The Primary Teacher

About the Journal

The Primary Teacher is a quarterly journal brought out by the National Council of Educational Research and Training (NCERT), New Delhi. It carries articles and research papers on educational policies and practices, and values material that is useful for practitioners in contemporary times. The Journal also provides a forum to teachers to share their experiences and concerns about the schooling processes, curriculum, textbooks, teaching–learning and assessment practices. The papers for publication are selected on the basis of comments received from two referees. The views expressed by individual authors are their own and do not necessarily reflect the policies of the NCERT, or the views of the editor.

© 2024*. Copyright of the articles published in the Journal will vest with the NCERT and requests for reproducing the material should be addressed to the Academic Editors.

Single Copy: ₹ **65.00**   *Annual Subscription:* ₹ **260.00**

CONTENTS

The great poet and educationist W B Yeats said, "Education is not the filling of a pail, but the lighting of a fire." This quote emphasises that education in its true sense is not filling a young, impressionable mind with subject matter. True education develops a learner holistically. It goes beyond memorising facts; it instils in the learner a desire to be a better person. This issue of *The Primary Teacher* focuses on these aspects of education.

The first article 'Education in the Context of SDG 4.7: Integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) in School Curriculum' by Ashita Raveendran, explores the integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) into school curricula in order to achieve Sustainable Development Goal (SDG) Target 4.7 by 2030. Emphasising the need for curricular practices that promote sustainable lifestyles and environmental harmony, the study examines the implemented approaches and their efficacy in fostering values and competencies essential for global citizenship. Additionally, pedagogies are proposed to equip learners with the skills to achieve the SDG target. By highlighting the interconnectedness of global challenges and the role of education in addressing them, this article advocates for policy advancements and innovative curricular practices to cultivate responsible and active global citizens.

The second article 'Attitude of Primary School Teachers towards Inclusive Education' by Richa Singh and Amita Bajpai, investigates the attitudes of primary school teachers in the context of Lucknow towards inclusive education. It begins by emphasising the importance of inclusive education in promoting equality and social justice. The study aims to understand teachers' attitudes towards inclusive education, considering factors such as gender and type of institute. Using a descriptive survey method, the study analyses data from 200 teachers in private and government schools. The research highlights the importance of fostering positive attitudes among teachers to promote inclusive practices in schools.

The third article 'Game-based Learning at the Primary Level: Enhancing Education through Play' by Dr Angel Rathnabai S, discusses the effectiveness of game-based learning in primary education, highlighting its advantages, implementation strategies and differences from gamification. It emphasises the benefits of engaging students through games, addresses challenges and underscores the importance of further research for long-term impact

assessment. Ultimately, it advocates for the integration of game-based learning to enhance learning outcomes in the digital age.

The fourth article, 'Effects of Educational Games-Based on Digital Devices on Children with Learning Disability in Memory' by Ravindra Kumar and Suraksha, explores the effects of educational games based on digital devices on children with learning disabilities related to memory. It investigates whether these games can serve as effective remedial teaching tools for Grade V students with learning disabilities in memory. The study employs a pretest-posttest control group design to compare the effectiveness of educational game packages with traditional teaching methods.

The next article is 'Lullaby: A Prelude to Initial Learning' by Dharmanshu Vaidya. The tradition of lullabies spans across cultures, serving as an integral part of early childhood development. This article explores the multi-faceted role of lullabies, from providing comfort and security to fostering cognitive development and cultural affiliation. Drawing on research from various disciplines, it highlights the potential of lullabies and their significance in promoting linguistic diversity.

The sixth article titled 'Text, Teachers, and Tradition: A Survey of *Granny, Granny, Please Comb My Hair*' by Kalpana Manwal, explores aspects of social fabric in textbooks, particularly the portrayal of family types. While Indian society has witnessed the evolution of a variety of family structures, textbooks are, by and large, still rooted in the traditional structures. This article is based on the insights from primary school teachers on the changing relationship between grandparents and grandchildren in society and the lack of the same being reflected through select texts in language textbooks.

The issue also carries the journal's regular features—'From the States', 'Book Review', 'Did You Know?' and 'My Page'.

In the section, 'From the States', Vidhi Joon talks about the new series of primary textbooks by SCERT Sikkim. The books have innovatively incorporated the principles of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) values under the 'embedding project'—a partnership between SCERT and the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP). The series is laudable for having promoted universal values and human rights across subjects through these textbooks.

In the review of the book, *My First Aeroplane Journey* by Pankaj Chaturvedi, reviewer Geyin Boli shares that the book is interesting and

relevant to young readers as it describes a child's first journey by air, right from stepping out of her house up to reaching the destination. The book is well illustrated with very few words, making it accessible to children from any linguistic background.

In the 'Did You Know?' section, author Sonam Shree touches upon the history of sign language and sheds light on the initiatives of the Indian Sign Language Research and Training Centre (ISLRTC). It is a misconception that sign language consists of a limited number of gestures and facial expressions. On the contrary, it has a range of vocabulary and grammatical structures. The latest initiative is the ISL dictionary.

'My Page' by Prerna Rana focuses on the role of the teacher as a collaborator. The author elaborates on the balancing role of the teacher, who faces heterogeneous groups in the classroom with varied interests, yet engages them through collaborative learning.

— Academic Editors

1

Education in the Context of SDG 4.7: Integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) in School Curriculum

Ashita Raveendran*

Abstract

This paper focuses on integration of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) in school curriculum in the context of the target 4.7 of the Sustainable Development Goal (SDG) that is to be achieved by the member nations by 2030. Curricular practices need to promote sustainable lifestyle so as to enable the learner to decrease the carbon foot print and live in harmony with the environment. The curricular practices that have been implemented in various parts of the country and how they have helped in inculcation of values and competencies required for a global citizen has been elucidated. The paper also puts forth the transformative pedagogies that can help learners in acquiring the skills and competencies needed for achieving the target.

INTRODUCTION

With the Sustainable Development Goals (SDGs) to be achieved by 2030, as per the 2030 Agenda for Sustainable Development, all the United Nations member states, need to pace up their actions. It's a new age of revolution with the entire global community striving to achieve the SDGs and all the actions directed to achieve the target.

The SDG 4, that focuses on the education has its seventh target, SDG 4.7, which states that 'by 2030 ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and

*Associate Professor, Planning and Monitoring Division, National Council of Educational Research and Training, New Delhi.

non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development' (UN, 2015).

The target 4.7 of the SDG 4 on education focuses on ensuring that all learners through GCED and ESD acquire the knowledge, skills and competencies required for a global citizen. It is a known fact that unless the education policies, curriculum, pedagogy and the assessment practices prevalent in the country integrate ESD and GCED, the target cannot be achieved. Devoid this integration, the learners will not be able to acquire the knowledge, skills, values and attitudes that are required by citizens to lead lives in a productive manner and assume active roles in facing and resolving local and global challenges.

Education is an enduring process of improving knowledge and skills and acquiring competencies, and focuses on bringing about personal development and nurturing relationships. There have been far-reaching changes in the traditional patterns of life, with the industrialisation, urbanisation, globalisation and the growth of mass consumerism making it interdependent. This demands for a world of mutual understanding, peaceful living and, indeed, harmony. It proposes for the transformative education for developing a culture of peace emphasising on 'learning to live together' (Delors, J. et al., 1996). Learners need to be facilitated

to critically understand their own perspectives, their history, traditions and culture, their relationships with the world, recognise the interdependence and learn to manage the differences and conflicts in a peaceful manner, all of which can be achieved through ESD and GCED.

Promoting ESD and GCED

Building on Target 4.7 of SDG 4 on education, there is a need to take forward GCED and ESD, to empower learners to assume active, responsible and effective roles to tackle challenges at local, national and global levels. They need to be active global citizens, who are well-informed about the diversity in the world and at the same time avidly involved in the change for the common good.

ESD as an integral part of education, empowers the learners in taking responsible decisions and actions for bringing in economically viable, environment friendly and just society that respects cultural diversity and is sustainable (UNESCO, 2014). Through the core competencies of GCED, the learners are to acquire a deep knowledge of global issues and universal values such as justice, equality, dignity and respect and cognitive skills to think critically, systemically and creatively. A multi-perspective approach that recognises different dimension, perspectives and angles of issues is to be attained along with the non-cognitive skills including social skills such as empathy and conflict

resolution, and communicative skills and aptitudes for networking and interacting with people of different backgrounds, origins, cultures and perspectives. They need to be capable to act collaboratively and responsibly, and strive for the collective good (UNESCO, 2013).

In the light of the interconnectedness in today's world, learners need to be empowered to become conscious of and understand global issues. There is a need to integrate environmental awareness and sensitivity towards conservation of environment and sustainable development appropriately in the education policies and school curriculum.

Advancing Policy

The global transformation can be put in place only through policies and the policy-makers are instrumental in forming the enabling environment for the successful scaling up of ESD and GCED in all settings of learning whether it is in the formal, non-formal and informal sectors. Policies need to be directed towards strengthening collaborative relationships of diverse stakeholders to encourage learning on sustainability issues and embed it in education quality assurance criteria.

In the Indian context, the National Policy on Education-1986 and the Programme of Action-1992, has placed environmental education as a priority area in all the curriculum development programmes and its concerns have been addressed through curricular and co-curricular interventions. Following the judgement of the Supreme Court of India (2002) it became obligatory for the States and UTs to comply with the implementation of environmental aspects through education. States adopted various strategies of infusion, integration or learning environment as a separate subject area.

In view of the global concern for sustainable future, the United Nations launched the 'Decade of Education for Sustainable Development' (DESD) in 2005 which mandated the concerns on sustainable development to be inculcated through education. The National Curriculum Framework (2005) in consonance with the principles of DESD (2005), recommended adopting a 'whole school' approach where the learners' experiences are not confined to the classroom alone but are part of the learning in the school and at the society level (NCF, 2005). Inside the classroom it gets limited to content learning for examination and the responsibility of imparting being confined to only teachers teaching social sciences. The learners need to be exposed to the real-world problems and concerns and engaged in activities which can enable them to analyse, evaluate and draw inferences. This shall provide them with the competencies required for facing the real world problems and contribute in the pursuit of sustainable development. For this to be in implementation, the issues and

concerns on sustainability need to be in focus of the 'whole school' practices and education policies need to drive the stakeholders towards it.

Curricular Practices

The curricular practices and programmes need to be designed in accordance with the traditions and systems prevailing in the country suited to its local conditions. The curriculum needs to be strengthened by integrating the ESD and GCED themes in the curricular materials, transacted in the classroom using innovative pedagogies, evidenced in assessment practices along with implementation of the curricular programme or practices that promote building up the GCED and ESD competencies. The focus is to be on how to learn, cultivating positive values and attitudes, and development of generic skills that equip the learners with knowledge and skills to cope with challenges in the future. This can be in form of whole school approach, which is organised in a manner that all stakeholders from the school leadership, administration, teachers, to the learners, jointly develop a vision and plan to implement ESD and GCED related curricular practices in the whole institution (UNESCO, 2014).

The early years of life in society are devoted to the education system, hence, building up of social and emotional competencies by integrating socio-emotional learning activities or programmes into the education system can provide universal and long-lasting experience. Mounting trajectory of mental illness and aggressive behaviours can be curbed by imparting the socio-emotional skills through the education system (Greenberg, 2003). *Seva* or service and participation in community service programmes are to be considered as an integral part of a holistic education.

In the Indian context, various curricular practices that are being carried out by different NGOs, state governments, civil society, religious organisation, etc. as whole school approach helps in building the values, socio-emotional competencies and sustainability competencies. The *Vidyarthi Van Mitra Yojana*, implemented in the schools of Himachal Pradesh aims to create awareness by involving school students in conservation of forest and environment. The state of Kerala has implemented the School Police Cadet (SPC) programme which inculcates in students respect towards law, discipline, civic sense and democratic values. It nurtures within them commitment towards their family, the society, and the environment. The socio-emotional competency scale of the learners who had undergone the SPC programme in comparison with the non-SPC learners reveal that the learners who were involved in the programme demonstrate more confidence and discipline (Ashita, R., and Subhash, 2019). The *Vidyavahini* project, that have been implemented in the schools of Sikkim, help to inculcate moral and

social values among the learners. These programmes implicitly help in inculcating the elements of GCED. In Assam, the folklore for social change trains the adolescents in the use of folk-art forms for community mobilisation and awareness on issues such as child marriage, early pregnancy, drop-out from schools, alcohol consumption that affect their lives and the communities at large. Similarly, the *Mulyavardhan* programme of Maharashtra, the *Vasudeva Kudumbagam* of Uttarakhand, the *Yuva Manch* of Haryana, the Awakened Citizen Programme etc., implemented as a part of the school curriculum enhance the sustainability and citizenship values, skills and competencies of the learner.

Transformative Pedagogies

There are various ways in which ESD and GCED can be implemented. The curricula need to empower learners with the knowledge, skills, values and attitudes to address the interconnected global challenges, strengthen the learner's self-concept and at the same time should be able to appreciate diversity and accept other people, places and perspectives. The curricular materials offered at various stages of learning need to be effective, inclusive and innovative that focus on fostering peace, equality and mutual understanding. Appreciation of differences and acceptance can be brought in through discussions on the celebrations, practices and stories

of other cultures. The transformative pedagogies including experiential learning, project-based learning, toy-based pedagogy, etc. help in enhancing the cognitive, socio-behavioural and global and sustainable competency skills, values and attitudes.

A classroom scenario: It's 10:00 AM and the bell rings. It's science class now. Students are seated and are ready to learn. The teacher enters, greets the children, goes to the board and writes the topic 'Organic chemistry—plastics manufacture and uses'. She starts teaching about natural polymers. Asks children to identify the natural polymers and discusses about it. Then she moves on to synthetic plastic, explains how it is harvested from oil and so on. She provides the notes and asks students to answer how principles of chemistry have helped in the plastic manufacture, properties and its benefits. How does the polymer made from bio-plastics differ from polymers made from oil? Bell rings. The teacher assigns homework for the students and leaves the classroom.

This teaching surely has helped the learners to learn science and attain the learning outcome of understanding organic chemistry, identification of natural polymers, synthetic plastic and its manufacturing. But what about the sustainability dimension and GCED competencies? The lesson can be driven through learners' ideas and views on sustainability. If the teacher had extended the discussion

to the negative issues associated with the development of synthetic plastics and how chemistry can address the sustainable use of plastics made from fossil fuels, the learner would have reflected upon it, discussed with peers and thereby, acquiring sustainability competencies. The learners could be asked to find out the effects of negligent disposal of plastic waste and analyse the environmental, health and social problems associated with current attitudes towards the disposal of used plastics. How to deal with plastics that cannot be recycled? Why is it not possible to recycle some plastics safely or easily? As an extended learning the learner can be asked to find out solutions to address the problems associated. Unless we make the shift from the science teaching-learning to making our children think, discuss, analyse, realise, experience the environmental and social aspects of the concepts in science, they will not be able to achieve the sustainability competencies.

Promotion of participatory programmes prepare learners of all ages to engage in their communities and society and find solutions for the challenges of today and the future. An interdisciplinary approach can help in ensuring ESD and GCED at all stages of education. For example, the following excerpt from Chapter 14 'Natural Resources' of Class VII, science textbook, NCERT, (NCERT, 2018).

"The addition of undesirable substances to water-bodies. These substances could be the fertilisers and pesticides used in farming or they could be poisonous substances, like mercury salts which are used by paper-industries. These could also be disease-causing organisms, like the bacteria which cause cholera."

It confines to just science learning when teacher does not extend the learning by discussing about ways in which the water bodies in their locality is polluted. It can further be extended to an activity, where the student is asked to find out about the implications brought about by developmental activities in and around the water body. What effect does it have on the health condition of the habitats using the water body? The learners can also be asked to discuss in groups and come out with solution to reduce water pollution. Learners are to be made active creators and owners of their learning (Zhao, 2011, 2012). The more the learners gets engaged in the learning process and are able to connect the learnings to the real world situations, learning becomes interesting and useful for learners and society.

In Chapter 7, 'Women Caste and Reform', of history textbook of Class VIII, a story about the happenings in the Bombay Presidency, as late as 1829 is provided, which states about a classroom situation wherein untouchables were not allowed to enter into the government schools but were sitting on the veranda outside the classroom and listening without polluting the room where upper-caste were taught. Posing

questions like, 'Imagine that you are one of the students sitting in the school veranda and listening to the lessons. What kind of questions would be rising in your mind?', 'Some people thought this situation was better than the total lack of education for untouchable people. Would you agree with this view?' would enable the learner to acquire capacity for empathy, imagination and sensitivity (NCERT, 2018).

In essence, the teaching-learning needs to be characterised by elements of participation, collaboration, problem solving, critical thinking, etc. and inter and intra-disciplinarity. Opportunities for the learners to experience diverse views on issues and realities, open-ended debates and discussions enable the learners to explore the multiple perspectives.

CONCLUSION

Reconfiguring the education system so that the ESD and GCED competencies and skills are imbibed by the learners is needed for achieving the SDG target 4.7. Educating each learner to take good care of the environment and practice sustainable lifestyle is the most significant concern of the new millennium. While preparing the learners for the world of work, education also needs to equip them with the skills and competencies needed to become active, responsible and engaged citizens (OECD, 2018). Fundamental changes requisite for a sustainable future start with individuals and their change of behaviour, attitude and

lifestyle which can be attained only through education.

The integration of ESD and GCED into the curricular practices has the potential to lead to a major paradigm shift in the education system. For this to happen on policy, ESD and GCED must be integrated in global, regional and national policies related to education so that these policies can create an enabling environment for integration of ESD and GCED pedagogies in the curriculum. The curricular materials, pedagogy, and practices need to be transformative and assessment needs to focus on skills and competencies of ESD and GCED. To create the ethos of GCED and ESD, deliberate actions are to be taken to make it an integral component within and outside classroom practices. More attention is required to promote the whole-institution approach, emphasising the importance and necessity for all the stakeholders of education to work together nurturing global competence. Teachers being at the core of "preparing children and young people to deal with the challenges of today's increasingly interconnected and interdependent world" (Tawil, 2013), requires the teacher education, both pre-service and in-service, to provide more opportunities for them to increase their capacities to empower learners. They should be capable to provide globally competent teaching and lead the learners through the transformation. The education system needs to propagate a holistic

Education in the Context of SDG 4.7: Integration and Education...

13

educational philosophy that believes in '*Vasudhaiva Kuktumbakam*'—world as a family, promotes sustainable lifestyle preserving the planet Earth from mindless destruction and callous exploitation, makes learners overcome hatred and bigotry, fundamentalism and fanaticism, greed and jealousy and move towards living harmoniously with the environment.

References

Ashita R., and Subhash P.D. 2019. *A Study of Global Citizenship Education (GCED) in India.* Research Report. (Unpublished). New Delhi: NCERT.

Delors, J., et al. 2018. *Science, Textbook for Class IX.* (New Delhi: NCERT). pp. 194. New Delhi: NCERT.

National Council for Educational Research and Training. 2018. *Our Pasts-III. Textbook for Class IX.* pp no. 86. New Delhi: NCERT.

OECD. 2018. *The Future of Education and Skills.* https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

Tawil, Sodhi. 2013. Education for Global Citizenship: A Framework for Discussion. *UNESCO Education Research and Foresight.* [erf working papers series, No. 7].

UNESCO. 2014. *Roadmap for Implementing the Global Action Programme on Education for Sustainable Development.* http://unesdoc.unesco.org/images/0023/002305/230514e.pdf.

_____. 2013. *Outcome Document of the Technical Consultation on Global Citizenship Education: Global Citizenship Education— An Emerging Perspective.* http://unesdoc.unesco.org/images/0022/002241/224115E.pdf). Incheon Declaration and SDG4 – Education 2030 Framework for Action.

UN. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development.* Resolution Adopted by the General Assembly on 25 September 2015. No. 42809. pp.1–13. https://doi.org/10.1007/s13398-014-0173-7.2

Zhao, Y. 2011. Students as Change Partners: A Proposal for Educational Change in the Age of Globalisation. *Journal of Educational Change.* Vol.12, No. 2. pp. 267–279. https://doi.org/10.1007/s10833-011-9159-9

_____ 2012. *World Class Learners: Educating Creative and Entrepreneurial Students.* Thousand Oaks, CA: Corwin.

2

Attitude of Primary School Teachers towards Inclusive Education

Richa Singh*
Amita Bajpai**

Abstract

Education is an essential building block of any civilisation. Today inclusive education is a widely accepted approach of the 21st century because it helps unfold the hidden potential of the students, ensures the rights of every individual without discrimination and creates a universal inclusive environment for the maximum development of children, as we all have equal rights despite many differences. Inclusive education fosters the idea of acceptance and promotes wider social acceptance, peace and cooperation. The purpose of the present study is to investigate the attitudes towards inclusive education among primary school teachers in Lucknow. The success of inclusive education depends on various factors, of which a teacher is the most important one. To become a competent and successful inclusive teacher, it is necessary to have the required knowledge, skills, democratic attitude, positive attitude and an attitude of collaboration and networking classroom. Therefore, to assist the regular education teacher, knowledge and understanding of their attitudes or perceptions towards inclusive education is critical. Hence, this study aims to find out the knowledge and attitude of primary school teachers towards inclusive education. The present study is a descriptive survey method and data has been analysed quantitatively. The study included a sample of 200 primary school teachers who were surveyed using a standardised tool. A total of 33 primary schools were randomly selected for this study (15 private primary schools and 18 government primary schools). The study assesses the attitude of primary school teachers towards inclusive education in relation to their gender and type of institute. The statistical technique of 't-test' was used to analyse the attitudes towards inclusive education scores of private primary school teachers and government primary school teachers. The attitude of primary school teachers towards inclusive education may be influenced and developed within an educational system that can provide some specific conditions conducive to practice in this field.

Post graduate student, Department of Education, University of Lucknow, Lucknow.
**Professor,* Department of Education, University of Lucknow, Lucknow.

INTRODUCTION

India is the largest democratic country in the world. As a nation with federal characteristics, the core qualities of its constitution, which are mentioned on the very first page, i.e., preamble are justice, liberty, equality and fraternity for all the citizens of the country. These core qualities would only be attainable by integrating people and all sections of society, by providing them with inclusive education. Inclusive education aims to promote democratic principles, values and beliefs relating to equality and social justice to all. UNESCO's action in the field of inclusive education has been set explicitly within the inclusive education framework adopted in 1994. Schools should accommodate all children regardless of their physical, intellectual, emotional, social, linguistic, or other conditions (Article 3, Salamanca Framework for Action).

Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all. Moreover, they provide effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system (Article 2, salamander statement). Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory (Universal Declaration of Human Rights, 1998, Article 26).

Inclusive Education

This education system accommodates all learners, children and young people with or without disabilities in a common education system to learn together in a conducive environment. It also talks about all stakeholders in the system such as learners, parents, community, teachers, administrators and policymakers, to be comfortable with diversity and take it as an opportunity rather than a problem. Inclusive education is not only associated with targeting excluded sections of societies or children but also it welcomes diversity, benefiting all learners, providing equal access to education and making appropriate provisions for certain categories of children without excluding them. The definition highlights the point that inclusion is not about meeting the needs of the disabled at the expense of the non-disabled but it is a reciprocal process that benefits both (UNESCO, 2009).

RATIONALE OF THE STUDY

Today, inclusive education is widely accepted as a twenty-first century approach because it helps unlock student's hidden potential, ensures the rights of every individual without discrimination, and creates a universally inclusive environment for children's maximum development. We recognise that despite our many differences, we all share equal rights. Inclusive education promotes acceptance, broader social harmony, peace and cooperation. While inclusive

education remains a subject of debate nationally and globally, it is considered the only path to a future education, a better society and a brighter world. Given that teachers are the primary providers of this system, it is essential to assess teacher's attitudes towards inclusive education. The proper functioning of inclusivity relies heavily on the involvement and cooperation of teachers, parents and community leaders. A positive attitude is essential for the successful implementation of inclusive education whether it originates from society, peers, parents of the children, teachers or administrators. The key to successful inclusion in the classroom primarily hinges on the attitude of teachers. Therefore, it is not enough to prioritise inclusive education as an integral part of the education system, equally important is the attitude of teachers toward inclusion. Teacher's attitude plays a crucial role in the successful implementation of inclusive education and has a significant impact on the teaching-learning process in a classroom (Sharma et al., 2008; Hattie, 2009). Therefore, the need for this present study is evident.

STATEMENT OF THE PROBLEM

The present study is stated as 'Attitude of Primary School Teachers towards Inclusive Education'.

OBJECTIVES OF THE STUDY

1. To study the attitude of primary school teachers towards inclusive education.

2. To study the attitude of primary school teachers towards inclusive education in relation to gender.

3. To study the attitude of primary school teachers towards inclusive education in relation to the type of institute.

HYPOTHESIS OF THE STUDY

1. There is no significant difference between male and female primary school teachers towards inclusive education.

2. There is no significant difference between the government and private primary school teachers towards inclusive education.

METHODOLOGY

Method

The method used in the present research is a descriptive survey method and quantitative in nature.

Sample

The sample contained 200 teachers from different areas of Lucknow, Uttar Pradesh. Further 200 teachers selected randomly from the selected 33 primary schools constitute the sample for the study. The sample of the study has been taken from the 15 private primary schools and 18 government primary schools of Lucknow, Uttar Pradesh.

Tool for the Study

For the present study Dr Vishal Sood and Dr Arti Anand (2011),

"Teacher Attitude Scale towards Inclusive Education". The tool consists of 47 items having 29 favourable and 18 unfavourable items along with a three-point scale of agree, undecided, and disagree carrying a weighted of 3,2,1 for favourable items and just reverse in case of unfavourable items.

Analysis and Interpretation

To fulfil the objectives of the present study, the researcher analysed and interpreted the obtained data on the attitude of primary school teachers towards inclusive education using the statistical technique of the 't-test'. Results are being presented objectively.

Attitude of Primary School Teachers towards Inclusive Education

To study the attitude of primary school teachers towards inclusive education. Percentage-wise divided the score of teachers of primary school towards inclusive education. The results have been tabulated below.

Attitude of primary school teachers
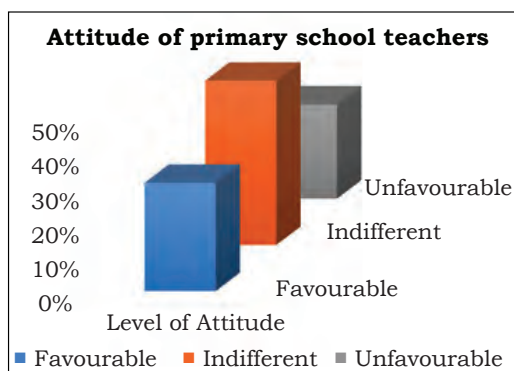
towards inclusive education. We can see that 31 per cent of teachers have favourable attitude and 47 per cent of teachers have an indifferent attitude, 27 per cent of teachers have the unfavourable attitude.

Attitude of Primary School Teachers towards Inclusive Education in Relation to Gender

To study the attitude of male and female primary school teachers towards inclusive education 't-test' was applied to attitude scores of teachers of primary schools towards

Table 1
Percentage Shows the Attitude of Primary School Teachers towards Inclusive Education.

Range of score	Categories	No. of teachers	Percentage
116 and above	Favourable	62	31%
80 –115	Indifferent	84	42%
79 and below	Unfavourable	54	27%

Table 1 illustrates that most of the teachers have an indifferent attitude

inclusive education. The results have been tabulated below.

Table 2
't' Values Showing Significance of the Difference in Attitude Scores of Male and Female Primary School Teachers towards Inclusive Education

Primary school teachers	N	M	S.D.	Df	t-value	
Male	100	101.75	26.40	198	1.5455	Not significant
Female	100	96.01	25.85	198		

Table 2 illustrates that t-value for attitude towards inclusive education on attitude scale for male and female primary school teachers has come as 1.5455. It is insignificant at 0.05 level. So, the above taken hypothesis has been accepted that, male teachers and female teachers of primary school have no variance in regards to their attitude about inclusive education. The mean value for male teachers M = 101.75 is higher than the female teacher's M = 96.01 but is not so high so as to make significant difference. So, null hypothesis is accepted.

Attitude of Primary School Teachers towards Inclusive Education in Relation to Type of Institute

To study the attitude of private and government primary school teachers towards inclusive education 't'-test was applied to attitude scores of teachers of primary schools towards inclusive education. The results have been tabulated below.

Figure Showing the Comparison of Male and Female Primary School Teacher's Attitude towards Inclusive Education
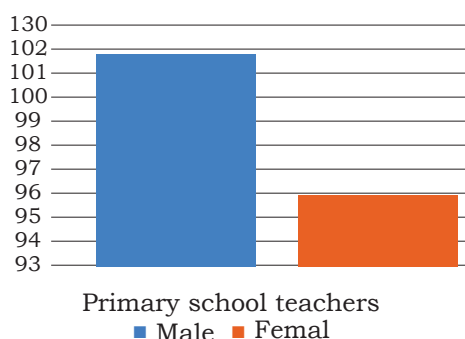
Table 3 shows that the t-value in the case of government and private school teacher's attitude towards inclusive education has come out to be 0.7133. which is not significant at both levels of confidence. So, it is verified that government and private school teachers have equal attitudes. They kept similar attitudes towards inclusive education. Hence, the null hypothesis is accepted.

Table 3
't' Values Showing the Significance of the Difference in Attitude Scores of Private and Government Primary School Teachers towards Inclusive Education

Primary school teachers	N	M	S.D.	df	t-value	
Government teachers	100	98.77	25.72	198	0.7133	Not significant
Private teachers	100	101.41	26.61	198		

Figure Showing the Comparison of Government and Private School Teacher's Attitude towards Inclusive Education
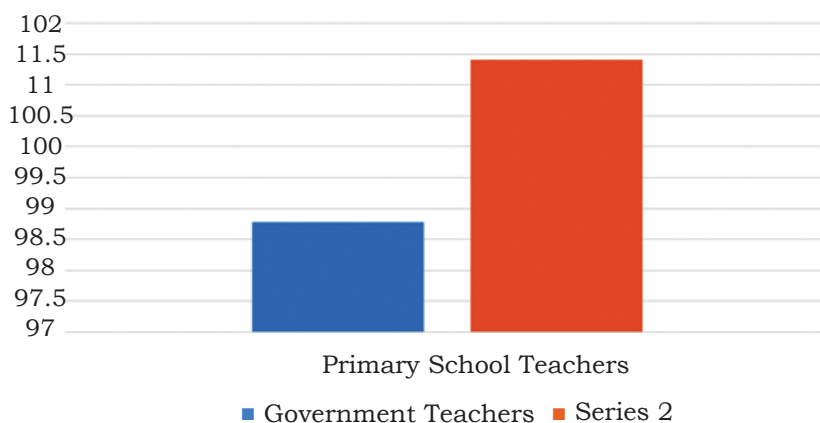
FINDINGS

After analysing the data collected from the target sample through various techniques and describing the personal views on different dimensions of teaching life.

1. There was no significant difference between male and female primary school teachers in attitude towards inclusive education.
2. There was no significant difference between private and government school teachers in attitude towards inclusive education.

CONCLUSION

Based on the findings of this study, it is concluded that the majority of teachers have a moderate to favourable attitude towards inclusive education.

Attitudes are often shaped by a complex interplay of factors such as personal beliefs, experiences and professional training. Therefore, assuming that gender directly impacts attitudes without supporting evidence would be an oversimplification. Both male and female primary school teachers. Typically undergo similar training and educational programmes to become teachers. They often work together in the same teaching environments, sharing experiences and insights related to inclusive education. This exposure to similar teaching conditions can lead to the development of similar attitudes and approaches. In this particular study, it was found that gender does not significantly impact teacher's attitudes towards inclusive education. Teachers in both private and government schools undergo

similar teacher training programmes, where they are introduced to the concept of inclusive education. Thus, on a foundational level, they receive similar preparation for inclusive classrooms. The curriculum and policies governing education, including inclusive education, are often standardised at the national or regional level. Additionally, in this particular study, it was found that the type of institute does not significantly impact teachers' attitudes towards inclusive education.

REFERENCES

AGBENYEGA, JOSEPH. 2007. Examining Teacher's Concerns and Attitudes to Inclusive Education in Ghana. *International Journal of Whole Schooling.* Vol. 3, No. 1. pp. 41–56.

AVRAMIDIS, E.R. BAYLISS, P. AND BURDEN, 2000. A Survey into Mainstream Teacher's Attitudes Towards the Inclusion of Children with Special Needs in Ordinary School in One Local Educational Authority. *Educational Psychology.* Vol. 20. pp. 193–213.

BANSAL, SNEH. 2016. ATTITUDE OF TEACHERS towards Inclusive Education in Relation to their Professional Commitment. Indian Journal of Educational Studies: An Interdisciplinary Jou*rnal. Vol. 3, No. 1. pp. 96–108.*

BHATNAGAR, N. and Das, A. K. 2013. Nearly Two Decades after the *I*mplementation of the Persons with Disabilities Act: Concerns of Indian Teachers to Implement Inclusive Education. *International Journal of Special Education.* Vol. 28, No. 2. pp. 104–113.

BHATNAGAR, N. AND DAS, A. 2014. Attitude of Secondary Regular School Teachers towards *Inclusive Education in New Delhi, India-A Qualitative St*udy. Exceptionality Education INTERNATIONAL. VOL. 24, NO. 2. PP. 17–30.

BHASKTA*, D.* K. and Shit, B. 2016. Assessment of School Teacher's Attitude towards Inclusion of Special Educational Need (SEN) Children in Regular C*lassroom. International Journal of Humanities and Social Science*s. Vol. 2, No. 1. pp. 265–270.

COSTELLO, S. an*d Boyle, C. 2013. Pre-service Secondar*y Teacher's Attitude towards Inclusive Education. *Australian Jo*urna*l of Teacher Education. Vol. 38, No.4.*

KALITA, UTPAL. 2017. A Study on the Attitude of Primary School Teachers towards Inclusive Education. International Journal of Advanced Ed*ucation and Research. Vol. 2, No. 3. pp. 127–130.*

KAUR, M. AND KAUR, K. 2015. Attitude of Secondary School Teachers towards Inclusive Education. International Journal of Behavioral Social and Movement Scien*ces. Vol. 4, No. 1. pp. 26–32.*

KHAN, AND KHAN, *I. et al. 2017. Inclu*sive Education in Government PRIMARY SCHOOLS: Teacher Perceptions. Journal of Education and Educational Department. Vol. 4, No. 1. pp. 32–47.

KUMAR, ANIL. *2016. Exploring the Tea*cher's Attitude Towards INCLUSIVE EDUCATION SYSTEM: A STUDY of Indian Teachers. Journal of Education and Practice. Vol. 7, No. 20. pp. 1–4.

Mangal, S.K. and Mangal, S. 2015. *Research Methodology in Behavioral Science. PHI Learning Private* Limited, New Delhi.

Opdal, Liv Randi, et al. 2001. Teacher's Opinions about Inclusion: A Pilot Study in a Palestinian Context. Interna*tional Journal of Disability, Development and Ed*ucation. Vol. 48, No. 2. pp. 143–162.

Sood, V. and Anand, Arti. 2011. Teacher Attitude Scale towards Inclusive Education. Intern*ational Journal of Technology and Inclusive Education. V*ol. 6, No. 2. pp. 1134–1142.

The Salamanca Statement. 1994. World Conference on Special Needs Education: Salamanca, Spain.

3

Game-based Learning at the Primary Level: Enhancing Education through Play

Angel Rathnabai S*

Abstract

Game-based learning (GBL), an innovative educational approach, has gained increasing recognition and adoption in primary education globally. Utilising games as an instructional tool in primary schools has been demonstrated to be an effective and engaging method for improving learning outcomes. By incorporating educational content into game scenarios, educators can make the learning process enjoyable, interactive, and meaningful for young students. This article examines the advantages and implementations of game-based learning at the primary education level, highlighting its potential to make learning fun, engaging, and effective.

INTRODUCTION

Educational methodologies have progressively evolved to align with the changing needs and preferences of students. Educational methods are moving beyond traditional rote memorisation and one-size-fits-all instruction towards more interactive and engaging approaches. One of the most promising innovations in modern education is the incorporation of game-based instruction at the primary level. Game-based learning has emerged as a transformative education model, reimagining conventional classrooms into vibrant and participatory environments. It represents a creative approach that leverages the power of games to make learning participatory, collaborative, and impactful.

* *Assistant Professor,* Central Institute of Educational Technology, NCERT, New Delhi.

Primary education represents a crucial stage of child development, establishing the foundation for lifelong learning. However, young students can often become unengaged with conventional teaching techniques. Game-based learning presents an innovative and enjoyable means to address this issue, leveraging the power of play to promote active involvement and motivation. At the primary level, where children are at their most receptive and curious, game-based learning provides a unique opportunity to nurture creativity, critical thinking and problem-solving skills. Children possess an innate tendency towards play, as it serves as a fundamental pillar supporting cognitive, social and emotional maturation. Leveraging this inherent inclination, game-based pedagogy artfully integrates instructional elements into playful experiences and exercises. In doing so, it cultivates learning within an atmosphere of delight.

While still an emerging field, game-based learning holds promise to re-engage students by bringing fun back into the classroom. With the right design and alignment to educational standards, games can boost student achievement and create lifelong learners. Educators should explore game-based learning as a tool for enriching primary education. Ongoing research will further illuminate both the opportunities and best practices of this innovative approach.

Game-based Learning and Gamification

Generally, the terms game-based learning and gamification are confused among educators. While game-based learning and gamification are related concepts, they represent distinct approaches to incorporating elements of games into educational or non-gaming contexts. They differ substantially in their underlying strategies and implementation methods. Game-based learning refers to the use of actual games, whether digital or analog, as part of the learning process. While gamification focuses on applying game design features to non-game scenarios to motivate and engage individuals. Both approaches have demonstrated potential for enhancing engagement and performance when implemented appropriately. Teachers seeking to leverage the benefits of games for instruction should understand the differences between game-based pedagogy and gamification techniques to design the most effective learning experiences.

Parameter	Game-based Learning	Gamification
Nature	In game-based learning, the entire learning experience is designed as a game. This means that the core content and activities are inherently gamified. Learners actively engage with a game, and as they progress through the game, they also acquire knowledge or skills. The primary focus is on the educational content and the game is a means to deliver it.	Gamification, on the other hand, involves taking elements from games (such as points, badges, leaderboards, etc.) and integrating them into a non-game context, like a classroom, a training program, or a website. Gamification doesn't transform the core content into a game but rather adds game-like elements to enhance engagement and motivation.
Purpose	The primary purpose of game-based learning is educational. It is designed to facilitate learning and the acquisition of knowledge or skills. Games are used as a medium for teaching and reinforcing educational content.	Gamification is typically used to motivate and engage individuals in activities that may not be inherently engaging. It's often applied to improve user engagement, increase motivation, or drive specific behaviors, but the primary goal may not be direct education.
Implementation	Game-based learning requires the development of educational games or simulations. These games are often custom-built to align with specific learning objectives and content. The game-play is an integral part of the learning process.	Gamification involves the addition of game elements to existing systems. This can be achieved through the use of software tools, APIs, or platforms that allow for the integration of point systems, badges, leaderboards, and other game mechanics into non-game contexts.
Engagement	Game-based learning relies on the inherent engagement of playing a game to motivate learning. It leverages the enjoyment and satisfaction derived from game experiences to make learning more engaging.	Gamification relies on extrinsic motivation. It uses rewards and recognition to encourage participation and engagement. While it can be effective, it doesn't necessarily make the core activity more fun.
Example	Educational games-Gcompris, EduActive, TuxMath, etc.	Point systems, leaderboards, badges, and rewards, etc. in any games.

In summary, game-based learning and gamification both incorporate elements of games into non-game contexts, but they differ in their fundamental approaches and goals. Game-based learning uses games as the primary medium for education, while gamification adds game elements to enhance engagement and motivation in existing activities.

Game-based Learning: A Pedagogical Tool

Game-based learning can engage students in the classroom by incorporating elements of fun and competition. By framing academic content within the context of a game, students are motivated to problem-solve and think critically in a low-stakes environment. The game format allows students to learn from both successes and failures without fear of academic sanction. This interactive approach aligns well with theories of multiple intelligences and different learning styles, allowing all students opportunities to shine. Thus, game-based learning has gained prominence as an effective pedagogical tool.

There's a growing trend of using game-based learning in the classroom (Gilliam et al., 2013).

Recently, research on game-based learning has grown in importance. Student-teacher and student-student relationships have a significant influence on learning when it comes to a classroom setting. As a result, game-based learning through the use of instructional games may improve student-teacher and student interpersonal relationships effectively. Educational games have been shown to increase learning motivation and efficiency in several previous studies. The popularity of these games has increased recently with the addition of enriched gaming components (Liu and Chen, 2013).

Game-based learning has been shown to not only connect students and facilitate self-constructed learning, but also to enhance memory and cultivate a positive attitude towards learning. The goal of game-based learning is to achieve a balance between the subject content, the gameplay, and the player's capacity to remember and apply the knowledge to real-world situations. Since the introduction of modern technology into the classroom, students' anxiety levels have increased, and teachers now need to support them in maintaining their motivation and interest in what they are learning. The importance of games in education and the use of game-based learning make instruction more efficient (Cojocariu and Boghian, 2014).

The lessons taught in primary school are reflective of real life. It should thus be grounded in reality. GBL may positively impact positive impressions of the courses. Moreover, game-based learning activities might aid students in applying their knowledge to real-world situations. It's critical

that elementary school instructors understand the demands involved with using games as a teaching tool. In order to facilitate efficient teaching in primary school, they are expected to plan GBL activities and create games. Game-based Learning (GBL) is a useful tool for encouraging innovative teaching methods. Through games, children may acquire the attitudes, knowledge, and skills they need to participate actively in both their classroom and community. At that moment, teachers play a critical role in helping pupils learn through games. Lifelong learning may be offered when teachers select games that are suited to their lesson plans and efficiently manage the GBL process. On the other hand, students in elementary schools find it hard to focus on abstract ideas. For this reason, instructional games are typically created for pupils in primary school. Additionally, the foundation of games is a student-centred approach to education, where children learn via hands-on, interactive activities. Students' problem-solving abilities are enhanced via game-based learning (GBL), which also enables them to use experiences to understand their environment, society, and nature. Games present knowledge in an appropriate framework or context. For this reason, in-class games, leisure activities, and physical activities are crucial in classes as they help students become engaged and active participants in the learning process. Playing games in the class promotes

understanding and reflection on the material (Ucus, 2015).

Playing games is a significant explanatory factor for students' learning. Students can experience learning through games that emphasise immersion in a practise, backed by professional-like frameworks that develop competence, professional-like abilities, and creative thinking (Admiraal et al., 2011).

In the perfect learning game environment, children gain problem-solving skills. Engagement has been an essential component concept in game-based learning (Hamari et al., 2016).

The term 'game-based learning' (GBL) refers to an environment in which playing games and their content improve the acquisition of information and skills. Game-based learning and twenty-first century skills have received a great deal of attention. There is a growing body of research devoted to developing educational games that will help students in the classroom acquire twenty-first century abilities. Numerous studies have shown how effective games are for learning (Qian and Clark, 2016).

Marc Prensky emphasised in 2001 the potential for digital games to enhance learning outcomes by making education more engaging, interactive, and applicable to the generation native to digital technologies. Gee (2003), explores the connection between video games and learning, emphasising the concept of "good learning" and how it can be facilitated through game-

based experiences. Squire (2003), discusses the shift from traditional teaching methods to game-based learning, emphasising the importance of game design principles and their application in primary education. Egenfeldt-Nielsen (2007), delves into the educational aspects of computer games and the ways they can be harnessed to teach various subjects effectively, especially at the primary level. Steinkuehler and Duncan (2008), explore the ways game environments can foster the development of scientific thinking skills among primary school children. It highlights the potential of games to promote problem-solving, collaboration, and critical thinking.

A study focused on older adults and examined the cognitive benefits of game-based learning which reveals specific cognitive improvements, such as, enhanced memory and problem-solving skills resulting from engagement with digital games (Hainey et al. 2011), Some of the key findings can be extrapolated to primary education. The potential of digital games can transform education and emphasises the importance of game design, assessment and teacher training (Klopfer, Osterweil and Salen, 2009). Anderson and Dill (2000), studied the impact of video games on aggressive thoughts, feelings, and behavior and found that the overuse of video games influences cognition and behavior. Papastergiou (2009), studied the impact of educational games on educational effectiveness and student motivation and revealed

the impact of digital games on motivation and learning outcomes in high school, which may have implications for primary education as well. The design of educational games is a critical factor in their success. Studies have explored the principles of effective game design, including elements such as, clear learning objectives, engaging narratives, and appropriate levels of challenge.

The literature on game-based learning at the primary level underscores the potential benefits of using games as an educational tool. It enhances motivation, cognitive skills, collaboration, and content learning while also addressing the need for teacher training and tackling various challenges. The long-term impact and the role of parents and communities are important areas for future research and implementation.

To effectively incorporate game-based learning at the primary level, teachers should consider the following:

1. Selection of appropriate games that align with learning objectives and curriculum standards.

2. Successful game-based learning requires integration with the curriculum to ensure that learning objectives are met. This alignment is crucial for game-based learning to be effective in primary education.

3. The role of the teacher in game-based learning is vital.

Teachers must guide students, facilitate discussions, and ensure that learning objectives align with the games used in the classroom.

4. Assessment methods should be designed such that they evaluate students' learning through games. Feedback should be constructive and designed to support improvement.

A well-constructed gamified lesson plan can, therefore, facilitate edifying growth through engaging and entertaining means, empowering students as active participants in their learning process.

BENEFITS, CHALLENGES AND CONCERNS

Researches explore and bring out the cognitive and social-emotional benefits of game-based learning. Students who participate in game-based learning show improved collaboration, and communication skills and a greater willingness to take risks in the learning environment. The iterative process within a game enhances perseverance and builds resilience when facing challenges. Cognitively, students demonstrate stronger long-term retention of concepts when learning through an interactive game versus traditional direct instruction.
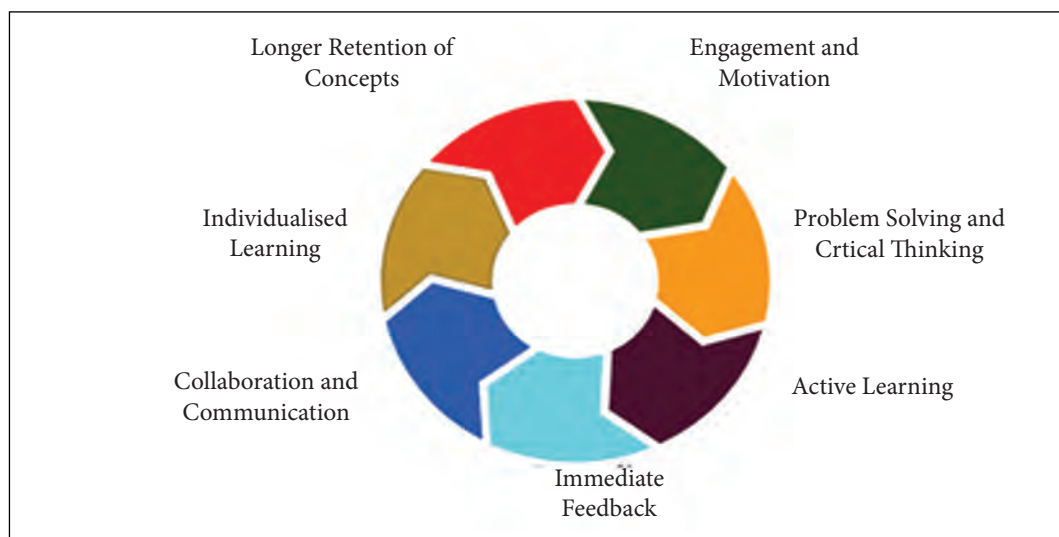

Fig. 1: Benefits of game-based learning

While there is evidence supporting the effectiveness of game-based learning in the short term, more research is needed to understand its long-term impact on student achievement and skill development. While game-based learning offers numerous benefits, it is not without its challenges. Implementing these approaches effectively requires

investment in technology and teacher training. It also raises concerns about screen time, as excessive use of digital devices can have adverse effects on children's health. Balancing game-based learning with other activities is crucial for a child's overall development. Not all educational games are created equal. Ensuring that games align with curriculum standards and offer accurate information is vital. Also, it is essential to track students' progress and ensure that game-based learning complements traditional teaching methods. Thus, finding a balance between traditional teaching methods and game-based learning is essential.

CONCLUSION

Game-based learning is revolutionising primary education by making learning more engaging, interactive and effective by tapping into the natural curiosity and playfulness of children. By harnessing the power of games, educators can ignite children's curiosity, stimulate critical thinking and improve overall academic performance. By integrating game-based learning into the curriculum, we can create a dynamic, engaging, and effective learning environment that empowers students with valuable skills and knowledge. In this digital age, harnessing the power of game-based learning is not just an option but a necessity for preparing the next generation for success.

While challenges exist, when implemented thoughtfully, game-based learning has the potential to transform the primary education landscape, fostering a new generation of enthusiastic, well-rounded learners. In a world where technology and gamification are increasingly prevalent, game-based learning represents a bridge between traditional teaching and the digital future of education. Game-based learning is not a replacement for traditional teaching methods but a valuable supplement that can help primary students unlock their full learning potential.

REFERENCES

ADMIRAAL, W., HUIZENGA, J., AKKERMAN, S., AND DAM, G. 2011. The Concept of Flow in Collaborative Game-based Learning. *Computers in Human Behavior.* Vol. 27, No. 3. pp. 1185–1194. https://doi.org/10.1016/j.chb.2010.12.013.

ANDERSON, C., A., AND DILL, K. 2000. Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life. *Journal of Personality and Social Psychology.* Vol. 78, No. 4. pp. 772–790.

COJOCARIU, VENERA-MIHAELA, AND BOGHIAN I. 2014. Teaching the Relevance of Game-based Learning to Preschool and Primary Teachers. *Procedia— Social and Behavioral Sciences.* No. 142. pp. 640–646. https://doi.org/10.1016/j.sbspro.2014.07.679

EGENFELDT-NIELSEN, S. 2007. *Beyond Edutainment: Exploring the Educational Potential of Computer Games*. Continuum.

GEE, JAMES P. 2003. *What Video Games have to Teach us about Learning and Literacy*. Palgrave Macmillan.

GILLIAM, M., HEATHCOCK, S., DUDLEY J., SAPER, C. AND JAGODA, P. 2013. Games and Learning: Evaluation of A Game-Based Middle School Reproductive Health Curriculum. *Contraception*. Vol. 88, No. 3. pp. 472. https://doi.org/10.1016/j.contraception.2013.05.157

HAINEY, T., CONNOLLY, T. M., STANSFIELD, M., AND BOYLE, E. A. 2011. Older Adults' Learning of Digital Games: Patterns of Use and Effects on Cognition. *ACM Computers in Entertainment*. Vol. 9, No. 1. pp. 1–22.

HAMARI, J., SHERNOFF, D. J. ROWE, E. COLLER, B., ASBELL-CLARKE, J. AND EDWARDS, T. 2016. Challenging Games Help Students Learn: An Empirical Study on Engagement, Flow and Immersion in Game-based Learning. C*omputers in Human Behavior*. Vol. 54, pp. 170–179. https://doi.org/10.1016/j.chb.2015.07.045

KLOPFER, E., OSTERWEIL, S. AND SALEN K. 2009. Moving Learning Games Forward Education Arcade. Retrieved from http://education.mit.edu/papers/MovingLearningGamesForward_EdArcade.pdf.

LIU, ERIC ZHI-FENG AND CHEN, PO-KUNG. 2013. The Effect of Game-based Learning on Students. Learning Performance in Science Learning— A Case of "Conveyance Go". *Procedia–Social and Behavioral Sciences*. Vol. 103. pp. 1044–1051. https://doi.org/10.1016/j.sbspro.2013.10.430

PAPASTERGIOU, M. 2009. Digital Game-based Learning in High School Computer Science Education: Impact on Educational Effectiveness and Student Motivation. *Computers and Education*. Vol.52, No. 1. pp. 1–12.

PRENSKY, M. 2001. *Digital Game-based Learning*. pp. 1–5. McGraw-Hill.

SQUIRE, K. 2003. Video Game-based Learning: An Emerging Paradigm for Instruction.

Performance Improvement Quarterly. Vol. 26, No. 1. pp. 101–130.

STEINKUEHLER, C. AND DUNCAN, S, 2008. Scientific Habits of Mind in Virtual Worlds. *Journal of Science Education and Technology*. Vol. 17, No. 6. pp. 530–543.

QIAN, M. AND CLARK KAREN. R. 2016. Game-based Learning and 21st Century Skills: A Review of Recent Research. *Computers in Human Behavior*. Vol. 63, pp. 50–58. https://doi.org/10.1016/j.chb.2016.05.023

UCUS, S. 2015. Elementary School Teachers' Views on Game-based Learning as a Teaching Method. *Procedia— Social and Behavioral Sciences*. Vol. 186, pp. 401–409. https://doi.org/10.1016/j.sbspro.2015.04.216

4

Effects of Educational Games-based on Digital Device on Children with Learning Disability in Memory

Ravindra Kumar*
Suraksha**

Abstract

Educational games have become very popular not only with children but elders also. Each and every child plays games at some point and many play regularly. These games are ubiquitous in children's leisure environment but the motivational and skill-enhancing potentialities of this technology are being exploited increasingly in education. Quality educational games, which are challenging, instructive and absorbing, can make learning enjoyable and effective. The study reviews the literature on educational games based on digital device used by Children with Learning Disability in Memory (CWLDM). The study investigated educational games as remedial teaching for children with special needs with reference to memory among Grade V students. The study adopted the pre-test-post-test control group design.

INTRODUCTION

Educational games based on digital devices create a new perspective in learning culture, which go hand in hand with the interests of the children. Educational games may be treated as innovation in education that can enhance children's learning and acquiring skills. Integration of educational games in the school environment could effectively contribute to reforming the educational system. Early childhood education and primary education teachers can play a crucial role in supporting children's educational game-based learning with digital devices (Manesis, 2002).

Educational game package is new teaching-learning strategy in which the topics to be taught are carefully planned, written and programmed in a computer which could be run at the same time in several digital devices and allows each student a computer

*Professor, Department of Teacher Education (SoE), Central University of South Bihar, Gaya.
**Assistant Professor, Dr. B.R. Ambedkar College of Education, Magadh University, Bodh Gaya.

terminal. The instructions are also programmed on a computer disc, which could be played using audio, video, drag and drop, gaming and simulation activities for the student to learn the topic at their leisure time and at their own pace. There are now several educational game packages on different subjects. It is obvious that, the current trend in research all over the world is the use of computer facilities and resources to enhance students' learning. Chang (2000) and Yusuf (2009), opined that 'many exercises that depart from traditional method are now readily accessible on the web (p. 521), even though teachers do not use these facilities. Jenk and Springer (2005), opined that the way CAI is delivered can affect its effectiveness and that new studies are needed to clarify the effect of CAI in contemporary student environment. Orisebiyi (2007), investigated the effect of computer assisted instruction package on student's achievement in learning disability. Computer assisted instruction with reference to games and videos were found to be effective on student's achievement. NCERT (2014), also emphasise that the educational games are very useful for improving the memory level of children with special needs (CWSN).

Educational games improve instruction for CWLDM because children receive immediate feedback and hence, do not continue to practice the wrong skills. Computers capture the children's attention because the programmes are interactive and engage the children's spirit of competitiveness to increase their scores. Also, computer-based instruction moves at the students' pace and usually does not move ahead until they have mastered the skill. Educational games provide differentiated lessons to students with challenges.

Moreover, nowadays the assistive technology is available to help individuals with various types of learning disabilities, i.e., pictures, shapes, graphics, symbols, letters and figures constancy. This research paper focuses specifically on educational games for individuals with learning disabilities in memory. Additionally, children with learning disability often experience greater success when they are allowed to use their abilities or strengths to work around their challenges. Teachers, parents and health workers need to be clear about terms used in this area. Such clarity will facilitate communication and address issues better. The definitions for a few common terms are given below:

Disability

Disability is more than a problem or difficulty with how our body works— a child with impairment may experience disability when functioning in an environment that impacts the child's successful performance at a

task (NCERT, 2006). A person with disability is one who has a long-term physical, mental, intellectual or sensory impairment which, coupled with different barriers around them, hinders their full and effective participation in society equally with others (RPwD Act, 2016).

Learning Disabilities

"Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to Central Nervous System dysfunction." Even though learning disability may occur concomitantly with other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g., cultural differences, insufficient or inappropriate instruction, psychogenic factors), it is not the direct result of these condition or influences.

Memory

Memory is the base for any information processing and without which no application of knowledge is possible. An individual having an adequate memory has an interact mechanism of elaborative encoding (i.e., rehearsal, coding, chunking, imagery, etc.) (Swarup and Mehta, 2011).

Educational Games

Educational games based on digital device create a new perspective in learning culture, which go hand in hand with the interests of the pupils. Educational games are an innovation in education that can enhance children learning and acquiring skills.

The purpose of this study was to investigate the effect of educational games based on digital device package developed by researcher for use with primary school students, particularly Grade V students, for overcoming their learning disabilities related to memory. A follow-up was gathered to determine the maintenance of computer-based learning including educational games.

OBJECTIVES OF THE STUDY

1. To compare the effectiveness of remediation of children with learning disability in memory with pre-test and post-test of traditional method of teaching.
2. To compare the effectiveness of remediation of children with learning disability in memory with pre-test and post-test of educational game package for teaching.
3. To compare the relative effectiveness of remediation of children with learning disability in memory with educational game package and traditional method of teaching.

HYPOTHESES OF THE STUDY

1. There is no significant difference between the pre-test and post-test of traditional method of teaching in remediation of children with learning disability in memory.
2. There is no significant difference between the pre-test and post-test of educational game package of teaching in remediation of children with learning disability in memory.
3. There is no significant difference between the effectiveness of educational game package and traditional method of teaching in remediation of children with learning disability in memory.

SCOPE OF THE STUDY

The study focused on the effect of educational games, videos and simulations as remedial teaching for learning disabled Grade V students. It was limited to CWLDM of Grade V of Central Board of Secondary Education (CBSE) students.

METHODOLOGY

The research design for this study was pre-test-post-test experimental group and pre-test-post-test control group design. The target population was 749 from 07 CBSE schools in Uttar Pradesh, India. The sample for this study was made up of 64 students using simple random sampling techniques. A breakdown

revealed that the experimental group consisted of 32 students with a gender balance of boys (n=17) and girls (n=15), while the control group had a gender balance of boys (n=17) and girls (n=15), respectively. The experimental group was taught using educational games based on digital device which covered learning disabilities related to memory, while control group was taught using traditional method.

RESEARCH INSTRUMENTS

The following tools were used to conduct the study i.e., (i) Behavioural checklist for screening the learning disabled (BCSLD), (ii) Diagnostic test of learning disability (DTLD) developed by Swarup and Mehta (2011), (iii) Non-verbal group of intelligence test (NGIT) developed by Imtisungba Ao [Kohima] (2011), and (iv) Educational games package developed by author.

Educational Games Package for CWLDM

The following educational games were selected for remediation of children having learning disability related to memory.

Memory Blocks Game

In this educational game, the child needs to open two blocks. If they are the same the child scores; if they

do not match, the same block will automatically close after few seconds. In this group, three type of memory blocks were arranged as per difficulty order.

Minute Details

In this game, two similar picture were given with minute modification. The child, needs to find out the difference between the two. The difference in efficiency between children is compared by time factor and scores acquired.

Coconut Curumba Counting Game

In this game, the child need to find the rock shown on the screen. Many levels of game are arranged in difficulty order. Children should pay attention to find the rock because the speed of game increases according to levels of the game.

Games We Play

This is a drag and drop game in which children need to select the game name and put a relative picture as shown on the screen.

Priority Test Games

In this game children need to arrange many words in a particular order from first to last shown on the computer screen.

Memory Puzzle Game

In this game, children need to do some mathematical calculations. For instance, the gate of the cage will only be open when there is virtually 6 litre on the handle, shown on the screen.

The above mentioned educational games were arranged as per order and children were trained to participate in the games. These educational games overcome learning disabilities in memory either completely or to some extent.

METHOD OF DATA COLLECTION

The teachers in the sampled schools were trained as research assistants for the use of educational game package. The study period was of 45 classes for five months, twice a week. The classes were conducted with the help of educational games based on digital devices oriented for remediation of CWLDM. The students as researchers, undergoes the test from the selected schools. The experimental group students were exposed to educational game package which had been installed in digital devices. While control group students were taught using traditional teaching

method having the same content used for the experimental group. At the end of the experimental study, DTLD was administered as the post-test to measure the outcome of learning disability of the students. The DTLD test was administered in the same manner for the post-test also. The test was conducted simultaneously with the help of research assistants in each school and the script was collected immediately for scoring. The 't'-test was used to test all the null hypotheses using Statistical Package for Social Sciences (SPSS) version 20 at 0.01 alpha level.

RESULTS AND DISCUSSION

Phase 1: Remediation of CWLDM through traditional method.

Table 1
Statistical Values on DTLD Sub-test of Memory of Group–A (Control Group) Students on the Pre-test and Post-test

Testing	N	M	S.D.	r	t
Pre-test	32	2.28	0.72	0.66	8.12*
Post-test	32	3.15	0.76		

* Significant at 0.01 level

A perusal of Table 1 clearly illustrates that mean DTLD scores achieved by group–A subjects taught through the traditional method, on the sub-test of memory on pre-test were 2.28 and 3.15, respectively. The difference in mean scores was highly significant ($t=8.12$, $p<0.01$). The significant gain in scores on the post-test reveals that

traditional method of teaching was significantly effective in improving the some memory abilities of CWLDM.

Furthermore, the pre-test and post-test scores of the sample subjects were positively and highly correlated ($r=0.66$). Thus, the students, who achieved higher on the pre-test were high-achievers on the post-test as well and vice-versa. This indicates that the improvement in memory abilities were almost equal among all the students, regardless of their prior achievement on this sub-test of DTLD. Hence, it may be concluded that traditional method of teaching was equally beneficial for CWLDM. The result found that drill and practice method is more effective. Kim (1998), also found similar result that drill and practice method was quite effective to improve spelling difficulties of the learning disabled students.

Phase 2: Remediation of CWLDM through educational games

Table 2
Statistical Values on the DTLD Sub-test of Memory of Group–B (Experiment Group) Students on the Pre-test and Post-test.

Testing	N	M	S.D.	r	t
Pre-test	32	2.37	0.60	0.55	13.37*
Post-test	32	4.03	0.82		

*Significant at 0.01 level

An observation of the data displayed in Table 2 shows that mean scores on the DTLD sub-test related to learning disability in memory yielded by group–B

subjects, taught through educational games based of digital device, on pre-test and post-test were 2.37 and 4.03 respectively, the difference being 1.66. The obtained 't' value (t=13.37, p<0.01) was highly significant. It concludes that educational games based on digital device were also beneficial in improving memory abilities of fifth Grade V children with learning disabilities.

Also, the product moment correlation between pre-test and post-test scores on this sub-test of DTLD was found to be highly positive (r=0.55). These finding are almost similar to those reported for the traditional method (refer Table 1). However, the value of 'r' for educational games package instruction (r=0.55) is much less than its value for traditional method. Therefore, improvement in memory abilities was more consistent among subjects taught through traditional method as compared to their counterparts belonging to educational games based on digital device package group or experimental group.

This study shows that children learning disabilities can benefit greatly from additional instruction. The opportunity provided through playing educational games to experience the needed practice induces overlearning. Charlton and McLaughlin (2005), and suggested that each student improved their performance on reading when educational games were in effect. Apart from that the students did profit

from a carefully planned programme, and their progress was more rapid once the games were introduced.

Phase 3: Comparing relative effectiveness of educational game package and traditional methods in remediation of CWLDM.

Table 3
Statistical Values on the DTLD Sub-Test of Memory of Group–A and B Students on the Post-Test.

Groups	N	M	S.D.	t
Group A	32	3.15	0.76	4.10*
Group B	32	4.03	0.82	

*Significant at 0.01 level

A look at Table 3 indicates that mean scores on the DTLD sub-test of memory of group—A and group—B students on the post-test were 3.15 and 4.03, respectively. The 't' value yielded (t=4.10, p<0.01) was highly significant. This infers that educational games based of digital device was better than the traditional method in improving the learning abilities among the learning disabled students studying in Grade V.

Summing up, tables infer educational game package as well as traditional method are effective in improving sample subject's abilities related to children's memory but educational game package was better than the traditional method.

The result found that educational game package was effective than traditional method of teaching for remediation of various types of

learning disabilities. Crute (2000), Pandya and Chaudhary (2000), Maccini, Gagnon, and Hughes (2002), Vaupel (2002), Williams, B.C. and R.L McLaughlin (2005), Fuchs, Hamlet, Powell, et al. (2006), Seo and Bryant (2009), Scheid (2010), Anyamene, Nwokolo, Anyachebelu etal. (2012), and Singh and Agrawal (2013), also found similar results that computer based instruction was quite effective than tradition method of teaching for removal of the learning disabilities of children with learning disabilities.

Educational Implications of the Findings

The findings of the study provide the awareness to the teachers, parents and guardians of learning-disabled children. The educational implications of the findings of study are as follows:

1. The findings of the study may be used to develop the tendency of practices, trial and error habits in CWLDM.

2. All educational games may be used for helping the learning disabled children because such type of games can be easily created by the open sources software, i.e., H5P, TimelineJS, GeoGebra Applet, etc. Also, such games can be downloaded and supported on all the operating systems. The educational game package may prove to be effective but is not the panacea f or CWSN.

3. The findings of the study that educational games based on digital devices may improve the thinking process of learning disabled children can also be useful in providing the ways to teach for learning disabled students.

4. The findings of the study reveals that the educational games package may be helpful in making teachers aware to consider them as teaching learning material.

5. Various educational institutions and individuals may create such type of games and upload on various web portals for users. These games are useful as a teaching material to improve the performance of students.

References

Anyamene, A., Nwokolo, C., Anyachebelu, F., and Anemelu, V.C. 2012. Effect of Computer-assisted Packages on the Performance of Senior Secondary Students in Mathematics in Awka, Anambra State Nigeria. *American International Journal of Contemporary Research.* Vol. 2, No. 7.

Chang, Chun-Yen. 2000. Enhancing Tenth Graders' Earth Science Learning through Computer Assisted Instruction. *Journals of Geo-Science Education.* Vol. 48, No. 5. pp. 636–641. DOI: 10.5408/1089-9995-48.5.636.

CRUTE, THOMAS D. 2000. Classroom Nomenclature Games-BINGO. *Journal of Chemical Education.* Vol. 77, No. 4. pp. 481–493.

FUCHS, LYNN S., FUCHS. D., HAMLET, C.L., POWELL, S.R., CAPIZZI, A.M., AND SEETHALER., P.M. 2006. The Effects of Computer-assisted Instruction on Number Combination Skill in At-Risk First Graders. *Journal of Learning Disabilities.* Vol. 39, No. 5. pp. 467–75. doi: 10.1177/00222194060390050701

IMTISUNGBA AO, KOHIMA. 2011. Reusable Booklet of Non-Verbal Group Intelligence Test (NVGIT): Agra. *National Psychological Corporation.* pp. 16.

JENK, M., AND SPRINGER, J.M. 2005. A View of The Research on the Efficacy of CAI. *Electronic Journal for the Integration of Technology in Education.* Vol. 1, No. 2. pp. 43–58. Retrieved, July 15. 2019, from http:// ejite. Isu.edu/volume 1 No2/ Jenks.pdf.

KIM, SOOANG CHANG. 1998. The Relative Effects of Rule Based Strategy and Traditional Method of Instruction on the Spelling Performance of Elementary Students With Learning Disabilities. Auburn University. *Dissertation Abstracts International.* Vol. 59, No. 8. pp. 29–25.

MANESIS, DIONYSIOS. 2002. Digital Games in Primary Education. DOI: 10.5772/ intechopen.91134

MACCINI, P., GAGNON, J. C., AND HUGHES. C. A. 2002. Technology-based Practices for Secondary Students With Learning Disabilities'. *Learning Disability Quarterly.* Vol. 25, No. 4. pp. 247–261.

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING. 2006. National Focus Group on Education of Children With Special Needs [Online]. New Delhi: National Council of Educational Research and Training (NCERT). Retrieved from: http://www.ncert. nic.in/new_ncert/ncert/rightside/links/pdf/focus_group/special _ed_final1.pdf.

——— 2014. Including Children with Special Needs (Primary State). New Delhi: National Council of Educational Research And Training (NCERT). Retrieved from: https:// ncert.nic.in/pdf/publication/otherpublications/SpecialNeeds.pdf

ORISEBIYI, O.O. 2007. Effects of Instructional Video Tape Package on Senior Secondary School Students Performance in Biology in Fidit. Oyo State, Unpublished M.Tech. thesis F.U.T. Minna.

PANDYA, S.C., AND CHAUDHARY, J. 2000. Effect of Computer Assisted Learning (Cal) in Achieving Higher Cognitive Skill. *Journal of All India Association for Educational Research.* Vol. 12, No. 1.

SCHEID, J.M. 2010. Effectiveness of Computer Aided Instruction in Mathematics for Students With Learning Disabilities. Unpublished Masters Thesis. Northern Michigan University, Michigan, USA.

SEO, YOU-JIN AND BRYANT, D.P. 2009. Analysis of Studies of the Effects of Computer-Assisted Instruction on the Mathematics Performance of Students With Learning Disabilities. *Computers and Education.* Vol. 53, No. 3. pp. 913–928. https://doi. org/10.1016/j.compedu.2009.05.002

SINGH, YASH PAL AND AGRAWAL, A. 2013. Teaching Mathematics to Children with Mental Retardation Using Computer Games. *Educationia Confab.* Vol. 2, No. 1. pp. 44–58.

SWARUP, SMRITI AND H. MEHTA. 2011. Diagnostic Test of Learning Disability. New Delhi*: Prasad Psycholo Corporation* (www.prasadpsycho.com). pp. 5.

RIGHTS OF PERSONS WITH DISABILITIES ACT 2016. *The Hans Foundation in Partnership with NCPEDP.* Retrieved form http://www.thehansfoundation.org/wp-content/uploads/2019/07/FINAL-Handbook-on-the-RPWD-Act-2016-ENGLISH.pdf, dated 28-1-2020. pp.–12.

VAUPEL, CHRISTINE A. 2002. The Effects of Video Game Playing on Academic Task Performance and Brain Wave Activity. Unpublished Ph.D. Dissertation. USA. The University of Tennessee.

YUSUF, I.F. 2009. Effect of Using Computer Assisted Instruction on Learning Statistics in Selected Senior Secondary Schools in Minna. Unpublished M-Tech thesis, Federal University of Technology, Niger, Nigeria.

WILLIAMS, R.L., CHARLTON., B., AND MACLAUGHLIN, T.F. 2005. Educational Games: A Technique To Accelerate The Acquisition or Reading Skills of Children With Learning Disabilities. *The International Journal of Special Education.* Vol. 20, No. 2. Retrieved from: https://files.eric.ed.gov/fulltext/EJ846936.pdf dated 23-4-2021.

5

Lullaby: A Prelude to Initial Learning

Dharmanshu Vaidya*

Abstract

The tradition of lullaby is found in almost all cultures. Everyday interaction with different sounds and the features of the singer generates a psychic comfort for the young child. The amount of time spent with the child proportionately increases familiarity. In other words, lullaby can situate a scope for affiliation outside biological mandate. Lullabies can prove to be a rich resource for enhancing multi-cultural breadth in an early childhood programme. This is all the more relevant in cases of transitional distress experienced by some young children, or to provide support to children from various linguistic backgrounds, or to make children welcome to schooling.

INTRODUCTION

School education today takes place in a multilingual setting. This is particularly true of pre-school and the first few grades of schooling. This fact has been acknowledged at all levels— from the local to the global. As a UNESCO document states, there is currently a strong commitment to the inherent value of cultural diversity and the need to maintain it (UNESCO,2003).

Several research studies have shown that learners learn best in their mother tongue. In earlier times, babies and young children around, would listen to lullabies, cradle songs and simple rhymes in the mother tongue, sung by the mother and other family members. These were, inter-alia, the precursors to cognitive development, specifically, language learning. The term used in academic discourse, 'Emergent Literacy Skills' are the foundational

---

* Assistant Professor, Children's University, Gandhinagar, Gujarat.

skills that children develop in the early years of their lives, which prepare them for reading and writing. These skills include oral vocabulary, comprehension and phonemic awareness.

An infant's first exposure to language is the lullaby, sung in the mother tongue. As a functional song, the lullaby has strong associations with an intimate and affectionate maternal affiliation and parental dreams. The content of the lullaby is generally a description of food, nature or playthings, in which the expectations of the baby are given subjective priority.

OBJECTIVES OF LULLABY

The objectives of lullaby singing are:

(i)   To comfort

(ii) To please

(iii) To entertain

(iv) To develop mental faculties

(v)   To educate

These objectives, although varied, tend to overlap, as in inevitable in most human activity.

RELEVANT FEATURES

A critical review of lullaby-practising cultures reveals that they share some common features.

Contextual Flexibility

Since singers are mostly adults or elder siblings, lullabies often exhibit the underlying subjectivities of performers. Hence, it encompasses the following elements

(i)   Anthropomorphised animal world;

(ii) Orientation to family, domestic animals and;

(iii) Introduction to a larger social system and culture.

Most effectively, voice (if not smell or sight) tends to bridge familiarity through repetitive reception. When the child receives comfort and feels safe with the voice, there develops a psychological rapport. This rapport is often with the mother or the caregiver. The person who sings most often or more comforting controls psychological proximity with the child the most. Once this proximity is bridged, registration of details of the lullaby takes place. Details include names or gestures of normative domestic or social establishment.

A few lullabies seem to have been created just for fun. Some of them are quite short, which seem to have no logic or reason. Yet they are not less popular than others. This is because the poetic element and the fun aspect are predominant, as the following example will illustrate:

My son is very clever.

He looks at a pile,

He takes a path to climb the pile,

He tries sitting on pile,

The pile slips away,

My son fell.

As an ancient work states, the purpose is not to educate the child, or to induce the child to sleep, using *naad* or *dhvani* (Rajyaguru,2007).

Sleep and Security

The motif of sleep is dominant in lullabies. Generally the description centres around sunset, darkness, stares and so on, introducing the concept of sleep. Additionally, the underlying theme is safety and security, which is essential for sound sleep. An extensive study on the effect of lullaby (both performed and recorded) on children has revealed the following therapeutic measures:

(i) Positive reaction in heart-response on listening to the parent's or caregivers's voice.

(ii) Attainment of optimal level of oxygen.

(iii) Vocal familiarity accelerates the child's quiet-alert state rates.

(iv) Frequent focus on a familiar theme can have positive physiological balance (Lowey, 2015).

If one looks closely, then it becomes clear that the major concerns to be found in lullabies are regarding the matter of safety. The little infant is constantly informed by different kith and kin that they were not alone. In fact, it reveals the concerns of safety and security the mother has. Hence, it recurs as the major theme.

Apart from sleep, lullabies that mention visits of the child's maternal uncle and aunt, and the best wishes of all relatives for the infant's bright future endorse a sense of security. Lullabies are simultaneously part of the public set of symbols that constitute Indian expressive culture and private practices that link this culture with an individual's personal history.

Musicality

Sung in ballad forms, couplets or quatrains, the lullaby uses repetition of words and phrases.

Tone

Musical quality of lullaby strongly adheres to its variation in tone. Maintaining a soothing impact, variation in tone or volume effectively gets responded by the baby's heartbeat or physical response. Tone holds a kinesthetic quality.

Rhythm or Repetition

Repetition results in rhythm. Systematic repetition results in ordered rhythm. Repetition of endearing phrases at the end of each quatrain or every couplet brings rhythmic quality in the performance. Oftentimes, the repeated endearing phrases are rendered through extension. Extension of repetitive phrases by mentioning the child's name or comparison with some supreme figure is very common phenomenon.

According to a study (Bonner, 2015), the following aspects contribute to the musicality of a lullaby:

(i) Rhythmic consistency.

(ii) Imitable repetitive structure.

(iii) Compelling melody.

(iv) Short, brief but complete.

It is interesting to note that various cultures use a voice palette of different dimensions along with bodily gestures and sounds produced using objects. For instance, a lullaby can have speaking interspersed with singing (in the same rhythmic tempo), whispering, humming or hushing. Explicit body gestures include soft clapping, tapping the toes, bouncing the knees, etc. Nuer mothers in southern Sudan, Kuner women in Columbia, Adivasi (tribal) women in India have been observed to strike a musical string instrument, or create a soft repetitive sound with domestic appliances to lull the child to sleep. Along with natural sounds, for an infant, the mother's voice or soothing sounds are effectively consoling. Music psychotherapists' best practice strategies reflect that live music that imbues the cultural practices of the patient's life -world may have the greatest efficacy in fostering a sense of containment and resilience, as it represents what is safe and familiar,' (Loewy, 2015). The use of onomatopoeic sounds reinforces this aspect.

Subjective Experiences

It is interesting to note that, while traditionally the singing of lullabies is by the mother, aunt or elder sister, a few cultures have examples of male participation as well, for instance, rural Vietnamese grandfathers, Mindanao community of the Philippines, etc.

Advocating that lullaby has a tremendous potential to strengthen the affiliation between the child and the caregiver; it need not necessarily be the mother who sings the lullaby. The latter being overtly hegemonic has underplayed the validity of the former. The former has a more independent scope, e.g., performances of nanny's, of baby-sitter's and other such caregivers.

Performance of lullaby inherently conditions evocative assertion of the performer's affection to the addressee. Mechanism of the genre obliges the performer to build psychological rapport and a personal attachment. Lullaby singing requires the performer's surrendering to the child's emotional requirement through verbal and psychological nourishment. A mother has the requirements ready or naturally inbuilt, other caregivers can also function successfully.

Since the singers of the lullabies are mostly elders or siblings, subjective experiences are also found in its narration. These may not be what are traditionally considered as subjects of a lullaby, but would encompass elements such as:

(i) Anecdotes steeped in culture.

(ii) References to myths.

(iii) Magical activity.

(iv) Motif of ethical obligation towards family or society.

(v) Nostalgia over lost past and ancestral memory. One example is given below.

Sleep, O my dear child, sleep,
Your mother is singing an elegant
song for you to sleep,
The song is fraught with her
innermost love,
Let me sing melodious lullabies for
you.
Sleep, O my dear child, sleep...
A journey of remaining wakeful is
very long,
You sleep today and tomorrow will
come with a new Sun.
Sleep, O my dear child, sleep...
My dear child, may you become great
soul,
The kingdom of great rulers will
shower their blessings.
Sleep, O my dear child, sleep...
May you take care of poor and needy
And make your name perennial
globally,
Sleep, O my dear child, sleep...
(Comp. by Shraddha Trivedi)

As may be noticed, in the second stanza, the meaning becomes spiritual as well as, endorsing the duties to society and to humankind.

A research study poses an interrogative stance towards the conventional assumption of the performative content of the lullaby. The study analyses two aspects:

(i) Melody

(ii) Statements

The study discovers that lullaby can also serve to reflect the singer's mood. (Emeksiz, 2015). The study explores some content which may be categorised as 'non-sleep-inducing' such as:

(i) Expression of suffering of the singer.

(ii) Expression of desires of the singer.

(iii) Satiric expression of unjust circumstances.

(iv) Nuances of threat or frightening nature.

(v) Temptation through harmless baits.

(vi) Eulogising ancestors.

(vii) Promise of fidelity to the child.

The study concludes that such content is more often found among non-mother singers of lullabies.

Gendered Representation

Some of the content of lullabies, when analysed, reveal a distinct gendered representation. In other words, the difference between the lullabies of male and female child become evident, as the following two samples indicate:

O sweet slumber, kindly you climb down and make my dear girl asleep,
Spread the peacock feathers over her lotus-like fluffy eyebrows,
My dear girl is tired, kindly make her feel relieved.
Make my dear girl...
By becoming an angel wearing white clothes
Take her with you to visit the world in blink.

---

* Usually attributed to Confucius, this quote at times also gets ascribed to one of the Confucian scholars. Due to lack of clarity regarding the original author/speaker, it has been quoted as such.

Roam in your cloud-chariot and
Show our home from above.
Make my dear girl….
Tell her sweet stories
by taking my sweet girl into dreams,
Let her hold the moon,
In her soft small palm.
Make my dear girl….

Her eyes may search me in bemusement,
You better disguise as me and come,
Set her free to fly in the sky,
To feel the thrill of wind.
Make my dear girl….
My girl is sleeping in the cradle,
Suddenly a smile comes on her face.
May the blessing of thirty-three crore
gods,
Makes her future brighter.
Make my dear girl….
(Comp. by Shraddha Trivedi)

Here, one sees the process of gendering as well. The metaphors used continuously reiterate the female identity. The difference between the lullabies of male child and female child becomes evident here. A hypothetical figure has been entrusted with the responsibility of making the dear girl happy. Holding conventional physical signs or symbols of delicacy through peacock feathers bed, blooming lotus eyebrows, angelic provision, the child has been defined into a gender. Every line of the song purposefully pleads allowances for the girl. Every single thing has to happen to her, to be given to her, to be done to her, primarily because she is a girl, a proud representative of the feminine.

Although it appears to be a casual epitome of patriarchal narrative, there are references to various culturally rooted metaphors in this song. This song upholds the passivity of the protagonist brightly without ever realising the prejudiced pattern of domestic-cum-social behavior prevalent at the time, though not rare even today.

The following lullaby is addressed to a boy:
Sleep, O my dear prince, sleep!
My beloved one, sleep.
Your cry will bemuse your mother,
My beloved one, sleep.
Your cry will cause pain to your
grandpa,
My beloved one, sleep.
Your cry will perturb your uncle,
My beloved one, sleep.
Your cry will make your aunt tense,
My beloved one, sleep.
Lord Ram and Lakshman will play
with you,
My beloved one, sleep.
Sitaji is making you sleep,
Yashodaji is swaying your cradle,
My beloved one, sleep!
(Comp. by Shraddha Trivedi)

In this cradle song, one can see the extensive use of cultural idioms. Moreover, the act of a child's cry can cause so much disturbance, also gets highlighted here. This song depicts that situation aptly. This song alludes to two epitomes of mother of femininity in the Hindu epics *Ramayana* and *Mahabharata*, specifically the legends

of Krishna. Sita has a reputation of rearing two children by herself and Yashoda for bringing up Krishna despite not being the birth giver. The latter endorses the maternal affection and commitment as an epitome of feminine virtue without being the birth giver. Legends about her stature oftentimes regarded as deconstructing the definition of motherhood. Giving birth doesn't certify motherhood but living up to the responsibilities and commitments of care giving. The song emphasises the singer to imbibe both the characteristics of Sita and Yashoda. Such figures receive domestic participation through cradle songs or folklore.

The Tradition of Lullaby across Cultures

The tradition of lullaby is not alien to any culture. In fact, it can be traced down in different cultures. However, the echo of their lived experiences becomes an integral part of it. For instance, the tradition of 19th century slave narratives of today's USA are fraught with their collective pains revealed in their songs. Similar was the situation of Jews in medieval Europe which can be traced down in their lullaby tradition as well. In the lullaby tradition of the Red Indian community, the story of the collective woes they suffered due to the onslaught of colonisation can be traced. Tusharkant Dave notes that the thematic elements recur in a highly pluralistic mode in different communities, and hence, the primary themes match at a greater

degree in different cultural traditions (Dave: 199).

More importantly, lullaby contains a private voice, besides having cultural inputs, familial vocabulary and stories of human civilisation. Under the patriarchal hegemony, repressed female self finds opportunity to express through lullabies, perhaps to emancipate the pain and agony. Maybe that is why the lullaby singer inspires the baby to a distinguished person, hoping for better care from the child. Federico García Lorca, a 1920s poet who studied Spanish lullabies, called them 'depth of sadness' and believed that lullabies acted as a kind of therapy for new moms. They allowed them to vocalise their hopes and fears. To secure a convenient passage to the world, lullaby singers pass on mythical narratives, historical events and cultural knowledge to their children by solidifying the bridge of inter-generational solidarity.

Implications for Schooling

An interpretation of the data shows that a sustained study of lullaby as a concept would have positive spill-overs in schooling and associated aspects such as overcoming the initial apprehensions of the child in a new space. The following points are of relevance vis-a-vis schooling:

Lullaby as Music Therapy

Along with natural sounds, for an infant mother's voice or soothing

sound is effectively consoling. Similarly, musical quality or quantity of lullaby inevitably exerts its effect upon the child or the listener. According to Joanne Loewy's NICU Music Therapy: Song of Kin as Critical Lullaby in Research and Practice (2015), clinical trials in NICU and early infant research reflected that live singing has therapeutic benefits in comparison to speaking but did not specifically include the mother, father, or families' song of kin in neo-natal care. Furthermore, the musical quality exerts a long-term neural effect on children. Medical science has found constructive potential of music, particularly lullaby, in the treatment of cases such as psychological disorder or trauma. Extensive application of recorded lullaby in psychiatry has seen optimal growth and benefit.

CONCLUSION

Lullabies provide a rich resource for enhancing multi-cultural breadth in an early childhood programme. Along with knowledge about customs and costumes, ethnic foods and folktales, there is a felt need to emphasise on more inclusion of cradle songs and lullabies from various cultures and regions. These may be introduced as part of the ECCE curriculum for teachers to use in an appropriate manner, and as supplementary activities in mother tongue language textbooks for early grades.

REFERENCES

UNESCO, P. 2003. Education in a Multilingual World. *Preface.*

BONNAR, LISA. 2015 Lullaby Singing and its Human Building Potential. *Nordic Research in Music Education.* Vol. 16, pp. 327–378.

KONDI, B. 2018. *Lullaby.* Halle-Wittenberg: Martin Luther University.

LOEWY, JOANNE. 2014. NICU Music Therapy: Song of Kin in Critical Lullaby in Research and Practice. *Annals of New York Academy of Sciences.* Vol. 1337, No.1. pp. 178–185.

PETTIT, A. J. 2014. *Passing Traditions: Child-directed Music as an Index of Cultural Change in Metropolitan India.* Los Angeles: University of California.

TRIVEDI, SHRADDHA. *Hete Hala Gau.*

LACAN, JACQUES. 2001. *Ecrits: A Selection.* New York: Routledge.

BHATT, AMULAKH AND BHUPENDRA M. DAVE. 2014. *Halarada: Swarup, Prakar ane Lokhalak.* Ed. Navbharat Press (3rd Ed.) Print.

JANI, BALVANT. 2002. Contribution of Gujarat to the Field of Folklore. *Indian Folklore Research Journal.* pp. 73–79.

6

Text, Teachers and Tradition: A Survey of *Granny Granny Please Comb My Hair*

Kalpana Manwal*

Abstract

The New Education Policy (NEP) 2020 reiterates the role of parents and the community in the holistic development of a child. It emphasises the active involvement of parents in the scholastic and co-scholastic milestones of a child. Through the lens of the NEP, the existing language textbooks cover several aspects but are more focused on the traditionally prevalent family dynamics and structures. The space and scope for the extension of conversation is limited. This paper aims to cover the perspectives of primary teachers on the portrayal of family dynamics in texts and the portrayal of families, especially grandparents, in textbooks and the relevance learners can find in such texts, through the example of a poem Granny, Granny, Please Comb My Hair.

INTRODUCTION

In the twenty-first century, when the world is changing at an incredible pace, there is a dire need to explore the changes that are taking place in the social fabric as well. Although, this is acknowldged in school curriculum and syllabi it is one of the aspects that textbooks have failed to capture adequately. This is true for language textbooks, where traditional joint family structures are still prevalent in different forms. If one observes the texts that involve grandparents, it almost seems as if the creators have reached a consensus to portray a particular family type or structure as universal. There is almost no scope for extending the conversation regarding other aspects of family types.

Family, according to Urie Bronfenbrenner's 'Ecological Systems'

Assistant Teacher (Primary),* School of Excellence, Sector 17, Rohini, New Delhi.

theory, falls under microsystem, i.e., it has an immediate and significant impact on a child's development. Yet one is left to wonder, with the change in lifestyle and living situations, which family members make their way into the microsystem. Bronfenbrenner's categorisation is based more on the child's interaction and involvement in the family member's lives than on the blood relations. If so, a full-time caregiver, nanny or creche teacher who spends more time on a daily basis with the child should also be included in the microsystem.

Indian society has also been a witness to the evolution of family structures. Migration to metropolitan cities for a number of reasons which may include work, education, and better living facilities has resulted in families where the oldest generation is usually left behind in their ancestral homes. At times, they themselves prefer to stay at their abodes because these are comfort zones instead of moving to new places.

Moreover, in cities, due to accommodation issues, small families have become a trend. As a result, there are children who have not had the chance to spend quality time with their grandparents owing to busy schedules from either both sides.

Yet, these children's textbooks have narratives that show grandparents and grandchildren sharing a bond–going for walks, telling jokes and stories to each other, having fun at a picture, etc.

Thus the textbooks are still rooted in the traditional structures and almost minimum scope is there to start a conversation about different and evolving family structures.

This paper is based on the input collected from the practitioners working at different schools who have shared insights on the exercises and text *Granny, Granny Please Comb My Hair,* a poem by Grace Nichols. The text is found in many textbooks of primary stage and is also in NCERT's English textbook for Class 2, *Marigold.*

METHODOLOGY

A Google form was created and shared with practitioners in the field of education. It was ensured that the participants interacted with learners of the primary stage. The form was filled out by teachers of KVs, state government. schools and private schools.

Considering the fact, that not everyone might be familiar with the exercise given in the textbooks, pictures of the questions or activities concerned were attached to the form. This was to ensure that the process of filling out the form could be hassle-free for everyone.

ANALYSIS

About the Text

'Granny, Please Comb my hair', says a child of 6–7 years in an English textbook of Class 2. The poem at a glance seems to be a feel-good piece

as articulated through the lines of the poem:

Granny Granny please comb my hair
You always take your time
You always take such care

The above lines could be reminiscent of days of the past for many adults. However, in today's context, the text as mentioned earlier leaves much to be desired. On further exploring the text, one comes across questions like—

(i) Do your grandparents live with you?

(ii) Do you spend time with them?

(iii) Have you ever gone out with your grandparents?

While the intention of these questions is to reinforce the bond between grandparents and grandchildren it may fail to provide space for those learners who come from different family structures. The questions are posed in such a way that a learner who has not had the opportunity to interact with their grandparent(s) has no choice but to stop answering (dead-end question).

ANALYSING THE RESPONSES

More than 90 per cent of responses were from teachers teaching in urban areas. Most of the participants were teachers in private schools. The socio-economic background of most of the children coming to such schools would be middle class and above. This is an important aspect as it lowers the cases of seasonal migration that is often seen in the case of students coming from a lower socio-economic background.
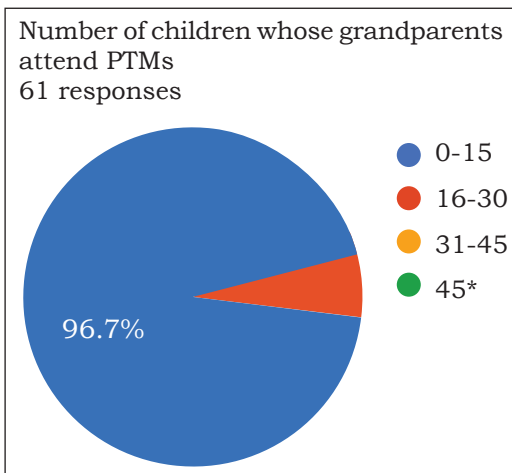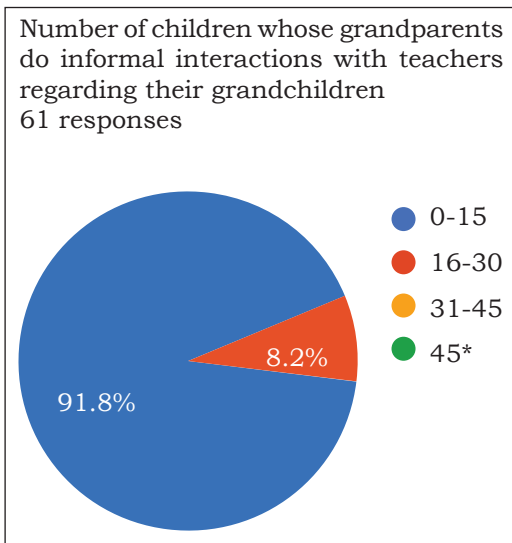
In Indian classrooms, the strength is generally above 30. Thus, it was surprising to find that only 50 per cent of children live with their grandparents. Similarly, in terms of connectivity and distance less than of the students lived in the same city as their grandparents.

The data further revealed that only 40 per cent of students spent quality time with their grandparents. However, there could be multiple reasons behind that. As school time consists of a significant part of one's day, grandparents are not able to participate or get involved in the lives of their grandchildren. Moreover, one can't forget the time taken up by tuition classes.

Further, the digital divide between generations is a critical aspect that often gets overlooked. With an increase in the number of apps and videos, young kids and even adults spend a good part of their day on screens. Moreover, the grandparents and grandchildren have their separate social circles and they prefer to spend more time with people of their age.
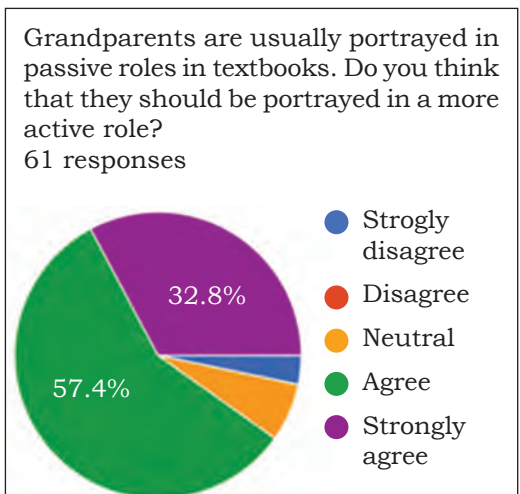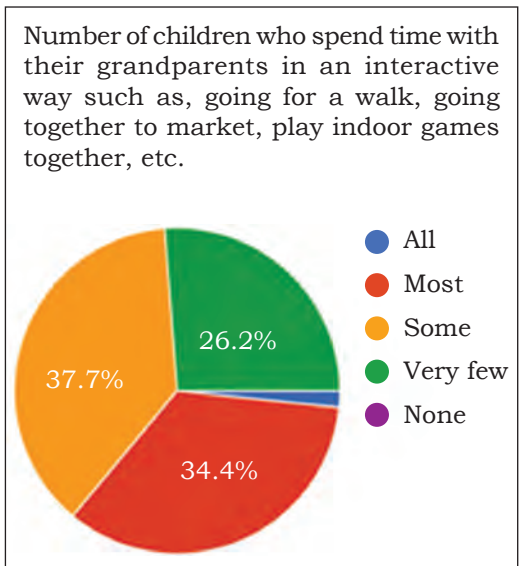
In earlier times, especially in joint families, the social circle was within the physical confine of the home as there would be siblings and cousins who would be their playmates as well. Today, the role played by cousins and siblings has been taken over by peers and friends in neighbourhoods.

Involvement in the Upbringing

Number of children whose grandparents do informal interactions with teachers regarding their grandchildren
61 responses

- 0-15
- 16-30
- 31-45
- 45*

91.8%

8.2%

Number of children whose grandparents attend PTMs
61 responses

- 0-15
- 16-30
- 31-45
- 45*

96.7%

Education is part of upbringing and families with grandparents who live or do not live with their grandchildren may not contribute much to it. As is evident from the data collected more than 92 per cent of participants said that less than 15 per cent of grandparents come to the PTMs.

Around 95 per cent of participants said that less than 15 per cent of their students' grandparents had any informal interaction regarding the progress of their grandchildren. Both the findings indicate the passive involvement of grandparents in education.

Number of children who spend time with their grandparents in an interactive way such as, going for a walk, going together to market, play indoor games together, etc.

- All
- Most
- Some
- Very few
- None

26.2%

37.7%

34.4%

Grandparents are usually portrayed in passive roles in textbooks. Do you think that they should be portrayed in a more active role?
61 responses

- Strogly disagree
- Disagree
- Neutral
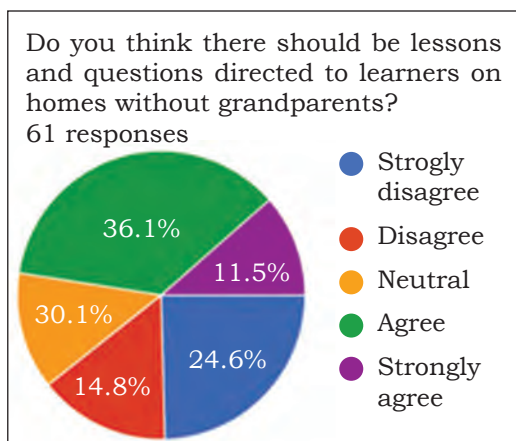- Agree
- Strongly agree

32.8%

57.4%

Further, 55 per cent of participants shared that either some or a few children spend time in activities like playing games, going to the market, or going for a walk.

The role of grandparents, which has often been portrayed in school textbooks as dormant in crucial areas of a child's development, needs re-evaluation. Similarly, the representation of grandparents in textbooks may be reimagined so that they do not get sidelined as merely passive adults with words of wisdom.

Through the Teachers' Perspective

A thorough analysis of all the responses led to the conclusion that most of the respondents had an inclination towards the traditional structure, i.e., the joint family. The mixed responses received from the teachers on certain topics conform to the notion that although change is taking place, traditional family structures are still preferred by many. This was further confirmed

Do you think there should be lessons and questions directed to learners on homes without grandparents?
61 responses

- Strogly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

36.1% 11.5% 30.1% 14.8% 24.6%

when there were respondents, albeit a few, not in favour of introducing the non-traditional family structure as seen in the responses below.

There are many kinds of families which don't find space in textbooks. Should textbooks be more inclusive and focus on such aspects?
61 responses

- Strogly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

29.5% 57.4%
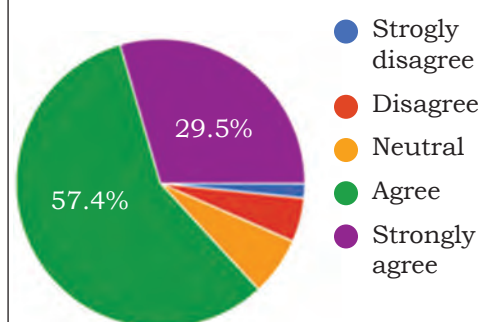
A positive finding in the data was the teachers' willingness and efforts to extend the discussion. For example, in the exercise 'Let's talk', there is a question 'Do your grandparents live with you?' If the child answers no, is there any mechanism to continue the discussion?

A few replies received from the teachers are shared below:

(i) We can ask them how their lives would be different if they live with their grandparents.

(ii) One can start with healthy conversation about their own grand parent's first. Then it can be continued with some another part of the story.

THE WAY FORWARD

The existing textbooks were designed by keeping in mind the principles of NCF 2005. The NCF 2005 emphasises on the inclusion of the milieu of children. However, pictures like the one given below reflect a culture with which many Indian kids are not likely to be familiar with.

Family picnic as a concept is not very popular in India. The pictorial representation aligns with the family picnic pictures that are common to western society. However, this does not insinuate that in India family members do not sit together for recreational purposes. It is quite common to come across sights of people sitting in the sun in winters or gathered together on a bench in the late evenings of summer but those gatherings are not planned and organised like the one we see in the picture.

It is to be kept in mind that questions like, "Do you live with your grandparents?", may lead to answers other than yes or no. For instance, the answer could be "I used to". In such cases, the teacher must make sure to sensitively proceed with the discussion. It is important that in order to diversify texts, elements like single-parent families, nuclear families, families without parents, and adopted children may be incorporated into textbooks. It will not only help to understand different family structures but will also help to reduce the stigmas associated with 'unconventional' family structures in Indian society.

CONCLUSION

As one looks at the text, a decade after the introduction of *Marigold* textbooks, it is inevitable to find lacunae. The revision of textbooks could be inclusive of aspects which were probably not thought of or socially not prevalent at the time of the conception of textbooks. Texts like *Granny Granny...* are to be seen as examples that link the past with the present.

There is a misconception that the introduction of unconventional family structures undermines the role of traditional structures and such portrayal might pose a danger to the traditional values.

The stigma associated with 'broken' or 'small' families needs to be addressed sensitively. This becomes more crucial as we enter a post-covid world in which thousands of children have lost their loved ones and are still trying to adjust to noticeable changes at home and in relationships. The age of learners cannot be considered as an obstacle in bringing up such topics in classroom discussions.

Today, there are additional readings and multiple sources for young learners to get to know and understand families that are not like theirs. This change needs to be there at the level of facilitators as well who need to look beyond their prejudices and biases.

Further, practitioners need to be exposed to literature that creates a space for discussing the evolving family structures and dynamics. In an everchanging society, when learners

find themselves engaged with texts that might not be too relatable to them such discussion forums create classrooms that are more inclusive and considerate of everyone. Holistic development is incomplete without being inclusive in all aspects. Textbooks are essential to bring any change, but so are the practitioners who transact the content, both what lies within and beyond the texts.

References

"Granny Granny Please Comb My Hair." *In Marigold, Class 2.* NCERT.

"Human Development." *In Psychology, Grade XI.* NCERT

https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

ESD and GCED in Sikkim Textbooks

Vidhi Joon*

In keeping with the evolving trends in the educational landscape, the primary-level textbooks in Sikkim have undergone significant revisions. The State Council of Educational Research and Training (SCERT) has undertaken efforts in this direction in 2018–19, engaging in consultative processes with educators, stakeholders and external academic partners. The result is a recent series of revamped primary-level textbooks in mathematics, language and environmental studies.

In 2018, after signing the partnership with Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), Sikkim became the only state in the country to have a school education module focusing on Education for Sustainable Development (ESD) and Global Citizenship Education (GCED).

One of the most notable aspects of these textbooks is embedding the principles of ESD and GCED in the textbooks of all subjects as well as incorporating learning outcomes outlined by the National Council of Educational Research and Training (NCERT). Thus, the textbooks contribute towards the implementation of the UN's 2030 Agenda for sustainable development, promoting education for peace and achieving sustainable development goals. The foreword by the Dirrctor, SCERT Sikkim, states that, "From the perspective of education for sustainable development, the lessons encourage children to care for and respect the natural environment and people. It encourages children to think critically and creatively about what is happening in their local as well as the global community, connect with their community and to take action for improving it."

Moreover, the partnership between SCERT, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP) and Azim Premji University signifies

---

* *Senior Research Associate,* DEE, NCERT, New Delhi.

a significant milestone in educational reform. By embedding concepts of peace, sustainable development, and global citizenship into textbooks, Sikkim has set a precedent.

Another distinctive feature of these textbooks is the incorporation of environmental studies into the language and mathematics curriculum from the early primary grades. This highlights the importance of environmental awareness and conservation from an early age. Pedagogically, this integration reflects a holistic approach to education, acknowledging the interconnectedness of subjects and real-world issues. For instance, the inclusion of themes such as human-wildlife conflict, environmental conservation and the dignity of labour demonstrates a commitment to addressing pressing societal issues within the educational framework. These themes not only enrich the academic content but also encourage critical thinking and civic engagement among students.

Furthermore, the content of the textbooks is deeply rooted in the socio-cultural context of Sikkim, ensuring that students see themselves and their culture reflected in their learning materials. The textbooks celebrate the social, cultural, and linguistic diversity of the state, fostering a sense of inclusivity and belonging among students.

Examples inspired by local geography, such as local fruits, vegetables and landscape abound in the books. The illustrations mirror the topography, flora and fauna, and the various cultures.

The emphasis on error tolerance and multilingualism fosters a supportive learning environment where students feel empowered to express themselves freely. It prompts children to consider concepts of inclusivity, challenge gender biases and societal roles, address issues like environmental cleanliness, natural disasters, cohabitation with wildlife, the conservation of natural resources and the importance of respecting the dignity of labour.

In conclusion, the primary-level textbooks in Sikkim represent a commendable effort to provide a quality education that is relevant, inclusive and forward-thinking. By incorporating ESD principles, celebrating cultural diversity, and addressing contemporary issues, these textbooks lay a strong foundation for the holistic development of students and contribute to the realisation of sustainable development goals.

BOOK REVIEW

My First Aeroplane Journey

Geyin Boli*

Title: *My First Aeroplane Journey*
Author: Pankaj Chaturvedi
Translator: Neera Jain
Illustrator: Irshad Kaptan
Publishers: National Book Trust, India
Year of publication: 2012
Price: ₹105
Pages: 23

ABOUT THE BOOK

As the title suggests, the book is about a pictorial expression, inviting the readers to share the experiences of a little girl and her first aeroplane journey. It presents the perspective of a little girl who excitedly and curiously experiences her first aeroplane journey. The detailed aeroplane journey is shared with the use of child-friendly illustrations on the whole, the book acts as a package of information almost like a virtual aeroplane travel tour from children's point of view.

RELEVANCE

The book opens with a picture of a cute little girl wearing a white dress with pink polka dots on the inner cover page. The girl is shown flying a paper aeroplane with the trail of marks in loops and swirls. The book begins with the little girl boarding an auto rickshaw with a person who is most likely her father. It is obvious that they are going on a journey. On reaching the airport, they both do all

*Assistant Professor, Department of Elementary Education, NCERT.

the formalities systematically such as getting their tickets checked at the entrance by the guard, getting their luggage checked inside the airport, collecting the boarding pass from the counter and going through the safety check. To adults, these are mere formalities; to the little girl, it is all very new and interesting. She is wide-eyed, taking in all these novel experiences. After this, they both get inside the transit bus to catch the plane. Perhaps the child did not even know that one has to a take a bus from the terminal to the aeroplane! Through the bus window, the child looks excitedly at the activities happening in the aerodrome. Shortly after, while boarding the aeroplane, the child observes the other passengers putting handbags and attaches in the overhead bins then she looks out of the window. She observes the clouds, trees, houses, birds, etc., and the ariel view of the city through the aeroplane window from a totally different perspective. On landing, the child experiences a big bump as seen in the bounce of the flower in her hair; this also simultaneously and indirectly indicates explaining the possibility of danger and the importance of wearing a seat belt while travelling. Finally, coming out of the aeroplane they collect their bags from the belt and then leave for her aunt's house. The book ends with a picture of a flying aeroplane with clouds and a city.

The book is useful and relevant as it beautifully explains the journey by air. It satisfies the child's curiosity of being in an aeroplane. It gives reassurance to children and to people who are perhaps scared to travel by flight. It acts as an information provider to people who would be traveling by flight and satisfies the curiosity of those who have never done so yet.

THEME

Children's literature is relatively recent; in India this genre is only 175 years old. Currently, books are being produced, marketed and circulated for young readers from pre-school up to 18 years of age, under various types: fantasy, adventure, or fun facts. The common element in all of these is unfamiliarity— unknown lands, bygone eras, or imaginary worlds. Although air travel is far more common now than it was a decade ago when this book was published, still there is a sizeable section of Indians, both adults and children, who have so far not travelled by air. The theme is one of the most unusual themes for children's literature since it is rare to find a children's book wholly written about a journey by air.

LANGUAGE USED

The language used in the book is very simple and age-appropriate. Every page has either one-line or has no words at all. The journey is told basically with the help of illustrations. This makes it easy for children of any linguistic background to understand the narration. The one-line sentence on pages acts as a supporting device

for young readers. The sentences reiterate what the pictures depict while giving an opportunity to children for adding new words to their vocabulary store.

ILLUSTRATION

There is one large illustration on every page, and quite a few are centre spreads. The illustrations are bright, with vivid hues. The illustrations in the book are in full colour. The picture of the little girl appears in almost every page. The faces of the various characters depicted are expressive of a variety of emotions; curiosity, boredom, happiness, etc. The little child is full of excitement, and curiosity since the journey is hers.

The child seems to be flying with an adult in the book but in the entire book, there is no mention or confirmation that she is traveling with her father. It may definitely be her relative, father, uncle, older brother, teacher, etc. He cannot be a stranger since the little girl seems to be comfortable with him. However, it indicates that a little child needs an older person to fly with.

The appearances of people, their dresses, and the designs of the transportation modes shown in the book such as the auto-rickshaw, bus and the aeroplane suggest that the journey happens in India.

The illustration in this book generally shows no background work which makes it clear that the focus of the book is the undivided attention to the process of journey.

It is an undisputed fact that young children's aesthetic appreciation about printed material is shaped by the books that they get access to. Children, by their very nature, pay attention to colours, font and designs. Through the book, the author and the illustrator seem to be re-visiting their childhood when creating this delightful book. It is hoped that this well-illustrated and interesting book will kindle the enthusiasm of young minds, and encourage them to learn more about everyday flights as well as flights into the unknown.

Indian Sign Language Research and Training Centre

Sonam Shree*

INDIAN SIGN LANGUAGE: A SILENT SYMPHONY OF COMMUNICATION AND CULTURE

Language is the medium through which thoughts, emotions, and experiences are shared, forming the foundation of human connection. While spoken languages are the most widely used means of communication, they are not the only ones. Sign languages offer a unique and profound way for the deaf and hard-of-hearing community to communicate, connect and express themselves. One such is the Indian Sign Language (ISL). The common perception is that deaf people communicate through gestures, which are limited in nature. However, sign languages possess intricate grammar and rich cultural significance. The ISL plays a pivotal role in shaping the lives of millions in India, bridging communication barriers and enriching cultural diversity.

CULTURAL ROOTS

The history of sign languages dates back centuries, and Indian Sign Language is no exception. The roots of Indian Sign Language can be traced back to ancient times when gestural communication was used to bridge linguistic barriers. However, it was only in the late 20th century that efforts were systematically undertaken to develop and promote ISL as a legitimate language. Before this, various regions in India had their own localised sign languages, influenced

---

* *Junior Project Fellow,* Department of Elementary Education, NCERT, New Delhi.

by the diversity of spoken languages.

The establishment of the Indian Sign Language Research and Training Centre (ISLRTC) in 1987, under the aegis of the Ministry of Social Justice and Empowerment, marked a milestone in the recognition and standardisation of ISL. This government-initiated organisation aimed to research, document and promote ISL, ensuring a cohesive and comprehensive sign language system that would bridge communication gaps for the deaf community. ISLRTC's efforts have focused on creating a standardised ISL vocabulary, grammar and training materials to ensure consistent and effective communication.

Unique Linguistic Features

Indian Sign Language, like its spoken counterparts, has its own linguistic characteristics, like grammar, syntax and vocabulary, that make it a distinct and complex form of communication. Visual and gestural elements are the core of ISL, relying on facial expressions, hand movements, and body postures to convey meaning. Unlike spoken languages, which use auditory cues, ISL relies heavily on visual and gestural elements to convey meaning.

One of the intriguing aspects of ISL is its use of classifiers, which are handshapes that represent categories of objects, actions, or people. These classifiers enable a more detailed and vivid description of concepts, making ISL a highly expressive language capable of conveying nuances that may be challenging in spoken languages.

Empowerment and Inclusion

Indian Sign Language plays a pivotal role in empowering the deaf and hard-of-hearing community. Prior to its recognition and formalisation, many deaf individuals faced barriers in education, employment, and social interaction due to the lack of a standardised communication system. ISL has transformed lives by providing a platform for the deaf to learn, communicate, and access information.

Education is a fundamental right, and Indian Sign Language has played a transformative role in ensuring this right for deaf and hard-of-hearing individuals. In the past, many deaf children struggled to access education because in mainstream educational settings, communication was predominantly spoken. With the incorporation of ISL into classrooms, deaf students can now access education. Educational institutions have increasingly integrated sign language into their curriculum. This inclusion has not only improved academic outcomes but also boosted the self-esteem and confidence of deaf students.

Cultural Identity and Expression

Language is not just a tool for communication; it also shapes cultural identity and expression. Indian Sign

Language serves as a vehicle for cultural preservation and expression within the deaf community. Through ISL, deaf individuals share stories, folklore, and traditions, creating a unique cultural tapestry that is distinct from spoken language cultures.

Deaf cultural events, performances and gatherings provide spaces where ISL becomes a vibrant and integral part of the experience. These events not only promote the language but also strengthen the sense of community among the deaf population, fostering a shared cultural identity that transcends auditory boundaries.

Challenges and Opportunities

Despite the progress made in promoting Indian Sign Language, challenges persist. One major challenge is the lack of awareness and understanding among the general population. Misconceptions about ISL and deafness can lead to communication breakdowns and social isolation. Efforts to raise awareness and educate the public about ISL are crucial to building an inclusive society.

Another challenge lies in the scarcity of skilled ISL interpreters. Professional interpreters play a pivotal role in facilitating communication between the deaf community and the larger society, especially in settings such as healthcare, legal proceedings and public services. Expanding interpreter training programmes and enhancing their accessibility is essential to bridge this gap.

Future Prospects and Digital Advancements

In the digital era, Indian Sign Language has found new avenues for growth and visibility. Social media platforms and online content creation have enabled deaf individuals to share their perspectives, stories, and knowledge with a global audience. Videos, tutorials, and vlogs in ISL have become valuable resources for learning the language and gaining insights into the deaf community's experiences.

Additionally, technology has facilitated the creation of digital tools and resources to teach ISL more widely. Mobile apps, online courses, and video tutorials are making ISL education accessible to anyone interested in learning the language, thereby contributing to its widespread dissemination.

ISLRTC' Tableaux at Republic Day Parade

In 2021, at the 72nd Republic Day, 17 states and association domains featured their tableaux, in six verbal regional language. A tableau was also featured in Indian Sign Language. It provides for the general public a more prominent feeling of inclusivity in the midst of the social diversity.

The theme of the tableau is *'Bharatiya Sanketik Bhasha: Ek Rashtra, Ek Sanketik Bhasha'*.

A group of 12 young people from ISLRTC were actively interacting with each other and with individuals from different tableaux contingents in the vicinity of the camp at Delhi

Cantonment. They will be unable to tell that verbally, however, through non-verbal motions they have conveyed their happiness, said Shavita Sharma of the organisation.

Sharma of the ISLRTC expressed, because of Corona virus everybody is wearing a mask, thus, it is challenging for those with hearing handicaps to impart as, "they can't see facial expressions". Thus, at many spots outside, transparent masks were presented so they could comprehend and decipher the lips movement and expressions.

Delhi-based ISLRTC, under the Ministry of Social Justice and Empowerment, conducts courses for developing Indian Sign Languages interpreters and teachers and provides interpretation services to different occasions.
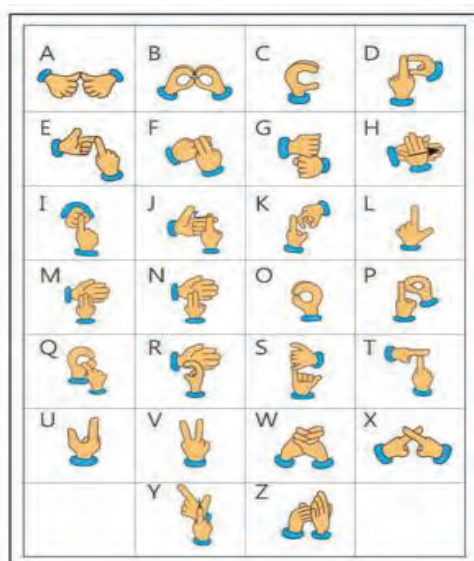
CONCLUSION

Indian Sign Language is more than a mere mode of communication; it's a symphony of gestures, expressions and cultural significance. It provides a powerful means for the deaf and hard-of-hearing to interact, learn and share their stories. As ISL gains recognition and acceptance, it reinforces the idea that linguistic diversity is an integral part of human society.

Through Indian Sign Language, we witness the resilience of the human spirit and the capacity of language to transcend auditory limitations. ISL is not just about bridging communication gaps; it's about building bridges of understanding, acceptance and inclusivity. As society continues to evolve, embracing and celebrating Indian Sign Language is a testament to the beauty of diversity and the strength of human connection.

The Teacher as a Collaborator

Prerna Rana*

Teaching has been a rewarding experience for me. It has also been a heady mix of chalk and challenges. Two decades long association with children has nurtured and enriched my soul.

I have been party to their fun, tears and bruises. These little angels respond to love and love alone. They have a discerning ability to judge you — and if you pass their litmus test, there can be no award more fulfilling.

The trouble with experience as a teacher is that the test comes first and the lesson afterwards. We ought to tread carefully on the path of teaching. As Henry Brooks Adams said, "Teacher affects eternity; he can never tell where his influence stops."

In my teaching career, I must have tried a number of ideas, some borrowed from the veterans, some that I have invented along the way. The one that has still not lost its sheen is 'collaborative learning'. As our children inhabit a world sans boundaries, education imparted to them has to be delivered in a transparent and collaborative environment. This certainly awakens them to endless opportunities.

The challenge in front of a teacher is to be innovative and to make the learning environment engaging and exciting. A continuous improvement on existing practices year after year results in a sustainable and viable model. Collaborative learning in my classrooms has always paid rich dividends. Collaborative work has the ability to steer children confidently towards a common goal, taking in individual accomplishments as assets. Every member of the team is an active learner rather than a passive one. This is an important tool for holistic development. I have discovered that children work better, on the whole, when grouped with their peers. They become more focussed on their work.

---

*Former *Educator* and *Freelance Writer,* Tata Raisina Residency, Gurgaon, Haryana.

There is a sense of contentment when pupils are engaged in thoughtful discussions during group projects. However, it comes with its own challenges. I would not deny that there are heated arguments, sulking and sometimes even a walk out. The noise that I would call a productive hum persists as children work through their difficulties.

The quest is to turn every stumbling block into a stepping stone. They learn to work together for a stipulated period and eventually solve their own problems.

Collaborative learning enhances social skills and paves the way for interactive learning. Even a reticent child gets to voice their opinion and an opportunity to be heard in a comfortable, non-threatening and informal atmosphere.

Students with diverse skill sets merge together to produce exemplary work. A structured experience such as this mimics the workplace of the future where there is diversity in skill, culture, regional identity and work style. The children learn to respect views that differ radically from theirs. Negotiations, critical thinking, resolution of conflicts, clarifications and effective communication are the by-products of collaborative work.

The teacher who is a facilitator ensures a heterogeneous allotment of groups. The teacher uses labels or signs to demarcate and designate areas.

The role of the teacher becomes increasingly important as they set rules, objectives and the time limit. They examines individual strength of the children and groups them accordingly. She nudges someone here, pats the back of another, consoles the aggrieved members and reassures a few. So, the teacher walks the tightrope that is never too lax and always taut! In other words, the teacher does a perfect balancing act! They allows the jogging of the brains, quietly watches the confluence of several insights, attitudes and skills. The children work together to reach a group consensus and have a little fun on the side as well. The teacher observes the transition. The metamorphosis is akin to a magical journey. Once the assigned work is completed, the review is extremely essential where each group assesses their work and discusses the lacunae as well.

As our country stands at the brink of unprecedented development and growth, the need of the hour is to develop a force of young individuals who can work in a pluralistic environment.

I swell with pride when a high-flying executive proudly acknowledges the efforts of his alma mater in preparing him for the role he plays today and I recollect with amusement how a ten-year-old, a quiet contributor to the group projects has turned into a fearless financial consultant. My belief in 'every child is a gift waiting to be unwrapped' has grown stronger ever since.
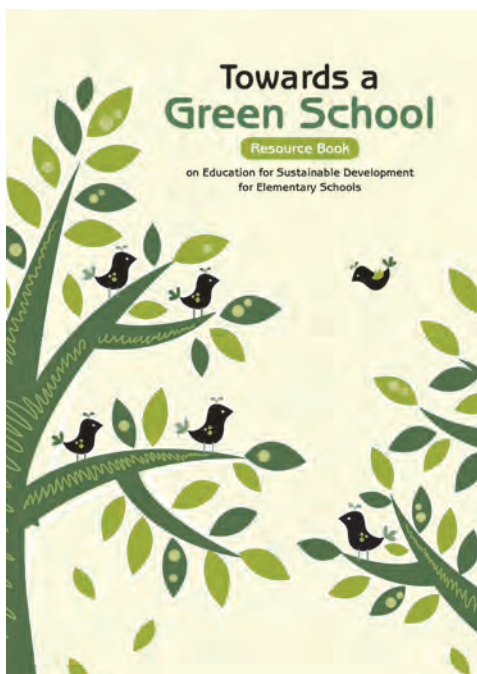
Jaadui Pitara
Rs 75.00 / pp. 78
Code—13260
ISBN—978-93-5292-512-4

Green School
Rs.115 / pp.170
Code— 13155
ISBN—978-93-5007-835-8

To the Contributors

The Primary Teacher invites teachers, teacher educators and research scholars to write articles, field notes and reports that impact Primary stage of education. The focus areas may be issues and concerns that you feel should be shared with other stakeholders.

➢ Each article should be about 1500 to 3000 words.
➢ Each article should have a short abstract in about 150 words.
➢ Use simple and non-technical language and a communicative tone.
➢ The photographs and illustrations should be sent in JPEG format, having a resolution of at least 300 dpi.
➢ The articles must be sent in soft and hard copy to:

Academic Editor
The Primary Teacher
G. B. Pant Block, NCERT
Sri Aurobindo Marg, New Delhi – 110016
e-mail: primaryteacher.ncert@gmail.com

Regular Features

My Page

This section contains letters and feedback, where one can put forward responses, suggestions and expectations in the form of articles, papers and columns. It also addresses issues, concerns, doubts, incidences, experiences related to teaching-learning processes, classroom practices, syllabus, textbooks, evaluation patterns and research related to the primary stage of education.

Book Review

This section reviews fiction and nonfiction, books and documents relevant for school teachers. It provides a concise and critical perspective of a variety of works with details on language and style, along with a short summary, that would facilities schools in replenishing their libraries.

Did You Know

This section provide interesting snippets of factual information which helps teachers and teacher educators not only to expand their knowledge, but also, if used judiciously, contribute to increasing the interest of young learners in different areas of study.

From the States

Various initiatives are taken up in school education by States and Union Territories of the country. This section showcase the best practices in teaching, highlights supplementary reading material and discusses new approaches to training and orientation developed by States/UT that may be replicated or scaled by stakeholders in other regions.

NCERT Educational Journals and Magazine

Title	Single Copy	Annual Subscription
School Science A Quarterly Journal for Secondary Schools	₹ 55.00	₹ 220.00
Indian Educational Review A Half-yearly Research Journal	₹ 50.00	₹ 100.00
Journal of Indian Education A Quarterly Journal of Education	₹ 45.00	₹ 180.00
भारतीय आधुनिक शिक्षा (त्रैमासिक) *(Bharatiya Aadhunik Shiksha)* A Quarterly Journal in Hindi	₹ 50.00	₹ 200.00
The Primary Teacher A Quarterly Journal for Primary Teachers	₹ 65.00	₹ 260.00
प्राथमिक शिक्षक (त्रैमासिक) *(Prathmik Shikshak)* A Quarterly Journal in Hindi for Primary Teachers	₹ 65.00	₹ 260.00
Firkee Bachchon Ki Bilingual Biannual Children's Magazine	₹ 35.00	₹ 70.00

Subscriptions are invited from educationists, institutions, research scholars, teachers and students for the journals published by the NCERT.

For further enquiries, please write to:

Chief Business Manager, Publication Division
National Council of Educational Research and Training
Sri Aurobindo Marg, New Delhi 110016

E-mail: gg_cbm@rediffmail.com, Phone: 011-26562708, Fax: 011-26851070

विद्यया ऽ मृतमश्नुते

एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING