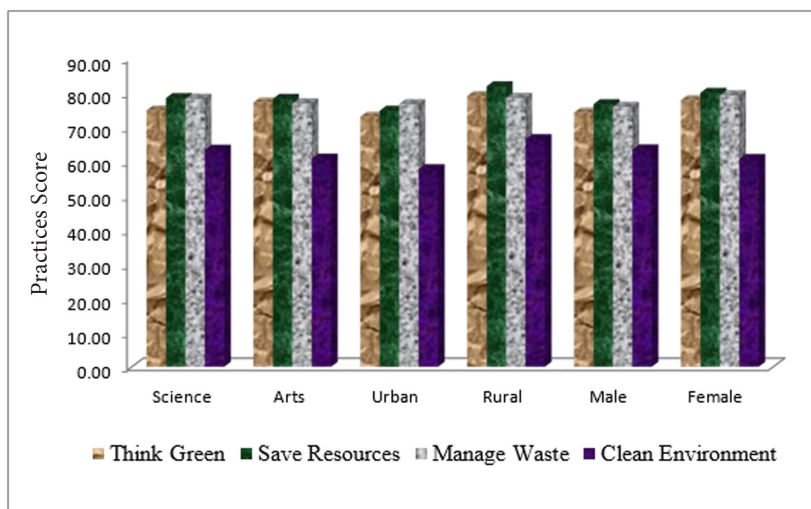
Practice Score on different Dimensions towards Green Life Style of In-service (Science, Arts, Urban Rural, Male and Female) Elementary School Teachers of Odisha

4. Practices on Green Life style (Specific issues)

Green living is a choice that makes individuals to accept a green life style in order to reduce the impact on the environment. Growing green is a life style that includes water and energy conservation, sustainable living and protecting natural resources. Green living/green life style is not only the way of life; it is a state of mind that promotes actions. There are numerous ways to grow green and maintain a green life style leading to be environmental concerns while making day to day decisions.

Looking into the practices it was found that pre-service Teachers love to eat fast food whereas in-service Teachers have less interest to eat fast food. Consumption of fast food is not a green practice as it involves more energy for cooking besides being spices for healthy living. Regarding disposal of domestic wastes most of the pre-service and in-service Teachers put their waste in municipality garbage truck instead of composting. Regarding conservation of rain water both pre-service and in-service teachers love to catch rain water through different methods of harvesting. Regarding drying of wet clothes, varieties of responses have been obtained from the teachers. Mostly teachers use sun drying whereas some teachers use electric dryers for drying of wet clothes.

Practices on Travelling while going to local market as a part of Green Life Style among Pre-service and In-service Science Urban Male and Female Elementary School Teachers of Odisha
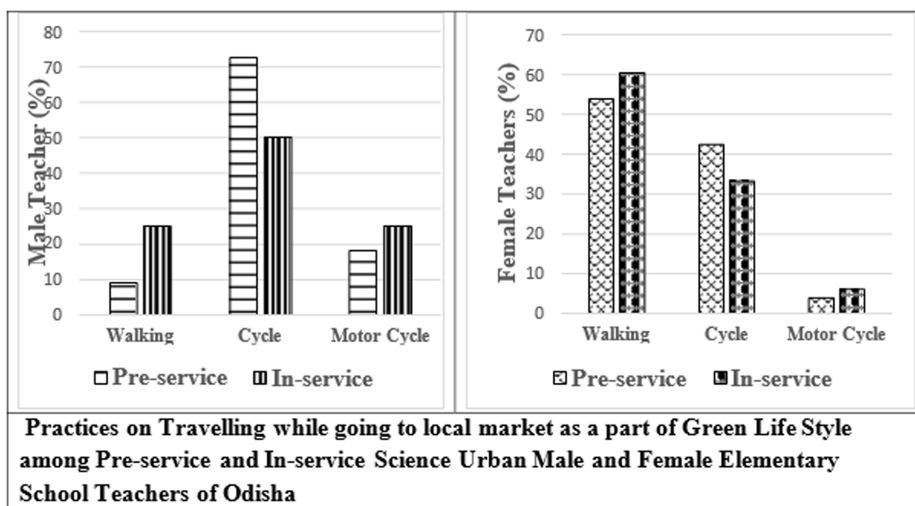
For travelling to local market most of the pre-service and in-service teachers either walk or use motor cycles to fetch goods. Regarding saving of paper use, about 55% of male and 43% of female in-service Teachers write on both sides of the paper whereas pre-service teachers love to use e-messages and also recycle the papers. So the pre-service teachers were more eco- friendly. This could be due to that current young generation are more technology oriented. For a daily cleanliness, most of the pre-service Teachers use detergents and soap whereas in-service Teachers use Vedic products. Young generation were eager to use fast acting product such as soap and detergent. Regarding utilisation of waste water coming from the kitchen, 50% to 60% pre-service and in service teachers use it for watering the garden plants which is a environmental friendly practice. Greening of residential areas is encouraged to get shade, pure oxygen besides adding beauty to homes. Most of the in-service Teachers promote indoor ornamental plants and some pre-service and in-service Teachers grow plants in kitchen garden. Regarding gifting to friends and love ones most of the pre-service teachers either give potted green plants or hand writing gifts. Similar trend has also been observed in in-service Teachers. While cooking most of the male and female pre-service Teachers use pressure cooker and turn off the stove after use to save energy. Besides the above two approaches in-service Teachers close the vessels while cooking and all the methods are eco-friendly. Use of medicines to cure illness, there is a variation among pre-service and in-service teachers for use of different types of medicines. There is a trend towards Homeopathic and Ayurvedic medicines leaving behind Allopathic. For reducing daily use of plastics urban female Teachers usually avoid plastics and

search for alternative to plastics. Among in-service Teachers both male and female groups use alternatives to plastics instead of plastic use to save the environment.

(Male)   **(Female)**

Practices on reducing the use of plastics as a part of Green Life Style among Pre-service Science Urban Male and Female Elementary School Teachers of Odisha
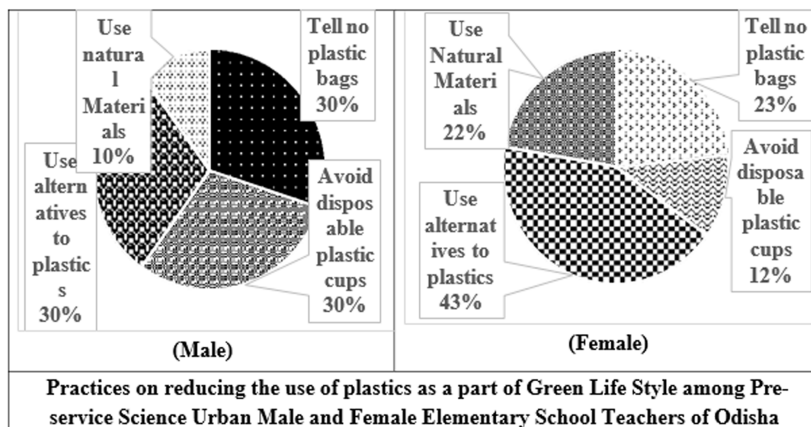
Regarding minimizing the waste most of the in-service science Teachers reduce recycle the wastes whereas 16% Teachers reduce the wastes by reusing those and 25% pre service Teachers reduce their consumption practices. Looking into the nature of use of colours in holy; pre service science male and female Teachers use 36% and 15% synthetic colours respectively. whereas 55% male Teachers and 50% female teachers use herbal homemade colours respectively. Regarding the sculpture most of the Teachers buy it from the market whereas some of the teachers prepare it from the wastes which is a sound environmental practice. Most of the in-service teachers believe that eco-clubs are organised for create environmental awareness whereas 8% of teachers believe that to teach skills on environment. Regarding taking children for outing many of the in-service Teachers love to take to the local park as a right choice. Regarding using automobiles eco-friendly most of the Teachers believed checking fuel efficiency, clean their fuel filters are the eco-friendly practices. Regarding disposal of festival wastes the general practice in the society is to put the wastes in water bodies. Many of the Teachers carried out a variety of practices such as burning the wastes, putting it in the soil, throwing into water and putting in municipality wastes garbage, however 50% of pre service female Teachers put the festival waste under the soil. For welfare of animals 25% of the pre-service Teachers were of the opinion that they love to feed them well. Most of the Teachers love to provide dwelling spaces, food, and water to animals besides being hesitant to use leather goods. For control of insects and pastes, most of the in-service Teachers love to use natural products.

Conclusion

As climate Change and Global warming are global issues there is an urgent need of orientation and training of In-Service Teachers on Environmental Education. Teacher Education curricula must be restructured putting stress on Climate Change and Green Life style for pre service teachers to mitigate the global issues .

Acknowledgement

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A Study of Syntactic Errors in English Committed by the students of Vernacular Medium Secondary Schools of Dibrugarh District, Assam: A Literature Review

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Abstract

The process of second language learning is very complex and despite the conscious efforts of the learners, their second language performance shows a large number of ungrammatical structures or they commit syntactic errors in writing English. Errors in general have always remained a problem for second language learners. Present day, error analysis deals with the students' performance in the cognitive processes they make use of in recognizing or coding the input they receive from the target. This literature review tries to give a synoptic view of the theoretical and the empirical framework on syntactic error analysis, where the investigator's research problem has already been discussed. The most relevant and selected researches on errors were categorised into studies carried out outside India and in India. In the conclusion, the investigator tries to present the trend of research of error analysis with reference to prior similarities and differences of review with the present study.

Keywords: *Error analysis, Syntactic errors, review of related literature, second language*

Introduction

Errors in general have always remained a problem for second language learners. Present day, error analysis deals with the students' performance in the cognitive processes they make use of in recognizing or coding the input they receive from the target. A text is determined legal by the language of syntax and the disagreements with the syntactic rules are called syntactic

errors. In this study syntactic errors refer to the grammatically incorrect sentences in learning English as a second language. As English is a foreign language learnt by step-by-step process, errors and mistakes are very commonly expected. This literature review tries to give a synoptic view of the theoretical and the empirical framework on syntactic error analysis, where the investigator's research problem has already been discussed.

A review of related literature is the process of collecting, selecting, and reading books, journals, reports, abstracts and other reference materials. It helps a researcher in the proper planning of his/her research work by making him/her aware of the latest tools, techniques, trends and other relevant features in the field.

"The purpose of literature review is to convey what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. By reviewing the related literature, the researcher can avoid reinventing the wheel, can identify the gaps in the research area, to identify other people working in the same fields, to carry on from where others have already completed and to fathom the depth of knowledge of the researcher's subject area. The final and important specific reason for reviewing the related literature is to know about the recommendations of previous researchers listed in their studies for further studies. It also helps him to save his energy and time from being wasted of duplication of the research done previously. (Koul, 2009)

The present study is entitled, **"A Study of Syntactic Errors in English Committed by the Students of Vernacular Medium Secondary Schools of Dibrugarh District, Assam"** where the investigator tried to (i) Find out the syntactic errors in writing English committed by Vernacular Medium Secondary students of Class IX of Dibrugarh District, (ii)To make a comparative study of the syntactic errors in English committed by Vernacular Medium Secondary students of Class IX of Dibrugarh District in respect to (a) medium (Assamese, Bengali, Hindi), (b) gender (Boys and Girls) and (c) habitation (Urban and Rural Schools) and (iii)To study the causes of the syntactic errors in English committed by Vernacular Medium Secondary students of Class IX of Dibrugarh District.

Sources of information

Although the present investigator visited a few college and university libraries in India and consulted quite a handful of Ph.D. thesis, dissertations, research journals, books and research abstracts, the internet became the most important source of her collection of relevant literature for the purpose of review.

Presentation of the earlier studies

It is practically not an easy task for the investigator to make a survey of all the previous studies regarding syntactic errors as the field of error analysis is a very vast field. It is, therefore, attempted by the present investigator to make a review of the previous studies which are very much relevant to the present research. The most relevant and selected researches on errors were categorised into studies carried out outside India and in India. In the conclusion, the investigator tries to present the trend of research of error analysis with reference to prior similarities and differences of review with the present study.

Research on Error analysis outside India

A study by **Abeywickrama** (2010) attempted to identify and describe Sinhala speaking undergraduates' errors in English essay writing and thereby make efforts to minimize the problems encountered in their English writing. Written assignments were collected from 60 students of first and second academic years of degree programmes for data analysis. The investigation reflected that negative L1 transfer / interference was not the major cause for errors. Only 20% of the errors occurred due to L1 interference while majority of them (45%) were identified as developmental errors.

Mungungu investigated on errors in writing of ESL Namibian learners in 2010. This study investigated common English language errors made by Oshiwambo, Afrikaans and Silozi L1 speakers in Namibia in a corpus of 360 essays written by 180 participants of Grade 12 from secondary schools. The four most common errors committed by the participants were tenses, prepositions, articles and spelling. Based on the findings of the study, there was no significant difference in the number of errors

recorded from each group. The limitations and some pedagogical implications for future study were included at the end of the research paper.

Another study was conducted by **Pervaiz, Azhar** and **Muhammad Kamal Khan** (2010) on syntactic errors made by Science Students at the Graduate level in Pakistan. This study presented an overview of the errors committed by the students of science subjects from thirty samples of papers conducted in the internal examination of the B. Sc degree students from the University of Sargodha. The researchers analysed, evaluated and identified the errors committed by the learners on Pit Corder's (1981) model of error analysis, with slight changes. On the basis of the findings, certain recommendations were given for effective second language teaching to the students.

Ali, Md. Maksud (2011) investigated on the study of errors and feedback in second language acquisition (SLA) research. This study carried out an empirical cross-sectional survey research on errors and feedback in SLA in the context of Bangladesh. The survey consisted of a questionnaire and the participants were sampled from the ELT practitioners in Bangladesh practicing at primary, secondary and higher secondary levels. SPSS was used to analyse research data. The findings implied that although the ELT practitioners in Bangladesh had empathy for learners' linguistic errors, most of them seemed to lack an insight into using a more appropriate correction strategy, such as motivating the learners to 'self-correct' their errors.

Jdetawy, Loae Fakhri Ahmad (2011) conducted a study on the problems encountered by Arab EFL learners. The purpose of the paper was to review the literature on problems encountered by Arab EFL learners focusing on the many problems in English language learning and the reasons behind the problems. This paper concluded that Arab EFL learners encounter many serious problems in the four language skills, i.e. listening, speaking, reading and writing.

Another study was conducted by **Jayasundara J.M.P.V.K**. and **Premarathna C.D.H.M. in 2011** on errors committed in English by undergraduates. The prime

objective of conducting this research was to examine the most frequent errors committed by the first year undergraduates of Uva Wellassa University, Sri Lanka with 23 male and 22 female. Questionnaire, written compositions, oral test and interviews were implemented as research instruments. The statistical software Minitab 14 was used to analyse the data. The study had shed the light on manner in which students internalized the rules of the target language and the findings were vital in designing curricula for the better fulfillment of the objectives of Second Language teaching and learning.

Zawahreh (2012) investigated into the errors of written production of English essays of Tenth grade students in Ajloun schools of Jordan, estimating the predominant errors and explaining the causes of the written errors from a free composition exercise. The sample of the study consisted of 350 students selected randomly from group of schools in Ajloun. The study found, the most prominent errors were in morphology, function words, syntax, tense and two main sources: Arabic interference and intralingual interference.

Nezami Ali and **Mousa Sadraie Najafi in 2012** investigated on common error types of Iranian learners of English. The paper aimed at obtaining a clear understanding of Iranian EFL learners' L2 writing error types. Two tests were administered to 103 University students majoring in English. Total errors found were 4109 in number in which 1939 were observed in low group, 1579 in middle group and 591 in high group. Data were analysed through a Kruskal- Wallis test. The statistical analysis revealed that there were statistically significant difference among proficiency groups on overall error types they made in their compositions and frequency of occurance of error types in each group was different.

Liu, Meihua and Ying Xu (2013) conducted a study on "An Investigation of Syntactic Errors in Chinese Undergraduates EFL Learners' Compositions: A Cohort Study". Thirty undergraduate non-English majors across disciplines produced 90 essays and answered a self – developed questionnaire. The analysis of the data resulted

in ten types of syntactic errors, caused by diverse reasons, of which carelessness and the differences between Chinese and English were considered the most crucial.

Kaweera, Chittima conducted a study in 2013 on Writing Error: A Review of Interlingual and Intralingual Interference in EFL Context. This paper aimed to review the theoretical concept of interlingual interference of the mother tongue, Thai to the target language, English. This review article also exemplified some frequent errors normally found in Thai students' writing based on three perspectives of interlingual interference. It was also seen that errors found in Thai students' writing errors were assumed first language interference and inadequate acquisition of the target language.

Sawalmeh (2013) investigated on error analysis of written English of the preparatory year programme in Saudi Arabia. The study attempted to investigate the errors in a corpus of 32 essays written by 32 Arab speaking Saudi learners of English. All of the errors in these essays were identified and classified into different categories. On the basis of these results, a group of recommendations to further research were suggested and some pedagogical implications.

Al-Zoubi and Mohamad Ahmad (2014) investigated on the influence of the First Language (Arabic) on learning English as a second language in Jordanian Schools, and its relation to educational policy: Structural errors with a sample of 266 students studying in the Balqa Applied University. A translation test consisted of 24 sentences and divided to eight areas written in Standard Arabic where the students were asked to translate these sentences into English. The study has revealed that the percentage of total errors committed by the study sample in all areas exceeded percentage of correct answers (47.52%), where the percentage of the wrong answers was 52.48%. The percentage of transfer errors in the use of verb be, the use of addition to and the use of passive voice were the highest.

A study conducted by **Faisyal, Rachmat (2015)** on "Morphological and Syntactic Errors Found in English Composition written by the Students of Daarut

Taqwa Islamic Boarding School Klaten" which focused on errors in narrative English writing written by 14 students of grade five of KMI Islamic boarding school in Klaten in order to know their classification of errors. In technique of analyzing the data, the researcher used the procedure of Brown (1980). The findings of the research showed that the students created more errors in syntax rather than in morphology with different source of errors.

Stella, Muchemwa (2015) conducted a study on learning English for an Academic purpose: the errors of an English learner, where she studied the errors made by learners at Solusi University and made recommendations in order to improve English writing skills. The study employed qualitative research methodology. The researcher obtained data by observation and diary recording of errors made by all the 2014 Intensive English Class (N=7). A modified Ellis (1985)'s Error Analysis procedure was employed. The study revealed lexicon and semantic errors; syntax and morphology errors and orthography errors.

Ngangbam (2016) in her study on "An Analysis of Syntactic Errors Committed by Students of English Language Class in the Written Composition of Mutah University: A Case Study" investigated why and what problems tend the Arabic Speaking university students to have interlanguage syntax error. The sample of the study comprised of 60 English language class students of Mutah University and the data was collected via written discourse completion tests, in the form of narrative essays. She found the most frequent errors committed by the subjects were in spelling, punctuation, sentence fragments, syntax, prepositions and verbs. The errors were found committed due to lack of consideration, memory lapses, carelessness, confusion, mother tongue interference, lack of grammatical knowledge and developmental errors.

Another article by **Mukhtar Nasser Hawash Muqbel (2018)** attempted to highlight the meaning of error analysis. It includes definitions of errors, steps of error analysis and significance of errors. It also differentiates between errors and mistakes, presents sources of errors and classification of errors.

Iftakhar Ahmed (2019) conducted a study "Error analysis as a tool to improve writing skill: A journey from pre-test to post-test" where he aimed to make the English language learners' writing skill more effective at the undergraduate level of Bangladesh. For this purpose the evaluation of the writing component of a four

months' Communicative English language course was conducted with a pre-test and a post-test. The errors noted down from the first evaluation were: SV agreement, collocation, mechanics, complementary clause, gerund, modal verbs, word order, pronoun, redundancy, capitalisation, determiners punctuation marks and double negatives.

K.Puri (2019) in his study "Error analysis in composition writing by tenth graders" tried to identify and describe the grammatical and semantic errors committed by the tenth graders in writing essays and to classify the errors along with some suggestions for pedagogical implications. A test item was prepared in SEE model to collect data from 50 students. The result showed S-V agreement was found to be the most problematic (36.70%), punctuation next (29.21%) and preposition (35.89%) from the students' side. Most of the semantic errors were caused due to wrong selection of adjectives.

Wirada Amnuai (2020) in her study tries to focus on writing errors in English abstracts written by Thai undergraduate students. Forty abstract of research projects were collected and analysed on sentence level, word level and mechanics aspect. The five most frequent error types ranking from the most frequent to least frequent were word choice, preposition, sentence construction, singular or plural forms and quotation marks. The findings have shed light on the students' writing ability and the problems they face. Also, the errors found have pedagogical implications concerning English language learning, particularly with writing courses.

In a study "An error analysis of the use of English Articles in descriptive texts", the investigator, **Siti Rodiyatul Aldhawiyah (2021),** aimed to analyse the types of errors made by the tenth grade students of SMA Triguna Utama, Ciputat, Jakarta on the use of English articles in descriptive text and analyse the cause of errors. The sample was of 31 students. A qualitative method with descriptive statistical analysis, the data were gathered from writing test and interview and analysed with the formula; P=F/Nx100. The findings showed students made errors in three types: omission, addition and misinformation.

Z. Iqbal (2021) conducted a qualitative and descriptive study on "A study of error analysis in written production: A case study of English essays by students of

Multan, Pakistan." The study investigated the errors committed by the secondary level students. The data was collected from 30 students of class X through essay writing. The study analysed the data by employing Corder's (1967) model of error analysis. The findings showed that students seem to have no concept of grammar, specially tense, numbers, pronouns, adjectives and adverbs.

In a study "An error analysis in writing introduction on journal papers by Indonesian authors" by **Ranggita Karimah (2022)**, the aim was to know what types of errors that occur on journal papers by Indonesian authors in writing introduction. The result found that there were eight (8) types of errors in introduction section. Most errors occur was word choices error.

In another study by **Fatemeh Amiri (2023)** "Error analysis in academic writing: A case of International Postgraduate students in Malaysia", different types of writing errors were examined performed by 16 international postgraduate students of an intensive English course at a public university in Malaysia. Mixed methodology approach was employed to examine and analyse the term papers. The result revealed that four most common English language errors were sentence structure, articles, punctuation and capitalization. This study also shed light on the manner in which students assumed the rules of English to that of their native language.

Research on Error Analysis in Indian context

Singh, Vinay Kumar (2009) conducted a study on "A Linguistic Analysis of the syntactic errors in the use of the verb phrase made by the students of Class 10th at Gonda (UP)". For collection of data, the researcher used questionnaire cum written test technique. In order to represent data statistically, the SPSS had been used. He found highest number of errors in the use of Modal. They made interlingual errors (77%) more than intralingual errors (3%).

Another study by **Benzigar (2013)** on "The Rural Madurai Undergraduates' English Writings: An Analysis" focused why the undergraduates from Madurai colleges of Tamil Nadu continued to produce several errors in their written production. A sample of 165English writings were collected by administering free composition as a tool. The analysis showed that the learners produced 3192 errors in their free

compositions,780 syntactical errors, 693 lexical errors and 746 orthographical errors. The errors were mostly the result of mother tongue influence, lexical mis-selection, overgeneralization and learners' failure to understand that English language has more letter alternatives to a sound than sound alternatives to letter.

Kader, Noora Abdul (2013) analysed the syntactic errors in English language grammar among secondary school students of Kerala. The study analysed syntactic errors in writing task of 200 secondary school students of Kerala. Students were given language acquisition test. The investigator found ten different areas of errors and categorized in the descending order of number of errors. The result revealed that attitude of the students' interlingual interference and the present method of teaching were the major causes of syntactic errors. Two prominent teaching strategies were suggested, namely sheltered instruction and task based approach to help learners to overcome the errors.

Joseph, Thomas in 2014 conducted a case study of error analysis. The study made an attempt to analyse the English language proficiency of the first year engineering students who had their school education in regional (Tamil) medium. The study covered the types of errors, causes of errors in using tenses and remedial suggestions to improve their proficiency. Reasons found out were that influence of mother tongue was the negative influence on the performance of the target language learners.

Lok Raj Sharma (2018) in his study investigated the errors in 70 essays written by 70 bachelor first year students studying Compulsory English as a foreign language. The results showed that the students committed sixteen common errors. Most of the students' errors were due to the intralingual factors. Errors in sentence structures and verb tense were normally influenced by their mother tongue interference.

A.A.Khansir(2022) wrote an article on "Error analysis and English syllabus" where he tried to trace theoretically the notion of error analysis and its importance and validity in English language courses. One of the greatest contributions of Error analysis to language teaching has been its emphasis on careful and extensive learners' errors for language syllabus in general and English in particular.

Krishna Hazarika (2022) in his study "Error analysis: an essential tool for English language teaching and learning" seeks to investigate the errors made in speaking and writing by certain Assamese second or foreign language learners. The data is examined in light of Corder's four categories from précis writing and translation passage. This study found that making mistakes while learning a language is a necessary part the process and that systematic analysis is crucial because it offers a deep understanding of the process of language learning and many solutions to various issues related to language learning.

Summary of main findings of the previous studies

➢ The most prominent areas of errors found in foreign learners of English are: grammar, orthography, syntactic, lexical and morphology.

➢ The reasons behind the errors are: lack of target language exposure, preference of L1 in ELT classrooms or due to intralingual transfer, lack of personal motivation, lack of teachers' preparedness to facilitate the target group and inadequate acquisition of L2.

➢ Developmental factors like simplification and overgeneralization also account for many EFL learners' errors.

➢ Negative L1 transfer or interference is not the major cause for errors. Majority are identified as developmental errors.

➢ Errors in written English have not been studied in relation to psychological variables as such. The only psychological factor often studied is the cognitive style of the subjects.

➢ Article, preposition, tense and voice, because of their abstract nature, are big sources of errors for all foreign learners of English.

➢ Quantitative analysis of corpus based essays is the most popular technique and only a few investigators make use of qualitative analysis.

Observations from Indian studies on errors

- ➢   Most of the studies were in the form of surveys.
- ➢   In the process of investigating the problem, few investigators have developed their own tools for assessing the errors. Few validated tools were available for the purpose and these were not found to be very helpful for the present study. Standardisation of tools was also not deduced.
- ➢   In these studies for Indian students spelling, punctuation, verbs, vocabulary, conjunctions, wrong tense, syntax, missing letters are the major areas of errors.
- ➢   Influence of Mother Tongue, ignorance of rules, language transfer and teaching learning situation are the major causes of errors for the Indian ESL/EFL learners.
- ➢   Students lack of interest and motivation in learning English as second language.

Gaps identified in the previous studies

- ➢   Only a few aspects of errors have been found out by the previous researchers. The present study attempts a detailed study of ten aspects of grammatical or syntactical errors committed by the vernacular medium students of secondary level.
- ➢   Though the previous researchers tried to study the only psychological factor, i.e., the cognitive style of the subjects, they ignored some other aspects. In this present study, the investigator tries to show how these aspects affect the students.
- ➢   No standardised self developed tool was prepared in the previous studies. The present study is attempted to find out data on the basis of self developed standardized tool.
- ➢   The studies did not focus on a comparative study of errors committed by the students.
- ➢   A few of the studies did investigation on secondary level students, but did not primarily focus on the students of Class IX.

➤   In Assam, there has been rare study on syntactic errors and no comparative study of the syntactic errors between vernacular medium students of secondary level.

➤   The sample size of earlier studies has been very less in number. The present study tries to take 600 students as sample from Assamese, Bengali and Hindi medium.

This present study is therefore attempting to work on these gaps.

Conclusion

In the present study the researcher has come across about 30 studies related to syntactic errors conducted at the international level and in India for various academic degrees of various universities. This review reveals the information on varied aspects of syntactic errors, the sources of the errors and suggestions to eliminate the errors. Moreover, it provides an idea about the methodology to be adopted by the investigator in terms of sources of data, procedure to be followed for collecting data and to interpret and analyse those data. The review also reveals that hardly any study has yet been conducted in Assam on syntactic errors, especially syntactic errors committed by Vernacular Medium Secondary students of Class IX with special reference to Assamese, Bengali and Hindi medium students. A summary of the main findings of the previous studies were made and the gaps identified have also been presented here.

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Mathematical Technological Pedagogical and Content Knowledge (M-TPACK) of Secondary Math Teachers

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Abstract

TPACK has become an essential element in the field of teaching in all subjects. In teaching Mathematics, teachers' technological knowledge along with the subject and pedagogical knowledge is essential to meet the requirements of students' learning. In the study, the researchers adopted a tool "TPACK-M-US" developed by (Smith & Zelkowski, 2022). A descriptive research design was used for the study, in which 50 teachersteaching mathematics at secondary schools in Assam, India were considered. The study revealed that the M-TPACK level of the teachers was quite high. Moreover, no such differencewas found in the M-TPACK of the teachers based on gender, medium of instruction, and teaching experience. Whereas, in the case of types of schools, a significantdifference was observed.

Keywords: *M-TPACK, secondary school mathematics teacher, NEP 2020.*

Introduction

Technology in the present era is taking a deep place in the daily life of human entities. In almost all aspects of human life technology has direct or indirect influences. In the educational sector also, technology has become an integral part of the planning the evaluation process. After the COVID-

19 pandemic, technology has become more important than the earlier years. Whether it is school education, higher education, vocational education, teacher education, etc. technology is incorporated in every aspect. The NEP 2020 has also given a special emphasis on digital infrastructure and the online teaching-learning process. For the successful integration of technology, the knowledge and competency of the teachers who are providing their services at various levels of education is essential. Shulman (1986) for the first time introduced the term pedagogy in the teaching process. Earlier,teaching competency was considered by the stack of knowledge a person had. He developed aframework- "Pedagogical Content Knowledge (PCK)" by combining both subject knowledgeand pedagogy. Later on (Mishra & Koehler, 2006) added one more important component of the teaching-learning process i.e., technology, and formulated the "Technological Pedagogical and Content Knowledge (TPACK)" framework. Since then, it has been the focus of several researchers. In recent trends, various researchers have tried to integrate this framework with their concerned subject areas and got several benefits in their teaching as well as in the learningof students. Subjects like Science and Mathematics at the school level, which mostly rely on activity-based teaching and learning, have ample scope to incorporate technology. For this, along with the digital infrastructure in the school environment, the knowledge of the teachers about modern technologies and how to integrate them into their teaching is of utmost importance. They should at least have the basic knowledge and ideas about using digital platforms such as MS Word, PowerPoint, calculations in spreadsheets, various static and dynamic software related to teaching-learning, graphic calculators, academic social media, interactive boards, mobile technologies, live-classroom apps, etc.

Rationale of the study

At the secondary level, students face difficulties in learning abstract concepts in mathematics.It's quite difficult for a teacher to give only theoretical knowledge regarding the respective concept. With the help of technological setup, these problems can be reduced to a great extent.Keeping in view the changing connotations in the

field of education due to the emergence of technologies throughout the globe, it's high time for teachers to imbibe the newness in their teaching. This can successfully be realized and incorporated if the teachers can integrate technology into their teaching. For this, they must know basic technologies and also how to involve these in the process of teaching. Looking at this, it has become of utmost importanceto assess the M-TPACK of secondary math teachers.

Objectives

➢   To determine the M-TPACK of secondary math teachers.

Hypotheses

* **H-1:** Secondary math teachers have no significant difference in their M-TPACK based on their teaching experience.

* **H-2:** Male and Female secondary math teachers have no significant difference in their M- TPACK.

* **H-3:** Government and Private secondary math teachers have no significant difference in their M-TPACK.

* **H-4:** English and Assamese medium secondary math teachers have no significant difference in their M-TPACK.

Methodology

Research design

M-TPACK of secondary math teachers in Assam, India was aimed in the study. For this, a descriptive web-based survey design was employed in the study. A survey was conducted online to collect data from secondary school mathematics teachers. Mean and standard deviation were used for determining the M-TPACK level, whereas inferential statistics such as unequal variance t-test for unequal variances and one-way

ANOVA were applied for evaluating mean differences.

Participants

Mathematics teachers who are teaching at the secondary level from various places in the state of Assam, India were the targeted population. As the population was quite large and diversified, it was noteasy to use the probability sampling technique. For the selection of the samples in the study, the researchers used a purposive sampling technique. The samples were considered as per the requirements of the research objectives. Thus, only the teachers who are teaching at various government and private high and high-secondary schools were considered in the study. Demographic variables were taken into consideration while choosing the samples such as gender, types of school, medium of instruction, and teaching experience. No such proportionate measures were considered while selecting the samples based on the demographic variable as cited above. Thus, looking at all the considerations, a total of 50 participants were finalized for the study.

Out of the total participants (N=50), there were 36 male and 14 female teachers as shown in Fig 4

1. The number of teachers from government and private schools was 36 and 14 respectively as shown in Fig 2. The number of teachers from the Assamese medium of instruction was 31, whereas, from the English medium of instruction, it was 19 as shown in Fig 3. Finally, 31, 2, 4, and 13 teachers respectively had 0-3, 3-5, 5-10, and more than 10 years of experience in their teaching profession as shown in Fig 4.

Research instrument

The investigators adopted a developed tool for the collection of data. The tool was originally designed by (Handal et al., 2013). Smith and Zelkowski (2022) revised the original instrumentand validated it in the U.S. context. It was designed especially for middle and high school mathematics teachers to assess their M-TPACK. The researchers used an instrument that was. The researchers with due permission from

the developer, decide to use the instrument for the research purpose at the local level. The tool is a 5-point Likert scale consisting of 30 items.

Data collection procedure

As the population of the study was large enough, the investigators decided to send the tool to the respondents with the help of an online survey. For this, a Google form was created havingtwo sections. The first section was related to the identification of data i.e., the basic informationof the participants. In this section, gender, types of schools, medium of instruction, and teaching experience were covered as demographic variables. The items of the instrument were made available in the next section. No modification in any form of the instrument was done in the study. The researchers tried to connect with the mathematics teachers from various schools via phone calls and WhatsApp. After the connection, the tool was sent to the respective teachers out of which, only 50 of them responded to the survey. Thus, it was decided to consider the collected 50 responses for the further analysis.

Results

M-TPACK of the mathematics teachers at the secondary level was the main aim of the study. Moreover, the mean differences between the teachers with respect to gender, types of school, medium of instruction, and teaching experience were another aspect of the study. M-TPACK level of the teachers was evaluated using mean and standard deviation. t-test for unequal variances was applied to determine the mean differences in the teachers' M-TPACK based on variables such as gender, types of school, and medium of instruction. On the other hand, One-way ANOVA was used to find out the mean differences among the various age groups of the mathematics teachers.

i. Analysis of M-TPACK of secondary school mathematics teachers

The average mean M-TPACK of the teachers was 4.03 as shown in Table 1, which is good enough based on the 5-point Likert scale. It highlights that the teachers had

a high level of M-TPACK. Moreover, it was observed that the male teachers (=4.07) had higher M-TPACK in comparisonto the female teachers (=3.95). Similarly, the M-TPACK of the private teachers (=4.34) was comparatively higher than the government teachers (=3.91). In addition, the M-TPACK of the teachers who are teaching in the English medium of instruction (=4.19) was higher than that of the teachers who are teaching in the Assamese medium of instruction (=3.94). Finally, the M-TPACK of the teachers having teaching experience of 3- 5 years (=4.25) was the highest followed by experiences of 10+ years (=4.21), 0-3 years (=4.01), and 5-10 years (=3.64) respectively.

ii. Analysis of Mean Differences

The F-value for M-TPACK of the mathematics teachers at the secondary level is F[df, 46/3, 1.592, p >0.05] as indicated in Table 2. The first hypothesis is therefore accepted at a 0.05 significant level. No significant difference was identified in the M- TPACK of the secondary school mathematics teachers among 0-3 years, 3-5 years, 5-10 years, and more than 10 years of experience.

Table 3 indicates that the calculated t-value of the M-TPACK of secondary school mathematics teachers based on gender (Male and Female) is 0.56 and the corresponding p-value >0.05, which determines that the second hypothesis is accepted at 0.05 level. Thus, male and female secondary math teachers had no significant difference in their M-TPACK at 0.05 level.

Whereas, the calculated t-value related to the demographic variable types of school (Government and Private school) was found to be 2.75, and the corresponding p-value <0.05, i.e., the third hypothesis is rejected at 0.05 levels. Therefore, a significant difference was evident in M-TPACK of the mathematics teachers at the secondary level based on types of institutions at 0.05 level.

On the other hand, regarding the medium of instruction, the calculated t-value was 1.45 with a p- value >0.05, thus the fourth hypothesis is accepted at 0.05 level. Hence, English and Assamese medium secondary math teachers had no significant difference in their M-TPACK at 0.05 level.

Table 1: M-TPACK of secondary school mathematics teachers

No. of Respondents	Mean	Average Mean	SD
50	121.04	4.03	18.52

Table 2: Mean difference of the secondary school mathematics teachers' M-TPACK based on teaching experiences

Scores	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1581.512	3	527.171	1.592	.204
Within Groups	15228.408	46	331.052		
Total	16809.920	49			

Table 3: Mean difference of the secondary school mathematics teachers' M-TPACK based on gender, types of school, and medium of instruction

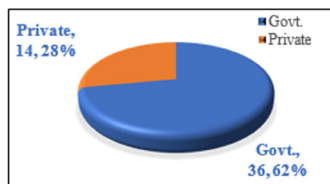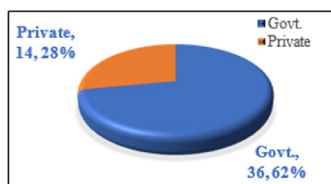| Variables	df	t-value	p-value
Gender	20	0.56	0.58
Types of school	36	2.75	0.009
Medium of instruction	44	1.45	0.15

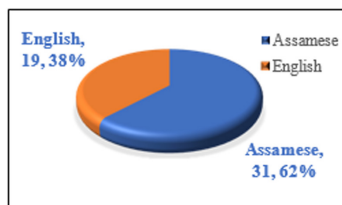Fig 2: Distribution of participants based on
Types of School

Fig 3: Distribution of participants based on
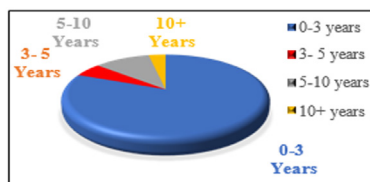Medium of Instructions

Fig 4: Distribution of participants based on
Teaching Experience

Discussion

The study revealed that secondary school mathematics teachers had a high level of M-TPACK. This can be related to the studies (Yadav & Ganie, 2019; Arora & Pany, 2021; Thirunavukkarasu, 2021) showing an average level of M-TPACK of the teachersin their teaching. The reason for the difference in the result of the study from the other literature may be the small sample size, a greater number of new teachers, easy access to digital technology, internet connectivity, etc.

The researchers considered a total of four hypotheses out of which three were accepted at 0.05 level, whereas one of them was rejected. It was found that the teachers were not having differences in the M-TPACK based on gender, which counters (Bora & Ahmed, 2018; Fahadi & Khan, 2022); medium of instruction, and teaching experience that supports (Yadav & Ganie,2019; Thirunavukkarasu, 2021).

In contrast, the hypothesis related to types of schools was found to be rejected at 0.05 level of significance. It indicates a difference in the M-TPACK of the teachers. This may be due to the differences in the availability of digital infrastructure in government and private schools; attitudes, perceptions, and beliefs, etc. of the teachers towards technology integration, and administrative support.

Conclusion

TPACK of the teachers has become an integral part of teaching nowadays. In the teaching of mathematics, it serves as one of the key elements. The study revealed that the teachers had quite satisfactory levels of M-TPACK. This may influence positively the successful integration of digital technology in classroom teaching. This may also support the curriculum framers who think about the inclusion of digital technology as per the recommendations of NEP 2020 for school- level education. The major initiatives recommended by the NEP 2020 on digitally enhanced education such as digital infrastructure, teaching platforms, digital repository, virtual labs, training of teachers, blended mode of learning, etc. are possible only when the teachers are ready to accept the newness; develop positive attitude, interest, belief, etc.; and use

technology in their teaching in real ground.

Suggestions

It was observed that female teachers had less M-TPACK than that of male teachers. Similarly, private school teachers had higher M-TPACK than government teachers. Teachers teaching in Assamese medium of instruction were lacking in the M-TPACK that of English mediumof instruction. However, in the context of teaching experience, a mixed result was observed. These all show that there is an uneven state of technological knowledge of the teachers in various aspects. Thus, we would like to make it noticeable through this study to:

i.   Provide all the teachers a proper and uniform in-service training regarding technology integration in the teaching by the administration and government.

ii.   Platforms such as SWAYAM, e-PG Pathshala, MOOC, SWAYAMPRABHA, NDL, Shodhganga, etc. are appropriate.

iii.   In the implementation of NEP 2020, a systematic and organized process in the integration of technology in school education as well as teacher education can also be incorporated.

iv.   Promoting awareness among teachers by the government and other related agencies towards utilizing platforms such as Turnitin, Urkund (Ouriginal), SPSS, Mendeley, and LinkedIn; collaborative activities among teachers for and through digital technology; and in-service programmes such as seminars, conferences, workshops, refreshercourses, etc.

Limitations

However, there were certain limitations in the study such as:

i.   The tool was modified in the U.S. context and we used it directly in the regional context, so there is a scope to re-validate the tool in a regional context.

ii.   In addition, the sample size considered here was 50, for which we might have

got results that deviated from the other literature.

iii.   Another shortcoming in the study might be, that we used a tool that was written in the English language, and we considered teachers from the vernacular medium of instruction.

Future scopes of study

We would like to suggest several scopes for further research considering all the shortcomings in the results of the study, such as:

i.   The inclusion of more items in the Indian context.

ii.   Translation of the existing items into regional languages

iii.   Consideration of more samples in future studies.

Acknowledgement

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An Empirical Study on Employee Engagement and Organisational Citizenship Behaviour: A Special Focus on In-service Teachers of Assam

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Abstract:

The study explores the relationship between job satisfaction, teachers' engagement, and Organisational citizenship behaviour (OCB) among in-service teachers of Government schools of Assam. The research objectives were to investigate the relationship between job satisfaction and teachers' engagement and also to examine the relationship between teachers' engagement and OCB. A quantitative research approach was adopted, and data was collected through surveys administered to 585 teachers. Correlation and regression analyses were used to analyse the data.

The findings of the study reveal a significant and positive relationship between job satisfaction and teachers' engagement. Higher levels of job satisfaction were associated with increased teachers' engagement. Additionally, there was a significant and positive relationship between teachers' engagement and OCB. Higher levels of engagement were linked to increased levels of OCB, indicating that engaged teachers are more likely to exhibit behaviours that contribute to the effectiveness of the educational institution.

The study emphasizes the importance of enhancing job satisfaction and engagement among teachers to improve overall performance and create a conducive work environment. It further recommends strategies such as providing professional development opportunities, improving working conditions, recognizing and rewarding contributions, and promoting a supportive work culture. Creating a positive and collaborative work environment can foster teachers' engagement and promote OCB.

Keywords: *Job Satisfaction, Teachers' Engagement, Organisational Citizenship Behaviour (OCB)*

1. Introduction

In today's rapidly evolving educational landscape, the role of teachers extends beyond the traditional classroom setting. Teachers are increasingly expected to exhibit not only exemplary teaching skills but also a high level of commitment and dedication towards their profession. As a result, understanding the factors that contribute to teachers' engagement and their impact on organisational citizenship behaviour has become essential for educational institutions seeking to enhance teacher performance and create a conducive work environment.

According to the National Education Policy (NEP), 2020 "*Teachers truly shape the future of our children - and, therefore, the future of our nation. The motivation and empowerment of teachers are required to ensure the best possible future for our children and our nation*." Job satisfaction among teachers can act as a catalyst for their motivation, ultimately resulting in higher levels of engagement and productivity. Job satisfaction is a multidimensional construct that encompasses an individual's overall perception and evaluation of their job (Gruneberg, 1979). It includes factors such as the level of autonomy, workload, relationships with colleagues and supervisors, and opportunities for professional growth and development. Understanding the relationship between job satisfaction and teachers' engagement provides, valuable insights into the factors that contribute to teachers' overall job satisfaction and wellbeing. When teachers are satisfied with their jobs, they are more likely to be engaged, enthusiastic, and committed to their work. This, in turn, positively impacts their motivation, productivity, and overall job performance. Understanding how job satisfaction influences teachers' engagement is crucial for educational institutions as it can directly impact the overall quality of education provided.

Teacher engagement plays a vital role in determining the quality of education provided to students. Engaged teachers are more likely to go above and beyond their formal job

requirements, exhibiting behaviours that contribute to the overall effectiveness of the educational institution. These behaviours, known as Organisational citizenship behaviour (OCB). Organisational citizenship behaviour refers to discretionary behaviours exhibited by employees that go beyond their formal job requirements but contribute to the overall functioning and effectiveness of the organisation (Organ, 1988). These behaviours may include assisting colleagues, volunteering for additional responsibilities, and actively participating in decision-making processes. Examining the link between teachers' engagement and OCB can provide valuable insights into how engaged teachers contribute to a positive work environment and foster a culture of collaboration and cooperation within educational institutions.

Objectives of the study

a) To study the relationship between job satisfaction and teachers' engagement.

b) To study the relationship between teachers' engagement and organisational citizenship behaviour.

Hypotheses

Null Hypothesis - H_0

1. H0- There is no significant and positive relationship between Job Satisfaction and Teachers' Engagement.

2. H0- There is no significant and positive relationship between Teachers' Engagement and Organisational Citizenship Behaviour.

2. Review of Literature

The review of literature explores various aspects related to job satisfaction, employee engagement, organisational citizenship behaviour (OCB), and their interconnections. Overall, the review of literature provides a comprehensive understanding of job satisfaction, employee engagement, and OCB, highlighting their interdependencies and the factors that influence them.

Job Satisfaction

Job satisfaction refers to the level of contentment or fulfilment an individual experiences in their job or occupation. Job satisfaction is a complex construct influenced by various factors within the work environment. Several recent studies have examined the relationship between job satisfaction and different variables among teachers and non-managerial employees. Bulilan (2023) conducted a study at Bohol Island State University in the Philippines, finding that job satisfaction was influenced by length of service and its impact on job performance. Nurgaliyeva et al. (2023) explored teachers' job satisfaction in Kazakhstan, highlighting the positive correlation between technological competencies and job satisfaction, along with the influence of gender and professional seniority.

Tirana et al. (2023) focused on motivation factors in Albania, finding a positive correlation between job motivation and job satisfaction, with internal motivation having a greater impact. Dilekçi (2022) examined teacher autonomy in Turkey and its relationship to job satisfaction, emphasizing the positive association between the two. Aprilianti and Dewanto (2022) explored emotional intelligence and work experience among non-managerial employees, finding that work experience had a significant effect on job satisfaction. Yusnita et al. (2023) investigated the relationship between work environment, job satisfaction, and employee performance, revealing the direct positive influence of the work environment on performance, mediated by job satisfaction. Muttalib et al. (2023) analysed the determinants of Organisational commitment, with work stress negatively affecting job satisfaction and work motivation positively influencing commitment. Ganga (2022) examined the relationship between classroom management behaviour, personality traits, and job satisfaction among teachers. Rani (2021) explored teacher effectiveness in relation to job satisfaction and found a positive correlation between the two.

Collectively, these studies highlight the multifaceted nature of job satisfaction among teachers, emphasizing the importance of factors such as job performance, technological competencies, motivation, autonomy, work environment, emotional intelligence, work experience, and classroom management behaviour. Understanding and promoting job satisfaction are essential for fostering positive work environments and improving educational quality.

Employee Engagement

Employee engagement refers to the level of commitment, passion, and enthusiasm employees have toward their work and their Organisation. According to Alfes et al. (2010), employee engagement can be defined as actively and willingly participating in work tasks, exerting intellectual effort, and experiencing positive emotions and meaningful interactions with colleagues.

Employee engagement consists of three dimensions of engagement: vigour, dedication, and absorption (Schaufeli and Bakker, 2004).

➢ **Vigour :** This dimension refers to high levels of energy and mental resilience while working.

➢ **Dedication:** It represents a strong sense of significance, enthusiasm, and inspiration towards work.

➢ **Absorption:** Absorption reflects being fully concentrated and engrossed in work activities

Research has shown that employee engagement is influenced by various factors. The study conducted by Monica and Ananthan (2023) examined the correlation between employee engagement and happiness. The findings indicated that factors such as poor remuneration, lack of recognition and support from colleagues, micromanagement, burnout, and stress negatively impact engagement and happiness. To promote employee engagement and happiness, the study suggests the importance of work-life balance and fostering positive relationships between employees and managers.

Another study by Mohanty and Kulkarni (2023) focused on the concept of employee experience as a disruptive approach to employee engagement. The study emphasized the need for Organisations to align with changing workforce expectations and redesign the employee experience. It highlighted the role of technology, personalization, data analytics, and effective communication channels in enhancing employee experience and fostering a trustworthy work environment.

The study conducted by Apriani, Darmayanti, and Patisina (2023) explored the

influence of perceived organisational support (POS) and generational groups on employee engagement. The findings highlighted the significant impact of POS on employee engagement and emphasized the role of group dynamics and discussions in improving Organisational support and subsequent engagement levels.

In the context of teachers, research has shown that employee engagement is positively associated with job satisfaction, performance, and Organisational commitment (Fatima, 2022; Deepika M., 2021; Sunil Yadav, 2022). Additionally, studies have found that factors such as supportive leadership, clear communication, and opportunities for professional development can help to foster teacher engagement (Pawar, 2014; Monika Payal, 2021).

Overall, these studies highlight the importance of employee engagement and the factors that can influence it. By understanding these factors, Organisations can create a work environment that fosters employee engagement and leads to improved outcomes for both the Organisation and its employees.

Organisational Citizenship Behaviours (OCB)

Dennis Organ, an Organisational psychologist, introduced the concept of Organisational citizenship behaviour (OCB) in 1988 and provided a definition for it. OCB refers to voluntary individual behaviours that contribute to the effective functioning of the Organisation, but are not explicitly acknowledged or rewarded by formal systems. Unlike mandated job responsibilities, OCB is discretionary and not compelled by job descriptions or reward systems. Organ emphasizes that OCB goes beyond formal obligations and benefits the entire Organisation, rather than just individuals or specific work groups. It enhances overall efficiency and effectiveness.

The components of OCB proposed by Organ can be described as follows:
- Altruism involves assisting fellow members with their job responsibilities;
- Conscientiousness surpasses expected obligations and focuses on specific departments or the entire Organisation;
- Sportsmanship refers to handling difficult situations without complaints;
- Courtesy entails proactive behaviour to prevent problems; and

> ➢ Civic virtue encompasses contributing to Organisational issues through discussions and conversations.

Studies have explored various factors influencing OCB. Mahmud, Noor, and Khalid (2023) found that perceived Organisational support significantly influences Environmental Organisational Citizenship Behaviour (OCBE), highlighting the importance of fostering environmental concern and enhancing organisational support. Choong, Yunus, and Yusof (2016) discovered that teacher self-efficacy and OCB significantly contribute to school achievement, emphasizing the role of OCB in enhancing organisational efficiency. Mabekoje (2017) revealed that organisational climate and health significantly predict OCB among teachers, while Pradhan and Kumari (2017) found that human resource flexibility positively influences OCB and mediates the relationship between HR flexibility and organisational effectiveness.

Several other studies have focused on the relationship between various factors and OCB. These include the impact of organisational commitment and demographic variables (Toga, Khayundi, & Mjoli, 2014), the influence of compensation, training, and development (Manenzhe & Ngirande, 2021), the role of HRM practices (Tashtoush & Eyupoglu, 2020), the impact of emotional intelligence (Mamatha G, 2021), the influence of job satisfaction (Ulagammal V, 2021), and the effects of HRD functions (Patil, 2019) on OCB.

Overall, these studies highlight the significance of OCB in various organisational contexts and shed light on factors that influence teachers' and employees' engagement in citizenship behaviours.

Job Satisfaction and Employee Engagement

Job satisfaction and employee engagement are critical factors that contribute to the overall well-being and performance of individuals within organisations. Susanto, Sawitri, and Suroso (2023) found that motivation, career path, employee engagement, and employee performance significantly influenced job satisfaction in the transportation and logistics industry. Shanmugam and Manjunathan (2014) highlighted factors such as work meaningfulness, salary, promotion opportunities, recognition, and the use of skills and abilities as contributors to job satisfaction. Singh (2017) identified work

culture and fairness at work as prominent factors influencing job satisfaction in a manufacturing organisation.

The positive impact of job satisfaction on productivity, creativity, and commitment to the employer has also been highlighted in studies. Shabane, Lessing, van Hoek, and Shabane (2022) revealed that job satisfaction positively contributed to employee relations and work engagement in a military setting. Sefnedi, Puspita, and Tiara (2023) found that employee engagement mediated the relationship between psychological empowerment and job satisfaction.

Desai (2019) explored the impact of the learning organisation concept on employee engagement, retention, and job satisfaction. The study revealed a positive association between job satisfaction, well-being, and emotional intelligence with employee engagement. The research emphasized the importance of creating a learning organisation to enhance employee engagement, retention, and job satisfaction.

In the context of teachers, Sudibjo and Sutarji (2020) studied teachers' job satisfaction, well- being, emotional intelligence, and employee engagement. They found that job satisfaction, well-being, and emotional intelligence positively influenced employee engagement among teachers. The study emphasized the significance of supporting teachers' job satisfaction, well- being, and emotional intelligence for the success of educational institutions.

Overall, the studies reviewed suggest that job satisfaction and employee engagement are crucial for individual well-being and Organisational success. Job satisfaction has positive effects on employee relations, work engagement, and individual-level outcomes. For teachers, job satisfaction, well-being, and emotional intelligence were identified as important factors influencing their engagement.

Employee Engagement and OCB

Employee engagement and organisational citizenship behaviour (OCB) are two important concepts in organisational behaviour research. Employee engagement refers to the emotional and psychological commitment an employee has towards their work and organisation, while OCB refers to discretionary behaviours that go beyond formal job requirements and contribute to the well-being and effectiveness

of the organisation.

A number of studies have found that there is a positive relationship between employee engagement and OCB (Barua and Borah, 2017; Patil and Suji, 2023; Sridhar and Thiruvenkadam, 2014; Kasinathan and Rajee, 2016; Kumar, Reddy, and Das, 2021; Afram, Manresa, and Mas-Machuca, 2022; Banhwa, Chipunza, and Chamisa, 2014; Uddin, Mahmood, and Fan, 2018). This means that engaged employees are more likely to engage in discretionary behaviours that benefit the organisation, such as helping out their colleagues, going the extra mile, and being more productive.

The studies reviewed in this literature review highlight a number of factors that can enhance employee engagement and promote OCB. These factors include work-life balance, communication, job characteristics, empowerment, and engagement strategies (Barua and Borah, 2017; Sridhar and Thiruvenkadam, 2014; Kasinathan and Rajee, 2016; Kumar, Reddy, and Das, 2021; Afram, Manresa, and Mas-Machuca, 2022). Supervisor support, organisational commitment, and recognition also contribute to the relationship between engagement and OCB (Barua and Borah, 2017; Patil and Suji, 2023; Uddin, Mahmood, and Fan, 2018).

Understanding and promoting employee engagement and OCB are crucial for organisational success. Managers should consider these factors in their management strategies, including creating an engaging environment, providing supervisor support, and implementing measures to enhance employee retention and satisfaction.

3.Methodology

Both primary and secondary data have been used for the study. For primary data collection, questionnaires have been used as research instruments to cater to relevant and detailed information needed for the research and for secondary data collection the books, journals, research papers, thesis, websites, the internet etc. were referred.

In order to achieve the objectives, a quantitative research approach was adopted. Data was collected through surveys administered to a sample of in-service teachers from various Government Schools of Assam. As per the UDISE+ data for the year 2021-2022 available in the Samagra Shiksha Assam web portal the population in-service teachers for the study is 208778. The surveys include measures of job satisfaction,

teachers' engagement, and organisational citizenship behaviour.

Table 1

Number of schools and teachers (Government / Provincialised Schools)

Category	Number of Schools	Teachers
Lower Primary	34482	101156
Upper Primary and UP with Primary	5805	40713
Total-Elementary	40287	141869
Secondary and Sr. Secondary	4298	66909
Total	44585	208778

[Source- (UDISE+2021-22) https://ssa.assam.gov.in/resource/basic-data]

Simple random sampling technique is used in the study to select the sample. With this technique, each in-service teacher in the target population has an equal chance of being selected for the study. Initially, a minimum sample size of 400 was determined using Yamane's (1967) formula for calculating sample size.

Tools for Data Collection

To accomplish the objectives and collect primary data, three distinct questionnaire scales were adapted and employed to assess Job Satisfaction, Teachers' Engagement, and Organisational Citizenship Behaviour.

a) The Minnesota Satisfaction Questionnaire was adopted to measure Job Satisfaction.
b) The Utrecht Work Engagement Scale was utilized to assess Teachers' Engagement.
c) The Organisational Citizenship Behaviour Scale developed by Dennis Organ was employed to gauge Organisational Citizenship Behaviour of Teachers.

The survey was administered through online mode using Google Forms. A total of

585 responses were collected during the data collection process.

4.Data Analysis And Interpretation

The survey initially aimed to have a minimum sample size of 400 participants. However, due to the online administration of the survey and the enthusiastic response from in-service teachers, the final sample size increased to 585. This larger number of responses has subsequently improved the reliability of the findings.

Correlation Analysis

To assess the degree of association or relationship between two variables, namely Job Satisfaction and Teachers' Engagement, as well as between Teachers' Engagement and Organisational Citizenship Behaviour, correlation analysis was performed. This statistical analysis measures the extent of the relationship between the two sets of data. By calculating the correlation coefficient, the strength and direction of the relationship between Job Satisfaction and Teachers' Engagement, and between Teachers' Engagement and Organisational Citizenship Behaviour were evaluated.

Table 2

Correlation Analysis between Job Satisfaction and Teachers' Engagement

Variable	Degree of freedom (df)	r- value	Remarks	Percentage of Commonness
1. Job Satisfaction 2. Teachers' Engagement	583	0.298	$p < 0.01$	8.88%

Table 2 presents the results of a correlation analysis between job satisfaction and teachers' engagement. The correlation coefficient (r-value) between the two variables is 0.298. The degree of freedom (df) for the analysis is 583.

The statistical significance of the correlation is indicated by the p-value, which is less than 0.01. This suggests that the observed correlation is unlikely to have occurred by chance alone.

Based on these findings, there is a positive correlation between job satisfaction and teachers' engagement. The correlation coefficient of 0.298 indicates a moderate positive relationship between the two variables.

Furthermore, the percentage of commonness between job satisfaction and teachers' engagement is reported as 8.88%. This suggests that approximately 8.88% of the variation in teachers' engagement can be explained by job satisfaction.

Overall, these statistical results indicate a significant and positive relationship between job satisfaction and teachers' engagement, suggesting that higher levels of job satisfaction are associated with increased engagement among teachers.

Table 3

Correlation Analysis between Teachers' Engagement and Organisational Citizenship Behaviour

Variable	Degree of freedom (df)	r- value	Remarks	Percentage of Commonness
1. Job Satisfaction 2. Teachers' Engagement	583	0.422	$p < 0.01$	17.80%

Table 3 presents the results of a correlation analysis between teachers' engagement and Organisational citizenship behaviour (OCB). The analysis is based on a degree of freedom (df) of 583.

The correlation coefficient (r-value) between teachers' engagement and OCB is 0.422. This indicates a moderately strong positive correlation between the two variables.

The statistical significance of the correlation is indicated by the p-value, which is less than 0.01. This suggests that the observed correlation is highly unlikely to have occurred by chance alone.

Additionally, the table reports the percentage of commonness between teachers' engagement and OCB as 17.80%. This indicates that approximately 17.80% of the variance in OCB can be explained by teachers' engagement.

In summary, the statistical analysis reveals a significant and positive relationship between teachers' engagement and Organisational citizenship behaviour. A correlation coefficient of 0.422 suggests that higher levels of teachers' engagement are associated with increased levels of OCB.

Regression Analysis

Regression analysis was utilized to quantify the extent of the overall variation in the dependent variable that can be explained by variations in the independent variable. This statistical method assists in establishing a predictive relationship between the variables and assessing the influence of Job Satisfaction on Teachers' Engagement, as well as the influence of Teachers' Engagement on Organisational Citizenship Behaviour.

Table 4

Regression Analysis between Job Satisfaction and Teachers' Engagement

Predictor	Teachers' Engagement		
	Beta Coefficient (β)	**R^2**	**P**
Job Satisfaction	0.298	0.089	0.00

Table 4 presents the results of a regression analysis examining the relationship between job satisfaction and teachers' engagement. The predictor variable in this analysis is job satisfaction.

The beta coefficient (β) for job satisfaction is reported as 0.298. This indicates that for every unit increase in job satisfaction, there is an expected increase of 0.298 units in

teachers' engagement, holding other variables constant. The beta coefficient represents the strength and direction of the relationship between the predictor (job satisfaction) and the outcome variable (teachers' engagement).

The coefficient of determination (R^2) in this analysis is 0.089. This means that approximately 8.9% of the variance in teachers' engagement can be explained by job satisfaction. The R^2 value provides an indication of the proportion of the total variability in the outcome variable that can be accounted for by the predictor variable.

The statistical significance of the regression analysis is indicated by the p-value, which is reported as 0.00. This suggests that the relationship between job satisfaction and teachers' engagement is highly significant and unlikely to have occurred by chance alone.

In summary, the regression analysis demonstrates a significant and positive relationshipbetween job satisfaction and teachers' engagement.

Table 5

Regression Analysis between Teachers' Engagement and Organisational Citizenship Behaviour

Predictor	Organisational Citizenship Behaviour		
	Beta Coefficient (β)	**R^2**	**P**
Teachers' Engagement	0.422	0.178	0.00

Table 5 presents the results of a regression analysis examining the relationship between teachers' engagement and Organisational citizenship behaviour (OCB). The predictor variable in this analysis is teachers' engagement.

The beta coefficient (β) for teachers' engagement is reported as 0.422. This indicates that for every unit increase in teachers' engagement, there is an expected increase of 0.422 units in Organisational citizenship behaviour, holding other variables constant.

The coefficient of determination (R2) in this analysis is 0.178. This means that approximately 17.8% of the variance in Organisational citizenship behaviour can be explained by teachers' engagement.

The statistical significance of the regression analysis is indicated by the p-value, which is reported as 0.00. This suggests that the relationship between teachers' engagement and Organisational citizenship behaviour is highly significant and unlikely to have occurred by chance alone.

In summary, the regression analysis demonstrates a significant and positive relationship between teachers' engagement and Organisational citizenship behaviour.

Result of Hypothesis 1 Testing

Based on the statistical findings derived from both the correlation analysis (Table 2) and the regression analysis (Table 4), we are able to reject the null hypothesis (H0) and conclude that there is a significant and positive relationship between job satisfaction and teachers' engagement.

Result of Hypothesis 2 Testing

Upon analysing the statistical results obtained from both the correlation analysis (Table 3) and the regression analysis (Table 5), we have sufficient evidence to reject the null hypothesis (H0) and reach the conclusion that there is a significant and positive relationship between teachers' engagement and organisational citizenship behaviour.

5. Conclusion And Recommendations

Conclusion

The study found a significant and positive relationship between job satisfaction and teachers' engagement. The correlation analysis revealed a moderate positive correlation, and the regression analysis supported this relationship, indicating that higher levels of job satisfaction are associated with increased engagement among teachers.

There is also a significant and positive relationship between teachers' engagement and Organisational citizenship behaviour (OCB). The correlation analysis showed

a moderately strong positive correlation, and the regression analysis confirmed this relationship, suggesting that higher levels of teachers' engagement are associated with increased levels of OCB.

Recommendations

- ➢ Educational institutions should prioritize strategies to enhance job satisfaction among teachers. This could include providing opportunities for professional development, improving working conditions, recognizing and rewarding teachers' contributions, and promoting a supportive work environment.

- ➢ Schools should focus on fostering teachers' engagement to promote OCB. This can be achieved through supportive leadership, effective communication channels, empowerment, and creating opportunities for teachers to participate in decision-making processes. Encouraging a positive and collaborative work culture can also contribute to increased engagement and OCB.

- ➢ Educational institutions should consider implementing policies and practices that promote work-life balance and positive relationships with teachers. This can contribute to higher levels of teacher engagement and happiness, which, in turn, can enhance OCB.

- ➢ Further research should be conducted to explore additional factors that may influence job satisfaction, teachers' engagement, and OCB among educators. Understanding these factors in more depth can help tailor interventions and strategies to improve overall job satisfaction, engagement, and citizenship behaviours in educational settings.

6. References

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Early Childhood Care and Education: Building A Strong Foundation

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Abstract

This paper provides a comprehensive exploration of the pivotal role of Early Childhood Care and Education (ECCE) in the Indian context. With India's diverse socio-cultural landscape, ECCE serves as the cornerstone for laying a robust foundation for lifelong learning and holistic development. The evolution of ECCE in India is traced, from informal setups deeply rooted in tradition to modern, structured frameworks that encompass a broader perspective. Emphasizing the significance of family, community, and culture, the paper highlights how these elements play an integral role in shaping a child's early experiences and forming the bedrock of their cognitive, social, and emotional development. The challenges of equitable access, quality assurance, and addressing socio-economic disparities are discussed, with insights into the policy initiatives taken by the Indian government to address these concerns. Furthermore, the paper delves into the transformative impact of the National Education Policy (NEP)-2020 on ECCE. The NEP underscores the importance of foundational learning in the early years and advocates for a multidisciplinary and holistic approach. It promotes the integration of play-based learning, mother tongue instruction, and culturally relevant pedagogies, aligning with the ethos of preserving cultural identities while preparing children for a globalized world. The NEP's emphasis on well-trained educators, continuous professional development, and technology integration is discussed in the context of ECCE. The paper also explores how the NEP envisions a seamless transition from ECCE to primary education, ensuring a continuum of learning that supports children's overall growth. In conclusion, this paper underscores the paramount significance of ECCE in shaping the trajectory of a child's life, particularly in the Indian landscape. It highlights the transformative potential of the NEP-2020 in reimagining ECCE practices to foster holistic development, laying the

foundation for a brighter and more inclusive future.

Keywords: *Early Childhood Care and Education (ECCE), Holistic Development, NEP-2020, Lifelong Learning, Quality assurance*

Introduction

In the dynamic socio-cultural tapestry of India, the realm of Early Childhood Care and Education (ECCE) emerges as a cornerstone for nurturing the nation's most valuable asset – its children. The significance of ECCE extends far beyond the formative years, as it lays the very foundation upon which a child's lifelong learning journey and holistic development stand. This paper embarks on a comprehensive exploration of the pivotal role that ECCE plays in the Indian context, tracing its evolution from informal traditional settings to a modern, structured framework. The heart of ECCE in India beats with the rhythms of family, community, and culture, where these elements are integral in shaping a child's early experiences. These experiences, in turn, serve as the bedrock upon which cognitive, social, and emotional development are built. However, the journey of ECCE in India has not been without its challenges, including equitable access, ensuring quality education, and addressing the socio-economic disparities that persist within the nation's diverse landscape. As we delve deeper into this exploration, the transformative impact of the National Education Policy (NEP)-2020 comes into focus. The NEP-2020 breathes new life into ECCE by underlining the importance of foundational learning during the early years. It advocates for a multidisciplinary and holistic approach, emphasizing play-based learning, mother tongue instruction, and culturally relevant pedagogies. This approach aligns seamlessly with the goal of preserving cultural identities while preparing children for an increasingly globalized world. Furthermore, the NEP-2020 introduces critical elements such as well-trained educators, continuous professional development, and the integration of technology within the ECCE landscape. It envisions a seamless transition from ECCE to primary education, ensuring a continuum of learning that supports children's overall growth, setting the stage for a brighter and more inclusive future. In conclusion, this paper underscores the paramount significance of ECCE in shaping the trajectory of a child's life, particularly in the intricate and diverse landscape of India. It celebrates the transformative potential of the NEP-2020 in reimagining ECCE practices, fostering holistic development, and ultimately paving the way for a future that is not only

brighter but also more inclusive for all of India's children.

Objectives of the Study

1. To know the current status of ECCE in India, focusing on key metrics like number of Anganwadi Centers, enrollment, and centre facilities.

2. To study the impact of the National Education Policy (NEP) 2020 on ECCE practices and policies in India, with a specific focus on foundational learning, play-based learning, and teacher training.

3. To identify obstacles hindering the delivery of quality ECCE in India, including challenges related to equitable access, infrastructure availability, and socio-economic disparities.

4. To propose strategies and recommendations for improving the quality of ECCE in India.

Rationale of the Study

The study on Early Childhood Care and Education (ECCE) in the Indian context holds significant importance for several compelling reasons:

➢ *Foundation for Lifelong Learning and Development:* ECCE is widely acknowledged as the foundation upon which a child's lifelong learning journey and holistic development are built. As cited by Heckman (2006) in his research on the long-term impact of early education, investing in early childhood education yields substantial returns in terms of educational attainment, employment, and overall well-being.

➢ *Addressing Socio-Economic Disparities:* India's diverse socio-economic landscape presents significant disparities in access to quality ECCE. This study seeks to explore these disparities and their impact on future opportunities for children, aligning with the findings of the Annual Status of Education Report (ASER, 2019), which highlights disparities in learning outcomes among children from different socio-economic backgrounds.

➢ *Policy Implications:* The study aims to critically analyze the transformative potential of the National Education Policy (NEP)-2020 in reshaping ECCE practices. Reference to the NEP-2020, as outlined by Prakash and Kumar (2020) in their analysis of the policy, underscores the relevance of

understanding how policy initiatives can impact ECCE implementation.

> ***Cultural Preservation and Global Preparedness:*** ECCE's role in preserving cultural identities while preparing children for a globalized world is a theme of utmost significance in India's multicultural context. Kumar and Chandra (2020) emphasize the importance of culturally relevant pedagogies in their research on ECCE in diverse Indian communities.

> ***Equity and Inclusivity:*** Achieving equitable access to quality ECCE is a pressing concern. The study aligns with findings from the United Nations International Children's Emergency Fund (UNICEF, 2019), highlighting the need for policies and programs that promote equitable access to early childhood education.

In light of the NEP-2020's emphasis on well-trained educators and technology integration, the study delves into how these elements can positively impact ECCE. Pande and Maheshwari (2021) discuss the role of technology in ECCE in their research on innovative teaching methods.

In summary, this study on ECCE in the Indian context addresses pressing issues related to access, quality, policy impact, cultural preservation, equity, and technology integration. It draws on a wealth of research and policy references to provide a comprehensive understanding of ECCE's role in shaping the trajectory of India's children and the nation's future.

Early Childhood Care and Education (ECCE) - Conceptual Framework

The conceptual framework for Early Childhood Care and Education (ECCE) is a multifaceted construct that encompasses various key components, each playing a pivotal role in shaping a child's early experiences and development. To establish a comprehensive understanding of this framework, it's essential to dissect its primary elements:

> ***Child-Centered Approach:*** At the core of ECCE is a child-centered philosophy that recognizes each child as a unique individual. This approach, as advocated by theorists like Piaget and Vygotsky, emphasizes tailoring

education and care to the specific needs, interests, and developmental stages of each child.

➢ *Holistic Development:* ECCE focuses on nurturing the holistic development of children, encompassing cognitive, social, emotional, and physical domains. Scholars like Erikson and Maslow have contributed to our understanding of how these aspects interplay and evolve during early childhood.

➢ *Play-Based Learning:* Play is a central component of ECCE, recognized as a vital tool for fostering cognitive and social development. The work of theorists like Jean Piaget underscores the importance of play in cognitive growth, while Lev Vygotsky's sociocultural theory highlights its role in social and cultural learning.

➢ *Cultural Relevance:* Acknowledging the diverse cultural landscape of India and the world, ECCE promotes culturally relevant pedagogies. This involves recognizing and respecting cultural identities, languages, traditions, and values to create an inclusive and enriching learning environment.

➢ *Parent and Community Involvement:* The involvement of parents and the wider community is integral to ECCE. Research by Epstein and Sanders emphasizes the positive impact of family and community engagement on a child's educational journey.

➢ *Quality Assurance:* Ensuring the quality of ECCE programs is paramount. International frameworks like the Early Childhood Environment Rating Scale (ECERS) provide guidelines for assessing program quality, including aspects like teacher-child interactions and physical environment.

➢ *Equitable Access:* ECCE should be accessible to all children, regardless of socio-economic background or geographic location. This aligns with global initiatives such as the United Nations Sustainable Development Goal 4, which aims to ensure inclusive and equitable quality education for all.

➤ *Policy and Governance:* The development and implementation of effective policies and governance structures are essential to support ECCE initiatives. The National Education Policy (NEP)-2020 in India is a notable example of how policy can shape ECCE practices.

➤ *Educator Training:* Well-trained educators are the linchpin of ECCE. Continuous professional development and training programs ensure that educators are equipped with the knowledge and skills to provide high-quality care and education.

➤ *Technology Integration:* The integration of technology, when done thoughtfully, can enhance ECCE by providing access to educational resources and fostering digital literacy. This aligns with the evolving educational landscape and the NEP-2020's focus on technology integration.

Principles of Early Learning

Children are generally curious and eager to learn. They have an innate desire to understand themselves, the world, and others. Children actively participate in their environment and learn from day one using a variety of stimuli and senses.

➤ **Children learn through play:** Play is central to a child's health and development. Children's spontaneous play provides essential opportunities for exploration, experimentation, manipulation, and problem-solving to build knowledge. Through play-based learning process should be emphasized rather product.

➤ **Children's curiosity and interest to learn:** Children are curious and have the innate desire to learn. Children observe what is happening around them, talk, discuss, reflect on their discoveries, expand their imaginations and possibilities, ask questions and find answers.

➤ **Learning commences from birth:** From infancy children are mentally and physically active to learn through all their senses and stimulations.

> **Children develop holistically and benefit from experiential learning:** children learn best through active exploration, using senses such as touch, taste, smell and manipulation to build perceptual skills. Children should be actively interested, involved in their own learning, highly motivated and willing to explore and build skills in different areas.

> **Child Development and Learning are characterized by individual variation:** As individual difference is there no two children, even within the same family are the same. Each child has an individual pattern and timing of growth and development as well as individual styles of learning.

National Education Policy (NEP) 2020 and Early Childhood Care and Education (ECCE)

> *Revised School Structure (5+3+3+4):* NEP 2020 introduces a new school structure comprising 5 years of foundational education, followed by 3 years of preparatory, 3 years of middle, and 4 years of secondary education. The foundational stage includes 3 years of Anganwadi or pre-school to promote holistic development.

> *Vision for ECCE:* The policy envisions ECCE as a flexible, multi-faceted, and multi-level approach that emphasizes play-based, activity-based, and inquiry-based learning. Its goal is to attain optimal outcomes in various domains, including physical development, cognitive development, socio-emotional-ethical development, cultural/artistic development, and communication, early language, literacy, and numeracy.

> *Medium of Instruction:* NEP 2020 advocates for using the home language, mother tongue, local language, or regional language as the medium of instruction, at least up to Grade 5 and preferably extending to Grade 8 and beyond. This approach ensures linguistic proficiency and cultural preservation.

> *Flexible Curriculum:* The policy emphasizes the importance of a flexible

curriculum that caters to individual learning paces and is developmentally appropriate. This approach acknowledges that children progress at different rates and have unique needs.

➢ *Pedagogy:* NEP 2020 places a strong emphasis on play and activity-based learning methodologies. Recognizing the natural curiosity and creativity of young children, these pedagogical approaches are designed to engage and inspire learners.

Global Scenario in ECCE

In the global landscape of Early Childhood Care and Education (ECCE), several notable trends and priorities have emerged. First and foremost, there's a growing international commitment to ensuring universal access to quality ECCE programs, recognizing the profound impact of early education on lifelong development. Quality assurance is another significant focus, with countries worldwide implementing standards and monitoring systems to ensure effective ECCE delivery. Cultural relevance has gained prominence, with an emphasis on respecting and incorporating the diverse cultural identities, languages, and traditions of communities within ECCE curricula. Concurrently, parental engagement has become a global trend, as research demonstrates its positive influence on children's learning outcomes, leading to various initiatives aimed at empowering parents in their children's early education. Workforce development is key, with investments in training and professional development for ECCE educators to guarantee high-quality care and education. The integration of technology is on the rise, harnessing digital tools to enhance learning experiences and early literacy and numeracy skills.

Moreover, the global ECCE landscape is shaped by a wealth of research, informing evidence-based policies and practices. Public-private partnerships are increasingly common, pooling resources to expand access and improve program quality. Lastly, international cooperation and collaboration are thriving as countries share best practices and learn from each other through organizations like UNICEF, UNESCO, and the World Bank. Together, these trends are reshaping ECCE on a global scale,

underlining the commitment to providing children with a strong foundation for lifelong learning and development.

The 21st century focuses on the 6 Cs – Creativity, Curiosity, Caring, Coordination, Communication & Collaboration and Coping with Change.

Figure-1 – 21st century focuses on the 6 Cs

Current Status Of ECCE In India

Table-1: State/UT-wise number of operational Anganwadi Centres (AWCs), number of beneficiaries (As on 30.06.2021)

Sl. No	State/UTs	No. of Anganwdi Centres	Beneficiaries under Anganwadi Services Scheme	
			Children (6 months to 6 years)	Pregnant & lactating Mothers (P&LM)
1	Andhra Pradesh	55607	2670523	724824
2	Arunachal Pradesh	6225	162040	19547
3	Assam	61715	3032281	504233
4	Bihar	112094	7954137	1788449
5	Chhattisgarh	51586	2167832	429798
6	Goa	1262	58786	11108
7	Gujarat	53029	3491999	659346
8	Haryana	25962	1104102	302799
9	Himachal Pradesh	18925	395586	91779
10	Jharkhand	38432	1322676	159752
11	Karnataka	38432	4073309	904252
12	Kerala	33115	1138541	346820
13	Madhya Pradesh	97135	5010369	1047575
14	Maharashtra	109832	6723371	1116171
15	Manipur	11510	337890	54302

16	Meghalaya	5896	437993	66983
17	Mizoram	2244	99646	20772
18	Nagaland	3980	365646	40850
19	Odisha	73172	3211253	655266
20	Punjab	27304	887635	262977
21	Rajasthan	61625	3440482	1085975
22	Sikkim	1308	19953	4776
23	Tamil Nadu	54439	2691208	723890
24	Telangana	35580	1739592	468362
25	Tripura	9911	325855	56692
26	Uttar Pradesh	189309	11582963	3335144
27	Uttarakhand	20048	720624	184357
28	West Bengal	119481	7200814	1568154
29	A & N Islands	719	17217	3056
30	Chandigarh	450	50937	8674
31	Dadra & N Haveli and Daman & Diu	405	30507	7328
32	Delhi	10755	641073	136612
33	Jammu & Kashmir	28078	528934	121466
34	Ladakh	1140	18250	3289
35	Lakshadweep	71	4230	1123
36	Puducherry	855	32771	9427
	TOTAL	**1389110**	**73691025**	**16925928**

(Source: Ministry of Women and Child Development)

The primary platform for delivering pre-school education in India is the Integrated

Child Development Services (ICDS), a centrally-sponsored and state-administered early childhood development program operating through 1.38 million Anganwadi centers. These centers offer pre-school education as one of the six basic services along with immunization, health check-ups, referral services, food supplementation, growth monitoring, and health and nutrition education. In 2013, the Indian government adopted the National Early Childhood Care and Education (ECCE) Policy, recognizing the importance of investing in early childhood development, including ECE, to break the cycle of inequity and disadvantage and promote lifelong learning. This policy is accompanied by a National ECCE Curriculum Framework and Quality Standards. Surveys indicate high enrollment rates in ECCE programs, with nearly 8 out of 10 children aged 3-6 years enrolled in some program. However, participation rates vary widely across states. Nearly half of the enrolled children are in the private sector, especially in urban areas, while children from lower wealth quintiles predominantly attend Anganwadi centers, and those from higher quintiles opt for private facilities.

The new National Education Policy released in July 2020 emphasizes the inclusion of ECCE from age 3, aiming for universal provision of quality early childhood development, care, and education by 2030 to ensure school readiness by Grade 1. The NEP 2020 proposes four models for implementing quality ECCE across different settings. Quality pre-primary education significantly impacts children's learning outcomes, reducing dropout rates and enhancing learning potential in primary grades. The closure of Anganwadi centers due to COVID-19 since March 2020 has led workers to engage parents through social media, home visits, and distribution of educational resources to ensure continued learning through play activities. UNICEF focuses on strengthening systems to improve the provision of quality ECE in alignment with NEP 2020 and the National ECCE Policy, promoting inclusive development and learning opportunities for all children aged 3 to 6. This includes support for school readiness, transition to early grade learning, curriculum development, and partnerships with education stakeholders.

Facilities And Services Offered In Anganwadi Centres

Anganwadi centers in India play a crucial role in providing essential services for children and mothers in the community. Here are some of the facilities typically provided in Anganwadi centers:

➢   ***Early Childhood Education (ECE):*** Anganwadi centers offer pre-

school education as part of their services. Children in the 3–6 years age group engage in age-appropriate learning activities, including basic numeracy, literacy, cognitive skills, and social interaction through play-based learning methods.

➢ **Nutrition Support:** Anganwadi centers provide supplementary nutrition to children aged 3–6 years, pregnant women, and lactating mothers. This includes nutritious meals such as mid-day meals and take-home ration to address malnutrition and promote healthy growth and development.

➢ **Healthcare Services:** Basic healthcare services such as immunizations, health check-ups, and growth monitoring are provided to children to ensure their well-being and early detection of any health concerns. Anganwadi workers also support immunization campaigns and health education sessions for mothers.

➢ **Referral Services:** Anganwadi workers act as a link between the community and healthcare facilities, facilitating referrals for specialized medical care or interventions when required, especially for pregnant women, infants, and young children.

➢ **Health and Nutrition Education:** Anganwadi centers conduct awareness programs and counselling sessions on topics related to maternal health, child nutrition, hygiene practices, and preventive healthcare measures. This education empowers mothers and caregivers to make informed decisions about their family's health.

➢ **Community Engagement:** Anganwadi centers serve as community hubs, fostering community participation in child development initiatives, promoting awareness about child rights, education, and health, and encouraging parental involvement in their children's early learning and well-being.

➢ **Learning Materials and Play Equipment:** Anganwadi centers are

equipped with age-appropriate learning materials, educational toys, books, and play equipment to facilitate interactive and stimulating learning experiences for young children.

➢ *Awareness Campaigns:* Anganwadi workers conduct awareness campaigns on various social issues such as hygiene, sanitation, immunizations, family planning, and women empowerment to improve overall community health and well-being.

➢ *Special Programs:* Some Anganwadi centers also implement special programs like the Early Childhood Care and Education (ECCE) curriculum, promoting holistic development through structured learning activities and child-friendly methodologies.

These facilities and services provided by Anganwadi centers are instrumental in addressing early childhood development needs, reducing child malnutrition, improving health outcomes, and promoting overall well-being in communities across India.

Government of India's Initiatives Promoting Early Childhood Care and Education (ECCE)

The Government of India has taken several noteworthy initiatives in the field of Early Childhood Care and Education (ECCE) to promote the well-being and holistic development of young children. Here are some key government initiatives in ECCE:

➢ *Integrated Child Development Services (ICDS) 1975:* ICDS is one of the flagship programs in India aimed at providing comprehensive health, nutrition, and early childhood education services to children under six years of age and pregnant and lactating mothers. It operates through Anganwadi centers across the country.

➢ *National Early Childhood Care and Education (ECCE) Policy, 2013:* The government introduced the National ECCE Policy in 2013 to provide a comprehensive framework for the development and

implementation of ECCE programs. It emphasizes holistic development, school readiness, and the inclusion of all children.

➢ ***Rashtriya Bal Swasthya Karyakram (RBSK) 2013:*** RBSK is a government initiative that includes screening and early intervention services for developmental delays and disabilities in children from birth to 18 years. This program aims to identify and address health and developmental issues at an early stage.

➢ ***Samagra Shiksha Abhiyan, 2018:*** The Samagra Shiksha Abhiyan, a flagship program, aims to ensure inclusive and equitable quality education at all levels, including ECCE. It focuses on improving the quality of ECCE programs, teacher training, and infrastructure development.

➢ ***National Creche Scheme:*** The National Creche Scheme provides day-care facilities for children of working mothers in the age group of six months to six years. It offers a safe and stimulating environment for early learning and care.

➢ ***Poshan Abhiyan (National Nutrition Mission) 2018:*** While not exclusively focused on ECCE, this mission addresses nutrition and health, which are essential components of early childhood development. It aims to reduce malnutrition and improve overall child health.

➢ ***Pradhan Mantri Awas Yojana (PMAY):*** PMAY-Urban includes a component for the construction of Anganwadi centers in urban areas. These centers serve as hubs for ECCE services, promoting early learning and nutrition.

➢ ***National Education Policy (NEP) 2020:*** The NEP 2020 places a strong emphasis on ECCE, advocating a foundational stage for children from the age of three. It promotes play-based learning, mother tongue instruction, and culturally relevant pedagogies, aligning with

international best practices.

➤ ***Digital Initiatives:*** The government has launched digital platforms and apps, such as the 'e-Pathshala' and 'DIKSHA' platforms, to provide digital resources and content for ECCE and primary education.

These government initiatives reflect a commitment to providing quality ECCE services, promoting early childhood development, and preparing children for a brighter future. They cover various aspects, from nutrition and health to early learning and inclusive education, contributing to the overall well-being of India's youngest citizens.

Obstacles Hindering the Delivery of Quality Early Childhood Care and Education (ECCE) In India

The provision of quality Early Childhood Care and Education (ECCE) in India faces several significant challenges that impact its effectiveness and reach. These obstacles pose hurdles in the way of ensuring that young children receive the best possible start in their educational journey. Here are some key challenges:

➤ ***Inequitable Access:*** Access to quality ECCE is not uniform across India, with rural areas and marginalized communities often having limited or no access to ECCE services. This disparity in access hinders the goal of providing equal opportunities to all children.

➤ ***Quality Assurance:*** Ensuring consistent quality in ECCE programs is a challenge. Variability in the qualifications and training of ECCE teachers and caregivers, as well as the quality of facilities and materials, affects the overall quality of early education.

➤ ***Socio-Economic Disparities:*** Socio-economic disparities impact the ability of families to access and afford ECCE services. Low-income families often struggle to enroll their children in quality programs, leading to an opportunity gap.

➢ *Lack of Awareness:* Many parents and caregivers, particularly in rural areas, are not aware of the benefits of ECCE. This lack of awareness can lead to low enrollment rates and missed opportunities for early learning.

➢ *Infrastructure and Resources:* Inadequate infrastructure, including the lack of safe and child-friendly spaces for ECCE, and limited resources for materials and activities, hamper the effective delivery of early childhood education.

➢ *Teacher Training:* Insufficient training and professional development opportunities for ECCE teachers and caregivers affect their ability to create stimulating and developmentally appropriate learning environments.

➢ *Cultural Diversity:* India's diverse cultural landscape requires culturally sensitive approaches to ECCE. Adapting curriculum and pedagogy to respect and incorporate local cultures can be challenging.

➢ *Parental Involvement:* Encouraging parents' active involvement in their child's early education is a hurdle. Many parents, especially in underserved communities, may lack the time or knowledge to engage effectively in their child's learning journey.

➢ *Assessment Practices:* Traditional assessment methods often do not align with the principles of ECCE, which emphasize experiential learning and holistic development. Finding appropriate assessment approaches is an ongoing challenge.

➢ *Monitoring and Evaluation:* Monitoring and evaluating the effectiveness of ECCE programs at a national scale can be complex, requiring robust data collection and analysis mechanisms.

Addressing these challenges is essential to ensure that ECCE in India reaches its

full potential in providing children with a strong foundation for future learning and development. Policymakers, educators, and communities must work collaboratively to overcome these obstacles and create a more equitable and effective ECCE system.

Specific Findings

Early Childhood Care and Education (ECCE) is crucial for children's holistic development, with Anganwadi Centers in India playing a pivotal role in delivering essential services. Understanding specific findings regarding Anganwadi Centers sheds light on enrollment patterns, quality concerns, and the impact of external factors like the COVID-19 pandemic, guiding targeted strategies and policy initiatives for enhancing ECCE.

> ➤ **Enrollment Disparities:** Wide variations in enrollment rates exist across states. Factors such as rural-urban divide, socioeconomic status, and awareness levels contribute significantly to these disparities, indicating the need for targeted interventions in underrepresented regions.

> ➤ **Private Sector Dominance:** Nearly half of enrolled children opt for private sector ECCE programs, especially in urban areas, highlighting accessibility challenges in government-run centers.

> ➤ **ECE Quality Concerns:** Quality of early childhood education varies widely, with urban preschools offering structured curriculums, while rural Anganwadis focus on basic activities like storytelling and songs.

> ➤ **Impact of COVID-19:** Anganwadi closures due to the pandemic necessitated innovative approaches such as virtual learning and home visits by workers to sustain learning continuity.

> ➤ **Parental Engagement:** The pandemic emphasized the critical role of parents in supporting early learning, leading to increased engagement in playful learning activities at home.

> ➤ **Policy Alignment:** Recent policies like the National Education Policy

2020 emphasize universal access to quality ECCE, promoting school readiness and holistic child development.

➢ **Global Research Influence:** Evidence from global studies, like the Indian Early Childhood Education Impact Study (IECEI) 2017, supports the importance of quality early childhood education in enhancing learning outcomes.

These findings highlight the challenges, innovations, and policy directions crucial for enhancing the quality and accessibility of early childhood education in India.

Ways To Improve ECCE Quality In India

Enhancing the quality of Early Childhood Care and Education (ECCE) in India is essential to provide children with a strong foundation for lifelong learning and development. Here are several key strategies to improve ECCE quality:

➢ **Professional Development:** Invest in comprehensive training and continuous professional development for ECCE teachers and caregivers to ensure they have the necessary skills and knowledge.

➢ **Standardized Curriculum:** Develop a standardized and developmentally appropriate curriculum that focuses on holistic child development.

➢ **Infrastructure Investment**: Allocate resources to improve ECCE facilities, including safe and child-friendly spaces and age-appropriate learning materials.

➢ **Equitable Access:** Prioritize equitable access to quality ECCE services, particularly for marginalized and underserved communities.

➢ **Community Engagement:** Engage parents and communities actively in ECCE programs to promote a supportive learning environment at home and in the community.

 ➢   ***Cultural Sensitivity:*** Recognize and respect India's diverse cultural landscape by incorporating culturally relevant pedagogies into ECCE programs.

 ➢   ***Monitoring and Evaluation:*** Implement robust monitoring and evaluation systems to assess program effectiveness and identify areas for improvement.

 ➢   ***Research and Innovation:*** Encourage research and innovation in ECCE practices to stay updated with global best practices.

 ➢   ***Government Investment:*** Increase government investment in ECCE to ensure adequate funding for quality programs and trained educators.

 ➢   ***Public Awareness:*** Raise awareness among parents and communities about the benefits of ECCE and the importance of early childhood development.

By implementing these strategies, India can make significant strides in enhancing the quality of ECCE, providing children with a strong start in their educational journey and fostering their overall well-being.

Conclusion

In conclusion, this study underscores the pivotal role of Early Childhood Care and Education (ECCE) in shaping the foundation of a child's lifelong learning and holistic development, particularly within the diverse socio-cultural landscape of India. The evolution of ECCE in India, from traditional informal setups to modern, structured frameworks, reflects the nation's commitment to nurturing its youngest citizens. Emphasizing the significance of family, community, and culture in ECCE highlights the interconnectedness of these elements in shaping a child's formative years. However, it is essential to acknowledge and address the challenges that hinder the equitable access and quality assurance of ECCE services. The initiatives undertaken by the Indian government, such as the National Education Policy (NEP) 2020, signify

a promising shift towards comprehensive reforms that align with global best practices. The NEP's emphasis on play-based learning, mother tongue instruction, and culturally relevant pedagogies demonstrates a commitment to preserving cultural identities while preparing children for a globalized world. Furthermore, the NEP's focus on well-trained educators, technology integration, and a seamless transition from ECCE to primary education reflects a holistic approach to early childhood education.

In conclusion, ECCE is undeniably the cornerstone of a child's educational journey in India. The transformative potential of the NEP-2020 in reimagining ECCE practices holds promise for fostering holistic development, laying the foundation for a brighter and more inclusive future for the nation's youngest learners.

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